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RURAL EDUCATION STUDENTS' CONCEPTIONS OF
LANGUAGE AND OF LEARNING

by

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My children and grandchildren, for quietly accepting the fact that 1993 passed me by.
SYNOPSIS

The problem of rural student-teachers' conceptions of language and of learning is the focus of this study. Aspects of the problem were encountered during the researcher's experience at a rural college for ten years. The researcher observed that certain students were unable to express themselves adequately in English, their language for learning. They also reflected an inadequacy in learning on a formal level. The researcher presumed that language and their conceptions of language and of learning could possibly contribute to these phenomena.

The problem was investigated by constructing a research design which included a literature review comprising of second language learning with emphasis on English for black rural students. The review also consisted of an overview of theory on language across the curriculum and learning as conceptual change.

Subsequent to this review a field investigation was conducted in which eighty students' conceptions of language and learning were analysed from data collected through personal sketches and complemented by observation. The findings indicate that the students' conceptions of learning were naive and their conceptions of language were focused on communication. There also seemed to be some link between their conceptions of language and their conceptions of learning.

The research was concluded with suggestions pertaining to practice and policy. It was suggested that lecturers should not only concentrate on the methodology of language across the curriculum in order to ensure a cognitive change in the students' conceptions of language and of learning, but that the naive sketches that were used as research method of the study could be implemented as diagnostic aid for educators in PRESET.
SAMEVATTING

Die fokus van die studie val op plattelandse onderwys-studente se konsepsies van taal en van leer. Tydens die tien jaar wat die navorser verbonde was aan 'n plattelandse onderwyskollege het aspekte aangaande hierdie probleem te voorsyn getree. Die navorser het waargeneem dat sekere studente dit moeilik vind om hulself voldoende in Engels, as leertaal, uit te druk. Hul vermoe om op 'n formele vlak te leer het ook onvoldoende gebleik te wees. Die veronderstelling van die navorser was dus dat die studente se konsepsies van taal en van leer dalk moontlik tot hierdie verskynsels kon bydra.

Hierdie probleem is ondersoek deur 'n navorsingsontwerp te konstrueer wat ook 'n literatuuroorsig aangaande die leer van 'n tweede taal ingesluit het. Die klem het geval op Engels vir swart plattelandse studente. Die oorsig het ook teorieë van taal oor die kurrikulum en leer as konseptuele verandering ingesluit.

Vervolgens het 'n veld ondersoek plaas gevind waarin tagtig studente se konsepsies van taal en van leer geanaliseer is. Data in hierdie verband is ingesamel deur persoonlike naïe sketse wat deur observasie aangevul is. Hierdie bevindings toon aan dat die studente naïe konsepsies van taal en leer en hul konsepsies betreffende taal het gefokus op kommunikasie. Dit het voorgekom asof daar 'n mate van skakeling is tussen hul konsepsies van taal en hul konsepsies van leer.

Die navorsing is afgesluit met voorstelle vir die praktyk en taal beleid. Daar is voorgestel dat dosente deels behoort te konsentreer op die metodologie van taal oor die kurrikulum met die oog op kognitiewe verandering in die studente se konsepsies van taal en van leer. Voorts kan die naïe sketse wat vir die navorsingsmethode in hierdie studie gebruik is ook geïmplementeer word as diagnostiese hulpmiddel vir opvoeders in onderwysopleidinginrigtings.
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CHAPTER ONE

CONTEXTUALIZATION AND ORIENTATION

1.1 INTRODUCTION

In this chapter the background of the study will be discussed with the aim of giving a contextual account of the theoretical framework, the research design, and the methods and techniques to be used. As motivation for this study the problem which will be addressed is analysed and specific research questions are set. The research aim is then highlighted. A systematic description of the research design follows.

The chapter concludes with a short summary.

1.2 CONTEXT AND RATIONALE FOR THE STUDY

The demand for people who are highly developed in skills and methods of processing information for innovation and to cope with the ever changing conditions in South Africa is increasing in urgency. Unfortunately the educational institutions and especially the black teacher education colleges seem to have remained behind in adapting to these changing needs.

1.2.1 THE COLLEGE

The context of this investigation is a traditionally black rural college of education which accommodates one thousand and sixty four students who study various teacher diplomas. The college is presently experiencing numerous crises, one of which is its own identity as a teacher educating institution in an underdeveloped area.

Although the setting for this investigatory study is a teacher education college in the Lowveld area, the assumption is made that it could be typical of rural colleges in other areas. This particular college was originally founded as a secondary school and was not designed for tertiary education. Although the college is situated in attractive surroundings, class facilities and hostel accommodation are inadequate for the number of students to be accommodated. Often more students than ideal must be enrolled because of political pressure from outside. Most of the first year students have to search for private boarding as they come from rural areas further afield. The background from which they come and the area in which they now find themselves
are of particular concern to the second language (L2) lecturer who has to create optimum language learning opportunities.

According to the mentalistic approach to language education, man has an inborn ability or mechanism to learn language. The Language Acquisition Device or LAD and the exposure to language stimulates the learning facility (Leschinsky, 1983). Cummins (1992) refers to a Common Underlying Proficiency or CUP to indicate that students will acquire literacy skills in an L2 if their L1 provides a firm conceptual and academic basis. To be able to experience academic achievement in English as second language (ESL) again depends greatly on adequate exposure to the L2 and the student's motivation to learn. The opportunity to use the L2 is minimal in these rural areas and this issue also influences language learning strategies and proficiency levels.

Theorists argue this issue from various angles, but most agree on one aspect, namely that language, whether it is L1 or L2, is learnt best in a suitable linguistic milieu.

A factor which compounds the issue of limited exposure to English is access to the library. Library services at the teachers college were previously available from 7h15 to 20h00. Unfortunately the lecturers involved did not always report for afternoon duties. The library is now only accessible during college hours which are from 7h15 to 14h00. The students at the college which is researched in this study do not seem to make enough use of library services. Limited access to and use of the library is assumed to be a contributing factor in limited cognitive academic language proficiency (CALP) according to Henning (1991). It is also assumed to lead to limited English proficiency in everyday literacy. At college level critical reading and the use of secondary sources are necessary to select information to incorporate into students' own writing (Brinton, Sasser and Winningham, 1992:12).

Although ESL proficiency is necessary for success at a college with an ESL curriculum and with English as medium of instruction, it is also essential to design an environment which offers opportunities for the development of the whole person. There is ample opportunity at the college for recreation activities, though sport activities are not considered important in these rural areas, probably because of inadequate equipment.

Other problems encountered at the college concern the curriculum. At college there is, for instance, no integration of language across the curriculum. This situation is compounded
by the fact that the college is not autonomous and that the curriculum cannot be adapted to accommodate extensive language education (Henning, 1992). Language across the curriculum needs to be planned carefully; the curriculum has to be adapted for the specific linguistic needs of the students.

The academic curriculum at the college being researched is a reflection of the school syllabus and does not always meet the academic demands of a tertiary institution. No wonder Orbach (1991:89) maintains that the teachers' knowledge and intelligence are reflected in their ability which is directly related to the training they receive in the PRESET (Preservice education for teachers) milieu.

When students attend schools for teaching experience or practicum intended to prepare the student-teacher for real school life, this often achieves no end as students find themselves left outside the classroom. The teachers do not want the students in their classes while they are presenting their lessons. This phenomenon reflects the possibility that the teachers might have realised their own LEP (Limited English Proficiency).

Another important factor that plays a role on the college campus is the substantial influence that the student representative council (SRC) has on student life. That students do not find college life to be a meaningful academic experience is reflected in the political pressures and intimidation that the examination committee at the college experiences from the SRC to change the examination time-table when the student body feels ill-prepared to sit for examinations.

Previously the selection and admission of students to a teacher-training college were an intricate affair because of the legacy of apartheid (Sieborger and Kenyon, 1992: 158) but the Government has recently allowed colleges the opportunity to decide on their own admission policies. This has provided political parties the opportunity to pressurize the college to enrol students whether they could be physically accommodated or not and irrespective of their matriculation results. The result has been that students with poor symbols on their matriculation certificates have been admitted to this college. These students in turn expect to pass the examinations at college.

Hofmeyr and Jaff (1992) as well as Orbach (1991:89) state that the quality of African education is declining since students with these passing symbols could be enrolled. Matscep-
Casaburri (1992:21) proposes affirmative action for appropriate training and upgrading as it is an ideal of education to establish a learning culture in an ever expanding world of knowledge; yet, the examination committee is often pressured to lower the standards in order to create higher pass rates and to abide by the slogan: "pass one, pass all!" On the other hand, Mawasha (1992:116) implies that it is a form of disempowerment to maintain standards. Unfortunately for the students these demands from the political parties do not necessarily provide them with an L2 proficiency to cope with the demands of an ESL curriculum and an academic learning milieu.

This background to the context of the research question is provided in some depth as the investigation, although focusing on students' conceptions of language and learning, is necessarily situated in a socio-cultural as well as an educational context. This context is presently highly politicized.

1.2.2 THE STUDENTS

A college does not only consist of an academic milieu but also of students who are making an impact on it. This research focuses on a selected group consisting of eighty first year students, studying for a Senior Primary diploma.

These two classes are heterogeneous, comprising of males and females. Although adults, their ages range from nineteen to about thirty years. The reasons for this are that some students started teaching with only a matric certificate and now have a certain amount of teaching experience; while others stayed at home for a few years before being accepted into college, mostly because of the prevailing unemployment situation.

Each class consists of forty students who spend most of their class time in cramped physical conditions. This situation not only makes lecturing difficult, it also makes the use of an overhead projector ineffective and creates an unhealthy situation during the writing of tests. Demands are not only made on them cognitively but also physically.

The college lecturers feel they can presume a certain level of proficiency in English which is at least adequate for the demands of a college syllabus as the students should have passed their matriculation examination and all have English as L2 which also served as their medium of instruction in school. Proficiency in English is essential as all their subjects except
the L1 are presented in English. There are, however, many students who are not sufficiently proficient in English to master cognitive, academic challenges. Cummins' (1992) use of the phrase, Cognitive Academic Language Proficiency (CALP), can be applied in this educational setting where the staff believe that many students are seriously lacking in academic discourse. This viewpoint is also an assumption of this study.

The research students, from the SP phase study four major subjects of which English or Afrikaans is the L2. The aims of teaching a language (DET, 1990) as subject are to help the prospective teacher to:

- increase the pupils' proficiency and confidence in the four language skills;
- develop appreciation of literature as it ensures that the pupil's proficiency in the language is adequate to serve as the medium of instruction in other subjects;
- develop communicative competence and to develop CALP as pedagogic tool across the curriculum.

Another assumption is that black rural students might experience the educational institution as culturally foreign when their education is in another language. If this language, learned as an L2, then becomes the language of education, misconceptions may arise which might hamper their educational progress. Doby (1991) as well as Chamot and O'Malley (1992) suggest that students should use language as a tool for learning but if the possibility exists that L2 acquisition does not follow the same course as L1 acquisition, then the learners are put under a lot of strain. There are, however, differences of opinion concerning this matter (Leschinsky, 1983:3).

McDonald (1991:58) finds that it could be difficult to learn in the L2, because not enough time is allocated to prepare pupils to learn English or to learn in English. Lewis (cited by McGill, 1993:135) mentions again that the L2 in which black student teachers study is often poor. Chick (1992) assumes that English as language of learning, although an ideal in DET education, has not developed as a language of educational communication especially in rural areas where it is the language that the students must use in the learning context to understand abstractions and subject terminology (Chick, 1992 and McGill, 1993:135).

With this backlog the students at the research college find themselves in a lecture room with a double load to carry: they have to improve their own English proficiency in order to
become competent teachers of English. They also have to access new subjects through the medium of English; a task which demands substantial proficiency in the discourse of the subjects.

At college the students encounter Education as a discipline for the first time and are exposed to concepts that ought not to be learned by rote but understood and internalised in a constructivist way (Gould, 1992). Yet at school they were subjected to the traditional approach of L2 teaching consisting of drills (Leshinsky, 1983:9) and memorization. It is no wonder that students tend to fall back on rote-learning and reproduce facts without understanding (McGill, 1993:136). It is therefore not surprising to note that they show an over-reliance on textbooks and lecture notes, a phenomenon that needs further investigation.

It is therefore an assumption in this study that many students, when entering college, have not acquired an academic English language which is sufficient for college standards and that they are ill-prepared to meet the demands of the institution. College education ought to compensate for their lack of English proficiency (LEP) and lack of knowledge. In order to become educationally emancipated they should be able to link the theoretical aspects that they learn with practical applications in subjects across the curriculum. Independent study and access to L2 literature are important in this instance. Assignments are given to create the opportunity for students to work independently and to do their own research. To accomplish all the above it is necessary for the students to become proficient in L2 use and to develop a clear perception of their own responsibility towards their own learning.

This description of the context in which the investigation takes place elucidates the complexity of the problem observed at the college with an ESL curriculum including insufficient CALP and LEP. This, it is argued, could contribute to the students' specific conceptions of learning as they express these in limited language. The rationale for the study is based on theoretical evidence as well as personal undocumented observations.

1.2.3 CONSTRUCTUAL BACKGROUND

The constructs which feature in this study are: the students' conceptions of language and their conceptions of learning.

Language does not only facilitate communication but is a medium through which feelings and ideas can be expressed and constructed. It also contributes to cognition and
metacognition (Henning, 1993:96). In a PRESET institution the acquisition of ESL becomes the communicative bridge (Leschinsky, 1983:11) for the L1 speaker to come in contact with other language groups and is the main medium through which knowledge can be communicated and constructed. English across the curriculum also becomes the learning language - giving meaning and structure to the students' experiences.

Learning is a mental activity. It is not only a process through which knowledge can be received and retrieved but the pre-service teacher's learning activities should include both conceptual learning and constructivist learning. In a PRESET situation, learning as an activity implies that the learners ought to rely on themselves to take responsibility for and initiate their own learning.

The validity of this twofold construct of student conceptions of language and of learning has been argued from theoretical evidence as well as empirical evidence. According to Shepard (1993), construct validity is the basis for both content- and criterion related validity, the three of which ought to be integrated. In a qualitative study such as this, construct validity assumes an even greater importance, as the argument of the study evolves, both theoretically - conceptually and empirically - analytically, around the main construct. This construct has, therefore, to be argued in depth at the outset of the study.

1.3 THE RESEARCH QUESTION

To make the research valuable it is necessary to explain the situation which led to the investigation of the research question.

1.3.1 ORIENTATION TO THE RESEARCH QUESTION

Although it may seem fair for lecturers to presuppose a certain level of proficiency in L2 use and that the students at College level ought to be able to formulate concepts and by this time have a clear understanding of learning as mental activity, the general opinion of lecturers is that these presuppositions are unfounded. In a pilot investigation with eighty students at the college it seemed as if the majority of them had an undefined meta-knowledge of language and learning and that their CALP was not sufficiently developed to formulate their conceptions.

Though teaching occurred through the medium of English during their last eight years of schooling, many can still not express themselves in English nor can they learn independently
but rely heavily on the lecturer for individual attention and support. Rote-learning is also still a cornerstone of the learning culture. If student-teachers learn to become reflective, Henning (1993:100) maintains that conceptual change might result if learners discard the cultural ways of reproduction and memorization.

The question which arises from this argument is whether the students' knowledge of English could be linked to their learning behaviour and if their perceptions of language and learning influence their learning in any way.

This question forms a basis to the research problem, providing sufficient research impetus for the inquiry to develop into a full size research project. Although the research does not aim to ascertain direct causal links to behaviour conceptions of language and of learning these may be argued in a logical qualitative way (Eisner, 1992).

1.3.1.1 Conceptions of Learning

Several earlier studies on learning reveal similar research questions (Bauer and Sapona, 1991; Buss, 1973:237-315; Chilvers and Gould, 1983; Morgan and King, 1966:73-158; Morris, 1976:120-170; Phillips and Solis, 1983; Rogers, 1983; Wickelgren, 1977; Wilson, 1969 and Wood, 1990). This phenomenon seems to have been studied from various different perspectives.

Vygotsky (1978:90) mentions that learning is not development but rather that the development process lags behind the learning process and that this sequence results in zones of proximal development. Mental development can thus be seen as the result of properly organized learning. We could then postulate that if a person cannot learn effectively that he might not develop mentally as he should. Vygotsky also maintains that language plays a vital role in learning (Luria,1975:174).

Contemporary constructivist theory supports the notion that the learner learns proactively, constructing concepts by placing new knowledge within acceptable spaces of existing cognitive structures (Berliner, 1993; Brown,1992; Gardner, 1993; Resnick, 1989 and Wandersee, 1992). Gould (1992) refers to Dewey's (1933) expression that reflection is a specialised form of thinking and she believes that learning is an organic process of invention. It takes time for invention and construction to take place in order to form creative strategies.
The main aspect that becomes apparent in these studies is that learners must take the initiative upon themselves to activate the learning faculty. Henning and van Loggerenberg (1992) indicate that Comenius already maintained in the seventeenth century that the locus of control, or the responsibility for learning, is with the learner.

The problem of having possible misconceptions of learning which deviates markedly from contemporary learning theory is an initial assumption which will possibly feature in the data of the field study.

1.3.1.2 Conceptions of Language Learning

Since the nineteen sixties there has been an increase in educational research concerning language learning (Buss, 1973:340-357; Chilver and Gould, 1983; Mac Donald, 1991; Morgan and King, 1966; Rogers, 1975, Stubbs, 1986 and Strauss, 1993).

Bernstein (Wood, 1990:6; Mc Neill, 1975) indicates, for instance that children from diverse social groups learn how to use and understand language in different ways. Chomsky (1978), known for the changes his views have brought in the linguistic field, disputes Piaget's theory that language learning is dependent on the child's development stages but rules that the child rather possesses a natural capacity to discover language structures. Children do not make use of imitation to learn a language. Chomsky explains the acquisition of a second language with a model (Chomsky, 1978), which consists of three different ways of acquiring an L2:

- direct access to Universal Grammar (UG)
- indirect access to UG
- no access to UG.

The L2 is best acquired by direct access (which means full immersion in the L2) and in some ways via the L1 if the L1 is well established so that it forms the basis for the second language acquisition. An L2 is seldom learned in the third mode.

The aim of language learning is not only to acquire communicative skills, as mentioned previously in this chapter, but also to enhance the contact with other learners and to obtain a better understanding of the L2 group's culture and to use it for thinking. Leschinsky (1983) expresses the notion that language learning releases the learners from mental bondage and can be used as a means of expressing thought that will in turn generate new expressions.
Language learning and language acquisition theory is complex and of great magnitude. There is, however, consensus on a possible link between the nature of concepts and the conceptualising role of language (Brinton, Sasser and Winningham, 1992).

1.3.1.3 A possible link between Language and Conceptions of Learning

Language is not always emphasised in formal education settings, but it is of great relevance during concept formation and could therefore be of importance in forming a concept of learning. As a conception of learning is already a meta-concept, high levels of abstraction become dependent on linguistic reasoning.

Klausmeier (1992:27) concentrates on concept learning and concept teaching and shows that language does play an important part in the formulation of concepts. MacDonald (1991:63) suggests that concepts should be developed in both L1 and L2. The Damasio research (Damasio and Damasio, 1992) indicates that the brain possesses concept processing systems.

The cortical associative system based in the left thalamus corresponds with higher-level learning which includes concept formation. When learning words in another language, the peri-sylvian region is involved. The brain also provides for mediation and negotiation facilities between verbals, nominals and their conceptual links. The neural structures serve to represent language in the brain.

The neuro-biology of language and conceptualisation seems to indicate a complex networking and mediating process between sentences, words and concepts. At this stage of the research question discussion it is sufficient to state that not only in linguistic studies, the cognitive sciences and in communication, but also in the physiology of the brain it seems reasonable to accept that knowledge of language is linked to concept formation in some way. To discover if the above mentioned factors are of importance and if it could validate further research, the research question needs to be analysed.

1.3.2 ANALYSIS OF THE RESEARCH QUESTION

The students selected for this research are bound to find themselves as teachers of senior primary pupils. They will teach a subject in a language which is not their own. The pupils will still be unfamiliar or uncertain with the language and the knowledge content will
often be unknown and strange to their life experiences. To explain the unknown and to formulate concepts clearly in a speaker's own language in order to eliminate possible misinterpretation is already admirable, but to attain success in transmitting it in another language to others who struggle to grasp the L2, is an art.

MacDonald (1991:4) has found that the listening, reading, speaking and writing skills of black standard three pupils are poorly developed in both their own language and L2. Yet they are expected to learn the subjects in English. It is doubtful whether novice teachers will be prepared for the task awaiting them. The problem is exacerbated by the fact that tests and examinations are set and written in the L2. In Shepp's (Johnson, 1990: 78,79) case study of a Thai-speaking student in her history class, she focused on his language ability and content knowledge. She came to the conclusion that his mastery of knowledge was not really tested as he learned superficially and depended on rote-learning and on her notes. He apparently experienced L2 learning as a problem. L2 learning depends also on proper language planning.

MacDonald (1991:69) found that language planning can affect what happens to students' education at school right from primary school up to tertiary level. The effect can often be detrimental when students must learn in an L2 often foreign to their own culture. In South Africa a complicated linguistic-educational structure exists which comprises of different ethnic groups with different religions and different languages. Simply providing all of these children with the same kind of teachers, textbooks, course of study and examinations does not necessarily ensure equality in their education and therefore does not necessarily equip the students at college level with sufficient linguistic knowledge and skills to face an academic situation.

It is a presupposition of this study that black students of education at the college do not possess a clear concept of learning and cannot express themselves adequately in English during the writing of assignments and examinations. This stance is supported by the study of John and Goldstein (1975:315) who found that language habits of a community predispose certain choices of interpretations and if there are vast differences between cultures the linguistic aspects of the L1 will differ from the linguistics of the L2. According to Whorf (1975:316) language can be seen as a shaper of ideas. The sapir-Whorf hypothesis, in both its weak and strong form, proposes that meaning is culturally-linguistically predestined. Although this theory is no longer regarded as valid in its original form, the notion of language, as both carrier and former of knowledge is contextualised comfortably in contemporary linguistics (Henning,
1992) The problem of the research students' conceptions of language and learning takes on a complex dimension against this background.

John and Goldstein (1975) also found that as children acquire language they interact verbally with more verbally mature speakers to test their tentative notions about the meaning of words. If these research students become teachers and their pupils want to test the meaning of words or concepts in the same manner and these teachers have a LEP it might lead to misconceptions being formed in the minds of the pupils, jeopardising their progress.

In order to teach pupils and to create optimum learning opportunities it appears to be necessary for the potential teachers to develop sufficient linguistic knowledge in order to become teachers who can express their conceptions of learning during focused instruction.

As competence in the L2 is essential in a college with an ESL curriculum the importance of the research questions asked in this field study becomes apparent.

1.3.3 RESEARCH QUESTIONS: FORMULATION

The research questions which evolved from the above analysis are:

(i) What are rural student teachers' conceptions of language and of learning?
(ii) Do these students perceive any relationship between language and learning?
(iii) If they do, what is the relationship?

1.4 AIM

By postulating that language is needed for clear interpretation and concept formation the aim with this study is to:

(i) investigate issues around the research question by means of a literature review;
(ii) ascertain, by means of a field study, what student conceptions of language and learning are and
(iii) establish whether there is a link between the two sets of conceptions.
A secondary aim of the study that became important during the field study was to validate document analysis of naive sketches not only as a research method of the study but as diagnostic aid for educators in PRESET.

1.5 RESEARCH PROCEDURES

In order to search for valid answers to questions it becomes necessary to achieve this aim through scientifically accepted research procedures. As the field of methodology of research in education is vast it is important to design boundaries for the study.

1.5.1 DESIGN BOUNDARIES

The design will be of a case study format, exploring people and events in a "bounded" system (Stake, 1988). As the study involves student teachers who are studying the same teaching diploma, they become a single intact group of students who will be respondents in the system of one single group.

This descriptive and exploratory field study takes place in a college of Education in the Lowveld area where the researcher is a lecturer. The researcher is therefore a full participant (Wagner, 1993) who conducts functional applied research. To investigate this case study certain scientific methods and techniques are implemented.

1.5.2 METHODS AND TECHNIQUES

Miles and Huberman (1988:16) state that a field of qualitative research needs explicit systematic methods to draw conclusions and to test them carefully. The methods in this study are implemented to construct a qualitative field investigation in a case study format. Investigation takes place with a selected population group of eighty students. The population was not rounded off during the course of the investigation as was planned at the outset, as the methods had to be adapted to changing conditions which will be described in chapter six. At this stage it suffices to state that the type of research question posed in this study can be explored by in-depth methods, whether they be qualitative or quantitative.

The research is emic in perspective, meaning that the field "speaks for itself" (Watson - Gego, 1991) without the impositions of pre-designed instruments. A research methodological aim is to expect slumbering variables to be aroused (Henning, 1993).
The open and axial coding or analysis used during this study consists of three activities that occur concurrently, namely, data reduction (Miles and Huberman, 1988:21) which takes place right through data collection, data analysis, consolidation, display and conclusion drawing and verification, which reflect the major procedural components of qualitative research (Strauss and Corbin, 1991:20).

The methods envisaged at the outset of the study had to be adapted due to changing conditions in the research. The original intention is, however, described intentionally with a view to enhancing research methodological issues and the character of the field which will be described in chapter five.

The students will be studied for a year during which:

i) Data will be collected:

- by observation recorded by means of field notes;
- by sketches written by the students;
- by stimulated recall and protocol interviews.

ii) Data will be analysed:

- by open coding: categories will be developed, properties will be located, several dimensional profiles will originate and these profiles will be grouped to give a pattern.
- by axial coding: where sub-categories are related to their categories because of a set of relationships, which is called the paradigm model by Strauss and Corbin (1991:99).

iii) Data will be interpreted:

- by selective coding or verification. As the analyst proceeds, verification takes place but the final conclusions appear at the end of
the investigation. The meanings emerge from the data and their validity is checked. Miles and Huberman (1988:22) mention that these activities are all interwoven before, during and after data collection in parallel form to make up the analytic process. Out of these findings existing theories may be illuminated, other findings or theories may be recognised or extended or a complete new theory may emerge.

1.5.3 STRUCTURE OF THE RESEARCH PROJECT

Chapter one consists of a contextualisation of and an orientation to the study.

Chapter two follows with a theoretical framework comprising of studies in L2 learning with emphasis on English for black rural students.

Chapter three focuses on language across the curriculum.

Chapter four focuses on concept learning.

Chapter five sets out the design and development of the field investigation which is of a qualitative case study format. The original design was adapted during the course of the investigation since the intention was to reduce them to a group of eight students selected at random.

Chapter six will set out the steps of data collection, the processing of data and the evaluation of final patterns, which will describe the main findings.

In Chapter seven the finding will be interpreted, after which conclusions will be drawn and verified, leading to suggestions for research and practice in chapter seven.

1.6 CONCEPT ANALYSIS

Different concepts used in this study will be briefly explained.
1.6.1 SELECTED CONCEPTS FROM THE THEORETICAL FRAMEWORK AND THE CONSTRUCT OF THE RESEARCH QUESTION

i) **Linguistics**, as the science of language (H.A.T) defines the nature of language; it provides an understanding of the language system (Johnson, 1990:14).

ii) **Second language learning** concerns the language, the acquisition or development of an additional language. In this study the emphasis falls mainly on where this additional language use is not always part of the speakers' personal life experience but occurs mainly in a formal setting where it is applied as the medium of instruction and the language that is used for learning.

iii) **Learning**: definitions of learning differ according to the theorists' perception of learning. Behaviourists define learning as the cognitive abilities which lead to an enduring or relatively permanent change in behaviour through observation and experience (Buss, 1973:238; Morgan and King, 1966:73). Dewey and the Gestalt theorists believe that the learner is not passively engaged in receiving knowledge but actively involved in learning. Phillips and Soltis (1985:33) state that learning is more than the acquisition of the ability to think while Vygotsky (1978) mentions that learning results in mental development when the knowledge constructed socio-culturally becomes internalized. Contemporary constructivists and connectionists believe that learning is a pro-active construction process (Henning, 1993 (a)). Considering these ideas it becomes clear that learning takes place through active personal involvement in the knowledge objects (Entwistle and Entwistle, 1993).

iv) **Concepts**: a concept is a mental construct of a category that enables the individual to identify examples and non-examples of a category which can occur with or without learning (Klausmeier, 1992). This pre-disposes that misconceptions may occur. Concepts are stored in the brain for later retrieval to re-create a variety of sensations and actions associated with a particular entity or a category of entities. Damasio and Damasio (1992) and Klausmeier (1992) agree that language is used to label and to transmit concepts constructed in the mind and to establish more complex concepts in order to make use thereof at a higher level of thinking.
v) **Teaching/Instruction**

Teaching and instruction are more or less synonymous, and part of the education process. Traditionally instruction was seen as an external stimulus given by the teacher to activate the learning process (Dreckmeyr, 1991:9). Teaching takes place where an adult as lecturer and the students meet in a formal setting where the lecturer is expected to instruct the new knowledge and skills with which he is equipped to the learners who are not so capable or knowledgeable. Contemporary instructional theory advocates that a teacher create a learning environment which is conducive to pro-active constructive learning (Fosnot, 1992). Henning (1993); Griesel, Louw and Swart (1986:22); Gunter (1978:10) as well as Malan and du Toit (1991) are all of the opinion that teaching takes place where new knowledge is being presented.

In a PRESET institution an adult teacher and adult learner (Kruger, Oberholtzer, van Schalkwyk and Whittle, 1983:23) establish a relationship through which the lecturer ought to present new knowledge in an environment conducive to constructive learning and the students ought to construct knowledge actively. It is therefore notable that Stern (cited in Johnson, 1990:10) maintains language teaching ought to involve language learning tasks which are meaningful and relevant.

1.6.2 **SELECTED CONCEPTS FROM RESEARCH METHODOLOGY**

i) **Grounded theory**: This approach is a qualitative research set of methods that include theoretical sensitivity and creativity while using a systematic set of procedures to develop an inductively derived grounded theory (Strauss and Corbin, 1991:31)

ii) **Qualitative research**: Qualitative research produces data in words which are well grounded, giving rich descriptions and explanations of a research question, rather than by means of statistical procedures or other quantitative figures. It draws upon past experiences as well as theoretical knowledge to uncover and understand reality in a non-mathematical, analytical or interpretative manner (Shulman, 1988; Miles and Huberman, 1988 and Strauss and Corbin, 1991)

iii) **Analysis**: Analysis, also meaning coding, breaks down the selected data which are then conceptualized and at the end it is put together in new and inductive ways:
data reduction: It is necessary to mention that data reduction continues right through the investigation until the final report is completed and relates to coding of data as well (Miles and Huberman, 1988:22). When data is selected it needs to be reduced to only that which is relevant for the study. Saturated areas reduce themselves automatically.

The researcher starts her research with a vague idea of what a certain aspect might mean. As new ideas are formed during the investigation it leads to preliminary conclusions. Only at the end of the study can the final conclusions be drawn when the meanings which emerge from the data have been tested for plausibility and validity.

During a qualitative investigation it is not only the data which are important but also the views of the researcher who cannot be distant from the case under study. It is therefore relevant to provide the reader with a profile of the researcher, in which her paradigm and metatheoretical assumptions will be embedded.

1.7 THE RESEARCHER'S PROFILE

This section is written in the first person, with the aim of introducing the reader to the researcher who will be continuously involved in a subjective manner, although trying to remain as "objective" (rational and metacognitive) as possible. I believe that a rounded first person narrative describing a researcher's view, both epistemologically and methodologically, can assist the reader of this report in constructing meaning from the text. It is also the practice in interpretive research to describe the researcher as main instrument.

I see education as the conscious or intentional intervention of an adult in the life of a child or student as learner with the aim of guiding the learner to responsible adulthood. I consider that the young child, created by God, as a dependent being, to be dependent on the adult for his/her education and therefore education ought to be considered seriously and responsibly. As an adult the responsibility lies with me to guide the learner to become an independent being. The child, or student as a dependent being, should and must not stay dependent but needs to develop and gradually take responsibility for his/her own life. This clearly also implies his/her learning in academic and vocational context such as at a college of education.
Accepting responsibility is another aspect which I consider as important, for God has created man with a certain amount of health and intellect and He has provided us with the ability to make decisions. Responsible decision-making often results in experiencing success in daily life activities. Doing what God expects from us to the best of our ability and because we believe in Him can improve the road leading to eternal life.

For the past ten years I have been involved with Education for the first, second and third year black student-teachers. I love teaching as education lies close to my heart. Knowing that for many years there was a backlog in the state education system for black students I strive to upgrade their educational standards and learning skills.

Though the students at the research college are all physically matured adults I have found that they are not all on the same mental, emotional, social or conative level - a normal situation. However, the extreme differences in levels of conceptual development have always been disconcerting. Since they are prospective teachers it is important to understand and explain concepts. I therefore expect that they should be able to use the L2 as expected at tertiary level, or at least be able to express themselves in an understandable way. As adults they should also to a great extent, be able to take responsibility for their own progress and learning and not to depend solely on the notes and summaries of the lecturers.

I soon found that these presuppositions of mine were in many instances invalid for many students can hardly use the L2 as academic communication system. They expect me to have pity on them by adding extra marks in order for them to pass a test. Some even request that an assignment must be given in place of the supplementary examination. This has made me realize that their concept of learning must differ from mine in some areas. To come to better understanding of their dilemma and to examine my own "a-priori" notions, this study is undertaken to try and explore these issues scientifically and therefore systematically. I will try to ensure that my research is conducted rigorously, so that I can explore the questions that worry me in such a way as to present the processes and procedures and the findings as trustworthy. I would like to improve my practice as I am not only concerned for the students' external success but also for their internal growth. I feel it is my responsibility to guide them in becoming not only good subject teachers but educators who will in turn be concerned with the development of well balanced pupils who again, in time, will become independent enough to take responsibility for their own lives.
I feel that twelve years of education at school should have prepared the students for the gradual change from dependent learners to more mature independent learners. I am deeply disturbed by their limited language proficiency and by their laissez-faire and passive attitude to learning. Though the students ought to reflect pro-active learning the lecturers at college still have certain educational responsibilities towards the students. However, to take the sole responsibility for the students' learning can no longer be possible for the dependent child has now become an independent adult.

As a tertiary educator it is necessary that I have to find ways to address the students in their own situation. Action research, which is executed by the practitioner with the aim to enhance her practice, is what I hope to do in this study. As researcher I therefore operate from the paradigm of contextualised functional research as practised in the Faculty of Education at the Rand Afrikaans University.

1.8 SUMMARY

In this chapter the problem of black students' lack of language (and of CALP), and the possible link there may exist between their conceptions of learning, and their conceptions of language was contextualised as empirical problem and theoretical construct. Subsequently the aim, design and methods of the study were stated, after which the researcher's profile followed.

The next chapter will focus on ESL in pre-service education for teachers (PRESET) in rural colleges of education in South Africa.
CHAPTER TWO

PRESET IN RURAL AREAS: ASPECTS OF LANGUAGE EDUCATION

2.1 INTRODUCTION

In this chapter the focus is on generic aspects of PRESET in ESL while the PRESET structure is briefly viewed to indicate the level of autonomy of local teachers' colleges. Different aspects will then be overviewed in relevant literature in order to determine the need for training teachers vocationally and academically. As the research focuses on a black college of education in a rural area, an overview of the DET's English language policy in the PRESET curriculum will also be included, along with aspects of DET school education in ESL. Thereafter attention will be given to studies on language and cognition with a view to arguing the role of language in cognition, especially in the case of ESL teachers. A short summary concludes this chapter.

2.2 GENERIC ASPECTS OF PRESET IN ESL

A few aspects which have a direct impact on the curriculum are selected from the PRESET structure and are briefly reviewed. A historical overview is also given to indicate the route the ESL curriculum has taken.

2.2.1 PRESET STRUCTURE

It is essential to view the PRESET structure in local colleges briefly to understand its level of autonomy. With regard to the field study which will be discussed in chapter six the structure of the typical DET teacher education college has to be described as theoretical foundation.

i) **Council**

The college council includes representatives of the college comprising of the Rector, the Vice Rector and members of the college senate. The council has a disciplinary committee which exercises control over the college and so reduces the autonomy of the college. The college on the other hand has control over its examination regulations while the council awards diplomas to the students after successfully completing their training. Although the DET determines the number of students admitted to the college annually, the council may admit
additional non-agreement students (le Roux, 1980:404). This may sometimes happen because of political pressure. Non-qualifying students may even be accepted as explained in chapter one which might lead to the lowering of college standards.

The above indicates that the council has a firm and sometimes devastating control over the college, but the council is in turn, responsible to the Administration; thus restricting its freedom and autonomy.

ii) **Senate**

The college senate is responsible for the promotion of research and for the validation of academic standards of the curriculum as well as the teaching and examining. Unfortunately many lecturers at black colleges disapprove of the evaluation of their lectures. This compounds existing problems in the evaluation of examination standards as some of the objecting lecturers are senate members. Final authority regarding academic matters is vested in the senate and it also stands in an advisory capacity advising the council concerning college matters (Le Roux, 1980).

iii) **Staff Selection**

The college receives all applications after posts have been advertised internally or externally through the press. After a senate meeting the rector makes recommendations to the college council as regards appointment of the academic staff. The council refers it to the Director of Education who will make the final decision. The problem here lies in the fact that the recommendations or decision-making is sometimes to the benefit of a friend or family member and not according to the standards set for a college post. It may also result in the appointment of lecturers with LEP at their disposal.

iv) **Discipline Committee**

Students must abide by the authority of the Rector where it concerns college matters. If stronger disciplinary actions need to be taken the matters are referred to the council who must then exercise control over the students.

Le Roux (1980:410) indicates that there is a feeling that the Rector ought to be neutral without becoming involved in any disciplinary actions. It could be that a situation involves
both the college student(s) and the lecturer(s) at the same time. If, however, the rector needs to wait for approval from council before he can decide on certain disciplinary actions, it might diminish his position of authority. This, in turn might even account for diminishing respect which has led to occasions whereRectors have been removed from their posts by the lecturers or student bodies (VOO., 1991).

The present feeling is that greater autonomy ought to be granted to colleges. It is also necessary to keep in mind that in reality there is no absolute authority as no individual or institution can be completely free of restrictions. Le Roux (1980), nevertheless, feels that college councils can enable colleges to express themselves autonomously. This may provide them if possible with the opportunity to accept responsibility for their own educational institutions and to ensure their independent position in the tertiary structure. This might divorce them from political pressures to enrol students with LEP at PRESET instructions. In order to understand PRESET development it is necessary to provide a historical overview.

2.2.2 PRESET: A HISTORICAL OVERVIEW

According to Wragg (1990:24) the assumption has often been made that almost anyone can teach. In 1820 the Lancaster monitorial schools (Booth, Furlong and Wilkin, 1990) claimed that any new recruit could learn from another teacher through observation and mentoring. On the other hand, it became clear that as far back as 1861 the Newcastle Commission had started to press for better trained teachers. Yet as late as 1988 the Greek Minister of Education stated that they still encounter problems with students fresh out of school applying for teaching posts.

It becomes apparent in the literature study as will be discussed under this point that not all countries perceived the training of teachers as being necessary. As knowledge increases rapidly and nations become more closely linked together demanding greater overall language proficiency for communication, there is an increasing emphasis on the improvement of education towards better global understanding.

Zeichner (1993) identified alternative approaches to teacher education in his research on PRESET, stating diverse opinions on the relevancy of academic, theoretical education and the practicum for student-teachers.
The *Academic tradition of practice* as professed by Zeichner reflects a strong academic orientation to teacher education with little emphasis on the practicum since the teacher ought to be a specialist on subject matter. Shulman (1987 cited by Zeichner, 1993) maintains that sufficient academic knowledge is necessary to enable the teacher to transform that knowledge to become meaningful and understandable for the students.

The *Social effective tradition*, contrary to the academic tradition developed from within the schools and college of education and emphasises the scientific study of teaching, concentrating on the acquisition of teaching skills related to student learning. This approach was, however, strongly behaviouristically orientated but it provided teacher education with a scientific foundation.

An academically orientated route combined with a skill-based education which focuses on practice, the *developmentalist tradition* also emerged since the developing child ought to be considered during the learning process. The viability of this tradition was reflected by the "Bohemian progressives" (Zeichner, 1993:5) and has its roots in "student-centred" teacher education.

A variety of constructivist approaches observe and study the student teachers and their institutions in order to create for the student-teachers a rich and stimulating learning milieu.

Since the learning environment is situated within a specific society or community it became inevitable, though unfortunate, that the schools were used to provide political pressure for social injustices.

The *social reconstructionist tradition*, though it may be implemented for political gain, mainly tries to cultivate critical thinking abilities amongst the students in order to understand and act upon the problems encountered in society, the political and the economical fields. The poor educational conditions and social inequalities may be addressed in this manner to ensure more humane conditions in the schools, colleges and community.

Zeichner (1993) who has identified the four main traditions in PRESET, suggests that no single tradition is sufficient and that an integrative model ought to be followed to create better teaching expertise. Formal teacher education is a part of the Western education tradition.
Although Potgieter (1974), Hollander (1991) and Lombard (1991) stress that each student-teacher ought to experience academic as well as professional education, studies indicate that a well functioning practical training was not always part of the teachers education.

In 1780 Pestalozzi started with a form of training, but it was really only in 1820 that the USA and later in 1835 that France and Switzerland established training schools (Potgieter, 1974). In 1888 the Cross Commission in England indicated that there were weak spots in the teacher education. Apprenticeship experiences in schools were promoted to rectify the situation in the colleges and to prepare the student teachers for their teaching profession. Ever since that time teaching practice became severely criticized for its alleged inferior quality.

The attempts of the Europeans and USA universities to include practicum courses in teacher education was criticized by Flexner (cited in Potgieter, 1974), who believed that teachers could use their common sense when they had to teach. He believed that teachers needed to be well educated people since teachers had to be subject specialists. Potgieter (1974) though, acknowledges the role of student practicum but also stresses the fact that the accumulation of specialised subject knowledge is essential for student-teachers if their aim is to develop responsible and self-reliant pupils one day.

The above arguments indicate that emphasis is often put on the adequacy of the academic subjects while the inferior quality of the education colleges as well as their courses and students are criticized (Zeichner, 1993). Since formal teacher education is a part of Western education tradition, literature studies revealed that attention was also given to L2 education as the learning of an L2 has become a convention.

The recent work of Grossman (1990) indicates that the knowledge of a subject alone is insufficient to enable teachers to experience successful teaching. In the USA and other countries many teachers are involved in education for minority groups who must learn in L2. The teachers ought to be educated with the specific aim of accommodating their students (Goodlad, 1990) who have the disadvantage of trying to cope with new subject matter in another language.

In South Africa this situation is again the fate of the majority groups in classes where the black students without even attending a multicultural classroom or school, are provided with an ESL curriculum. The students fall back on rote learning as they have to learn the subject matter via an LEP because in a rural area they often only encounter English in a formal
The student-teachers with an LEP become teachers who reflect language incompetence. They then rely on the textbook since their own learning content was not constructed or internalised (Joubert, 1991). They then try to transmit knowledge through teacher talk instead of involving the pupils. Van der Vyver (1987:7) addresses the issue of the quality and nature of the student-teachers' backgrounds, both of which influence their response towards the practicum, and he suggests that the DET, together with the lecturers ought to involve the students in relevant programmes during PRESET. Attention ought to be given to their proficiency in English.

Students seem to have not only a language problem but also very little vocational knowledge when they enter the profession. Bassai and Edmunds (1977 cited by Wideen and Holborn, 1990) noticed during their study that there is an alarming gap between the academic world at college and the teaching world in a class. Flanders (cited in Zeichner, 1993) addresses the same problem in his research on the teachers' perception of teacher training. The teachers show a preference for extended practicum as they feel it introduces the student-teachers to the reality of teaching. Fuller (Grant, 1992:192) also feels that pre-service teachers ought to experience the opportunity to be exposed to a multicultural school before they graduate to experience in working with a diversity of children. It is also during this period that the black South African student-teachers can reflect on their ESL proficiency to introduce the learning content to LEP pupils. Practice teaching is therefore an opportunity to adapt to the role of teaching (Sanders and Ward, 1970, and Wideen and Holborn, 1990:15) and prepares the pre-service students to develop into reflective teachers (Carter and Doyle, 1989 and Hoy and Woolfolk, 1989 cited by Wideen and Holborn, 1990).

In South Africa there does not seem to be consensus about the importance of academic subjects in teacher education (Holdstock, 1987:23,28; Grant, 1992:13,26; Motala, 1992:27; de Lange, 1992:6 and McGill, 1993:133). Zeichner's (1993) suggestion of an integration of the four main traditions of teacher education in the USA includes academic learning, proficiency in procedural knowledge, knowledge of developmental theory and social transformation of both teacher and student. Contemporary South African PRESET theory focuses especially on the last mentioned. Janjies (1993:15) mentions that teachers ought to rely on both theoretical grounded professional and personal insight, while Badenhorst (1993) reports on the practical and theoretical aspects of teacher education and quotes Maarschalk (Badenhorst, 1993:5) who stresses that theory and practice are interrelated and cannot be separated from one another. The integration of theory and practice is found to be a personal process facilitated by reflective writing and peer feedback (Wideen and Holborne, 1990). PRESET is generally regarded as a
preparation for the teaching profession (Lombard, 1991 and Hollander, 1991) which is in itself an in-service sifter where the practitioner learns from experience by reflecting critically on practice.

Today most educators and researchers agree that academic knowledge of the school subject remains crucial for success in teaching and that without a certain amount of practical training the student-teachers might experience difficulty in turning the knowledge into pedagogic action. Teachers who teach through medium of an L2 also need the experience of teaching in the L2 before they have to take responsibility of teaching in a professional capacity.

Not only the academic knowledge and practical training of students are important to consider when an ESL curriculum is implemented but teaching involves people too. Students enter the academic world with their own characters, their own conceptions about the profession they have chosen and with a specific cultural background which will influence not only their own decisions but also the lives of others with whom they come into contact. The students also need to consider the needs of the pupils they will encounter during their teaching careers and accommodate their needs in the ESL curriculum in order to provide qualitative teaching. Since all these aspects have a direct impact on the curriculum they will be briefly discussed.

2.2.3 CONSIDERATIONS FOR ACCOMODATING AN ESL CURRICULUM

In order to train better teachers who can use an ESL curriculum successfully it is necessary to consider the relevance of training student teachers vocationally emphasising both competencies and reflection.

2.2.3.1 The Child’s need of an Educator

The necessity to train teachers is highlighted by the child’s own need of an adult to educate him.

According to Potgieter (1974) the developing young person is in search of useful and profitable knowledge from an adult who knows the way to a particular field of knowledge and the understanding. The educator ought to have the ability to introduce new knowledge (Potgieter, 1974 153) to the child and guide him/her to make it a personal construction in an accountable manner (deVries, 1992). Children especially need the assistance of an adult (du Toit, 1991) if they must formally learn knowledge which is foreign to their own culture and
where a foreign language is applied as the medium of instruction. As this is a major problem black pupils experience at school, it often remains a problem when they enter college, since the problem was not effectively addressed during their formal schooling.

As teaching is not necessarily an innate talent and therefore not a spontaneous act, Potgieter (1974) believes most teachers achieve it through formal study and experience. There are many viewpoints on this matter. Although Potgieter (1975) seems to emphasise certain behaviourist practices, he also accentuates the need for educated thinking and teaching.

The problem for PRESET students in the rural areas lies in the fact that they do not have sufficient ESL experience (Perkins, 1991 and Webb, 1986) to enable them to transmit not only their own life content to their future pupils but also that of the Western culture which has stayed foreign to them. They will therefore experience difficulty in introducing this new knowledge to their future pupils and to make it their personal construction. Their pupils might not be able to depend on their guidance and help and may stay in need of an adult for a very long time.

Educators and researchers are of the opinion that it is necessary to acquire knowledge of a subject which must be taught at school but the student-teachers also need to receive PRESET to prepare them for accommodating the demands in a school life situation (Beckmann, 1991; Richards and Nunan, 1990; Steyn and Viljoen, 1991; and Thirion and Fourie, 1999), and learn to introduce others to the knowledge through the medium of English. Wharfe and Burrows (1990) mention that teachers are instructors of knowledge and skills but they often find themselves in different and difficult positions: they may become social workers when relationships at home break down; they are surrogate parents if children need adult advice; they become moral guardians to show the correct way; they take on the role of managers when the children need help with planning their study time or their budget and then they often become remedial teachers when children experience learning problems.

Student-teachers therefore need to learn how to become reflective teachers. (Calderhead, 1990) to notice these needs and to act upon them (Zeichner, 1993) In order to be successful and to illuminate misinterpretations during these interactions with their pupils the students also need to become proficient in the language to be used during these encounters. This involves communicating through the ESL. In order to address their future pupils' needs students need conceptual change to eliminate misconception.
2.2.3.2 Students misconceptions: Conceptual change about learning and instruction

During research conducted at the University of Wisconsin (Zeichner, 1993) it was found that students often enter college with misconceptions regarding teaching and learning. Misconceptions about a person's mind and learning may influence the students' attitude towards teaching (Strauss, 1993(b)). According to Zeichner (1993:9) the students ought to be assisted at the PRESET institution to examine for instance, not only their own future students' knowledge structure, but also their own understanding of the knowledge content. They need to be made aware that a particular topic can and may be interpreted in different ways if they are exposed to a range of different perspectives. To experience success a certain amount of language proficiency is required as the introduction of new knowledge and the construction of knowledge mostly occurs through the use of ESL in black education institutions.

Tardiff (cited in Wideen and Holborn, 1990:19) also identifies assumptions students make about teacher education. During practicum they create an atmosphere where they are authoritative and provide a distance between them and their pupils. They also assume that the pupils need to be proficient in standard English in order to achieve at school (Perkins, 1991; Joubert, 1991).

Students need to be introduced to contemporary versions of concepts such as learning and instruction. They also need to realise that language is related to culture.

2.2.3.3 Cultural Diversity

Language and culture are closely linked (Beckmann, 1991), therefore it is necessary to make students aware of cultural differences (Steyn and Viljoen, 1991; Trumpelman, 1993). Coombs (1985) addresses the cultural aspect of education by indicating that as the different nations came in contact with one another, their cultures, values and ideals clashed as they mingled. They became more aware of the irreconcilable differences. Yet, some nations had to adapt since they needed to become educated in order to fulfill their roles in a multicultural society. Studies done in Canada where minority language groups had to immerse into French-speaking Universities, Beauchern (cited in Tisher and Wideen, 1990:19) argues that the cultures of these groups ought to be promoted by the universities by including the learning of culture in their teaching-training. It is not sure if this measure will address the problem of ESL as medium of instruction and of learning nor that it will lead to conceptual change.
After studying the work of different researchers it becomes clear that teachers ought to be trained for the reality of the school world and that society expects from them quality teaching for quality people.

As the training of better teachers implies quality teaching (Richards and Nunan, 1990) it is also relevant to pay attention to the quality of the PRESET, especially the quality of ESL use. One of the students, in the study of Sieberger and Kenyon (1992), has maintained that students come to college with the hope of bringing positive changes to poor instruction at school, but in the end they are merely interested in a diploma as a piece of paper. If this is the case and if the learning situation can be manipulated by the students to achieve results without contributing in an active and responsible manner to their own achievements (Steyn and Viljoen, 1991; Perkins, 1991; Schoeman, 1992 and Steyn and van der Westhuizen, 1992) then PRESET education, in these conditions, is becoming futile. The assumption is that the students perception of learning achievement and the relatively limited exposure to literature could contribute to their CALP.

Stubbs (1986:233) suggests that language can be used as evidence of the quality of teaching and learning processes, which indicates that ESL proficiency is of great importance for success at any learning institution. COSATU (MacGregor and MacGregor, 1992:87) also notices that training courses do not address the ESL learners' problems nor that of the employees in a working environment who are the products of a greatly inferior education system.

Research done among standard three teachers and their pupils indicates that the language proficiency of the teachers correlate with their pupils' achievements in class (McDonald, 1991) This implies that schools can only be as good as their teachers (Jooste, 1974:110) and that the teachers can only be as good as the PRESET they have experienced at college.

There is a strong feeling among educationalists that the quality of black PRESET is poor and that well trained teachers do make a noticeable difference (Orbach, 1991:90 and Trow, 1975). When Orbach (1991) viewed his data during his research on pupils who repeated classes or dropped out, he found that the poor teaching ability of the teachers can be related to
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the quality of training they have received in PRESET institutions. The problem does not only lie in the students' ability to achieve but also in motivation and a change in learning cognition.

Steyn (1992:203-205) mentions during his discussion on the priorities for the future, that the quality of South Africa's education is of utmost importance and although there is an educational crisis, education cannot settle for second class standards. The student's perspectives about teaching might also change as the academic quality (and their ESLP) improves (MacMurray, Hardy and Posluns, cited in Widenen and Holborn, 1992:42).

The importance of the quality of basic education has been recognized since 1964 by the Council of National Academic Awards or CNAA (Fuller, 1985 cited in Tatoo, 1993). To maintain and enhance the quality of the courses presented at college and the quality of lecturers it is also essential (Wharfe and Burrows, 1990) to concentrate on the ESL proficiency of both the students and the college lecturers.

According to Fuller (1985 and 1992) and Rugh (1991 cited in Tatoo, 1993:42) some aspects that involve quality teaching are the teachers control over the subject matter and their ability to present the subject matter for comprehension as well as their ability to communicate effectively (Perkins, 1991; Joubert, 1991 and Mwamwenda and Mwamwenda, 1992). All these aspects imply the use of language and if a high quality of teaching is to be maintained in the future the student-teachers who need to rely on ESL ought to become efficient in L2 usage.

If policy makers intend to improve the educational quality through INSET as well as through PRESET (Dove, 1986; Hofmeyr and Jaff, 1992; COSATU, 1992 and Chick, 1992) it becomes imperative to investigate an ESL curriculum in-action in a PRESET institution for rural black students, where these pre-service students might also still have a LEP. The management and policy structures of the college have impact on the type and quality of the PRESET ESL curriculum.

2.3 PRESET: THE ESL CURRICULUM

The literature on ESL as medium of instruction is varied. The reports agree, however, that the ESL learner has to be accommodated according to contextual needs.

The college curriculum demands a high ESL proficiency for introducing and applying academic knowledge. It is, however, evident that there is a conflict between the expectations of
the college curriculum and the ESL proficiency of the students. Zintz (1981:230) discovered for example that teachers, responsible for teaching ESL to different ethnic groups in the classes are often not experienced in ESL or in coping with those children who have none or little experience and understanding of the language. These teachers often make use of trial-and-error methods while teaching which may easily lead to traumatic learning experiences for those pupils.

To understand why ESL is still favoured in the curriculum for purposes of learning and instruction a brief history of language in education is included, focusing specifically on bilingual education.

2.3.1 LANGUAGE IN MULTICULTURAL EDUCATION SETTINGS

In countries like the USA and Britain where school desegregation already has a history, a school curriculum based on Western society's values and outlook was used initially. As these countries are multicultural it was inevitable that the minority of pupils had to learn the language and often also the culture of the majority group. According to Nixon (1985:21) it has placed those pupils in a disadvantaged position, because their own culture is not accommodated in the curriculum or the language of instruction. The vast literature on bilingualism in the USA reports success where there are sufficient numbers of a group. However, the minorities are still educated through the L2.

As minority groups are slowly growing into majority groups, urgent changes ought to be made to cater for their needs in school. The case of Hispanics in the USA is an example. Ladson-Billings (1992:109) states that to blame these pupils and the black American children's poor school performance or their lack of ability or inadequate motivation may be wrong as the problem might lie with the school structure because it does not accommodate the diversity of cultures. Hernandez (1992:141) again mentions that linguistic diversity is an integral part of a multicultural society's cultural diversity. She advocates full bilingual education where the numbers allow it.

The language problem is not only encountered in countries where minority groups must be facilitated in a Western tradition. In a country such as India language is also an educational and social problem because of the different indigenous languages (Shuring, 1992) and dialects. They abide by a 3 + 1 language policy to the needs of education. The present South African
situation whereby English is the medium of instruction for all black students except the few at Afrikaans institutions clearly does not provide evidence of successful English education. Perhaps the historical development of the present system could clarify some of the issues.

2.3.2 A BRIEF HISTORICAL OVERVIEW OF LANGUAGE IN SOUTH AFRICAN EDUCATION

In South Africa schooling started within the white community with English and Afrikaans (Dutch) as the official languages at school. When black South Africans started to be educated formally it was in the language of their white educators (Mawasha, 1986:16). With the same Western curriculum for everybody it is difficult to express feelings and thought in another language and because the subject content was foreign to their own cultures (Groenewald, 1976 and Webb, 1986) and life styles, they experienced the school system as racist. Language became a political issue (Beckmann, 1991; Luis, 1992:104 and Schoeman, 1992).

In the minds of the black people Afrikaans became the language of the oppressors. After the Soweto education crisis of 1976 it was rejected as a medium of instruction and because of the political connection to the language issue, the South African black students prefer to study through the medium of English.

Although Mawasha (1986) and Mphahlele (cited in Mawasha, 1992) disagree with the high value ascribed to English as medium of instruction and Nkabinde (1991) sees African languages as sufficiently developed to meet their cultural needs, these languages were, until recently, only oral languages with very little written language. The debate about the feasibility of eleven indigenous languages as medium of instruction is ongoing. A few aspects of this debate will now be high-lighted.

Although the L1 is universally considered as the best medium for educating children, Louw (1988) maintains that black languages can not accommodate the academic knowledge taught at school. These languages are also politically considered as inferior as they lack access to Western technology and could not provide social or economic access to the world market. Holdstock (1987:30) argues this point by suggesting that if education is not so content-centred to Western technology then Africa can teach us a great deal and the medium of instruction issue can perhaps be considered from a different angle.
The report from the research done by the HSRC team in 1986 concerning this particular aspect in black education points out that terminology can only be effectively used if the language ability of the speaker is adequate enough to formulate those concepts. It is therefore relevant to improve pre-service students' language ability as well as their application of terminology in school subjects (Sharpes, 1988). The discourse of education is more than the sum of its lexical parts. It involves a way of linguistic thinking.

Evans (1992:44) again, indicates that if content is always culturally selected as Manganyi advocated in 1982 when he tried to teach English through the rich tradition of African literature at the Nairobi University, it could lead to the destruction of the English department. The majority of learners in South Africa do not use their L1 as medium of instruction but ESL. Although Mawasha (1992,110) perceives that the English language can be disempowering in education and is the symbol of the struggle against oppression (Chick, 1991:19), English became the vehicle of freedom for many (Alexander, 1991). At the same time the black South Africans adopted ESL as medium of instruction. An ESL curriculum is also adopted in rural PRESET institutions.

As was the case with Mozambique education (Luis, 1992), the black South African students in rural PRESET colleges completed an ESL education at school which was sometimes inadequate as both the teachers and the pupils were not often exposed to a large Portuguese or English speaking population. As student teachers are going to teach pupils through the medium of English, the college curriculum is also in English. In order to become proficient in the L2, they need to be exposed to examples of that language (van der Walt, 1991:13), especially since compulsory education is the order of the day.

Education in South Africa is going through a transition period and black PRESET students will probably be teaching at a time when education has become compulsory at school level. Rural areas are going to be affected most as classes are going to be swamped with children, for it is in the rural areas where most children grow up (Coombs, 1983). If the student-teachers' LEP is not addressed they will not be able to contribute to the success of the pupils (Motala, 1992). It was found that students become set in their ways and although they learn new structures and better teaching methods at college, they tend to fall back on the traditional ways of teaching as their LEP exhausts their good intentions.
It is not only good intentions that are in jeopardy because of LEP but the choice of language as medium of instruction can have a major impact on a learner’s future. Chick’s (1992 272) warning ought to be taken to heart, namely that if the majority of people do not support a country’s language policy of education then it is doomed. Whatever the policy may be, the role of English will be a major one in the immediate future. The type of language which students and teachers need as a pedagogical tool is a discourse which is not only a communication vehicle for cognition, but also a conceptualizing mechanism. As the main construct of this study involves conceptions of both language and of learning, the focus of the next section of the PRESET curriculum will be on language and cognition.

2.4 LANGUAGE AND COGNITION

Language enables a person to express thoughts and feelings of cognitive activities.

2.4.1 COGNITION

Cognition is generally regarded as more than rational mental activity ("cold" cognition). "Hot" cognition includes social aspects. Cognition can be broadly defined as problem identifying and reflection by means of mental activity which inherently involves emotions and social relations. Rogoff (1990) states that even the process of conception is inherently social. Vygotsky (1978) also emphasized socio-cultural aspects of learning sixty years ago.

Gerdes (1988:148) describes cognition as processes of knowledge construction and application. These processes include among others problem-solving, problem-identification, knowledge construction, reflection and the use of language. He further identifies meta-cognition as an individual’s knowledge about his/her own cognition and the ability to regulate it. Rogoff (1990) identifies thinking as a mental process that is a functional, active goal-oriented action with cognition guiding intelligent interpersonal and practical actions.

To Vygotsky (1978) affective and volitional tendencies support thoughts of which a person becomes conscious when words are uttered (Rogoff, 1990 9,70). In Vygotskian theory (Davydoff, 1993) language, as a cultural sign in cognitive activity, is regarded as a major component of knowledge construction.
2.4.2. LANGUAGE USE AS A COGNITIVE ACTIVITY

In the following brief discussion language will be discussed as partner in cognition. The section commences with a reference to Piaget, who conducted studies of language and cognition in tandem (Wood, 1990). Piaget who saw intelligence as adaptation and construction pioneered the cognitive structural approach. Adaptation involves assimilation and accommodation of newly encountered knowledge. Through assimilation new information of external objects or events is incorporated into the existing cognitive structure. When the existing cognitive schemes have to be adjusted to fit in the new or unknown aspects, then accommodation has taken place. When new knowledge is constructed this process is known as conceptual change. This means in effect that linguistic codes have to be accessed as both carriers and storers of knowledge. Logically this implies that the process of accommodation is dependent on language and vice versa.

Intellectual development determines the ability to understand what is said and the ability to use language informatively (Wood, 1990). Language is therefore regarded as partner to cognition. Piaget maintains that language acquisition depends on the cognitive development of a person while Chomsky (1979), and other nativists believe in an existing language acquisition mechanism. They also accept that this mechanism is related to conceptualization and that concept structures can only develop through contact with the language. According to Chomsky (cited in Wood 1990; and Chomsky, 1979), language has a certain creative aspect which enables the speaker to create sentences unique to that person which had before never been created. Language can effectively be applied to converse about topics or experiences distant from the speaker or of situations that are long past. It can be created in such a way that the language becomes culturally distinct (Nokaneng, 1986; Wickelgren, 1977). It is this aspect that directs the development of thought structures. Language is therefore regarded as cognitive activity.

Language as cognitive activity provides the speaker with a variety of options to use and understand it in different ways (Wood, 1990). Once more, language and cognition are seen in a broader context as was referred to earlier in this section. Bernstein (cited in Wood, 1992:6) noticed that students from diverse social groups interpret and understand the same concept differently.
These linguistic differences could affect the students' adjustment, communication and learning abilities. Cognitive abilities may also differ because of the cultural-historical context and circumstances in which they grew up (Gerdes, 1988). Bernstein (1975) postulates that thought is shaped by two language codes:

- the restricted code which is not only context-bound but is also stereo-typed condensed and lacking exactness which influence precise conceptualization. All people have access to these codes;

- the elaborated code on the other hand, expresses a more complex range of thought. They are context-free and more precise in conveying an explicit meaning verbally.

A similar description of language and cognition is that of Chick, (1992) and Chamot and O'Malley (1992) who identify contextual and cognitive dimensions underlying language performance.

The final part of this discussion on language and cognition is devoted to Vygotskian theory. Vygotsky (Whorf, 1975) indicated experimentally how the human being's cognition develops through different stages, from unorganized thought to the linguistic stage where abstractions are understood. He maintains that when the language-learning cycle is once completed, it does not signify that the lexical wealth of the language has been exhausted. For the study on PRESET student-teachers it is relevant to concentrate only on the third stage of cognition. In phase III the adult language system functions in a highly abstract integrated network of relations. His assumption that the human being processes a unique way of conceptualizing the world in spatial and temporal terms, confirms Chomsky's notion of conceptualization through "dialogues-of-action" the human being can articulate knowledge in a cognitive manner (Rogoff, 1990). Interaction through language between a more capable person and a not so capable person can result in cognitive growth (Vygotsky, 1978; Luria, 1975) as well as language development.

From the above it is evident that humans take an active part in constructing their knowledge of the world in a cognitive way, and in specific socio-cultural contexts.
2.4.3 LANGUAGE AND COGNITION IN PRESET CONTEXT

The human being possesses the ability to communicate concepts to other people through the use of language. As this study focuses on student-teachers at college level consideration is given to their ideas of language in an educational context.

The language which students use when they converse with their friends differs from the language they need for academic studying. Cummins (1992) distinguishes between a surface-level or basic interpersonal communication (BICS) and a deeper cognitive academic language proficiency (CALP) which may determine the academic success or failure of students. Halliday (cited in Olim, 1975) indicates that education failure is often language failure, for language has a determining influence on cognitive development (Vygotsky, 1978; Luria, 1975; Cummins, 1980; Trueba, 1989 and Rogoff, 1990). Brinton, Sasser and Winningham, (1992) warn that language limitation ought not to be confused with the limitation of cognition, while Vygotsky (Trueba, 1989) indicates that language control can be a measure of mental development.

Language which is also socially and culturally bound (Trueba, 1989 and Rogoff, 1992) is a developmental process which the human being experiences in time. Human intelligence starts to develop with a dialogue of speech (Olim, 1975) in the attempt to organize or clearly structure the order of the world (Popkewitz, 1987) that represents a variety of impressions by means of linguistic structures in the mind (Wales and Campbell, 1976). Chomsky maintains that the main function of language is to express thought (Henning and van Loggerenber, 1992 citing Chomsky, 1979), but when subject content is used to develop understanding and skills, "fine-tuning" communication is important (Rogoff, 1992:142). Problems arise when the content is culturally foreign and the communication takes place in the L2, a phenomenon which exacerbates an already difficult learning situation. Trueba (1989) feels that if this is the case then the L2 learners are not responsible for their academic predicament and struggle to adjust, because just as language is part of culture, culture is embedded in the development of the cognitive. Groenewald (1976) even goes as far as saying that the black students might not realize their intellectual potential because they are lacking in language and have limitations in their material background. This can also result in cognitive deprivation. Montagu (cited in Ginsburg, 1987) also explains that if the culture reflects poverty, is barren and one-dimensional, the learners will lack a framework with which they can associate or compare the new experience or knowledge they encounter. The information will
have limited pedagogic meaning. It must be remembered that students interpret meanings through thinking from a specific milieu and they are often not aware of how much language and thought are interrelated.

Webb (1986) discovered this interesting aspect during her study on PRESET students. She found that although the lecturers observe ESL as a problem, the student-teachers themselves did not perceive it as a major problem in their progress at college. This could be because students tend to fall back on rote learning which gives a false impression of real learning (Chick, 1991). Some lecturers tend to make use of previous examination questions and expect their students to memorize these answers to pass certain examinations instead of teaching them to understand and think deeply on the matter (Maejima, 1981 cited in Sato and Ushiwata, 1990). De Winter Hebron (1991: 129) states that students are accustomed to being spoon fed and it is difficult to unteach them this habit.

Evans (1992) indicated that ESL students who had an oral background and little written literature experience recall through rhetorical structures familiar to them, rather than making use of those which are structured in an unfamiliar way. It is only when material can be related to knowledge of previous experiences which the person already possesses in the long-term memory that it can be meaningfully divided and grouped for later retrieval from the long-term memory. More incoming information can then be successfully handled since the short-term memory is limited when dealing with unrelated facts (Phillips and Solis, 1985). The long-term memory which can form new structures in the brain will, however, be able to accommodate these facts. Adult learners do not store verbal information in the long-term memory as it was originally formulated, but store the essential meaning of the information probably in a condensed form. During recall, it is formulated in a personal way through spoken or written language. Adults ought to be able to analyze incoming knowledge with access to prior knowledge at the highest level to accommodate the new information where it is most meaningful. The process of accommodation is sometimes contracted metacognitively, an act which involves language.

For students to successfully comprehend a text, their background knowledge and the reading of the text must result in an interactive process. Their linguistic knowledge and cognitive structures will also play a role (Johnson, 1982:505, cited in Macht, 1991:91; Sanders and Ward, 1970 and Weidler, 1989), because cognitive structures develop and grow as a consequence of learning and experience (Lovell, 1980). The memory permits interaction
between different components of knowledge as independent information is integrated into a structure in the mind. Gage, cited in Graham (1977), believes that the successful use of cognitive styles can be taught. However, MacDonald (1991) stresses the fact that students find it difficult to contribute meaning to the learning content if it is expected from them to change from L1 medium to the use of L2 medium which is culturally foreign. Through the use of the L1, new knowledge can be integrated and anchored into the existing cognitive framework, but if the L2 is used the new knowledge tends to be isolated and limited insight will probably occur (Groeneveld, 1976). Verdun, Miller and Greer (1979) confirmed these findings by indicating that even adult students do not become involved in learning if they cannot contribute personal meaning to the learning content. Groeneveld (1976) quoting Lado (1961), indicates that meanings are not the same in all languages. The meanings that we put into our experiences are culturally determined and therefore vary from culture to culture. Carroll and Casagrande (1975) substantiate this fact by indicating that although languages will show some semantic uniformity, each language will reflect in other areas considerable diversity. Languages differ, and as each language handles common problems differently or contributes different ranges of meaning to its concepts, it affects the way the person thinks and structures special cognitive modes. Whorf (1975) also addresses this issue by stating that as different systems of rationalization are used one culture may find it difficult to understand the meaning of concepts as they are formulated in another language, for language is a shaper of ideas. This may even result in cultural mismatches because of these differences in thought patterns (Carroll and Casagrande, 1975; Hukill, 1983; Spencer and Sadoski, 1988; as well as Lipson, 1983 and Johnson, 1982 cited in Machet, 1991).

Mawasha (1991) argues this point and sees it as prejudice towards the black learners' cognitive ability when educationists and researchers maintain that they should not be confronted with unfamiliar knowledge or non-cultural experiences lest they find it too difficult to comprehend. If these students are limited to the immediate concrete environment they will not learn to transcend beyond that level. It is necessary to come in contact with other cultures but as cultures differ in their communicating structures, it is necessary for the ESL students to be surrounded by English speakers to learn the language more effectively, the rudiments of grammar as well as the linguistic aspects which may show commonalities across languages (Rogoff, 1990 and Calitz, 1993). Cultural conflict in the interpretation of another culture's literature as described by Brooks and Eskey (cited in Evans 1992:40) need not be necessary since the adult students are exposed to different cultures and their values (Evans 1992). It could be wise to accept Khati's (1991) advice to live harmoniously with two or more languages.
in education as South Africa is a multicultural country. This could become possible if students are prepared to make more use of the literature in libraries.

Anderson (1988) indicates that language skills are acquired gradually with extensive opportunities for practice and as this is a complex-cognitive process it requires explicit and implicit knowledge about language. If students could get enough practice in reading and the spoken language they could gradually accumulate language knowledge. Sanders and Ward (1970) as well as Evans (1992:42) suggest that students (also PRESET students) should practice regularly to improve their comprehension in L2 literature for practice is the key to L2 learning. Practice also assumes the acceptance of responsibility (Joubert, 1991; Hollander, 1991; Perkins, 1991 and Calitz, 1993). Being exposed to a wide variety of knowledge constructed via literature (through extensive library use) the L2 students at college need not experience language nor learning difficulty.

That the pre-service student at black colleges possess poorly developed CALP can possibly be rectified if the students can be taught how to become thinking people who will be able to understand and apply that knowledge (Fosnot, 1992 and Palmer, 1992). English is for instance perceived as a skills oriented subject in Tanzania (Nyerere, 1991 as cited in Anim, 1991 and Khati, 1991) as it contributes in developing the skills of thinking, criticism and an enquiring mind. Anim (1991), confirms this fact by stating that English ought to be used as a tool to help in the development of objective and analytical thinking. To acquire techniques which facilitate comprehension and retention at the same time, a CALP approach ought to be enforced in the classrooms (Chick, 1991).

In order for pre-service students to develop into better and more productive teachers and to limit INSET in time, the gap that exists between school and college must be filled. It is therefore necessary for the students to "break away from the traditional practice of reproduction, memorization and transmission of knowledge" (Henning, 1993 (a)).

Adults have during the years, built up a multistratal and multifunctional system which they now use for meaningful interpretation of new knowledge (Whorf, 1991). The adult students are therefore in a more advantaged situation than small children for they have collected more meaningful experiences over time and at this point are mostly adding new information to what they already have. If pupils' schooling did not encourage them to develop
the thinking skills (Bouwer, 1992) nor provide them with proper communicative language to build on, as Hartshone (cited by Cosatu, 1992:84) and Joubert (1991) maintain, there might not be enough vocabulary to generate new meaning through verbal observation and recall or sufficient stored information to associate with the new knowledge.

If Chomsky (1979) announces that "all men have equal access to the creative act which is language" and if Vygotsky (cited in Wood, 1990) indicates that the foundation for cognitive and personal development is laid by language and communication, then it becomes obvious that proficiency in language is very important for expressing deep inner feelings and thoughts (Olim, 1975; and Wohler 1986). Lack in language proficiency may on the other hand, limit cognitive growth and CALP. The two kinds of language codes which Bernstein has identified (Olim, 1975) illuminate the problem college students encounter if they are limited to the restricted code which is context-bound. The adult world is diverse and challengeable and really demands a more elaborate language or CALP. If students are mostly restricted code users because the development of cognitive skills and effective language acquisition were both neglected, van der Vyver (1987:7) states that they may have had little informal ESL experience and will probably lean on rote-learning as a learning style( Malefo, 1986; Webb, 1986 and Mawasha, 1991).

Use of the restricted code in which cognitive elaboration is not promoted and where language does not require a high level of syntactical organization and lexical selection as in the elaborate codes, is an obstacle in the development of the intellectual potential of the students. They stay context-centered and cognition does not facilitate abstraction (Olim, 1975). If they are then expected to make use of ESL across the curriculum, the L2, according to Malefo (1986), becomes a definite handicap as thinking in one language and speaking in another will probably confuse them mentally. The learners might misinterpret a situation or misunderstand abstract concepts (Webb, 1986).

2.5 SUMMARY

Black PRESET student-teachers seem to display LEP and a lack of CALP, aspects which become more profound amongst student-teachers in rural areas, since they seldom come in contact with ESL socially. Their existing background knowledge also differs vastly from the academic knowledge they encounter in the texts at college level. This LEP and limited CALP restrict their ability to construct a meaningful interaction with their academic milieu.
To be able to become successful teachers it is necessary to improve their language proficiency and to develop CALP. This may be realized through the use of LAC, an approach which will be investigated in chapter three.
CHAPTER THREE

LANGUAGE ACROSS THE CURRICULUM

3.1 INTRODUCTION

In this chapter the emphasis falls on language across the curriculum (LAC). A conceptual framework for LAC will be proposed after which the school syllabus of the DET will be analysed. Thereafter the PRESET syllabi of different countries will be discussed with special emphasis on language across the curriculum. The National Education Policy Investigation documents where they concentrate on language in education will also be analysed after which this chapter will conclude with a short summary.

3.2 CONCEPTUAL FRAMEWORK FOR LAC

A curriculum consists of all the activities of a school or college which are designed and implemented to educate the learner in a balanced way; it therefore includes the totality of all classroom activities and clearly also the language of learning and instruction.

Language is the medium through which the lecturers and their students must communicate and discuss the knowledge introduced in these encounters. The teachers or lecturers need to be proficient in the language of instruction in order to articulate knowledge clearly to ensure optimal understanding among the learners. The learners in turn, need to be able to articulate processes and products of knowledge construction. LAC as domain of pedagogy aims to ensure active involvement from the lecturer during the whole lesson encounter as well as participation and active learning from the students using language as pedagogic and cultural tool. As many students in multicultural societies are educationally deprived because of LEP, LAC as a more holistic approach to knowledge construction could be investigated as a curriculum option.

According to Levine (1990) LAC provides for school learning in a contextual base where it becomes possible for the pupils to learn and develop a new language while the discourse of pedagogy leads to the interactive and communicative teaching and learning of ESL as well.
Brinton, Sasser and Winningham (1992) indicate how language proficiency can be conceptualized along two continua:

- context embedded communication where situational cues support the meaning that is contributed;

- context reduced communication where the correct interpretation depends a great deal on the knowledge of the language itself. They maintain that if the communicative tasks and activities take place on the higher vertical continuum, the linguistic structuring has become mainly automatized and results in little active cognitive involvement. If learners can apply their multiplication table to a mathematical problem with understanding, it becomes easier each time until they can apply it with little or no effort at a later stage to any other mathematical problem. Cognitive energy may then be exerted for more difficult tasks. Language is therefore a vital component of automation of knowledge, both procedural and conceptual.

Widdowson (cited in van der Walt, 1992) also maintains that some language learning takes place through habit formation. This enables the mind to function in negotiating meaning at other levels. In time it becomes unnecessary for a person to search for the correct word or sentence structure as speech has become second nature (automatization). The brain may then use the cognitive energy for more logical activities, creative writing or discourse.

If it, however, occurs on the lower level, active cognitive involvement will be the result as the communicative tools have not become automatized. This implies that if the speakers are restricted to a limited vocabulary, they will often have to exhaust their cognitive energy in search of a word or sentence which could describe or explain their thoughts relatively clearly.

At school where it is expected from a student to attribute meaning mostly to context reduced tasks and activities it is necessary to focus on the linguistic forms themselves for meaning (Donaldson cited in Cummins, 1992:19).

Cummins (1992) as well as Brinton, Sasser and Winningham (1992) denote that if the students have a firm L1 proficiency it will provide a strong conceptual and academic foundation for acquiring the L2 skills. However, their opinion does not exclude early labelling of concepts in an L2. The case of black children starting their school life in an English school is an example. Their feeling is therefore that LAC for ESL users ought not to be implemented
in the early school years of the child but that the L1 literacy skills must first be promoted and then developed into an additive form of bilingualism. However, if the need arises, as is the case presently in South Africa, language for immediate learning purposes (LILP) could be introduced as early as during initial reading and writing (Henning, 1993(b)).

In South Africa where English is the medium of instruction in black education, and where the English language proficiency of both the pupils and that of the teachers is inadequate, it is of cardinal importance to consider the feasibility of LAC. The language incompetence of the student-teachers must be addressed to ensure that when they become teachers they will be competent enough to use English as LAC. LAC ought to be the concern of each subject teacher and not only the responsibility of the English language teacher because LEP and CALP influence and cut across a vast educational spectrum. LAC can, for instance, be the focus of reading and writing in junior primary classes where the very act of learning to be literate is experienced across the curriculum. The young learner then learns to read via mathematics for example. The concepts in LAC are thus varied across the school curriculum. Learning the language of learning is thus conceptually also a process of being enculturated into the discourse of the knowledge domain (O’Loughlin, 1992).

3.2.1 HISTORICAL OVERVIEW OF LAC

In the late nineteen sixties Barnes (cited in Young, 1986) emphasised LAC in the British schools. He indicated that the curriculum induces the communicative life of an educational institution, where the lecturers and their students must exchange meaning in an active and verbal manner. This implies that teacher talk should not dominate classroom activity but that the students ought to take an active part in structuring meaning instead of being passive recipients of the knowledge. It encourages the students to make use of the language in a constructive way by exploring the meaning of concepts they encounter in the new information and to exercise their proficiency in English by labelling concepts.

When more and more people from previous colonies immigrated to the United Kingdom, the teachers realised that their methods of teaching needed to change in order to accommodate the minority groups in their classes who had to learn through ESL, a language foreign to most of them. Fortunately most teachers taught in their L1 which is English. They slowly began to realise that the lexis and syntax of domains other than English subjects had to be included in the English class. In 1975 the Bullock Report (referred to by Young, 1986; and Behr, 1984) was drafted with the aim of improving the quality of language teaching in an ever
growing multicultural society. This report stipulated seventeen recommendations for implementing LAC in the school policy. Recommendation three and fifteen are especially of concern for this study. It states that every teacher at school ought to be involved in the development of reading and language across the curriculum. It furthermore recommends that it is relevant for every student-teacher, irrespective of the subjects in which they are specializing, to enrol for a course in Language Education where they can be trained to implement LAC in a productive manner (Young, 1986).

This report is generally regarded as the formal genesis of LAC; subsequently the concept developed first in Europe and the U.S.A., with reverberations elsewhere, including South Africa.

3.2.2 CONTEMPORARY VIEWS

In the United States of America and in Britain the language problem amongst the minority groups was initially addressed by creating special English lessons, mainly by drilling sentence patterns by another teacher in another classroom. It instilled the idea that the teaching of English to these pupils was someone else's concern and not the responsibility of each subject teacher.

These pupils were isolated from their peer group and friends in the other classes while they had to attend remedial classes. While the other pupils, already proficient in English, carried on in the mainstream classes these pupils had to "catch-up" on their learning in order to be included in the mainstream once more. The attempt to place these pupils in remedial classes, with the idea of teaching them ESL, was experienced by them as traumatic and was often detrimental to their educational achievement (Levine, 1990). This issue is addressed in a different manner in more advanced bilingual education programmes.

Another problem arose from this method of helping the pupils to become proficient in English before they could be considered capable of efficiently taking part in the learning activity of school life. As the numbers of these pupils in schools started to increase the need arose for more goal directed programmes and materials. The language level used in the textbooks was Standard English. Many concepts were explained from the perspective of the English speaking group and this was quite foreign to the young ESL learners. This problem has become a focus of researchers in multicultural language education. It must, however, be remembered that although the previously mentioned method was not very successful, these
teachers responded to the pupils' changed circumstances and attempted to help them to cope with a language and a school environment strange to their culture. The fact that the standard achievement was not as high as was expected, the outcome ought not be seen as a means of disempowerment (Mawasha 1992) for the minority groups or as a political strategy (Claasens, 1993, McKay and Romm, 1992; ANC as cited in Steyn and van der Westhuizen, 1992) but that it was applied by many teachers with good intentions.

New and better methods were explored and it was discovered that all the subject content of the curriculum could be used productively to develop the proficiency of ESL. Bilingual education was becoming a research and practice domain.

3.2.2.1 LAC in schools

To address the language problem which the majority of schoolgoing pupils encounter it became apparent that ESL in the curriculum had to be revised. By incorporating reading and writing across the curriculum the language based skills could be extended (Levine, 1990; Brinton, Sasser and Winningham, 1992). From this active learning approach the learning of a new language occurred in a functional and contextualized manner. It ensured that the learners had access to the acquisition of a wider language repertoire; they could learn the L2 as they needed it in comprehensive context, and above all, they could do it in their peergroup.

LAC became a serious consideration in South African education. The HRSC De Lange Report, (Behr, 1984) referred to the principle of LAC when the need of a new dispensation became inevitable after the crises in black schools during 1976 and thereafter. For a while the South African government still tried to protect group identity and was firmly fixed on the idea that education was an own affairs matter. The government's White Paper therefore only accepted some of the recommendations made in this report.

Although the De Lange Commission in South Africa concentrated on Language and Language Instruction in the hope of improving the education of the black communities in particular, the Bullock Report was not really considered as an important guideline for change (Behr, 1984; Young, 1986). To be able to use language as communication in the adult world was nevertheless considered to be of paramount importance. In these reports, however, it was mentioned that if a language (ESL) is used as a medium of instruction, it will reinforce the language (English) as a subject and vice-versa. It was also realised that progress and achievement could be restricted if the language proficiency of the learners were insufficient.
(Young, 1986). The research of the Main Committee confirmed this by mentioning the inability of black students to communicate successfully in their L1 and to express their thoughts in writing. The black pupils in South Africa find it difficult to master the three languages that are included in the curriculum. It is furthermore expected from them to master abstract subjects like science and mathematics in an L2 in which they are not proficient.

Subject content had to be taught more meaningfully which implies that the teachers had to address the language problem, an aspect which was for many teachers a personal problem. INSET provided the LEP teachers with language programmes.

3.2.2.2 LAC in INSET Programmes

Many black teachers in the field struggle under the burden of LEP and lack of CALP because of the education they have had. In order to provide better education for the pupils assigned to them they had to be re-educated for this task by INSET programmes.

The many INSET programmes that became available to upgrade qualifications were aimed at competency for black teachers already in the profession, and indicate clearly that there exists a LEP amongst these teachers (Jones, 1985; Hofmeyr and Jaff, 1992). Their competence in English ought to be improved. Unfortunately the training is subject-centred (Hofmeyr and Jaff, 1992; and Hofmeyr and Buckland, 1992) and it does not address the implementation of LAC which might improve the LEP of both the teachers and their pupils.

The LEP that is manifest amongst black teachers is indirectly reflected in the report of Letseli (1992), the examiner for part-time or INSET examinations. His external examination report reveals that only seven percent of the total candidates for Education passed the examination. The problems encountered were the lack of ability to convey or interpret factual knowledge. There was a clear indication that concepts were not understood and many questions were misinterpreted. These problems clearly reflect the LEP of the teachers involved in INSET. He maintains that their language proficiency is far below the expected level of college students and teachers.

During the discussion on Pelser’s paper (1986) it was proposed that an awareness of LAC ought to be created in the INSET centres. Recent local research (Botha and Cilliers, 1993) has revealed that inadequate teachers are confronted with environmentally disadvantaged pupils who not only lack sufficient nutrition, security and support at home, but who also
receive minimal stimulation and opportunity to develop their communicative skills. These pupils often reveal limited English competence and a lack of achievement in mathematics and general thinking ability across the curriculum. These aspects could be adequately addressed if the teachers were capable of applying the principles of LAC. LAC can be successfully applied in black schools (and colleges) where the education milieu entails English as Second Language (Young, 1986) and where the learners have access to English outside schools. Maarschalk and Strauss (1992:40) state that teachers ought to teach less content but teach better and to focus on conceptual-cum-linguistic analysis.

According to Young (1986) the organisations which are involved with the improvement of the English proficiency of the teachers, called the Teaching of English to Speakers of Other Languages, or TESOL, are unfortunately concentrating mostly on teaching English as a subject and not on the ability to integrate it into the curriculum as LAC. By quoting Toby, Young (1986) maintains that once the teachers realise that language forms the core of learning, they would not feel threatened by the pupils' own active participation in their learning. They might then also switch to teamwork, which is necessary for implementing LAC without experiencing it as loss of authority. The language incompetence on the part of the INSET and for that matter the PRESET students may affect their achievements and motivations when LAC is introduced in the education institutions.

3.2.2.3 LAC in PRESET

To ensure that it would not be necessary to provide INSET programmes ceaselessly, LAC had to be implemented in the PRESET curriculum. The recommendation was that the principle of LAC ought to be considered in the training of all teachers. It has become imperative for the language lecturers and those in the different subject departments together with those responsible for the didactic subjects to liaise with one another to enhance LAC (Snow, Met and Genesee, 1992). Unfortunately many lecturers who do not use English fluently or those who must depend on ESL to teach specific subject terminology find themselves ill equipped to explain the complexity of a text and to apply LAC. Lecturers clearly have to be in full control of their knowledge domain and its discourse in order to teach LAC. It is unfortunate that the DET has not fully understood the advantages of LAC (Khati, 1991) as most countries in Southern Africa use English as a medium of instruction in their schools and colleges. Khati (1991) implies that language is an integral part of education activities. LAC can improve the students' language proficiency which could continue to develop in order to become an effective learning facility.
LAC brings the students in contact with academic knowledge in a natural way. Orr and Schutte (1992) indicate that subjects like science, mathematics and education require language skills that differ from language use in other classes and it is with this statement that both the difficulty of LEP and the importance of LAC becomes illuminated.

Students often encounter frustration because of LEP. For example the same word can provide different meanings and functions when it falls into different classes. Some words like love or hate can be used as nouns, verbs or sometimes as adverbs. If students are not proficient in their L2, misinterpretation can result (when the same word can have a different meaning in the different subjects.) It is expected from the language user to use the scientific language in such a way that there should not be any linguistic misunderstanding especially when it comes to defining a concept compactly and precisely. Mathematics as an abstract subject also needs to be communicated between people and the mathematical language must be understood to interpret and to convey the concepts in a clear and meaningful manner. It is therefore not only necessary for the teacher or lecturer to make use of LAC to eliminate misinterpretation but also for the ESL students to actively contribute meaning to what they hear in the class or read from the text. LAC can contribute very positively to the mastering of the L2 as indicated by Snow, Met and Genesee (1992) who stressed the value of integrating language and content since it will not only assist the students who must learn through the medium of the L2 but also in mastering the L2. They maintain that the LEP students want to know more about the knowledge the lecturer has and this need creates a purpose for communication to take place in the classroom. By interrelating the terminology of different subjects in a classroom discourse may well lead to a more global understanding of the concepts.

As these recommendations were made already a few years ago it is necessary in this study to investigate, by means of literature review and an analysis of relevant documents, if LAC has been successfully implemented in the school and college syllabi.

3.3 THE DET SCHOOL SYLLABUS AS LAC DOCUMENT

Since the DET syllabus focuses on L2 users and since the literature review so far revealed preference to LAC in an effort to teach the L2 users to learn ESL effectively, the school syllabus will be briefly analysed to determine to what extent it concentrates on the issue.

The latest updated subject policy and syllabus for English indicates clearly the incorporation of LAC. Whether it is applied in these institutions is another question, as the
studies previously mentioned in chapter two proved that student-teachers are inclined to fall back on the traditional methods of teaching once they are teachers.

To discover to what extent LAC could be used successfully the syllabus needs to be analysed. The syllabus still divides the teaching of English into conventional headings of oral work, reading and comprehension, language study and written work (DET, 1990). The changes to the previous syllabi are not so much in content as in approach (Ridge, 1986). In the syllabus it is stressed that the teacher should regard the components as a unity and to use an integrated approach when teaching (DET, 1990). The teacher can for instance choose a topic on water when water vapour is studied in general science and the rainfall of different countries is discussed in geography. The language teacher can set comprehension questions on these aspects, build a language lesson around the topic and finally ask the pupils to tell a story about a rainy day or to explain orally the importance of water in their lives.

Though the syllabus clearly reflects LAC methods the question arises as to whether it is or can be successfully implemented. Language policy maintains that LAC unites the curriculum and provides the teacher with assistance in moving away from the rigid form of language teaching where the four language skills are treated separately and independently. According to Ridge (1986) the learning of a language in LAC format becomes learner-centred and purpose-centred with stress on communicative competence. ESL teaching has now become living English where pupils are encouraged to experiment with the use of the language in the fields relevant to their world of learning and in a format which addresses the pupils' immediate pedagogic needs.

It is of interest to notice that it is expected of pupils to supplement their class reading with the reading of library books and magazines, while it was observed by many (Webb, 1986; Young, 1986; and Ubahakwa, 1977) that this reading practice is often neglected. As language is highly politicized in South Africa and reading occurs in the L2, these factors might contribute to the lack of interest in books. This in turn may lead to LEP, the lack of CALP and a difficulty in concept construction. Previously LEP was enhanced by oral work or verbal communication in the classroom which was traditionally poorly applied. The teachers did most of the talking and the evaluation of the pupils' efficiency in the language took up valuable time with pupils sitting in suspense waiting for their turn to arrive without listening to the one who speaks. Evaluation of oral work has recently been changed to a more acceptable and enjoyable "reader-speaker" approach as explained by Gilfillan (cited by DET., 1990). The underlying presence of LAC is unfortunately only detected in some contemporary examples of language.
lessons but whether its presence or implementation in the DET curriculum will contribute to becoming proficient in the L2 can only be assumed.

To be competent in communication implies that the speaker should be able to sum up a situation accurately and respond appropriately. In assessing the pupils, the teacher ought to concentrate on how well and in what way the pupils manage their language ability and not whether they know or remember certain language structures or knowledge. The potential should be measured and not the memory (Ridge, 1986). If the concepts in a knowledge domain such as science are understood, meaning needs to be linguistically (semantically) labelled. There is great potential for LAC in oral work - even in the present curriculum.

Reading and writing are skills to be practised and do not occur naturally without instruction. The syllabus suggests that these skills should be taught by the teacher. This might give the impression that it is the sole responsibility of the teacher to ensure their acquisition. The pupils, however, are not passive onlookers in this world of learning. Ridge (1986:103) so aptly states that "we learn by making sense". Being actively taught implies that the pupils need to be actively involved in the reading of a text (Bouwer, 1992; Perkins, 1991; Joubert, 1991 and Hollander, 1991) or in expressing themselves lucidly in writing. The motivation which arises from the LAC perspective is obvious; the authentic language situations in knowledge domains are relevant to the youngsters' immediate school life.

The most positive aspect that results from the renewed syllabus is that the ESL is now more closely integrated with the context of the pupils or differently formulated, it is used as LAC. Teachers are no longer obliged to use only "pedagogical" language material, but they can venture into other school subjects. The freedom LAC offers the teacher to venture into other subject domains calls for English language proficiency (ELP). The PRESET language syllabus therefore needs to be reviewed and analysed to determine not only if LAC is successfully implemented but also meaningfully constructed in the students' cognitive structures.

3.4 PRESET SYLLABUS

As this study deals with a PRESET institution the language issue of different colleges where ESL is used as the medium of instruction will first of all be examined to discover the degree LAC is implemented in their college syllabus structures.
34.1 BRITISH EXAMPLES

Substantial groups of students arrived in the United Kingdom with L1's, other than English. This led to the re-consideration of teachers, teaching materials like tapes and discs for improving basic language skills and other methodologies to meet the L2 students special needs. The White Paper on the future of education in England and Wales was submitted to the government by the Education Advisor, Thompson (British Council, 1992).

Amongst the ESL students in the United Kingdom the black population is in the minority. Yet the PRESET institutions are responsible for teaching ESL to a large group of students who are domiciled in other countries but came to further their studies at these colleges and universities. The tertiary institutions concentrate on language learning because of the linguistic incompetence of foreign students (Piggott, 1992). Another interesting factor to consider about language in this country is that the local dialects also differ from area to area while all these students must learn in Standard English.

Language can become quite an issue for many who intend to become college or university students. According to the Bradford University in Yorkshire, England (Cox, 1992) it is rewarding to study in a different country although the students need to adjust to a different language, different culture and even a different climate.

Not only is language an issue but de Winter Hebron (1991) indicates that students who are exposed to aspects of cross-cultural education in many higher education systems often experience cultural misinterpretation, cultural isolation or culture-shock. Therefore it seems important that the students have CALP at their disposal and to be able to converse effectively in ESL, which in turn will contribute to their understanding of and the adjustment to the English culture.

In order to understand and adjust it is compulsory for many ESL students to take a special English course during their first college year in Britain. Most higher and degree courses require and expect independent study. Therefore students must be able to speak, write and understand English well (Trow, 1992). Cox (1992) even goes so far as to state that students with LEP can neither expect value from a course nor be successful. Silvester (1992) confirms this in her statement that the most vital factor that contributes to the success of a student is the language, whether the student is an English native speaker or an ESL user.
That both native speakers and ESL speakers may encounter language problems are forseen in their education system. There are English language and study skills courses for students who want to improve their English as well as contemporary English for graduates and undergraduates of English and Literature. There are even foundation courses for the ESL students for a duration of one academic year. Many of these courses are designed around a central core of English language tuition and reflect a LAC programme.

The curriculum unfortunately also reflects certain disadvantages since their English language syllabus up until now has comprised of Standard English designed for native English speakers. The reading material is almost entirely standard language, while the syllabus concentrates on the development of reading and writing abilities with the aim of enhancing the students' capacity to communicate.

To prevent LEP, the language problem is already addressed during the school years. At school the ESL learners who experience some difficulty are taking special English lessons during school time and are taken out of the mainstream course until they can once more cope with the progress of the class. The disadvantage of this method is that the pupils may find themselves lagging behind in the accumulative contruction of other subject knowledge. According to Nixon (1985) it is wrong to assume that pupils ought to speak correct Standard English before they can be integrated into the mainstream or possibly expect to learn anything. The L2 can, therefore, be successfully acquired without withdrawing the students from the mainstream classes. In these classes interaction between the native English speakers and the ESL users will occur, which can contribute to the latters' achievement of proficiency.

Students are denied their own language as a language of learning if it cannot be used to express themselves adequately. Nixon (1985) proposes that the lecturer ought to make provision for the students who must learn in ESL. Pupils as well as students should be provided with some opportunity to use their L1 when they want to communicate ideas, express their feelings or explore relationships in their effort to contribute meaning to the new knowledge (Calitz, 1993). To be able to fall back on the L1 and to incorporate suitable reading material will help students to gradually acquire competence in both spoken and written English and to become bilingual by moving easily between languages.
McDonald (1991) and others (Carroll and Casagrande, 1975; Morgan and King, 1966; Brinton, Sasser and Winningham, 1992; Khati, 1991; and Calitz, 1993) maintain that if the L1 is sufficiently established it becomes easier to acquire the L2 since languages reflect certain similarities. When students are making use of the L1 they use certain strategies to penetrate the L2. This proves their involvement as they are testing the structure of the foreign language against their own (Khati, 1991).

Applying this method together with LAC they not only hear the language of each subject but they are summoned to practice it in an active way. The perpetual crossing and recrossing of the social and cultural boundaries in the classroom leads to a fine interweaving of language and cultural experiences. The subject teacher or lecturer should also be available to provide language support and to notice when the students' LEP affect their powers of conceptualization (Nixon, 1985).

To consider the ever growing ESL student body the modern syllabus in Britain advocates integration of ESL learning in the subject context as LAC. This enables the students to understand the diversity of language usage, and to adapt to an ESL learning environment.

In the absence of knowledge about how to teach L2 students, it is helpful to gain such knowledge not only from prior experience or from other educators but also from analysing literature that focuses on the topic. It is therefore necessary to observe more than one area or country's attempts to overcome this difficulty.

Another country with an ever growing multicultural population is America. For quite a number of these students English is an L2, which hampers their progress. LAC has become an important consideration in the U.S.A. education.

3.4.2 U.S.A. EXAMPLES

America is a country with a diversity of cultures and needed to develop cultural sensitivity in order to teach all these students. In the multicultural classroom in the USA it has become apparent that equality was not really considered sufficiently seriously, as the curriculum of educational institutes seems to be unable to accommodate the diversity of cultures and the language needs (Ladson-Billings, 1992). A debate started on whose ideology and
Culture form the core of the American curriculum (Grant and Millar, 1992) as textbooks and other educational material ought not be biased (Golnick, 1992). The needs of minority groups had to be considered too.

Ladson-Billings (1992) refers to studies on successful teaching strategies for improving the performance of minority groups. It was noticed that ineffective teachers maintained that their students were incapable of handling highly academic content, while the effective teachers regularly provided their students with academically challenging tasks. Evans' (1992) statement confirms these findings by indicating that although a basic level of linguistic competence is needed to comprehend what is read in the L2, the L2 reading ability can improve if the students are exposed to linguistically complex reading material.

On the other hand, Snow, Met and Genesee (1992) disclose that if instruction through ESL is unrelated to cultural experiences, and communication is context-reduced, these students are hindered in developing high levels of L2 academic skills. For many pupils and students this became a reality and led to learning problems. In America school pupils were also taken out of the mainstream to receive special English lessons if they experienced difficulty in expressing themselves in the different subject languages. Hernandez (1992) stipulates that it takes time for academic language skills to develop, but that it is essential for achieving success at academic or formal levels. As with other researchers (Cummins, 1992; Snow, Met and Genesee, 1992 and Nixon, 1987) she affirms that the knowledge constructed and the language skills acquired in the L1 can easily be transferred to the L2. She also refers to Ervin-Tripp (1985) who suggested that teaching ought to occur through language instead of teaching about language. This clearly implies LAC.

LAC can be used to improve the L2 users' proficiency. Levine (1990) who refers to LAC as mainstreaming for bilingual learners proposes team or partnership teaching when implementing LAC. All classroom activities and subject teachers ought to provide opportunities for ESL users to develop alongside their peers. By learning the L2 in the subject classrooms the language becomes more meaningful and real to them and their comprehension of the language will improve. The implementation of LAC does not come easily, nor does the handling of culturally diverse classes.

During a research compiled by Fuller (1992) amongst PRESET students, it was discovered that the lecturers assumed that the student-teachers need not be educated in how to
handle socio-culturally diverse classes. During the practice teaching period many of these students hardly ever experienced the diversity that exists in some schools as they never had their schooling in black majority schools. These students would be inadequately prepared for the reality of cultural pluralism in school communities because they are not effectively taught how to accept and teach those who are culturally and linguistically different from themselves, nor are they tutored in how to become sensitive to the language problems of these minority groups.

Investigating aspects of the USA language syllabi through a literature review, it seems as if the teacher education in America aims mainly at addressing the multicultural question (Gollnick, 1992; and Crumpton, 1992). The study disclosed that the USA has started to implement LAC at schools (Levine, 1990) but the road to making use of it on PRESET level seems to be long and arduous.

The two examples given above are of countries where the minority of students have to adapt to the English syllabus and the Western education tradition. The majority in many countries on the African continent have decided on or must make use of ESL as their medium of instruction. Many of these students who find themselves at a college or university only had experience with ESL in a formal setting where they were educated by teachers with LEP. It is therefore important to study the language syllabus of another African state.

3.4.3 AN AFRICAN EXAMPLE: NIGERIA

Although Nigeria is a black country the medium of instruction at schools and colleges is in English, partly because of the different dialects and nationalities and partly because of the feeling that English is a universal language. According to Ubahakwa (1977) there was a shift from experienced-based to competence-based education in the Nigerian colleges of education. The entire curriculum was considered for implementing meaningful competence-based programmes. In performing their teaching tasks, the students were considered to be accountable for achieving a specific standard in their work.

The Education Department also gave attention to English studies to determine if it would be possible for the students to teach the different subjects through the medium of ESL to pupils of varied L1 backgrounds. The curriculum included remedial language skills; the development of general language skills; speed reading and comprehension, as well as English for special purposes, critical judgement and appreciation.
Although there are remedial classes for English, many of the students who failed English at school would not accept it as proof of their LEP and see no need for attending these classes. Other classes that are poorly attended at the colleges are the classes that present "spoken" English. Yet the "Use of English" is compulsory irrespective of the students' fields of specialization. Here they are tutored in the different language skills, how to make critical judgements and develop appreciation for language. The students also need training in the basic techniques of analysing the L1 and L2.

Although it is considered important that students be exposed to all levels of language learning processes it is noticed that these classes are only presented in some colleges (Perkins, 1991). It, however, suffices to know that the emphasis is put on bilingual education and that there is transfer of other subject content to the English studies curriculum, which could be considered as a form of LAC. Proof of their progress in becoming bilingual is found in studies that showed the students are increasingly inclined to think in English when carrying out L1 written tasks.

Though the Nigerian education curriculum proves that progress is made there is, however, no consensus yet on the approach to literary studies. Some are of the opinion that an intensive approach must be taken, while others profess a broader literary study approach. The latter maintains that a teacher ought to know something about everything (Ubahakwa, 1977), therefore less depth is needed.

Noting the poor attendance of some of the English classes and the languid implementation of ESL studies at other colleges it becomes apparent that Nigeria still has some ESL difficulties to overcome before the colleges can ensure adequate teachers with sufficient English proficiency, which in turn, will enhance the standard of teaching LAC at schools.

After this brief investigation into the application of LAC in other countries, the South African syllabus needs to be analysed.

3.4.4 SOUTH AFRICA: THE DET COLLEGE SYLLABUS

The DET assigned the Senior Primary school syllabus to the college, and therefore it correlates with what was mentioned in section 3.3 above. The students are expected to apply what is stipulated in the syllabus. Unfortunately some of the lecturers tend to follow the 1985
syllabus and fail, therefore, to implement LAC. This aspect is neglected by many uninterested or LEP subject lecturers. Since this section of the research concentrates on LAC, only a few aspects in the DET English syllabus will be selected for discussion.

The emphasis, in dealing with prescribed texts, falls on the development of communicative competence through integrative skills activities which should be stimulating, challenging and relevant (DET 1985). These activities involve:

- transfer of information (sic!)
- getting the message across
- effective communication
- negotiation of meaning

The four periods per week, of which only one is allocated to language, indicates that the education authorities also assume a certain level of L2 proficiency in the students. When it comes to evaluation (and it is only expected to test literature contextually) it is discovered that the objective to involve the students in a challenging activity is not achieved. No mention, nor any attempt is made to use LAC in the academic syllabus, which might foster in the students the idea that the English subject is distant to other subjects.

The English didactics syllabus, however, does refer to LAC but it was disconcerting to note that it was only considered relevant as a "suggested assignment topic" (DET, 1985:15). Experience has shown that assignments amongst LEP students are often rewritten from the assignment of other students or from sources. The syllabus, however, emphasised the "students' own ability" (DET., 1985:7) to use language structures effectively. With this the responsibility is placed on them to conquer their own LEP.

LEP hampers the academic and learning environment (Doby, 1991). According to Henning and van Loggerenberg (1992), a formal learning milieu is linguistically loaded and contextually reduced. This type of environment demands sufficient CALP of the students in order for them to survive pedagogically. They also indicate that communicative language teaching (CLT) which implies language usage, instruction and learning in context can
contribute to the students' progress to assimilate and accommodate factual information alongside their power of expressing the same knowledge. In making use of LAC the relevance of ESL learning is enhanced and with that communicative CALP, for language learning and language teaching are problem-solving activities. To become a student-teacher with the aim of being a teacher, enhancement of CALP ought to be seriously considered, especially amongst prospective teachers who are incompetent in the L2.

Language incompetence can be rectified through regular reading practice. Webb (1986) discovered that although student-teachers enrol for a profession where they will make regular use of books and for that matter pronounce themselves as students at a higher educational institution where individual study is expected, they have not fostered a love for reading. Comprehension of the written language is impeded by the passiveness to reading. Their world of knowledge doesn’t expand either since they don’t learn how to interpret other cultures (Mawasha, 1991). Machet (1991) confirms this finding by referring to the study of Heath (1983) who illustrates that different cultures will contribute different values to reading, writing and the interpretation of texts. Webb (1986) reasons that they were not encouraged to read at school or at home. She maintains that it involves time and effort for the black student to get hold of literature. This might have been the case previously but since most colleges, including rural colleges, are lately equipped with library facilities, time and effort ought not be resistant issues any longer. Webb (1986) also puts this down to the formal textbook language that creates a distance between the author and his readers. The scientific language of subject text does not result in pleasant encounters with information which is often conveyed through reading. The students are unable to contribute meaning to the unfamiliar and distant context in the discourse which they have not mastered.

The report of Van der Walt (1990) also addresses this issue by indicating that some L2 students encounter cultural conflict (de Winter & Hebron, 1991) in interpreting literature. This forms a formal barrier when concepts are unfamiliar. An intellectual barrier is experienced when the cognitive abilities of the students are incapable of accommodating the overload of a content and medium. It is therefore necessary for the students to develop a basic level of linguistic competence to comprehend L2 in reading (Evans, 1991). It could also be beneficial if ESL literary text which reflects the students own culture can be included. This will contribute to give meaning to experiences which are known and familiar.
Comprehension may lead to spontaneous active participation. It was found that the active application of productive skills are never learned if it is only expected from the student to reproduce factual knowledge (Webb, 1986; de Winter Hebron, 1991; Fourie, 1991; Joubert, 1991 and NECC, 1992). Machet (1991) postulates that the poor education system is not the only factor that contributes to the students' inadequate preparedness, but that their culture also affects their interpretation, their insight into and the recalling of the text. The student-teachers ought to learn actively in their language classes and through LAC. Machet (1991) further indicates that the comprehending of a text is dependent on the interaction between the students' background knowledge, their experience and the text in front of them. The students have to develop an openness towards that which is read.

To be able to read and learn in the L2 might not be as problematic as is sometimes professed. Cummins (1992) states that the CUP principle applies when the ESL speaker can transfer the already existing conceptual knowledge he possesses in the L1 meaningfully to the L2 (Snow, Mel and Genesee, 1992). If the language of textbooks could also provide access to knowledge in a natural way LAC would be implemented in a productive way. Mawasha (1992) feels that the African languages have invested much in English as an adopted language and therefore it is essential for English to promote access to knowledge. As knowledge is not only accessed in the subject, English, but from all the subjects in the college curriculum, it is necessary to become receptive to LAC.

After the analysis of the DET syllabus it was, though alarming, not so unexpected to discover during the discussion on Webb's paper in 1986 that their PRESET college had not experienced over-all success in implementing LAC at college level, but that there were only a few lecturers who took the initiative by using the textbooks of other subjects in the English lessons. It is assumed that this attitude has changed during the past years. There is, however, not sufficient research to support the assumption, while isolated evidence seems to indicate that CALP is not yet a general aim in language teaching.

The attitude of some lecturers who believe that the teaching of ESL is solely the responsibility of the English subject teacher must be seriously addressed in order to provide their students with the ability to use LAC effectively. They must regard the importance of training their students sufficiently in the use of LAC by being living examples and by emphasising language learning instead of language teaching.
The perturbing fact is that LAC is not yet appreciated as cognitive tool. Evidence of this is found amongst the student-teachers of Young (1986) who tried to promote LAC during their teaching practice. These students were reprimanded by the teachers who were still very content conscious. It was also discovered that the research college is, in some instances still following the 1985 DET syllabus which does not accommodate LAC.

Many colleges ought to follow the example of Zululand. According to Cosby (1986) the University of Zululand is offering a compulsory LAC course for the PRESET students. He signifies that the B Ped. degree incorporates the language in the course and it is not offered separately.

From the literature investigation it was found that up until now LAC has not been implemented successfully, but that it is discussed widely and it may hopefully contribute to greater success in the education of the future.

3.5 PROPOSALS FOR THE FUTURE

With the many changes that are about to take place during the transition period in South African education which will influence the students in a PRESET milieu, it is necessary to study some proposals as well as the NEPI Reports on Post-secondary education (PSE), Language and the Curriculum. (NECC, 1992).

3.5.1 THE ANC PROPOSAL

Since language is culture bound and has become a political issue, politicians and their political groups are battling with the notion of language in the educational milieu. Claassen (1993), in his address on the possibility of implementing Affirmative Action (AA) in South Africa, indicates that the ANC has proposed equality of opportunity and equality of results in the field of education (also see: Schoeman, 1992; Jeevananathan, 1993; Bray, 1992 and de Vries, 1992). One of the proposals is that supporting programmes may be introduced to supply tuition for ESL speakers if instruction should take place through the medium of English. As the L2 instruction was often observed as an educational advancement hazard there is the notion that the school language policy ought to be redressed during the restructuring of the curriculum and that the L1 as well as regional language preference instruction may be introduced (ANC, 1992 5 cited by Claassen, 1993).
Some of the steps to achieve equality, according to the ANC, are briefly as follows:

- to enforce school integration, the matriculation results could be lowered for targeted students to ensure admission to a tertiary institution;
- by manipulating academic results to improve the pass rate of the black matriculants will ensure equality of academic results.
- integration to be attained by creating mixed schools for pupils and by compositions for multicultural school staff (Claassen, 1993).

After scrutinizing these proposals it is essential to consider an answer to the burning question of van Niekerk (1993) who wants to know if we are empowering our students to contribute meaningfully to a new education dispensation. Since the performance of high-level skills of thinking are necessary for students to learn to think independently (van Niekerk, 1993), affirmative actions (Matsepe-Casaburri, 1992) can be taken without lowering the educational standards. Van Niekerk (1993) believes that this could become possible if the students were to take responsibility for their own cognitive development in order to achieve. Responsible actions can, however, not be possible if the ANC reasons that disrupted school careers can be used as an excuse to lower the matriculation results to admit students of the target group to universities. AA like that will not address the problem of poor education as these students will still lag behind because they lack pre-knowledge, CALP and will still experience an LEP.

Pre-knowledge is essential as a basis for academic knowledge construction. Both Van Niekerk (1993) and Anim (1992) maintain that the only relevant knowledge is that knowledge which the students have made their own through their own creative thinking and critical analysis. This type of knowledge is difficult to achieve if CALP is not developed through effective and sufficient learning opportunities.

It is especially the breakdown of education in many communities in South Africa that has hampered the establishment of a learning and thinking culture as indicated above, therefore it is difficult to perceive how some of the AA suggested by the ANC can contribute to the advancement of education in the future. A recent research project embarked on in South Africa is noteworthy for this study since it has established that certain changes can be implemented effectively.
3.5.2 THE UPTRAIL TRUST PROGRAMME

Under the auspices of UPTRAIL Trust (Botha and Cilliers, 1992) a programme was created for upgrading the teaching, training and learning of mainly educationally disadvantaged South Africans.

This programme was presented in five regions in South Africa. Their objectives were the integration of thinking skills, the teaching of English and to introduce thinking skills as a separate subject (Botha and Cilliers, 1992).

Important to note for this study is that not only were the thinking skills structured across the curriculum but English across the curriculum was also implemented. English is authentically taught to enhance communication and to promote linguistic competence in all subject areas.

Significant findings were projected by this study:

- Teachers received INSET before implementing the new curriculum.
- Black teachers still tended to be teacher-centred and to revert to traditional teaching methods of drilling and rote learning. Although the programme was considered as successful and the techniques were understood, the new information often remained just passive knowledge.

The implication is that there are two different epistemological bases for conceptual and procedural knowledge (Strauss, 1993). With regard to PRESET institutions it is important to note that LAC can be successfully applied if training is effective. There seems to be a clear indication that LAC must be promoted by lecturers in the PRESET institutions so that student-teachers can implement it effectively in their classrooms in the near future. The students should not only be tutored about LAC but the PRESET institutions ought to be examples of how LAC could be applied. More and more PRESET institutions are becoming conscious of the value of LAC. It is therefore heartening to note that a PRESET college in the Northern Transvaal has also adopted a curriculum where language and critical thinking skills are implemented across the curriculum. To adapt to change, however, is not easy.
The majority of language educationists agree that the need to change education in South Africa is a complex task and might not be easily rectified. That could be the reason why Van der Westhuizen (1993) maintains that the present South African educational situation is characterised by change and resistance to change. Resistance to change can result in boycotts and aggressive reactions. Lawrence (cited by Van der Westhuizen, 1993) again noticed that change elicits greater resistance if social relations, loss of personal values and power are at stake. Luckily it may also have positive value when it leads to more research for better answers. In this way a proactive step to action may result in a reactive action.

As resistance is the most common response to change (see: Zaltman and Duncan, 1977; Ritchie, 1986 and Corbett, Firestone and Rossman, 1987 as cited by Van der Westhuizen 1992) and as the curriculum reflects a social bondage to a specific group it is interesting to notice how these phenomena arise clearly in the NEPI reports.

3.5.3 THE NEPI REPORT

From the NEPI Reports (NECC, 1992) on Post-Secondary Education (PSE), Language and the Curriculum a few aspects are selected to address in this study. These three reports are blended together in this overview.

3.5.3.1 The DET Structure: Arguments

Some of the main reasons given for the rejection of the DET model are the assumptions that DET students reflect cognitive deprivation, language inadequacies and that it results in scholastic backlogs (Botha and Cilliers, 1992) since the traditional education in the DET focuses on the transmission of knowledge.

The NEPI report indicates that two basic functions of the PSE system are to produce and to transmit knowledge. The knowledge the PRESET students construct at the college will, to a certain extent, determine their success in class. As the school subject syllabi form the basis of the students' learning content in the PRESET institutions it is necessary to pay attention to the NEPI Report's comments on the curriculum. (NECC, 1992).

It also warns PSE institutions against becoming "academic parking lots for the unemployed" (NECC, Post-secondary education 1992) in their attempts to provide students
access to knowledge without considering the country's economic growth. The NEPI report implies that the DET does not consider if a certain academic or professional field is over supplied with "graduates".

After the critical examination of the DET structure the NEPI group recommends a redress of equal rights for black enrolment at PSE institutions since white students have benefited from their school education and may progress easier at these institutions which were originally established for them. The reason they provide for redress is that the combination of subject choices at many black schools does not always meet with the entrance criteria laid down by the PSE institutions for the disadvantaged blacks. (NECC, Curriculum, 1992).

Another aspect that needs attention is the duration period of study. Black PRESET colleges, with a three-year diploma, provide underqualified teachers and LEP teachers into the bargain. Qualified teachers are expected to have a four-year diploma or degree. This is a major concern when addressing inequality.

As the syllabi are overloaded and the student-teachers, as well as the teachers, lack proficiency in English, they tend to become text- and content-orientated (NECC, Language, 1992). This results in rote learning even at PRESET level where memory retention has become an important 'learning' skill. The matriculation examination exacerbated the situation as the content defines the learning approach rather than the objectives of the subject curriculum. Other cognitive skills are neglected, while the emphasis falls on the 'receiving' of factual knowledge rather than on learning constructively.

A suggestion is that it would be better to concentrate on the application of skills and how to construct meaning rather than to use assessment solely to measure learning outcomes. They suggest that assessment through tests and annual examinations hampers progress. Students who cannot cope on PSE levels could be assisted by designing supporting services or bridging colleges.

The reporters indicate that seventy percent of the black school going children are from homelands and rural areas. Students who attend PRESET colleges in rural areas are mostly domiciled in these areas and tend to stay there after their studies (NECC, PSE 1992) Some of these areas are at the moment highly politicized, the classrooms are overcrowded and the schools have poor resources. It has become essential to address the quality of rural experiences
to ensure improvement. The unequal background of these students manifests itself in poorer performances, inadequate conceptual understanding of the mainly white-orientated subject content and LEP, because of inadequate exposure to English (NECC, Curriculum, 1992 and NECC, Language, 1992) on a social basis. The overloaded syllabi aggravate the situation even more. Both the teachers and students ought not to be receivers of information but should actively participate in the decision-making process of curriculum design to improve classroom practices (NECC Reports, 1992).

After analysing these reports it cannot be denied that the current curriculum is dominated by white education directives at both provincial and national levels as it was developed from their perspective. The state, however, realised that the existing curriculum policies and practices which are assumed to be racially structured, require fundamental changes where a sensitivity towards race will have to be reflected in the syllabi and texts. The changes that the state proposed were also investigated by the NEPI research group.

3.5.3.2 The NGO'S initiatives and the State's Proposals

Although both these proposals reflect a definite re-orientation away from racial discrimination, the NEPI Reports (NECC, 1992) envisage them as attempts to gain control over the curriculum process. They maintain that many of these proposals are embedded in the existing curriculum which are based on CNE and Fundamental Pedagogics, both not acceptable to the larger black population. Further discussion of its acceptability is not necessary, since this study focuses on the black rural students conceptions of language and of learning and not on racial discrimination.

During the researcher's own experiences through the years and in these Nepi Reports it became more apparent that imbalances in the curriculum and language policies ought to be addressed by including historically disadvantaged groups during decision-making concerning the curriculum (NECC, 1992). They may receive the opportunity to give input and those aspects which are important to them may then be considered.

Attention is now given to the input of some of these supporting groups as researched by NEPI (NECC, 1992).
3.3.3 AZAPO

According to the NEPI Reports (NECC, 1992) the AZAPO proposal supports an anti-racist education, but advocates a democratic educational policy which must be defined and guided by the views of the exploited masses (NECC, PSE, 1992). This one-sided view problematizes education from an ideological perspective.

3.3.4 People's Education

The People's Education proposal entails a vision of a decentralized curriculum where parents, students, and teachers may participate in the curriculum development. They envisage that the SRCs will play an important role in the governance of education and in the formulation of the curriculum (NECC, Curriculum, 1992, McKay and Romm, 1992).

The NEPI Report states that the People's Education does not fully account for the complexities, tensions, and contradictions within the curriculum (NECC, Curriculum, 1992 and NECC, Language, 1992).

3.3.5 ANC and COSATU

Some of the ANC's views were discussed under point 3.5.1. As with the ANC, COSATU also advocates curricula that could develop literacy and numeracy. They also emphasise critical thinking. The formal education system must not be purely academic but should provide scientific and technological skills for a developing country. It must reflect democratic structures and implement Affirmative Actions (NECC, 1992).

It seems as if the NEP Report (NECC, 1992) accepts these two proposals in principle except for a few aspects into which more intense research needs to be done.

The review on the NEPI reports (NECC, 1992) clearly highlights the problematic, yet challenging period of transition the South African education is entering. Language education in teacher training is a vital aspect of it.
3.6 SUMMARY

The changes that are about to take place in South Africa are of cardinal importance to PRESET and its students because the new curriculum structure can only become successful if the teachers have CALP at their disposal along with the ability to implement LAC productively and with a certain degree of ease.

The challenge of diversity and change with which the PRESET students must enter the future, calls for acceptance of responsibility and active participation on their behalf in their own learning to become what society expects from the future teacher, for teaching and learning are the two cornerstones of education. In the next chapter the concept of learning will be reviewed concisely from existing theory.
CHAPTER FOUR.

COGNITIVE AND LINGUISTIC THEORY: A SYNTHESIS IN PRESENT CONTEXT

4.1 INTRODUCTION

In this chapter consideration is given to learning as an educational and natural human activity. The focus is on language learning and concept learning. Learning by pre-service student-teachers is discussed prior to a brief exposition on conceptions of learning.

4.2 LEARNING AS CONCEPTUAL CHANGE: A CONSTRUCTIVIST PERSPECTIVE

Learning is difficult to define, as was indicated in chapter one, because every human being experiences it in his or her own unique way and according to Graham (1977) this could probably be a series of different kinds of processes within the individual. An important consideration concerning learning, as described by Graham (cited by Kolata, 1993), is that an individual should learn how to learn and continue learning. Constructivists maintain that meaning and understanding need to be constructed through conceptual change (Pea, 1993). Both teacher and student ought to become co-constructors of knowledge (MacCaslin and Good, 1992).

To be able to understand the nature of learning and to learn how to learn implies a certain amount of knowledge and understanding of how the brain functions during learning processes. Although this is not the entire picture, the neurological biological view is important.

4.2.1 LANGUAGE, LEARNING AND THE BRAIN

In order to learn the learner needs to remember and for that to happen he/she must be able to understand the problem or event. Language functioning of the brain plays an important part in this respect. A brief description of the cognitive processes from a neurological perspective follows. The nervous system, as a complex network, carries electrochemical messages to the brain. In the brain, the neurons carry the messages. The synapse is a gap which must be bridged for connection to other neurons. With the chemical agent acetylcholine the gap can be bridged to transmit information, while the bridge is removed by the chemical
The neuron consists of a cell body, an output system called axons, while the dendrites form the input system. There are also three kinds of neurons: the receptors that react on senses; the effectors that come into action during muscle movement and the connectors that unite other neurons (Wilson, Robeck, Michael, 1969; Wickelgren 1977, and Smith and Stowell, 1983).

The cognitive processes can differ in complexity (Gerdes, 1988) since the brain can often simultaneously be involved with two different processes such as when a word has to be spelled and recognised. When a bridge between a conceptualisation area and a motor area of the brain is damaged, messages to spell or recognise the word will not be carried as the gap can not be bridged. However, this does not necessarily result in disfunctioning, for the brain can simultaneously store certain information in different areas and in both hemispheres of the brain. Researchers (Wilson, Robeck and Michael, 1969; Damasio and Damasio, 1992) have discovered that the language structures of most humans are embedded in the left hemisphere of the brain. Vital recent "covering" in brain functioning is that verbs are located in the frontal lobe (figure 4.1). The representation of concepts, in contrast, are distributed across both the left and right hemispheres. It is therefore necessary to utilise both hemispheres (Rogers, 1983) since memories are stored throughout the brain (Wickelgren, 1977).

During the interactions with objects or events, neural activities occur in the sensory and motor cortices of which the brain keeps record (Damasio and Damasio, 1992). It is not only aspects of the external reality that are represented but the brain also records how the human body explores and reacts to the world. The success of remembering the information that was learned depends on how effectively the brain can record and encode the knowledge which must be stored for later retrieval (Gerdes, 1988). The function of the nervous system is not only that of information processing and storing (Smith and Stowell, 1983) but it also ensures that the collected information can be categorised by the related experiences and concepts which can be reactivated together. Understanding and expression become possible as neural activity can reconstruct knowledge as a conscious experience, or activate a system that ensures mediation between concept and language generating word-forms and syntactical structures (Figure 4.1).

The above explanation indicates how the brain involves the learner in totality and confirms Human's (1991) notion that not only the brain but the person's whole personality is involved to ensure optimal learning (McGinty, 1989 cited in Human, 1991; and Du Preez, 1991 referred to
in Burger, 1993). Dreckmeyr (1991:2) expands on this by stressing the personal response of surrendering and action in the learner's attempt to gain and understand knowledge.

Figure 4.1. Location of language structures in the brain (Damasio and Damasio, 1992:64)

Burger (1993) again mentions how the cortical energy in the brain actively increases during optimal learning. This very interesting aspect is confirmed by Begley (1993).

The very brief discussion of the brain accentuates the fact that learning is, after all, also a biological phenomenon and it would serve research in biological well if this were kept in mind. It is, however, not only the learner's cognitive capacity that ensures learning but the totality of cognitive aspects ought to be considered for a more complete picture (Wickelgren, 1977). A brief investigation into a few theories on learning could also assist to understand the complexity of the learning act.
4.22 COGNITIVE THEORIES

It is not possible to review and evaluate all the different points of views on learning. This section will start with only a short discussion on some of the traditional learning theories before concentrating on more recent views on learning. This study is concerned with the link between conceptions of language and of learning and attention will only be given to sections related to language and concept learning in these theories.

According to the behaviourists, learning takes place via classical and operant conditioning. Learning brings about a change in behaviour (Buss 1973; Morgan and King 1966, Lovell 1980 and Wickelgren 1977). As the learner responds to a stimulus a new learned behaviour is required. Buss (1973) and Gerdes (1988) suggest that the enduring of learning depends on the meaningfulness of the behaviour and how innate the response was.

Behaviourists believe that language is learned in the same manner. Consistent pairing of and associations with an object ensures that the learner will eventually learn the name of the object. During operant conditioning the learner associates the act (response) with the consequences. The more often a response is accomplished by satisfying consequences, the more often the response will be repeated and new behaviour is established. If an object or consequence, however, is inescapable, the learner learns to become helpless and passively awaits the outcome (Buss, 1973; Hunter, Steyn, Yach and Sipamla, 1991). Gagne's learning hierarchy (cited in Lovell, 1980) developed indirectly from this theory. Of interest here is that concept learning takes place in the area of intellectual skills.

The Stimulus-Response theory can unfortunately not account for all learned behaviour, nor does it take into account the uniqueness of learners, their ability to think and their desire to learn.

The Gestalt theorists believe that learning is a dynamic process which involves the human being in totality. It finally results in insightful learning which ensures retention of the information for a long period (Buss, 1973; Lovell, 1980 and van der Vyver, 1992). Learning occurs through productive or creative thinking. The learners prepare themselves first by exploring and defining their problem. A period of incubation starts where an unconscious (non-mindful) struggle takes place to reach possible solutions. Illumination occurs when solutions are
discovered to solve the problem. In order to select the most relevant solution to the problem, the different possibilities are investigated and verified until a final solution comes to the front.

Lovell (1980) maintains that the learner can only come to insightful learning if the main features of the problem can be linked to previously related experiences (Lanham, 1986 and Bruner, 1971). It therefore appears that not only the whole person but also everything that is brought into the learning situation will influence learning (Ball, 1988).

According to thought psychology, learning is an activity of abstract thinking. This activity takes place at three levels: the lowest level consists of perceptual thought, based on concrete observational experiences; during the second level the concrete material is transformed into schemes of thought for concept attainment. This leads to the highest level where non-perceptual or abstract thinking can take place. Problems can now be solved and new ideas are created. The lower levels may, however, be constantly used for support or verification of the abstract thinking.

This theory strengthens the research findings as discussed under 4.2 that indicate how the brain can be utilised for higher level functioning. The Psychopedagogical approach observes learning as lived experiences where the human being is intentionally busy forming relationships with things and others while in dialogue with the world. Language is perceived as a fundamental means for thinking. Memorisation is considered a temporary form of learning. Learning content becomes meaningful if placed within the learners' life world. The interaction with the learning content takes place via language in order to break through the world of things to create an abstract world (Van der Vyver, 1992).

In this approach the importance of language in learning comes to the fore. This approach also highlights the fact that the learner is actively taking part in learning, that the assistance needed from the adult becomes less and the learner gradually becomes more independent. The learner ought to become proactive in the learning activity.

The Cognitivists or Constructivists maintain learning is a cognitive process, involving the acquisition of new knowledge by transforming the existing knowledge and by checking its adequacy against the demands of the new situation. The learner's learning capacity can grow and become more effective if incoming information can be organised within frames of reference and models of reality.
The fact that the human being's learning capacity can expand is confirmed by both Kolata (1993) and Begley (1993) who wrote articles about new research findings on the functioning of the brain. It was noted that the brain triggers more energy when learning new complicated facts but after weeks of practice the brain will burn less energy because that which was learned has become automated or internalised. Intelligence could possibly be considered as a matter of neural efficiency (Begley, 1993) because the more effective the neural functions the higher the intelligence.

Learning also depends upon the substantive content of the learner's knowledge structure, namely an adequate base of concepts; experience and practice of cognitive processes; the quality of the organisation of the knowledge structure at a given time which involved the inter-relationship of concepts and contexts.

According to the Cognitivists the manifestation of learning occurs through:

- representational learning when the meanings of symbols are learned;
- propositional learning where the meaning of verbal sentences and the significance of communication is understood;
- concept learning takes place when information can be categorised, facts can be classified and relationships can be found among discrete facts.

Emphasis falls once again on the importance of language during learning and on the construction of meaning.

Although much can be said about some of these theories, the one aspect that is clearly illuminated in all of them, is that the learners themselves are active in their own learning activity (Ferreira and Dreckmeyr, 1993) and it could not become the responsibility of someone else. As this discussion progresses there arises the growing realisation that learning is a life-long process and activity and that it is of utmost importance that each learner should learn how to learn and keep on learning. The construction of knowledge and conceptual change is therefore pro-active and ongoing.
4.2.3 LEARNING TO LEARN AND IMPLICATIONS FOR TEACHING

That the educational institutions do not reach their main goal with the learners in becoming independent and to take responsibility for their own lives and learning is not to be disputed. The poor economic and unemployment situation, the high dropout rates at school and many underlying political currents are only some evidence thereof (Schoeman, 1991; Steyn and Van der Westhuizen, 1992; Perkins 1991 and Steyn and Viljoen, 1991). Wood (1990) so aptly states that what is being taught is not necessarily also being learned. It is one of the malpractices of education to assume a casual relationship between instruction and learning. Reasons for the unacceptable situation of pupils and even students at tertiary level who are not able or responsible enough to learn how to learn (Postma, 1991), are mostly laid, by politicians, at the feet of the state which is said not to provide the most needed facilities to enhance learning (NECC Reports, 1992; UNESCO cited in Ingram 1979, Steyn and Van der Westhuizen, 1993). The fact that many of the teachers, employed by the state, are not sufficiently educated to master teaching (Mwamwenda and Mwamwenda, 1992) may also contribute to this devastating situation (Behr, 1984). The culture of learning is assumed to be passive in these examples and the philosophy seems to be behaviouristic.

Despite Piaget's major contribution to cognitive theory and the foundation he laid for constructivism as theory of learning, his developmentalist partitioning of age related learning abilities has certain drawbacks. Wood (1990) and Bruner (cited in Wood, 1990) mention the existence of certain levels of competence knowledge and interest despite the age of the learner. These aspects are, however, often used as reasons for not teaching learners specific knowledge. Yet it was discovered that interest can be created through stimulation and creating conditions conducive to learning (Brown, 1992). The studies of teaching styles (Wood, 1990) illustrate that very young children can be taught and they do learn with understanding if instruction is linked with their level of competence at that moment.

Other factors that can also contribute to inadequate learning are poor environment and the learner's background. As indicated in this chapter under 4.2.1, new information is assimilated with the existing knowledge. Vygostky (1978) and Wood (1990) state that internalisation takes place when an external operation is internally reconstructed. The construction of mental models depends on existing knowledge and not so much on a developmental stage.
Therefore insufficient knowledge prohibits accommodation of new knowledge as well as the interpretation of the new information and often results in superficial learning or the formation of misconceptions (Wood, 1990; Chilver and Gould, 1982). Subsequently, if the teaching-learning environment mostly focuses on the imparting (Ingrin, 1979) or transmitting (Lochhead, 1977) of knowledge little learning takes place and the involvement and performance of the learner is minimal. Milton (cited in Ingram, 1979) and Human (1991) have observed that the focus in most instruction still is mostly on what the teacher does and not what the learner does. This has resulted in an active teacher and a passive learner- a learning culture prevalent in traditional black South African education.

Black South African education should rather be facilitating a learning environment (Ferreira and Dreckmeyr, 1993; and Steyn and Van der Westhuizen, 1993) while the learners should contribute by learning the imparted knowledge in a meaningful way. This might even lead beyond the limitations of the teachers own knowledge of the subject (Dreckmeyr, 1991-2).

The learners contribution to their learning also implies self-study. Vreken and Smith (1993) made an investigation of self-study during a science programme. In order to make learners accountable for their own integration of new information into their existing knowledge structure or even to change the existing structure to a more scientific only acceptable structure they suggest that a constructivist approach (Gould, 1992) should be taken.

The results of the above study proved that the experimental group that was guided in effective self-studying achieved better results than those students who did revision in the traditional way even though it was under the supervision of their teachers. These results may also indicate the inadequacy of the teachers to teach their pupils to learn. It also proved that when teachers are too dominant during the learning process, the learners tend to depend on the teachers instead of accepting responsibility for their own learning.

Another possible reason for poor learning results may be found in the teacher teaching. The inadequacy of the teachers to explain an event or fact (Wood, 1990); the limited language proficiency of the teacher (Webb, 1986; Young, 1986); inadequate and the poor use of teaching methods (Wood, 1990; Wilson, Robeck and Michael, 1969; Markham, 1977) are but some.

Often when teachers are found to be inadequate in explaining new knowledge to the learners they tend to make use of long meaningless explanations, making excessive demands on
the learners' linguistic understanding (Wood, 1990; and van Heerden, 1992) or they drill facts to ensure learning (Kilfoil and Van der Walt, 1991). The learners then resort to rote-learning and memorising the given information. Lanham (1986) also maintains that rote-learning may be the only way in which learners know how to remember content. Although these learners may have passed some examinations they may fail to succeed in learning when they enter a higher standard or reach college level. In these examples there is a clear common denominator - the absence of a clear constructivist culture of learning.

This might probably well be the reason why learners often seem to be able to perform perfectly well without understanding what they are learning (Lochhead, 1977). It is therefore of utmost importance that the teacher should not be confused between evidence for learning and learning per se (Phillips and Soltis, 1985). Graham (1977) describes many people's understanding of the words "teach" and "learn" as a considerable semantic confusion. Learning is often still regarded as a causal response to teaching.

The participation of both the teacher and the learners is crucial in the education activity. The important role of the teacher in providing efficient assistance to the learners in the learning situation is a joint effort in which both teacher and learners must participate in contributing their own input (Rogoff 1990; and Thirion and Fourie, 1993). The amount of input each contributes is of great importance for the less the teacher expects from the learners the less they will contribute to the learning task. The learners should receive the opportunity to accept greater responsibility for a next task after the successful accomplishment of the previous tasks (Du Toit, 1991:7; Van der Vyver, 1987 and Saddington, 1992). Trying to accomplish something alone, leads to the creative structuring of own reasoning and learning.

Teachers also have to be aware of the dangers of coaching, spoonfeeding and cramming if the higher cognitive abilities are not developed (Ferreira and Dreckmeyr, 1993), because it is important for learners to be gradually cultivated into developing the ability to learn independently already from their early school years in order to protect them from depending on memorisation and rote-learning.

The learner also has certain responsibilities as partner in the learning activity. Lochhead (1977) maintains that as learning is a process and skill to be practised in order to be mastered, the ineffective learning strategies which the learners possess also need to be unlearned. If not, they might fall back on the traditional way of rote learning. Human (1991) states that it might be
difficult to unteach and unlearn these objectionable habits (Brown, 1992). Although Piaget’s theory can be criticised from different angles, his work highlights the fact that self-activity and self-directed problem-solving are at the heart of learning (Wood, 1990). Therefore knowledge can neither be emitted nor absorbed but needs to be constructed and organised from within each learner (Lochhead, 1977) or be judged as irrelevant in order to discard it (Chilver and Gould, 1982).

The task to change the traditional concept of the teaching-learning situation, is complicated. Not only is there a change in the attitude of the teachers needed, but also in that of the learners. Wilson, Robeck and Michael (1969) define an attitude as an affective framework that predisposes an individual toward, against or away from actions, information and attitudinal objects. If something is compatible within a dimension of the framework, acceptance is facilitated and the learner’s reactions increase in intensity through the affective nature of the structure. The acceptance or rejection of any particular attitudinal pattern is not inherited, but learned as a result of environmental influences. An act, like learning, is interpreted in terms of a persons own attitude, therefore the attitudes reflected by the teacher and the pupils may differ.

The attitude of the teachers of today should change from that of authoritarians, instructors, impar ters and transmitters of knowledge (Bauer and Sapona, 1991; Milton, 1973 cited in Ingram 1979; Trow, 1992, and Strauss, 1993 (b)) to that of facilitators, guiders and co-learners (Brown, 1992; Van der Vyver, 1987; and Rogers, 1983). This may change the school as a place of teaching to a place of learning. Both Bruner (1971:104 and Herrick, (1971:109) argue that the accessibility to knowledge is minimised if for instance, the teacher’s attitude is that of being the sole provider of information to solve a problem adequately. Wilson, Robeck and Michael (1969) noted that the negative attitude of a teacher will cause a blockage in the learning process. Although the teacher or lecturer must reflect a guiding and encouraging attitude (Winhaar, 1981) learners ought to realise that sufficient and accountable learning is foremostly initiated (and executed) by the learners themselves. They also have an active share in their learning (Brown, 1992; Breda and MacDermott, 1992, Joubert, 1991; Postma, 1991 and van Heerden, 1992) and in becoming adults.

Rogers (1983:10) mentions that a person once said: “everyone is always learning something”. Yet, during an observation period he noticed students reflecting an attitude of: “just try to make me learn anything”.
Trueba (1989) maintains that the learners' resistance to learn should be viewed as their rejection of cultural values and academic demands placed on them. Culture provides motivation to achieve either success or even failure therefore it is essential to note the type of learners who are participating in the learning activity. If learners are reflecting a negative attitude when reading a text written in the L2, this attitude may reduce their motivation and the incentive to learn (Machet, 1991).

These attitudes must force any teacher to reflect on education to find out especially why these negative attitudes develop. It furthermore illuminates the realisation that the didactic situation needs to change. More consideration ought to be given to the learners in this partnership.

In this partnership it is the responsibility of the teacher to create opportunities where the learners can think and act independently in accordance with the newly established learning attitude (Wilson, Robeck and Michael, 1969; and Thirion and Fourie, 1993). After the ground for productive learning is cultivated, it becomes possible that the learning act can be executed by the learners themselves. Rogers (1983) even goes so far as to state that whether students learn or not it is entirely their own personal responsibility. Pro-active learning implies that the learner, who is confronted with a particular slice of reality, internalises that which is learned. Therefore nobody else, but the learners themselves can compare or link the new information with their own particular existing knowledge. Each person's own way of internalising the learning act becomes a personal activity and because of this personal involvement learners ought to be cognitively aware of their own behaviour, affection and experiences. Metacognition, a process of knowing, thinking and learning about cognition enables the learners to process knowledge about their own cognitive world (Stavast, 1991).

Metacognitive knowledge is comprised of personal variables, task variables and strategy variables which are always in interaction. The older and more experienced learners become, the greater control can be exercised over these experiences. Learners could decide by themselves on the amount of effort they are prepared to invest in a specific cognitive task (Stavast, 1991). The decision, therefore, lies with the learners on how hard they want to learn in order to succeed in their studies.

The question naturally arises that if it is possible to learn, how then can a person learn to learn.
Learning which is created from within the learner reflects conceptual thinking where ideas, understanding and the expansion of knowledge are explored in depth. Although learning is also a practical experience of reality it needs to be a logically and structurally approached and self-discipline must be applied (Human, 1991). Learners exhibit a strong desire to understand and they possess a great potential to make learning possible (Phillips and Soltés, 1985).

Learning, therefore, is an act from within as well as from outside the learner. This once more emphasises the fact that learners need to be personally involved in learning (Ingram, 1979; Graham, 1977; Postma, 1991; Drekmeyr, 1991-92; and Botha, 1992) which helps them to gradually acquire ownership of the new knowledge (Brown, 1992). The new knowledge which is internalised enriches the learners’ lives. By mastering the art of learning how to enrich their own lives, the learners will learn how to enrich the lives of others by imparting the acquired knowledge to others (Henning and Van Loggerenberg, 1992: 66). Therefore, language is an important partner in conceptual development.

Learners learn differently because of the difference in their personal involvement and their conceptions of learning. Van Drummelen (cited in Drekmeyr 1991-92) explains the different learning styles of different kinds of learners as follow:

- The creative or intuitive learners become personally involved during their observation of information on a concrete level out of different perspectives. This information is revised in a reflective manner to search for meaning from their own framework of experiences. They learn through interaction, listening and searching for an answer on why events happen.

- Intellectual learners observe in an abstract manner. They tend to reflect on concepts and ideas and analyse information received. They prefer to learn through investigation and the solving of problems in order to receive an answer on what is happening. Simpson (1977) states that the solving of a problem requires that the situation can be defined and understood. To become an expert in this, qualitative knowledge must be built up over the years.

- Abstract observations are actively processed by learners who are identified as implementers or doers. They would like to discover how things are related and how they can implement or apply the knowledge on their own.
The discoverers perceive in a concrete form reality around them. They enjoy being actively involved during the processing or improvising of the information even if their actions seem irrational. They are, for instance interested to know what the results may be if a specific event occurs.

To be able to express their thoughts and that which are learned, learners need to have language as co-partner in cognition to their disposal. Language plays an important role in learning (Wood, 1990 and Halliday, 1975) for learning can be hampered and knowledge impeded if learners find it difficult to communicate especially if the L2 is the medium of instruction and learning. Contemporary models of learning as socio-constructivist activity includes the work of Brown (1992) who advocates the metaphor a "community of learners" and who suggests cognitive apprenticeship during co-operative learning.

Examining the learning style preferences as expounded by Van Drummelen, (Dreckmeyr, 1991-92) it seems as if learners have at their disposal a refreshing and natural desire to learn. Learning, it seems, is granted for all who want to learn. L2 learners must also learn to learn, but before they can learn how to learn effectively, they need to learn how to learn the L2.

4.3 LINGUISTIC ASPECTS OF CONCEPTUAL CHANGE

It is through language that the human being creates a dialogue with the world. Lanham (1986), Wood (1990) and du Toit (1991:42) are of the opinion that language organises the learner's world and also initiates participation. Vygotsky (1978), Bruner (1981) and Wood (1990) maintain that information is processed during verbal interaction, through the medium of language and therefore understanding is achieved and learning can take place.

4.3.1 POSSIBLE REASONS FOR POOR LANGUAGE AND LEARNING

Both Lanham (1986) and Wood (1990) indicate that different languages provide conceptual frames or world views and attitudes from which the learners can experience the world and they provide ways in which learners can think about observed events. Different cultures with different languages expose their children to different learning experiences which affect their cognitive development and produce different cognitive states (Rogoff, 1990; and Whorf, 1975). When learners come into contact with a culture that differs considerably from their own,
misconceptions may result (Webb, 1986; Mawasha, 1986 and Mawasha, 1991) as concepts are not adequately grasped against the background of existing concept labels and nomological networks.

Linguistic deprivation may influence the learner's performance. The acquisition of grammar might still be incomplete when the learner is confronted with formal learning at school (Mac Donald, 1991). To be able to cope with the many tasks which they must complete in formal learning situations, learners have to learn how to speak (Wood, 1990) and to articulate their existing preconceptions. Wood (1990), nevertheless, emphasises that receptive language ability, namely the ability to listen and understand, precedes the development of speech or the productive language. The duration of this time is, however, not specified.

In chapter three reference was made to how restricted codes and extended codes are used during speech. The socio-economic background of a speaker has an influence upon the preference shown for one of these codes. Studies have shown that working-class children tend to experience and learn to use a more restricted code (Wood, 1990) which may restrict their ability to express their thoughts verbally and with understanding. Oversimplified speech can retard young children's speech development, while more complex adult speech results in an appropriate response without difficulty (Campbell and Wales, 1975 and Wickelgren, 1977). This is a clear indication that language learning is a natural event. Competence in language, provides a sense of security and confidence in the learning situation, because a competent user can produce newly created sentences with ease while the competent listener can understand what is said. Although all speakers alter their language when they move from a casual interaction to a more formal interaction with other people, the incompetent language user has to make a significant adjustment (Wood, 1990).

Language is not only learned orally but also through the written word. Studies have shown that language is also learned by reading (Kilfoil and Van der Walt, 1991; Lanham, 1986; Peck and Connell, 1991 and Bouwer, 1992) but that the learners limited background knowledge and deficiency in language result in inadequate comprehension of the text (Calitz, 1993; Perkins, 1991). Little or no meaningful relationship can be drawn between the new knowledge and the limited existing knowledge (Alant, 1991). However, both the Piagetians and Chomskians (Wood, 1990) are of the opinion that neither a particular dialect nor language spoken can be considered as the primary reason for communication and learning problems.
Language learning also occurs via the teacher. The ability of the teacher to use language may influence the learners’ ability to learn. It is through the medium of language that the teacher has to communicate the subject matter to the learners (Griessel, Louw and Swart 1986). If the teacher experiences difficulty in explaining the learning content clearly (Alant, 1991 and Peck and Connell, 1991) learners may react upon learning in a negative way. Du Plessis (1991:67) even goes so far as to state that if the communication between teacher and students is ineffective there is no question about teaching and learning.

Wood (1990) mentions that neither teaching and learning nor the stages of cognitive development can account for language acquisition since language is inherent (Chomsky cited in Van der Walt, 1992); On the other hand, Morgan and King (1966) argue that once the speech mechanism can be controlled because of the speaker’s maturation, further progress depends greatly upon learning.

By implying that the home, social-economic situation or the teacher is responsible for the learner’s learning (and language learning) problems, could probably be a reason why mature learners often refrain from accepting responsibility for their own contribution (Gould, 1992) in learning the L2.

4.3.2 LINGUISTIC DEVELOPMENT

Chomsky (cited in Wood, 1990 and in Campbell and Wales, 1975; Wickelgren, 1977 and van der Walt, 1992) attests that language is neither learned nor reinforced (Zints, 1981) but that the human being is innately equipped to structure language naturally.

Morgan and King (1966) support the idea that language must be learned since it is not inherited through genes or acquired by mere maturation.

Campbell and Wales (1975) foresee that both innate predispositions and interaction with the communicative environment influence the learning or acquisition of language.

4.3.2.1 L1 learning

There are different views on how children acquire or learn a language.
All children acquire, at an early age (Morgan and King, 1966 and Calitz, 1993) the spoken language that they hear around them. If they are surrounded by more than one language they may acquire several languages with equal facility (Buss, 1973). Frequent exposure to language is an essential condition for learning language and because of the language acquisition device (LAD), which is innate, the speaker is able to form hypotheses regarding language structures unconsciously (Leshinsky, 1983). Stem (cited in Leshinsky, 1983) maintains that LAD does not function during L2 learning. In Chomsky’s model of L2 learning (Henning, 1991) the suggestion is that the LAD may serve the learning of the L2 indirectly.

Adults set different standards for language learning. Wood (1990) maintains that adults seldom correct children’s errors but that they frequently resort to self-correction. This correction of errors gradually develops a higher level of proficiency from which arises the adult language (Leshinsky, 1983 and Campbell and Wales, 1975). Rogoff (1990) and Zints (1981) discovered that adults support children. However, during the early stages of language learning they make use of redundant verbal and non-verbal information to ensure understanding.

Interesting studies done mostly amongst black people (Rogoff, 1990) have shown that many parents are of the opinion that children just “gotta learn and gotta know”. This takes place mostly through observation, participation and listening. Although many of these learners may not be well equipped for school discourse, they do eventually become proficient in L1 usage.

To be able to become proficient in a language, Chanot and O Malley (1992), identify three stages of gradual language acquisition:

- a cognitive stage, where learning is conscious and deliberate;
- An associative stage, again consciously executed where errors diminishes;
- The autonomous stage performs actions fluently and rules become habits.

Whether language is an innate ability or acquired through learning it was found that some learners reveal an ability to acquire language rules more readily than others while the ability to learn a L2 demands motivation and the realisation of fulfilling a need (Brinton, Sasser and Winningham, 1992).
4.3.2.2 Learning the L2

In order to learn an L2 the L1 must be firmly established (Webb, 1986; MacDonald, 1991; Morgan and King, 1966; Cummins, 1992; Mawasha, 1992 and Calitz, 1993) since the L1 vocabulary serves as a stimulus for the new language (Morgan and King, 1966 and Calitz, 1993). Morgan and King (1966) are also of the opinion that linguistic skills must be acquired early in life since proficiency is seldom achieved when the learner is much older. They maintain that the learner may become confused when learning a L2 before the L1 is established and language skills may become retarded.

Buss (1973), on the other hand, maintains that a young learner may acquire several languages with equal facility if surrounded by more than one language. Rogers (1983) and Kilfoil and Van der Walt (1991) have noticed that where learners are daily actively present in an environment where the target language is used, their L2 learning becomes a learning from within caused by the meaningful encounter (Leshinsky, 1983). Through encounter learning the L2 proceeds at an exceedingly rapid rate, since L2 learning is an active occurrence. If, however, learning entails the mere learning of grammatical rules, learning is slowed, for "learning has to be an adventure, otherwise it is stillborn" (Buchmann and Floden 1992 citing Canetti.). Brinton, Strassen and Winningham (1992) also dispute the idea that the L1 must first be internalised by denoting that L2 acquisition is relatively independent from the L1 though it may be influenced by the L1.

Webb (1986) purports that the problem with learning an L2 does not necessary lie with whether the L1 is well established or not. The L2 problems black students encounter lie within their learning circumstances since many enter school with little or no L2 experience (MacDonald, 1991, Zints, 1981, Mawasha, 1986; Mawasha, 1992 and Mogadine, 1991) and then too much meaningless repetition is used to drill the learning of the L2. Zints (1981) contends that drilling, coupled with meaningful and interesting practices of sentence patterns, will lead to habit formation. Damasio and Damasio (1992) and others (Begley, 1993 and Van der Walt, 1992) acknowledge that certain rules and language structures do become habit.

As was mentioned in this chapter in paragraph 4.2 learners must at one time or another start to take responsibility for their own learning which implies language learning as well. Language learning can also occur through reading. Kilfoil and van der Walt (1991) denote that the L2 may be easily learned if the learners come from a well-developed written literacy.
background and if the L1 and L2 reflect similarities. The majority of the black population in South African, however, do not display an appropriate reading culture (Webb, 1986; Young, 1986 and Ubahakwe, 1977).

The learning of a language through reading does not occur spontaneously but rather in a formal manner. As learners grow older and they have learned the language through hearing and speaking, they are taught reading and writing skills. The learning of the language skills are usually taught in this specific order (Zints, 1981). The reading skill is accomplished through reading (Weidler, 1989 and Wood, 1990), hence learners are accountable for their own reading ability. Reading English literature could especially keep those learners, who do not regularly hear ESL outside the school, in contact with the language. When it comes to studying the ESL literature personal investment is required in learning and it calls on cognitive as well as affective activities to extract meaning from the written word (Kilfoil and Van der Walt, 1991; Small and Small, 1993; Mawasha, 1986 and Evans, 1992). This could probably be why Buchmann and Floden (1992) indicate that learning unfolds in slow motion, when "visitations of the past" is relived and combined with imagination. This way the learning content becomes a systematic whole.

It is also found that the more learners are exposed to reading material, the better will be their ability to write. Reading leads to the stimulation of creative and interactive writing. Writing again teaches the learner to structure thoughts. Learners who apply self-correction in modifying their own writing usually write more intelligibly than those who do not evaluate their writing. They also reflect a greater responsibility to make themselves understood.

Sufficient opportunities to practice both the receptive skills, listening and reading as well as the productive skills, writing and speaking, will develop the functional use of the L2. The L2 will be internalised and the learner will become proficient (Cazden, 1985; Kilfoil and Van der Walt, 1991 and Joubert, 1991).

Internalising the L2 is not always easy. Rural pupils and students mostly learn the L2 by receiving an input from the teacher through drilling without being expected to provide a meaningful output. Cummins (1992) and Kilfoil and Van der Walt (1991) suggest that more opportunities ought to be created where the learners could comprehend more language knowledge by processing comprehensible linguistic input and negotiate meaning.
The L2, therefore, ought to be learned through a regular two-way communication. Joubert (1991) quotes Hunt, Scott and McGroskey (1988) who all maintain that communication, effectively applied, is considered as the single most important prerequisite to effective learning. If both the teacher and the learners could give inputs and outputs it will eliminate the passive intake from the learners (Matsepi-Casaburri, 1992; Kilfoil and V.d. Walt, 1991; Webb, 1986 and Young, 1986).

It is unfortunate that many black learners find themselves exposed to the English language as their learning language in which they feel inadequate to communicate as they are not in full command of the L2 (Luis, 1992). Their linguistic inadequacy is often exposed when they repeat the same words which were used in a question (Wood, 1990). De Lange (1992) conceives these inadequacies as a learning problem arising from the insufficient support the L2 learners received from their milieu and from their teachers who also lack proficiency in ESL.

The literature review in chapter three has illuminated the importance of LAC in enabling the learners to become sufficiently proficient in their L2 usage. Snow, Met and Genesee (1992) suggest that language ought to be taught through subject matter learning or LAC to LEP learners. Luis (1992) mentions that when reading becomes fluent, sentence constructions are correct and subject terminology can be conceptualised, then only can L2 be considered as mastered. Unfortunately most black students still encounter difficulties in these areas.

4.4 LEARNING CONCEPTS

Effective language learning does not control concept formation (Klausmeier, 1992) but may contribute to the learning of concepts since the learning of concepts are facilitated by instruction received and the instruction takes place through the medium of language.

Wickelgren (1977) identifies words as high-level structured nodes and concepts as basic-level semantic nodes. Concepts are coded in the semantic memory. Concept learning develops from concrete and identity levels to classification and formal levels as learners become capable of carrying out the various mental processes (Klausmeier, 1992). Concrete concepts are mostly acquired before the more abstract concepts (Wickelgren, 1977). Klausmeier (1992) argues that learners often stop at the classification level or form misconceptions, never to reach the formal level.
To ensure the elimination of misconceptions, concepts can be explained by using drawings or pictures that may represent the concept, or the verbal explanation of the expert must give a clear description to ensure that the learner will comprehend the meaning. Wickelgren (1977) points out that young learners often contribute different meanings to a concept that adults may have. This might influence the adults concept of the learners ability to conceptualise. Concepts, or words that represent concepts, are formed through the meaning attached to these words and the individual's mental construct of the information which has been classified and constructed (Osser, 1975 and du Toit, 1991). This mental activity facilitates understanding of the attributes given to the perceptible or non-perceptible, which is also coloured with a societable meaning of reality. Concept formation is achieved when the given information can be processed, defined and correctly used. To accomplish this genuine understanding is essential. During concept learning it is often necessary to associate examples to a given concept representative and to negate similar non examples (Klausmeier, 1992, Wickelgren, 1977 and Osser, 1975). This will also contribute to better understanding of the concept.

Language plays an important role during conceptualisation, since concepts must be clearly explained. A field study, mentioned by Henning and Van Loggerenberg (1992) shows that L2 speakers can not survive pedagogically if they lack CALP. The academic learning environment demands a certain level of language proficiency from the learner for effective academic conversation, reading and writing. They also mention that the L1 should be used alongside ESL to support conceptual development and the conveyance of its semantic value. Formal learning opportunities should be designed to enhance language and concept learning in tandem. Learners who must depend on limited informal experiences and insufficient formal education may experience difficulty in forming concepts (Klausmeier, 1992 and Wickelgren, 1977) which are presented in most formal curricula. Opportunities to encounter these concepts are limited in the case of educationally and socially deprived PRESET students. These students often remain dependent on formal stimuli and support.

To gain independence in concept learning, the learners must receive ample opportunities where they are permitted to think their way through to greater understanding (Rogers, 1975 and Botha, 1992) or to practice regularly and to take responsibility in implementing learning strategies (Klausmeier, 1992). To aid the learners in gaining independence in concept learning, metacognitive strategies should be included (Klausmeier, 1992 and Stavast, 1991).

The following example will illustrate this point.
Zeitown (1987) assessed pre-service biology teachers competencies in identifying students misconceptions about a topic or concepts. The study's findings were that PRESET institutions should develop training programmes that would increase pre-service teachers competencies in diagnosing and correcting misconceptions. This type of programme would include the inculcation of a metacognitive attitude in which self-awareness would be primary.

PRESET students' LEP and lack of CALP need to be addressed in order to address the issue of limited conceptual learning.

4.5 LANGUAGE AND LEARNING IN PRESET CONTEXT: A SUMMARY

In this section reference will be made to a number of studies related to learning for teachers. The emphasis is on the way in which education students learn, the assumption being that they will teach in tandem with their own learning style.

To be able to guide the young learners in their school learning experiences and learn and to think independently, Griswold (1989) explains that it is important for the pre-service student-teachers to understand their own learning before they can be able to understand and apply the correct principles. Sowder (1991) maintains that it is also important to obtain detailed knowledge about children's thinking and problem-solving, since it may profoundly affect their knowledge of their pupils and their lesson planning.

That the students don't always realise that they experience difficulty in cognitive activities are reflected in the disturbing failure rate amongst first year tertiary students. The high failure rate is an indication of the gap that exists between schools, where learning of content is emphasised, and the college or university where it is expected from students to reveal independent critical thinking when constructing and applying their knowledge. Acceptance of responsibility of their own learning may help the learners to become acquainted with and secure in learning on their own and to provide sufficient bridging from school to tertiary institution. (Fourie, 1991 and Ferreira and Dreckmeier, 1993).

Woolfolk (1988) states that it is what and how pre-service students learn that is of importance and not when. It may just help to realise that adult learners pursue learning for the sake of learning or to gain a specific objective and their self-perception as learners may well be a barrier to their learning (Lovacchini, Hall and Hengstler, 1985).
Research done by Weidler (1989) suggests that pre-service teachers who have organised knowledge structures are able to respond to instructional situations more effectively than those who do not. Co-operative learning also provides students with the opportunity to learn (Taylor, 1991).

Although Nattiv, Winitzky and Drickey (1991) might find difficulty in their belief that pre-service students do not need extrinsic reward since they maintain that students are motivated to learn, their research on the use of co-operative learning amongst pre-service students has highlighted aspects which could be of importance to education. Their study shows that this method encourages student participation, individual accountability, and the assuming of greater responsibility for their own learning. Students also tend to learn the material more effectively and therefore retain it longer. If lecturers want the future teachers to learn the strategies of co-operative learning, they must demonstrate its use in their classrooms (Bauer and Sapona, 1991 and Winitzky and Arends, 1991).

Curiosity as motivation for learning could be kept alive if students can experience learning as exiting. Siebogcr and Kenyon (1992) maintain it is possible to attain this type of motivation through critical reflection on practice teaching. By being positive learning role models they may instil in their students the realisation that they are responsible and accountable for their own learning actions and to construct meaningful concepts. However, these PRESET teachers need to articulate and reflect upon their conceptions of learning in order to experience disequilibrium about it. McCullough and Mintz (1992) refer to learners who, after a number of successful years of schooling, bring with them into the pre-service experience their own conceptions of learning which will still influence their learning.

Many of these learners arrive at a PRESET institution with limitations in background and conceptual knowledge (Mawasha, 1991, Webb, 1986 and Young, 1986). When entering college pre-service student-teachers ought to take a constructivist epistemological position (Rowell, Pope and Sherman, 1992). They must for instance not only learn about learning theories but these theories can have practical value as well, if they learn to think with the theory rather than about it (Henning 1993). This might well help them to internalise the concepts. Practical examples and implementation of conceptual pedagogic content knowledge will support the transformation to procedural knowledge which as argued by Strauss (1993) has a different epistemological base.
Studies concerned with concept learning abound. Friedler and others (1985) believe the difficulties learners experience in understanding certain concepts they encounter in the different subject domains may well be among the reasons for difficulties in understanding more abstract concepts and their relationships. The basic concepts are often internalized as misconceptions. Students are in addition also inclined to use textbook definitions without fully understanding the concepts. Other studies (Jurgwirth, 1986 and Parker, 1987) on concept learning from a constructivist viewpoint, focus on language as mediatory component of understanding.

Studies on the difficulty in understanding mathematical concepts (Simon and Blume, 1992 and Peck and Connell, 1991) showed that linguistic abstraction inhibits understanding. Suggestions were made for the development of mathematization throughout the mathematic curriculum, and that pre-service students ought to have clear conceptions of what mathematics is. The study of Smith and Smith (1991) reveal the interesting fact that it is not concrete visuals but abstract visuals that tend to increase retention. PRESET students seem to have to master the language and the concepts of both pedagogy and subject domains and in addition learn effectively how to learn. The rural black student clearly needs substantial support.

4.6 THEORETICAL FRAMEWORK AGAINST THE BACKGROUND OF THE REVIEW OF THEORY

From the literature review specific concepts of language and learning were illuminated. These are summarised as final component of the theory framework.

4.6.1 CONCEPTS OF LANGUAGE

Language is perceived by most of the researchers as:

- innate
- a component of cognitive style;
- learning or extending the range of meaning potential;
- acting and interacting;
- to socialise;
- to communicate and share experiences;
to convey or transmit: information or knowledge,
- emotions
- culture
- meanings or concepts.

4.6.2 CONCEPTS OF LEARNING

Learning is perceived as:

- a cognitive ability,
- a learned activity,
- an own activity,
- an own responsibility.

4.6.3 THEORY AND PRACTICE

This investigation shows that most recent studies have indicated that there is a relationship between language and learning. The exact character of this relationship is not known. The Damasio and Damasio (1992) study in which the semantic negotiating and mediating role of language is described is regarded as profound knowledge for teacher educators.

Studies have shown that where learners must make use of a L2 as medium of instruction and learning, learning may be experienced as difficult, and learners tend to depend on the expertise of the teacher for their learning success.

Language is considered necessary not only for negotiating but also for verbalising a concept. The labelling of a concept is a linguistic cognitive activity. Concepts are often mislabeled not only because of lack of prior knowledge but also because of poor language.

Very little research has been done on language and learning of education students in rural areas. Research often refers to the fact that learners in these areas may experience more learning problems because they seldom come in contact with speakers of the target language or with the technology that could have contributed to the improvement of their ESL, as is the case with their counterparts in urban areas. The fact that black learners must both adapt to ESL as
medium of learning and to academic demands, which include learning across the curriculum, compounds the problem of concept formation. They may form a different concept or even a misconception of the concept learning, due not only to the alternative conception itself, but also because of the lack of a label for the concept.

Studies have also shown that political unrest and the rejection of a language as instruction medium can influence education dramatically. As the PRESET institution selected for this study is set in a rural area which is highly politicized, and where students must make use of ESL as their leaning language, the vastness of the problem in this study may be appreciated.

4.7 SUMMARY

The previous two chapters, including this chapter, conclude the literature reviewing perspectives on the research question from various angles. Language learning proved to be difficult when L2 becomes the medium of instruction before the L1 is firmly structured and if it is mostly applied in a formal setting where little contact is made socially. Concept learning mostly occurs on the first and second levels of consciousness and seldom develops into abstraction and internalisation because of LEP and a lack of CALP which results in limited linguistic backup for conceptual development and labelling. That these aspects need redress is crucial for the improvement of future education in rural areas.

These findings from the literature study validate the construct for the fieldstudy, namely the character of education students' conceptions of two vital concepts in education - language and learning.
CHAPTER FIVE

INTERPRETATIVE RESEARCH IN EDUCATIONAL CONTEXT: A FUNCTIONAL AND PRAGMATIC APPROACH TO THE DESIGN OF THIS STUDY

5.1 INTRODUCTION

The aim of this chapter is to discuss the main tenets of the qualitative research paradigm. Subsequent to that, typical designs will be referred to with emphasis on the case study format. A number of methods used in qualitative research will then be explained, focusing on discourse analysis, participatory observation and document analysis. Procedures of data collection, data analysis and data interpretation will also be described. Important research notions such as validity, reliability and generalizability will also be discussed as they are exemplified within the paradigm. The role of qualitative research as problem identification investigation strategy in educational research will be discussed in this framework, indicating the need for scientifically grounded hypotheses.

5.2 TENETS OF QUALITATIVE RESEARCH

Researchers in the social and behavioural sciences have employed qualitative research and presently other practitioners, especially in the educational field, make extensive use of this methodology because this research can be conducted by a team or an individual in natural setting. "Slumbering variables" or unexpected phenomena can be encountered in the research (Yin, 1985; Henning, 1993; Strauss and Corbin, 1991; and Firestone, 1993).

The main tenets of this paradigm, which distinguishes it from quantitative research are:

- the researcher is an instrument and declares his/her assumptions and presuppositions,

- contextualization of research activities in naturalistic settings,

- focus on the emic perspective,

- collection of verbal and iconic data which are processed qualitatively

- idiographically oriented research which implies depth and "verstehen"
the ontology of qualitative research does not distinguish sharply between subject and object

the epistemology of qualitative research is based on constructivistic principles

the methodology of qualitative research is compatible with post modernism and feminism as philosophies

5.2.1 COMPONENTS AND PROCEDURES OF QUALITATIVE RESEARCH

The components of qualitative research consist of:

- data collection which mostly comes from interviews, observation and document studies

- data analysis - coding techniques that are implemented to organise and conceptualise the data, consisting of different analytical or interpretative procedures. Analytic procedures also include non-statistical sampling, the writing of memos or diagramming of conceptual relationships;

- data interpretation, a phase during which the consolidated and analysed data are argued as findings

- verbal or written reports presented as overviews or in-depth discussions. (Strauss and Corbin, 1991).

The subjective experience of the researcher is also considered as an important source of data and of analysis as well as interpretation (Wagner, 1993).

The aim of qualitative research is to provide an in-depth account of the phenomenon via data collection by diverse naturalistic methods. The data are produced in natural language and the detail can be structured in dendograms or other devices (Miles and Huberman, 1988). The data collected and presented should provide an emic view of the phenomenon. They serve as evidence to construct findings, analysed and interpreted against the background of the main construct. The findings are not arrived at by statistical procedures but are inductively
constructed from empirical evidence which is generally contained in verbal and iconic information.

Subsequent to collection of data, reduction is often necessary as all the gathered data may be overwhelming or some even deemed irrelevant. The process of reduction is also a process of categorisation. Wolcott (1990) maintains that it is not so much the collecting of information that creates a problem in qualitative research as it is to reduce or shrink it to manageable quantities. It is only necessary to communicate the essence of the phenomenon being studied because it is not always possible to present all the accumulated data in a research study. This process of reduction continues throughout analysis (Miles and Huberman, 1988). Reducing and ordering of data imply selection and interpretation to present a more detailed utilisation of reality. Interpretations reflect various degrees of abstraction and are not all theoretical in nature.

Detailed analysis and presentation of the findings in accurate descriptions are conventions of qualitative research. A "thick description" (Geertz, 1973; Henning, 1993(e) and Yin, 1985) accommodates the emergence of patterns of qualitative traditions such as ethnography. The epistemology of qualitative research states that there are "other ways of knowing" (Watson - Gegeo, 1991) and that the emic perspective in the natural context of the phenomenon needs to be investigated.

5.2.2 THE NATURE OF THE RESEARCH PROBLEM

The nature of research problems in education often lends itself to qualitative research. The methods most applicable to the nature of the research area need to be indicated, which implies that the research must make a selection from the methods of design (Pitout, 1991).

5.2.2.1 Combination of methods

Sometimes the nature of the research problem demands a combination of qualitative and quantitative methods (Henning, 1993(e); Miles and Huberman, 1988; Strauss and Corbin, 1991). It is possible to use in the same research project a combination of qualitatively and quantitatively obtained data where the quantitative data partially validates the qualitative analysis and vice-versa. This combination method will supply the researcher with more comprehensive information and, by cross-checking will create greater scientific reliability (Landman, 1992).
5.2.2.2 Triangulation

Triangulation of data from different sources and via different methods, makes it possible to enhance the validity of data and its interpretation. Combinational research becomes trustworthy through triangulation. Landman (1992) calls it a multi-variant methodological approach while Pitout (1991) postulates that it gives the research program a triadic structure. Research needs to be valid, and in the qualitative paradigm internal reliability is obtained, among other procedures, by triangulating.

5.2.2.3 Validity

Validity must be checked throughout the entire research process. Henning (1993 (c) : 3) sees it more as a "hard" than a "soft" opinion in qualitative research as it has to be scaffolded into every qualitative research act. Most authors on qualitative research suggest ways in which to enhance validity.

The initial validity of the construct, obtained both from theoretical and pilot empirical evidence, remains the foundation for validity of data content and the argument around the findings. If a research project is to be based on sound scientific principles it should not only reflect reliability and validity but it needs to be generalizable too.

5.2.2.4 Generalizability

Findings are considered generalizable if the findings, derived from one event or under a certain condition, are assumed to be applicable in another event or under another condition (Firestone, 1993). According to Stake (1988) there is a possibility of generalizability across both people and situations. However, the single case findings can be transferred mostly to theory or similar cases (Firestone, 1993).

5.3 GENERATING A GROUNDED THEORY

Qualitative research has become sine quonon with grounded theory (Glaser and Strauss, 1967 and Strauss and Corbin, 1991). The main principle of the construction of
grounded theory is the fact that the information is grouped according to the semantic categories determined by the information, and not by existing conceptual frameworks.

5.3.1 PROCEDURES OF OPEN CODING

According to Strauss and Corbin (1991) the procedures that are followed to ensure this profound groundedness involve:

- labelling of the phenomenon or conceptualising the data;
- categorising which is the grouping of the concepts;
- naming categories by borrowing existing concepts or by creating own concepts (the researchers initial main function);
- developing categories by moving from a horizontal level to a vertical level in:
- selecting properties that will also have subproperties. Each property will reflect:
  - dimensions where the property can be located along a continuum.

These properties and dimensions form the basis for making relationships between categories and subcategories and constitute what is also known as nomological networks.

Each category may consist of several general properties and each property reflects variation over a dimensional continuum. A separate dimensional profile is created each time a category occurs. Several of these profiles can be grouped to form a pattern. Under a given set of conditions, the dimensional profile represents the specific properties of a phenomenon. Which ever way open coding is approached it should include the above procedures.

5.3.2 THE APPROACH TO OPEN CODING

The ways of approaching open-coding can vary. Analysis may consist of:
- line-by-line coding where even single words may be closely examined. This analysis is very detailed and generative and the researcher may lose sight of contextuality and focus on frequency more than on meaning in the gestalt;

- sentence or paragraph coding, concentrating on the main idea brought forward in the transcription of the interview or document. The idea is named and the researcher then goes back and analyses the concept in more detail. This involves coding around several known categories;

- the entire document or interview is analysed by trying to discover what it is all about and if it differs in some way from the previous one that was coded. The researcher will once again return to the data for specific analysis checking similarities or differences that showed up. After analysing the data the findings need to be recorded.

5.3.3 THE RECORDING OF THE FINDINGS

The information that became illuminated in the analysis needs to be recorded.

The recording of coded notes is very important in a qualitative study. This happens through memos and diagrams.

5.3.3.1 Memoing

Memos are the written records of analysis relating to theory formulation through abstract thinking, while diagrams represent the relationships between concepts in a visual form (Strauss and Corbin, 1991; Miles and Huberman, 1988) Both are forms of communication that evolve.

As the research and coding progress, they grow conceptually in accuracy, clarity, complexity and density. Memoing and diagramming continue throughout the research project and a theoretical data base is accumulated, grounded in empirical reality, yet creating analytical distance between the investigator and the materials.
5.3.3.2 Linking the findings

During axial coding (Strauss and Corbin, 1991) relationships between a category and its subcategories are suggested and verified in terms of the paradigm. Linking takes place which will give evidence of how successful the connections were. To sort out the various relationships it may be useful to develop initial logic diagrams, while integrative diagrams may be used in axial coding to uncover potential relationships between the category and its subcategories. These findings need to be clearly formulated and explained to ensure understanding when validity and generalizability are checked. Miles and Huberman (1988) propose a variety of procedures for linking.

5.3.3.3 Formulating the analysed data

Selective coding (Strauss and Corbin, 1991) denotes final analysis. The data that were collected, analysed and visually presented in a diagram need to be refined and formulated into a concise and precise written theory. The researcher is conscious of logic and order (Johnson, 1990) in the study up until now, but a final sorting is necessary to finalise the integration of evidence (Strauss and Corbin, 1991). The sorting enables the investigator to know which information needs further clarification and to write about the research question in detail as well as about the integrated whole.

The research findings may be verbally presented during a congress to listeners but also published for the benefit of others and therefore the analytic materials need to be clearly and effectively translated with a specific audience in mind (Strauss and Corbin, 1991; Wolcott, 1990 and Stake, 1988).

5.3.3.4 The generating of theory

The generating of theory involves a clear explanation of reality and the providing of a framework for action by the interpreted data. To interpret data qualitatively, different types of qualitative research formats can be selected of which ethnography, the phenomenological approach and the grounded theory approach are some. Interpretation is once more, like construct
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The generating of theory involves a clear explanation of reality and the providing of a framework for action by the interpreted data. To interpret data qualitatively, different types of qualitative research formats can be selected of which ethnography, the phenomenological approach and the grounded theory approach are some. Interpretation is once more, like construct validation, based on both theoretical and empirical evidence and the logical argument around such evidence. Building a theory that is grounded is an inductive activity.

A grounded theory is well constructed when it reveals the reality of the investigated area abstractly and meets the criteria of generality (Strauss and Corbin, 1991). Data need to be
comprehensive interpretations that are conceptual, broad and it should include flexibility with sufficient variation to apply to a variety of related contexts. The reality under observation and investigation, which gives the research a naturalistic nature, must be theoretically formulated as well.

The grounded theory approach, briefly referred to in chapter one, is a scientific qualitative research method where a systematic set of procedures are used to develop an inductively derived grounded theory about a specific phenomenon in a research strategy, as in a single case study.

5.4 DESIGNING A CASE STUDY AS RESEARCH FORMAT

There are different research formats, namely surveys, experiments, histories, archivals, ethnographies and case studies among others. Each of these formats involves different and similar ways of collecting and analysing data but for the purpose of this study attention is only given to the case study as format in an exploratory and descriptive design (which in turn is placed in the paradigm of functional, contextualised pragmatic research).

Among the different formats there may be large areas of overlap. Each of these formats can reflect exploratory, descriptive and/or explanatory characteristics. Investigation should start with a general analytic strategy in providing priorities for what to analyse and why. Within each format three dominant data analysis techniques could also be used, namely, pattern matching, explanation-building and time-series analysis. Any other technique ought to be used in conjunction with these techniques. The dominant data collection methods are, as in most qualitative research, observation, interviews and documents.

In qualitative research where the researcher has little or no control over events and focuses on a contemporary phenomenon within real-life context (Shulman, 1988 and Yin, 1985) a case study can be implemented. If the study is extensive, giving a thick description of a culture, the study would be in ethnographic format.

5.4.1 ANALYSIS OF THE CONCEPT "CASE STUDY"

There are different research formats as indicated under 5.4 of which the case study is one. Since this research study involves a single case study it is deemed relevant to analyse this research format in more detail.
A case study can be defined as investigation of a "bounded system" (Stake, 1988), indicating boundaries which emphasise the unity or totality of the system. This unity depends partly on what the investigator considers as relevant to the research problem at a given time (Stake, 1988, Shulman, 1988). It is also the choice of topic which distinguishes a case study from an ethnography. A case study as a non-laboratory social science methodology (Campbell, referred to by Yin, 1985) is a naturalistic study of a specific phenomenon in one setting. A contemporary phenomenon is often investigated as it is revealed in reality with no clearly evident boundaries between the phenomenon and context. This investigation then becomes an empirical inquiry in which multiple sources of evidence are used to understand the research problem.

To ensure that the evidence collected will address the research problem, consideration should be given to what questions to study; what data to consider as relevant to collect; and how to analyse the results of the data (Yin, 1985).

5.4.1.1 The question in the case study

Concerning the questions, it is the researcher's main task to clarify precisely the nature of the research question. The construct should be depicted clearly. Though the substance of the questions may vary, the form of question, namely, what, why, where, or how, will provide an important clue regarding the most relevant research format to be used. It may become clear to the investigator if a single- or multiple-case study is appropriate to research a problem. Multiple case studies are generally conducted when comparisons are anticipated. The validity of the construct in the question is established by sufficient theoretical evidence as well as a-priori empirically argued evidence from pilot investigations or experience.

5.4.1.2 Collecting data in the case study

The different procedures for selecting data will be discussed under 5.4.3 During the phase of collection of the data it is necessary to concentrate on propositions (Strauss and Corbin, 1991 and Miles and Huberman, 1988).
5.4.1.2 Propositions

Propositions will provide information for identification and narrowing down of relevant data to be collected (Strauss and Corbin, 1991). This will ensure that the study stay bounded. Propositions are therefore also regarded as logical arguments.

Propositions draw attention to a phenomenon that should be examined within the scope of the study. Important theoretical issues are reflected on and illuminated where relevant data can be found. It may happen that the research question is the subject of exploration when the study may not have any propositions. However, every exploration should still have some purpose.

5.4.1.2.2 Unit of Analysis

When data is collected the unit of analysis is also important to consider. An individual person may be the case of study and therefore the primary unit of analysis. When a single-case study is piloted or investigated information about other individuals or cases will not be collected as in a multiple-case study. A single case can also be some event, entity or a small group of people clearly defined as a unit of analysis, to be distinguished from those who fall outside the boundary (Stake, 1988; Strauss and Corbin, 1991; Miles and Huberman, 1988; and Yin, 1985).

5.4.1.2.3 Setting Boundaries

As it is not possible to deal with the whole of reality, case studies deal with the unity of a case for which boundaries must be set (Strauss and Corbin, 1991). Different researchers often perceive a problem area from different angles, conceptualise the problem differently, set different boundaries for the case and may use different methods to understand its complexity. Therefore researchers need to depict their personal and scientific profile clearly (See Chapter 1).

The bounded system can create boundaries for an individual or a specific group or event, as indicated above. In symbolic interactionism, a qualitative research tradition, the focus falls specially on a group that holds a similar position in an institution which faces similar circumstances (Jacob, 1987). This type of research lends itself to case study research. What is accepted inside these boundaries depends on what the investigator considers relevant to find out, but provision must be provided for unexpected information (slumbering variables), related to the
relevant data, to emerge over time. Although the format of this type of study is bounded the emerging data are in no way bounded.

Time boundaries are also needed to define the beginning and end of the case and thereby to determine the limits of the data collection and analyses. The length of time depends entirely on the nature of the research question.

5.4.1.3 Case study analysis

During analysis, or processing of the data two components need to be considered.

5.4.1.3.1 Propositions

The data may be linked to the propositions (Strauss and Corbin, 1991). By using the pattern-making technique (Stake, 1988 and Yin, 1985) several pieces of data from the same case may be related and linked to some theoretical proposition. This is, however, not imperative, data may merge in a truly surprising fashion as grounded information which are not linked to existing theory. The technique of concept mapping as proposition generating mechanism is suggested by Henning (1992).

5.4.1.3.2 Patterns of meaning

A case study also searches for regularity and consistency for patterns of meaning. There are for instance patterns of behaviour and patterns of events (Stake, 1988).

During a case study the researcher appeals to more than one epistemology because understanding is not only required by the mode of scientific generalisation by drawing on own experiences and through various cognitive experiences the investigated phenomena become known emotionally as well. This epistemological phenomenon is also known as "subjugated knowledge" (Kincheloe and Steinberg, 1993), for the researcher can not be distanced from the problem under investigation and the readers have to make their own judgement of generalizability (Stake, 1988).
5.4.1.3.3 Procedures for conducting case study

A case study is a complex research format where certain procedures need to be taken for conducting the study systematically.

The investigator should reflect desired skills in the choice of methods (Stake, 1988). An experienced investigator ought to have an inquiring mind (Strauss and Corbin, 1991) and reflect the ability to take advantage of unexpected opportunities arising during the data collection rather than being trapped by them. Flexibility ought to be maintained and sufficient care should to be exercised against potentially biased procedures (Strauss and Corbin, 1991; and Miles and Huberman, 1988). Sensitivity and the ability to listen with all the senses are also of importance. The pilot case study helps investigators to refine the content of the data and the procedures to be followed during data collection.

A protocol for the investigation should be developed to increase the reliability of the case study. It should include sections like case study questions with the potential sources of information for answering the questions; field procedures, including access to the fieldwork site, or providing for unanticipated events where interviewees may become unavailable; and a guide for the case study report that will facilitate the collection of relevant data and reduce the necessity to return to the case study site. Procedures for data analysis are included in the protocol as well.

5.4.1.3.4 Interpretation

The data can be interpreted in terms of comparing at least two contrasting propositions or by trying to link all empirical evidence to a conceptual whole. A case study can be successfully conducted as research format to investigate an empirical category by following a set of pre-specified procedures or by allowing the emerging information to pave the way. Interpretation also involves arguing from existing theory.

Though the case being examined ought to present some population of cases and although case studies are generalizable to theoretical propositions, the fact must not be disregarded that there will surface unique cases where the cases will not depend on the notion of generalising to a population of cases.
During the investigation of a case study, the notion of validity ensures that the researchers will not only rely on their own interpretations. They try to confirm their observations directly or indirectly. As validity depends on purposes and points of view, the researcher will try to give an accurate and useful representation of the bounded system to ensure a valid case study. As mentioned before, the use of triangulation (Henning, 1993(b) and Henning, 1993(c)) increases validity and will also increase the validity of a case study. By making use of at least three independent approaches to arrive at the same meaning, the researcher strengthens the case study (Henning, 1993(b)). Triangulation may include observation, discourse analysis, interviews, and documents or other additional sources to approach the problem area.

To summarize, a case study in educational context can be described as a study which focuses attention on a case in order to portray an educationally complex problem, where the investigator works on a conceptual structure, building on an understanding of the case in its idiosyncrasy and complexity by collecting data through carefully planned observations in a natural setting, making use of interviews, documentation, and general participant observation.

When deciding on a case study as research format, it is necessary to note as to whether the research problem demands a single- or multiple-case study before the researcher can decide on the design of the study.

5.4.2 SELECTING AND DESIGN OF THE APPROPRIATE FORMAT

A research design is an action plan to create a logical model of proof (Johnson, 1990, Strauss and Corbin, 1991, Miles and Huberman, 1988, and Yin, 1985) through the process of collecting, analysing and interpreting the data which make it possible for the researcher to draw inferences concerning casual relations among the variables under investigation (Yin, 1985). It also defines the domain of generalizability.

Case studies primarily distinguish between single- and multiple-case studies. When several cases are investigated, it is considered a multiple-case study while a single-case study concentrates only on investigating a single case.

According to Yin (1985) the rationale for single-case designs may serve as major reason for conducting a single case-study. It includes the following cases
an extreme or unique case, where a single case might be so unique that it is worth documenting and analysing.

- a critical case, where a well-formulated theory may be tested again through a single case,

- a revelatory case occurs when an opportunity arises to observe and analyse a phenomenon previously unacceptable to scientific investigation, though the problem reflected be common across the country.

This study concentrates on a single case study with its own embedded design; attention will therefore be given to the designs for single case studies only.

5.4.2.1 A holistic design

A holistic design (Yin, 1985) is where the single case study examines only the global nature of the case conducted on an abstract level without any clear indication of measures or data. Unbeknown to the researcher the evidence collected may begin to address different questions during the course of study as the entire nature of the study may shift. A single case study may also be designed to investigate more than one aspect or a sub-unit of reality.

5.4.2.2 The embedded case study design

An embedded case study design (Yin, 1985) involves more than one unit of analysis and attention is given to a sub-unit or -units. These sets of sub-units can serve as an important device for focusing a case study inquiry. Sub-units of analysis may be incorporated within a single case study to develop a more complex design. They also add significant opportunities for extensive analysis, enhancing the insights into a single case. Attention should be given to the larger holistic aspects of the case, else it will change its nature.

The incorporation of the principles of multiple sources of evidence, a case study base, and a chain of evidence which links the questions asked with the data collected and the drawing of the conclusion, increase the case study's quality of validity and reliability substantially.
It is considered illegitimate to shift the theoretical concerns or objective of a study to suit the case that was found. Grounded research, with its conventions of open coding, is accepted as a valid mode.

After the single case study design is selected it is necessary for the investigator to decide on the methods to be used for the collection of the data. It is deemed necessary for each investigator to be versed in a variety of data collection techniques.

5.4.3 DATA COLLECTED TECHNIQUES USED TO CONDUCT THE SINGLE CASE STUDY

There are six main sources by which evidence can be gathered for case studies. Not all of these techniques will be discussed in detail, but attention will mostly fall on participant-observation, discourse analysis and document analysis.

- Archival records, often in computerised form, can be used in conjunction with other information sources in producing a case study. They include service records, indicating services rendered over a given period of time; maps and charts, providing the outlay of a geographical area; survey data, such as census records; and personal records which include diaries or calendars, to mention but some. The accuracy and conditions under which these records were produced must be carefully investigated, because most archival records were produced for a specific purpose and might not be deemed relevant for the case study. The degree of their usefulness varies from case study to case study (Yin, 1985).

- Physical artefacts are considered as a final source of evidence in the overall case. They include concrete objects such as a technical device, an instrument or a work of art which can be directly observed to ascertain the nature of its actual use. It provides the investigator with a broader perspective concerning the phenomenon of interest (Yin, 1985).

- Observation is useful for ecological and chronological validity. The skills of observation can, amongst others, be successfully implemented during the taking of field notes, the use of video-recording, field diagrams and sketches. The observation techniques, namely, structurally inspired observation, ethnographical observation, and
micro-observation are considered as principles of observation. This method especially has contextualizing value in the paradigm (Henning, 1993) of qualitative research.

If the phenomenon of interest is assumed to be not purely historical, then observation of the phenomenon in its natural setting becomes necessary for better comprehension.

- **Direct observation** may provide useful and often important additional information about the case being studied. When resources permit, multiple observers may be allowed to observe the phenomenon being studied, to increase the reliability of observational evidences collected by the single observer (Yin, 1985).

- **Participant-observation**, on the other hand, expects from the investigator to participate in the event being studied. The investigator might participate and observe the patterns by playing a functional role; serving as a staff member in the area or even living in the setting being studied. The investigator does not observe the case study. This type of situation might provide unusual opportunities to collect the data needed for the case study. As the researcher takes personal interest in the case (Jacob, 1987), it might also contribute to sensitivity for the emergence of evidence which would have been overlooked by someone who is not involved with the reality under study. Full participant research generates a specific type and quality of knowledge (Wagner, 1993).

The credibility of the case study can be threatened if manipulation of events occur - a possibility in this technique. Data may be collected for the purpose at producing potential biases. Observation during the study ought to be recorded in detail and as concrete as possible to keep inferences at a low level.

- **Interviews** are very important verbal reports from which information can be qualitatively gathered to facilitate the case study. The aim of an interview in qualitative research is to attain new insight into the problem being investigated. Without using a pre-structured theoretical framework, a theory may be generated when grounded theory, as a qualitative research method, is used in interviewing (Poggenpoel, 1993). Jacob (1987) identifies several forms in which this method can be applied in fieldwork. She states that informal interviewing can vary from casual discussion while participating in an activity, to open-ended interviews, to in-depth discussions with individuals selected at random or for a certain purpose. During an open-ended interview the investigator obtains the ideas, opinion, and feelings of the
respondents concerning certain events or occurrences (Yin, 1985). By making use of a repertoire of question-asking strategies, during a more focused interview, the investigator can probe further into the problem being studied. Several interviews can take place before data becomes saturated (Poggenpoel, 1993). The investigator, as research instrument, must facilitate a relaxed atmosphere for the interview by reflecting empathy and sincerity (Poggenpoel, 1993) and allowing the respondents to express themselves orally without interference. This may provide the investigator with fresh commentary (Yin, 1985). Tape recorders may also be used to record the interview, although it provides an accurate rendition of the verbal interview, it should not create distraction or be used as substitution for careful listening throughout the interview. The validity of the interview is achieved by completing pilot studies, by cross-checking and triangulation.

To ensure the research stays bounded, the questions ought to be clearly formulated, concentrating on a specific concept to be explained.

- Documents are used to thoroughly review documentary evidence from which inferences can be made. They are used to corroborate and augment evidence from other sources. Evidence gathered from such sources needs to be critically interpreted. The investigator must avoid over reliance on evidence from documents for data collection.

- Document analysis is a technique where the information or messages in a document are systematically coded into categories, thus allowing quantitative analysis, according to Chadwich, Bahr and Albrecht (cited in Gravett, 1993). Document analysis is inclined to take place deductively instead of inductively. It therefore does not determine categories beforehand.

In order to apply these techniques the totality of content to be analysed must first be defined. It becomes prioritised. These priorities are then significantly divided into categories related to the aim of the research or to the hypothesis to be tested. Words and themes of the content are considered analysing-units to be categorised. By underlining the words or phrases or by making use of the "rainbow technique" categorising occurs. Counting the number of times a certain theme occurs in a category allows quantification to become part of the investigation and reflects clearly which categories manifest the strongest (Gravett, 1993). This, however, does not imply that these patterns are the most meaningful, because deeply contextualised thematic analysis may contradict it (Henning, 1993 (c)).
After the selection of the case study design and data are collected by applying a variety of data collection techniques, data must be analysed.

5.4.4 Data analysis in qualitative research

The technique which is applied most often in processing verbal data, be they from transcripts or documents, is the technique of dendogramming (Miles and Huberman, 1988). The analyst draws tree diagrams, starting with small units of data and branching in towards main branches. The process is refined and the data are categorised two or three times. The "trunk" of the "tree" is the final validation device. Do the researcher's labels of categories assemble comfortably in the whole concept of the "trunk"?

The analytical strategy for the purpose of this study is bounded in grounded theory. Miles and Huberman (1988) suggest the creating and revising of codes to structure a code list, followed by the defining and naming of codes and double coding data, ending with setting up a storage or retrieval system. When this coding process is compared with the grounded theory of Strauss and Corbin (1991), as was explained in paragraph 5.2.1, similarities are eminent. Miles and Huberman (1988) suggest that any study should start with one of two general analytic strategies which can be briefly explained as comprising of:

- the reliance on theoretical propositions where attention can be focused on data which are relevant and the discarding of other data; the organising of an entire case study, and the defining of alternative explanations to be examined, or

- developing a case description. The descriptive framework provides structure and it organises the case study analysis. This approach also contributes to identifying the appropriate causal links to be analysed.

During data analysis one of the main problems is coping with and presenting the often large quantities of data. Data reduction as was explained under paragraph 5.2 characterises qualitative analysis (Miles and Huberman, 1988 and Rudestam and Newton, 1992). Huge amounts of data often need to be sifted and resifted into a coherent pattern. Preliminary data manipulation techniques, such as pattern-matching, explanation-building and time-series analysis (Miles and Huberman 1988), if carefully handled to avoid biases, can be useful to arrange the data in some order prior to actual analysis to make sense of the data.
Qualitative research is clearly distinguished from quantitative research during data analyses as data are mostly presented and analysed in natural language as opposed to quantitative numbering.

The procedures and techniques of the coding system are not rigid but should be applied flexibly as the analysis is apt to be modified both during and after data collection (Strauss and Corbin, 1991) or should make provision for the unpredictable turns that may occur during the inductive or "bottom-up" inquiry (Henning (b) 1993; Rudestam and Newton, 1992).

Rudestam and Newton (1992) quote Lincoln and Guba (1985) who explain that during a research project, whether it is done quantitatively or qualitatively, data must make sense and lead to a notion of 'verstehen' or understanding of the phenomenon being studied.

The process of analysis of data is therefore very important since it must explain the findings for clear comprehension of the study's validity.

5.4.5 Writing the analytic report

Wolcott (1990:21) maintains that writing up research is a form of scientific thinking. To be able to write the findings of the evidence as analysed, demands logical and clear thinking. To transmit this information to a certain reading audience in detailed written sequence and in an understandable fashion is essential. The investigator should therefore become part of the study and reveal the findings by writing a descriptive account thereof in the first person if acceptable in a specific research community.

Writing should start with a statement of purpose (Wolcott, 1990). The investigator ought to indicate the reason for investigating a certain phenomenon being studied and to describe it as a substantive focus. This investigation becomes significant to the reader if the investigator can describe how this specific case being studied can be linked to larger theoretical constructs.

The written research report should reflect methodological relevance and accountability as well as a scientific approach (Poggenpohl, 1993). A detailed written sequence of the orderly progression of the qualitative methods are necessary. The process of analysing the data must be indicated when findings are discussed or explained, drawing upon the literature as needed in a selective and appropriate way.
The written report should also clearly inform the reading audience about the nature and extent of the study's database, when the fieldwork was conducted and how long the period of observation was, how extensive the investigator's involvement was, what strategies were used to gather data and if triangulation can be claimed, the circumstances under which cross-checking took place and to disclose any possible areas which were recognised as limitations of the study.

The researcher should reflect, through the report, his/her convergence with qualitative research strategies and the implementation thereof. The researcher ought to ensure that the readers receive enough information to enable them to decide for themselves if these findings are reliable enough and if they are generalizable. Wolcott (1990) also suggests that the description and interpretation of the findings should be separated from one another as intrusive analysis may distract a reader expecting to find a descriptive account.

It is often feasible to give a detailed descriptive report of the facts which were investigated. When the report is provided in a first-person narrative, the individuals or settings can be introduced as first encountered. The phenomenon being studied can be related in a chronological manner, according to the events as they occurred, or as the investigator observed and recorded them (Wolcott, 1990). Every step from preparing for the research, the setting of boundaries, selection of what gets recorded, and which units are included in the final account, pave the way to a "thick" description. (Henning, 1993(c) and Wolcott, 1990)

An analytical report should not be considered complete before the investigator has clearly indicated the value of the study. Not only is the expansion of knowledge important but also its value and adaptability to the wider population.

5.5 SUMMARY

The main tenets of the research paradigm in which this investigation is conducted were discussed, illuminating methods of data collection and analysis. The case study as research format also featured in this chapter which was constructed with the aim of contextualising the methods and techniques used in the field study.
CHAPTER SIX

THE DATA OF THIS STUDY: SNAPSHOTS OF THE "CHAIN OF EVIDENCE"

6.1 INTRODUCTION

The aim of this chapter is to report on how the procedures enfolded during a single case study in which the aim was to explore the link between conceptions of language and of learning. The subjects are eighty rural student-teachers who expressed their conceptions in personal written sketches and who were observed for several weeks. Data collection procedures will be described briefly and thereafter analysis procedures will be described with examples of data processing. The consolidated data will be presented with some examples of the main categories. Both the categorization processes and final categories will be displayed visually, using dendograms and a causal diagram to reflect the relationships between concepts in the main patterns. Adjustments which had to be made to the research programme in order to accommodate the occurrence of an unexpected event will also be indicated. This chapter will end with a final summary of the field investigation.

6.2 PREPARATION

The interest in an investigation such as this research was conceived long before the first research question was formulated. While lecturing at a teachers' training college in a rural area for the past ten years I found that the LEP of the students seemed to result in difficulty in expressing themselves during the writing of examinations. This difficulty, I assumed, could not only be because of an LEP, but may also be because of limited CALP or a lack of conceptual development resulting in certain conceptions of learning and also of language. I started to observe them more closely, concentrating on their language proficiency and all the signs that may reflect their conceptions of learning.

I realised that this issue needed more clarification, as a range of important teaching implications may be derived from an understanding of language and its link with constructing conceptions of learning. I decided in the beginning of this year, 1993, to conduct a scientific research investigation, based on extensive participant observation. The pilot investigation had indeed been the "non-scientific" empirical data which had been gathered over ten years.
One of the first objectives was to set certain boundaries for the field of investigation. I decided to focus only on this college with rural student-teachers who are in their first year of study because very few of them have learned about language and learning theories. Knowledge concerning these theories might influence or change their conceptions of language and learning. To ensure a certain amount of generalizability it was decided to focus on both the senior primary classes to ensure a larger, yet manageable research group. In addition these classes represent males and females. The setting of these boundaries led to the design of a single case study, where the whole group forms the single case.

As I am a member of staff in the college where the investigation took place and because I participated in the event, I assumed that participant-observation would probably be a functional technique to use in the methodology. This description was subsequently changed to that of "full participant" as described by Wagner (1993).

The focus of my study is very distinct, which determined the choice of an additional method to collect data, namely document analysis. Two questions were asked to investigate the problem at the outset:

"What is learning?" and
"What is language?"

The students would be invited to write personal sketches in which they would explore these conceptions. Initially I assumed that interviews with students, selected at random, would constitute the third methodological possibility to explore the data even further. However, I could not conduct the interviews because of political activity on the campus.

As this single case study investigates people in a natural setting, where I, the observer, can not control the variables, the scientific investigation required a qualitative research design, bounded in grounded theory to discover the relationships or links between the categories and properties which may arise from the analysis of the data collected.

6.3 COLLECTING THE DATA

The collection of data started with the students' personal written sketches of their conceptions of language and of learning, as well as with field notes.
6.3.1. THE PERSONAL WRITTEN SKETCHES

The first question was asked shortly after the formal classes at college had started at the beginning of the year. There was still no inclination to write tests although it was explained that their answers would not be evaluated as correct or wrong. They were asked only to write down their conceptions of learning. To ensure that the students would not be guided unconsciously to a certain kind of answer, no other explanations were given. They had fifteen minutes to formulate their conceptions.

The evidence of their spontaneous sketches were filed and are available on record as raw data. After receiving these chunks of narrative written evidence, it was quickly scanned to check if the content reflected the question as posed and to decide if the second question could be formulated in the same manner.

A week lapsed before students were again requested to formulate their conceptions of language. This time, however, I wondered if I should not provide them with the necessary writing material in order to enhance the neatness of the research project. I decided against it, partly because they might interpret the question as formal testing, and partly because I became quite proud of my natural "Africa data".

This natural way of providing data for research may even contribute to the research data's validity. It is also considered comparable when data is collected amongst the same group of participants, answering the same questions. (Strauss and Corbin, 1991).

6.3.2 THE RESEARCHER AS FULL PARTICIPANT: BOUNDARIES ARE BROADENED

As lecturer of the research group data could be gathered by naturalistic observation and the taking of field notes. Observation started during the two weeks of orientation since the researcher was convener of the orientation programmes and came into daily contact with the students. Observations were documented during or soon after class contact.

It was not the intention of the lecturer to create situations for collecting data but the natural class discussions and lecturing created the conditions for the exposure of data. It was originally intended to take field notes for at least six months. Field notes were, however, only gathered for two months when an unforeseen situation occurred.
Students demanded my withdrawal from the college because they were "tired". They claimed that I was the only head of department who moderated the previous year’s examination scripts, handed in by the lecturers and that gave me the opportunity "to make them to fail". They did not, however, seem to take into account the many class boycotts from both students and lecturers during the previous year and that there were only eleven weeks of classes before they sat for examinations. The education department suggested that I should stay at home for security reasons.

After the data collection came to a rapid end, a thorough analysis was made of the existing data. The documents would be analysed and triangulated by the larger events as data. The case study would therefore broaden its boundaries.

This event unexpectedly provided new data concerning political aspects, which were not considered before, but proved to be relevant during data analysis. Two sampling techniques also combined since data was purposefully collected and now new data emerged quite unexpectedly. It also resulted in a search for another research methodology in the place of interviewing as it was no longer feasible to visit the site for interviews.

Analysis of the field notes seemed viable enough to reveal evidence needed for the study. It furthermore gave me an opportunity, early in my experience with research, to acquire an openness to explore a variety of forms of inquiry (Johnson and Saville-Troike, 1992). As this event has placed me even more within the case, I needed to develop more sensitivity, trying to ensure that no biases were allowed.

This event can therefore not be considered as unfortunate for the research as it has led to unexpected data and more detailed analysis of the data from the sketches had to be done, as these data now became the main focus. I realised at the outset, that I would search for political meaning in the existing data and I took care not to "hypertypify" (Erickson, 1991) or spread the "analyst's gloss" (Miles and Huberman, 1988).

6.4 PROCEDURES OF ANALYSING

As triangulation facilitates validity and is accomplished by incorporating different modes of either data collection or data analysis, I decided to weave all possible triangulatory devices into the study.
Field notes were kept during the two months during which the research group was observed. These notes could be analysed by searching for relevant issues. Analysis really started in all earnest when all the data were read through, jotting down on the documents themselves, certain ideas or relevant aspects that came to mind while scanning through the evidence. Though it is considered as poor practice to write notes on documents, it is, however, allowed in the earliest phases of open coding (Strauss and Corbin, 1991).

Data were once more read through, piece by piece, deciding on, or selecting the main concept or phrase of each sentence. These were then written down on a memo sheet. The data was still unstructured and an "undifferentiated mass" (Strauss and Corbin, 1991) of evidence. This immediately lent itself to a quantitative analytical method, meaning in effect that it was analyzed frequently at first. The semantic wholeness was, however, still contextually paramount.

Each time a concept appeared that was assumed the same or similar to an already selected concept, it was ticked off next to the concept it resembles. The number of times one concept occurred through the analysis was counted and written down next to the concept. Though qualitative research is not a mathematical procedure, counting is often essential (Miles and Huberman, 1988). Counting is, however, dependent on semantics.

As this investigation naturally demands both quantitative and qualitative research procedures the results were first processed according to quantitative methods. The data findings received via calculation, were then restructured in numerical order from the highest score of appearance to the lowest.

The traditional route was first taken, partly because of the incentive to find out which concepts were considered as most relevant though not knowing why they have emerged, and partly because I still felt unsure in using qualitative coding procedures. Frequential coding (quantitative-cum-qualitative meaning making) was therefore seen as a secure and manageable way to start the coding process. The sum of this frequency counting procedure is presented in the following section. Although counting was the technique used to derive meaning from the data, the coding was not limited to single lexical items, but was focused on meaningful semantic units, usually contained in a phrase.
6.4.1 THE CONSOLIDATED CATEGORIZED DATA FROM THE FREQUENTIAL ANALYSIS

The first category:

The first main category which was derived from the analysis process was that students regarded learning as an activity leading to various experiences. "Activity" reflects two dimensions: an activity upon which the learner reacts actively, and an activity where the learner is passively receiving from others. Active learning consists mainly of practising that which was taught to the learners or by doing what they were told by other people. Only eight percent of the students indicated that they need to apply the knowledge that they have encountered. Only twenty-five percent of the students gave an indication that learning may be considered as an own activity. Ten percent of the students maintained that both the learner and the adults (parents and/or teacher) are involved during the learning act. It would have been interesting to investigate how much of the learning responsibility was contributed to each of these participants if the learner had been identified as a PRESET student.

Learning as passive activity reflects results which indicate that information is mainly received from others or given by others. There is hardly any indication that learners have to search independently for information to acquire knowledge. For many students, learning means that they are taught that which they need to know. (How the knowledge became part of their cognitive structure after they were taught was not considered.) The data showed that learning is perceived mainly as a passive activity, where information is "received" from and knowledge is "taught" by others.

The second category:

Language is considered as a communication medium or tool used for verbal or spoken communication and non-verbal communication, which includes written communication. Communication with other people is very important, therefore language is a basis for socialisation. Oral communication reflects a higher score than the written communication. It comprises of speech or talking. Written communication consists mainly of writing (to friends). Reading as part of linguistic communication reflects a very low score, yet it reflects a much higher score under the category learning.
The main findings that were highlighted at this stage of the analysis can be visually represented in the following framework, indicating the relationship between the concepts.

**Figure 6.1** Frequential analysis of language and learning

**LEARNING**

- Received: 42
  - Active
    - Practice: 34
      - Activity: others (36)
        - Own: 20
        - Both: 8
      - Communication: others (46)
        - General: 12
        - Universal: 5
  - Passive
    - Own: 18
    - Universal: 6

**LANGUAGE**

- Oral: 42
  - Talk: 19
    - Speech: 23
  - Writing: 34
    - Writing: 18
    - Signs: 11
    - Reading: 5
During the coding process the researcher realised that certain unexpected findings were revealed and new concepts had to be devised to label them later on. Subsequent to the frequential analysis the analysis of observational data commenced.

6.4.2 ANALYSIS OF THE NATURALISTIC OBSERVATION (Field notes)

The data, gathered from natural observation for two months were recorded by taking filed notes. The data were described and analysed by identifying issues and by searching for the emergence of patterns amongst conceptions of learning and of language.

Field notes were read through holistically and the categories that were reflected from the data were written down. These sub-categories were divided under the two main categories, namely language and learning.

The issues that were identified include:

- how the research group view language and learning;
- how they approach the learning task and their use of the L2.

The research group revealed the following about language:

* Spoken language

When students are in or outside the classroom they converse with one another in the L1. The L2 is used during formal discourse and mainly with the lecturer. They try to evade the eyes of the the lecturer when a question is asked, probably with the hope that they will not be noticed. When a question is directed at them personally a few will look around and search for help from the students closest to them. Others will lower their vocal volume so that nobody can hear them, while others will only silently look at the lecturer. Only a few are willing to take the risk to use the L2, even willing to make mistakes and accept the laughter that they may cause. It is interesting to notice that many can identify grammar mistakes, yet, they are unwilling to venture into the field of L2 usage. Even if a word is spelled incorrectly on the chalkboard they are quick to indicate the mistake. Some students find it difficult to answer
what was asked, often not knowing what the difference is between the words 'how' and 'what'. Students had to explain, for instance, what a child can learn at home. One student's answer was: "the child can learn at home by obeying his parents". This answer also reveals the fact that questions are probably repeated to "fill in" the answer. Other answers are incomplete and quite often two or three extra questions had to be phrased in order to reach the completed answer. Some of the students who are prepared to participate in a class discussion experience difficulty in expressing their thoughts in the L2. One explained why she wanted to become a teacher in this manner:

"I very much like to be teacher for I like to write with a chalk and Miss Mabusa, my teacher, he did not give me a chalk"

The teacher is a female teacher who actually always gave her the opportunity to write on the board. It was noticed that many students find it difficult to distinguish between a male and a female and three quarters of the class talk about "a chalk". One student explained the use of the phrase as follows: Chalk is a verb and before a verb you always put "a" or "the".

No one indicated that they may improve their L2 by listening to programmes on the radio or while watching television. The learning of the L2 is not connected with their relaxation.

* Reading:

The one set of assignments that could be marked before the researcher had to leave the research field, indicated that some of the students do not comprehend what they read. Under the didactical principle of totality, Duminy, Dreyer and Steyn (1990:22) explain for instance that totality ensures that if teachers work in "units" then the distinction between subjects will disappear almost completely. After they have read the whole section and even after explaining what the didactical principle of totality embraces, some students could still not understand that sentence. After some investigation it was discovered that there was a misconception and misinterpretation of the words "distinction" and "units", while other students found it difficult to concentrate for long on a topic and others have disregarded the word "almost". The latter group could not understand why subjects had to be completely integrated "What was then the use of learning different subjects?"
The data also revealed certain conceptions the students have about reading. The evidence gathered revealed that students do not maintain that it is important that youngsters, not yet at school, need to come in contact with many books, because "they will only tear the pages or cut it with (a pair of) scissors". Others maintain that books don't mean much for a young child because they cannot read.

Books to them mean studying, because library books are used to help them with more information in assignments and textbooks are there to study from. Only a few students indicate that they read during their leisure time. Many male students indicated that they read the newspapers to learn more about politics and other people.

Students seldom had to read out loud during the Education classes, but it was found that some write slowly when copying notes from the board because they only read a word or two and then write it down. Afterwards they need to search for the place where they had been previously.

* Writing:

It has already been indicated that the observation data revealed that some students write slowly, because of their limited reading ability. Others write slowly because of poor eyesight. These students tend to move forward closer towards the board when they must take notes. It was also noticed that other students do not copy the notes because they can not concentrate on listening and taking notes at the same time. Certain periods are only allocated for the writing down of notes, though time does not allow for that to happen often.

Another aspect that reflects the inability of comprehending and writing is the fact that students often write sentences from the text without ensuring a logical argument. One student copied the following sections from the textbook:

"Environment means that place, i.e. farm or village, for children growing up in a city in which they feel safe"

This example provides possible evidence of the student's inability to access English, to express thought logically and to formulate the information in her own words, to combine relevant information in a logical whole, and to understand what was read. It furthermore
shows that the student did not reread the assignment to make self-corrections. If time was spent on the assignment to read it through the contradiction might have been discovered. If the assignment was read through (which she assured me she did) and the discrepancy was not noticed then it once more confirms LEP. Many students copied the assignments from other students, often with exactly the same mistakes as well.

The above findings do not only reflect students' inability to use the L2, but also how they approach the learning task. Many showed that they are unwilling to participate actively in the learning task and to take a risk to construct meaning.

The research group's conceptions of learning:

The students' conceptions of language reveal that the L2 is mainly seen as a language used in a formal setting where learning takes place but that the L1 is applied during social interaction. Although they experience LEP they have learned language structures and the vocabulary. Students' reluctance to answer questions and to participate in class discussion provides evidence that they are ignorant of the important role these two methods play in learning.

The students conceptions concerning reading provide evidence that there are different opinions and goals for learning and for the use of the written word.

Reading is not applied for learning the L2 during leisure time as such but the textbooks are read during studying of the different subjects. Analysis of the field notes provided evidence that the students showed reluctance to visit the library to make use of additional reading material in order to collect more information on their own. They, however, expected from the lecturer to provide the necessary information during class questioning.

The reading of a newspaper is not connected with learning a language nor with learning as such. Newspapers provide information about other people and the political situation.

Analysis of field notes furthermore showed that writing is not regarded as a form of learning in which they could structure their own thoughts. Students do not seem to read with
insight and understanding. The information read cannot be restructured and rewritten in their own words. They rather make use of the textbook language and of their friends' work. Writing seems to be regarded as an instrument of transfer and not as expression of thoughts and feelings.

The writing of an assignment is not considered as a method through which they may collect more information on their own. Library facilities are, therefore, not adequately utilised. Assignments are copied from others because learning is not considered an own activity. During the writing of assignments students revealed a dependance upon both the textbook and others to further their learning. The fact that students have proposed that marks should only be allocated to 'help' them to pass once more provides evidence that they do not consider learning as an own activity where they must provide the most input. They only have spent a weekend or an evening on an assignment without consulting other references or have copied the work from others, yet they expect to achieve good results or that the lecturer must 'be kind' to them and only give marks. The assumption is that they think that by "receiving" a mark they have learned.

The data from the field notes were possibly analysed inductively during the process of notetaking. The full participant status of the researcher clearly had a strong inferencing influence on the collection and analysis of these data.

6.4.3 THEMATIC ANALYSIS OF THE DATA

Frequentical data were categorised first and then the observational data, collected by taking field notes, were analysed. To facilitate triangulation thematic analysis of data from both sources was decided upon.

After the first scanning, followed by the jotting down of relevant ideas during the second reading, open coding really started by reading sentence by sentence in context. All the sentences, sections of sentences or words were labelled during the third reading of the data. The labels were categorized from the raw data (although some inferencing had clearly taken place). Each main category was highlighted with a different colour textliner or was underlined with a different colour marking pen. The units, propositions and dimensions that seemed to belong in a certain category were marked with the same colour liner or pen.
A list was drawn up to indicate the colour chosen for each category. A form of "rainbow analysis" was created whereby colours were associated with semantic categories or themes.

To keep all these "colourful" units of data together, the sheets of paper on which the data appears - serving as evidence of original raw data - were collected in file form to keep the raw marked data on record for the "chain of evidence", (Miles and Huberman, 1988) which would be linked in the interpretation phase.

Categories were written down on a memo sheet. Next to each category the concepts or units which categorise the specific category or its sub-categories were written. The properties and dimensions were also indicated if identified. To be able to compile this list, a certain amount of axial coding took place as relationships were identified. This networking process (Bliss, Monk and Ogbom, 1983) also strengthened the validation process, because a category which survives networking without being deconstructed can be regarded as a valid category.

The following example serves as an illustration of analysis of raw data by means of open coding and of how the chunks of information were put into categories:

"Language is the way in which people communicate with other people and nations, the way we talk and write."

| Core category | : | language |
| Category : communication |
| Sub-categories : oral communication |
| : written communication |
| Labels/ units : talk, a unit under oral communication |
| : write, a unit under written communication |
| Propositions : participants |
| : degree |
| : manner |
A category is dense if it has many properties that are dimensionalized, in other words, if a category is constructed via a dendogram (which is the opposite of the above example) and then deconstructed into meaningful but still conceptually holistic parts, it is a "thick" (dense) category.

Both the core categories, their categories and an indication of propositions and dimensions can be briefly indicated in diagram form.

**Figure 6.2 Audit trail of language as main category**

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>MAIN CATEGORY</th>
<th>PROPOSITION</th>
<th>DIMENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>socializing</td>
<td></td>
<td>manner</td>
<td>active &gt;</td>
</tr>
<tr>
<td>types of communication</td>
<td></td>
<td>intensity</td>
<td>passive</td>
</tr>
<tr>
<td>acquiring language</td>
<td></td>
<td>depth</td>
<td>high &gt; low</td>
</tr>
<tr>
<td>expression</td>
<td></td>
<td>participants</td>
<td>others &gt;</td>
</tr>
<tr>
<td>liberation</td>
<td></td>
<td></td>
<td>self &gt;</td>
</tr>
<tr>
<td>understanding</td>
<td></td>
<td></td>
<td>both</td>
</tr>
<tr>
<td>cultural building</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cognitive activity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>knowledge</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
After all the categories had been analysed in this manner, definite similarities and differences or possible conflicting findings were selected during axial coding.

When the category learning was analysed, written communication was perceived as a learning device. Labels such as reading, writing and text or practical work which also involves reading and writing, were classified under written communication, or literacy. Liberation was the category selected for all those concepts that involve upliftment and the need for developing world views. (The process was discussed with an inter-coder who assisted in applying this protocol which is an adapted version of the Strauss and Corbin (1990) model of analysis).
The findings in the categories reflected that language is an important factor in socialization, and in both oral as well as written communication. The two main categories highlighted under the category learning are written communication and liberation.

The categories language and learning can be displayed visually in dendograms.

Figure 6.4 Overview dendogram of language as main concept in consolidated and categorized data

Figure 6.5 Overview dendogram of learning as main concept in consolidated and categorized data
Though I was aware of the strong political influences on the people in this area and that the high level of political awareness played a significant role in education I was surprised at the force this category had across most networking procedures. (Comparing this outcome with the literature review it was argued that colonised African people consider language as a political issue. Those who were suppressed also realised that literacy, and therefore learning, may contribute to their liberation. These findings therefore should not have been so unexpected). This issue will be taken up in chapter seven.

These few "snapshots" of the audit trail or the procedural links in the chain of evidence give some indication of the route which raw data followed from collection to statement of final categories. More examples of these processes are included in addenda B and C.

6.4.4 THE LINK BETWEEN THE MAIN CATEGORIES: LANGUAGE AND LEARNING

The link between the categories began after the sub-categories, categories and their propositions and dimensions were visually represented. This ensured a clear indication of the possible link between language and learning. Links are regarded as vital for the conceptual wholeness of the findings.

The link can be reflected in a diagram.
Link between the two categories

socialization

communication

written communication

oral communication

acquisition of language structures

literacy

use of senses

expression of views

experience of skills

knowledge of cultures and language

understanding of cultures and language

cognition

own culture building

literacy und erstanding of cultures and language

unles of views.

cognition

own culture building

liberation
The findings of the above diagram can be explained as follows:

Under the main categories language and learning, the analysis via triangulation revealed that communication is considered as important, especially for socialization with others. Communication links with all the other categories in one way or another, in order to form a conceptual whole.

Oral communication is used for the construction of knowledge about cultures and languages. Language is acquired by learning language structures during oral as well as written communication. Triangulation provides the evidence that the written word is not conceptualised as important for academic learning. Knowledge is constructed through listening and self-reading (activities that show limitations amongst the research group). Language acquisition is maintained through practice and via the senses. Through the use of the senses a certain amount of skilled experience is developed. These skills lead to literacy. Literacy and knowledge of other cultures and languages enables people to understand those cultures and their languages. These abilities enable human beings to express their own views with greater comprehension. These developing skills and the ability to express their own views, knowledge and understanding of the diversity of cultures and their different languages will possibly enable the student learners to become liberated, or so the data reveals.

The data also reveals that morality is learned by portraying examples and not through oral communication.

The diagram in Figure 6.4(133) provides a clear indication why especially written communication in the learning process, (a process during which rural black students experience LEP) is considered as important though observational data proved that it is not utilized to the benefit of the students academic learning. Language and learning is linked to propagate liberation. Triangulation provided a limited link between language and the learning of academic knowledge.

6.5 SUMMARY

By making use of observational data (field notes) frequential analysis and thematic data (content), triangulation was possible in order to facilitate validity of analysis. Ten categories were identified under the main category language. The main category learning also
reflected ten categories. Both, however, illuminated the different types of communication and liberation as meaning structuring categories.

The interpretation of the analysed data will be provided in chapter seven together with the final conclusion drawing and verification of this single case study.
CHAPTER SEVEN

INTERPRETATION OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

In this chapter the consolidated data will be interpreted and subsequently the interpreted data and conclusions will be verified. Finally the report will be rounded off with recommendations.

7.2 INTERPRETATION OF THE CONSOLIDATED DATA

In order to interpret the findings both quantitively and qualitatively the document data were analysed frequently, making use of semantic units in limited context as the identifying factor, as well as thematically where the broader context of utterances played a more prominent role. The field note data were also analysed thematically.

7.2.1 LANGUAGE AS MODE OF MEANINGFUL COMMUNICATION

From the frequential and contextual data from the documents (sketches), as well as from the observational data the following crystallised patterns emerged under the selection mode of language without prior identification of categories:

- SOCIALISATION:

Frequential data reflects that ninety seven percent of the students perceive language as a means for socialising or to 'talk' to other people. Only seven students referred to the fact that language can be used to converse with people universally. The thematic analysis correlates with these findings and indicates that language is used for speaking to others in general or universally. The observation data also provides evidence that students make use of language for socialising purposes, but mainly in the L1. As participant observer it was discovered that socialising is considered an enjoyable activity facilitated by language empowerment and in which students can participate by articulating quite loudly. One student described language like this:
“Language is the sound which we pronounce by our mouths in order to communicate with each other.”

They make use of the L2 in the classroom setting, though not with the same enthusiasm, but when they converse with one another in and out of the classroom they revert to the L1. This clearly indicates that although students view language as a social mechanism the L2 is mainly used for academic purposes. Their lack of confidence in also using the L2 for socialising purposes may not only reflect their LEP but may well contribute to LEP. Since it is through communication that people are able to socialise it is not surprising to note the emergence of communication as the next most prominent pattern.

- TYPES OF COMMUNICATION

The frequential as well as the contextual thematic data from both sources indicate a definite distinction between oral and written communication.

- ORAL COMMUNICATION

The observation data link up with the frequential data and show that students in class have become passive communicators. Lecturers often complain about students not taking part in the lesson discussion. The passivity is partly imputed to LEP and the inability to express themselves in ESL not only on a social level but mainly academically. Since subject content is discussed orally in class the lesson is often "pushed forward" and the insight of the students is evaluated via questioning. The contextual data and observation proved that students, though they are prospective teachers, still do not realise the importance of asking questions. During observation and class discourse it was experienced that the art of asking questions was not practised, partly because of their LEP and probably because it was never productively applied in their schooling. Questions they ask during their practical lessons only concentrate on contextual knowledge and very little on inductive thinking. They are inclined to test the pupils knowledge of the content without any encouragement for creative or abstract thinking. This could reflect their own dependence on the textbook and the fact that the communication of the learning content has not yet resulted in knowledge and insight for themselves. (Perkins, 1991; Joubert, 1991; Webb, 1986).
One of their most common questions that they put to the class is: "Do you understand, class?" This question is directed to the whole class, often to fifty or sixty pupils and without ensuring that even some of them do understand.

The fact that frequential data showed that communication is mostly applied by other people indicates the passivity of the students who were traditionally expected to be listeners and not participants in the lesson. Observational data of class discourse provide evidence of this phenomenon and indicate that students find it difficult to accept the opportunity to participate, partly because it is difficult to change the old habits and partly because this has left them with an LEP.

**WRITTEN COMMUNICATION**

According to both the frequential and contextual analysis the data reveal that actions, reading and writing are considered as modes of communication. In the frequential analysis it was found that more students considered actions as a form of communication and that only five students referred to reading as a mode of communication. Thematic data as well as observation data provided evidence that reading is not considered as an important communication device. Reading, especially in an ESL rural environment, is not considered as a form of communication or enjoyment. As was mentioned in chapter one and under the observation data in chapter six students seldom visit the library. During observation and class discourse reflection it was also noted that students seldom read during their leisure time. They are probably unfamiliar with the fact that reading enables the reader to communicate with a wider spectrum of reality. These findings are corroborated in the literature review (Perkins, 1991; Webb, 1986; Young, 1986; Evans, 1992 and Ubahakwa, 1977).

Analysis indicates a limited emphasis upon the practice of written communication as well. Writing, however, is more frequently considered as a mode of communication, probably because they view the ability to write as being literate. One student expressed her view of language in this manner:

"It (language) can mean literacy or especially in recent times."

Though writing appears to be of higher value than reading, most writing concerns the writing of letters to friends (once more a social issue) and not really a device for academic application. One student even professed that language is "an administrative tool and seldom
written". This comment reflects both the students' inability to comprehend meaningfully the value and vastness of written communication and her unfamiliarity with the inside of a library.

The fact that one student referred to animal communication (though not considered relevant to this study) once more reflects the idea that language is considered as an important social issue in a culture where oral transfer is part of the historical background.

- ACQUIRING LANGUAGE

The findings from the frequential data provide evidence that more than half of the students assume that language is acquired through learning language structures by training via repetition or rote learning. Comparing these findings with both the observational data and the contextual data it was found that language structures need to be taught and that language is acquired through practice, imitation, listening and learning. Both experience and literature studies confirm that students have learned in their rural schooling language via the language structures methods and the rules method. It is therefore not surprising to find the following formulations of their conceptions of language:

"Language is the collection of vowels and the semivowels that are grouped together to make the word or words that can form the language."

"Language is a sentence construction and embodies tenses"

When students have to present a lesson during a language lesson practice the following phrases are often heard:

"Class, this is a window. This is a window. What is this, class?" "That is a window". "Again what is this?"

One student, however, referred to language as a heritage. Nobody has conceptualised language as a cognitive ability nor as innate.

- EXPRESSION

Quantitative data showed that fifty nine percent of the students perceive language as a mode of expression. Only three students explored this issue more extensively and felt that language ought to be applied for self-expression. Another three students connected language
with the expression of knowledge. During the thematic analysis, evidence was found that most students use language to express their views, feelings and thoughts. Comparing these findings with the observation data there is evidence that language is not linked with the academic world of the students. This might well be the reason why many students do not perceive their LEP as a problem in their education, though their lecturers may (Webb, 1986; Ubahakwa, 1977). The fact that more students referred to the expression of views than to the expression of feelings or needs may well be because the ability to express your views may provide freedom of speech - a factor that plays an important role in the pro-transitional period in South Africa (Bray, 1992 and Joevananthan, 1993). This mode of language conception automatically illuminated the next language category.

- LIBERATION

The findings from the frequential data showed that as many as forty five percent of the students conceptualise language as a mechanism that will provide liberation. The categories that have arisen from the discourse analysis are the aspiration to know different languages, to be able to communicate universally and the ability to understand other cultures (Rensburg, 1991). Bilingualism, or the ability to converse in more than one language provides a sense of empowerment and may possibly enable them "not to live on an island" (as one student tried to explain why it is important to use an L2 as medium of education and not the L1). Literature studies also elucidated the black students' preference of English as medium of instruction (as was discussed in chapter two). Only one student viewed fluency in language as a prerequisite to achieve "uplifting". The fact that the majority of students disregarded language proficiency may provide evidence as to why they do not consider LEP as an academic barrier. That more people are of the same opinion about the unimportance of language proficiency for academic achievement can be traced in the literature study when a quasi-language is proposed in Cordtek, (1992) or where restricted codes that are context bound are used (Mwarmwenda and Mwarmwenda, 1992). Another student revealed the same opinion in his statement that "it does not matter whether the language is poor, as long as you understand the main theme". This conception of language may possibly be why so many students stay passive language learners (as reflected in the findings of the frequential data).

- UNDERSTANDING

According to both the data interpretation techniques that were implemented to reveal the findings, it was found that students conceptualise language as a facilitator of understanding
The fact that the link between language and understanding is absent from the observation data in the field notes, except where students have referred to the inability of small children to understand the written word, provides indirect evidence that language is not considered as a device for the understanding of academic material. This may well be considered as contradictory to both the frequential and the contextual data. After deeper scrutinising it was found that understanding as revealed in the data embraces mainly the understanding of other people (Prodromou, 1992). Only five percent of the group maintained that language provides the human being with the ability to understand other languages. That only one percent referred to the understanding of their own language could probably be because they accepted the understanding of their own language as self-evident. Only three students maintained that language facilitates the ability to understand in general. Though these students are potential teachers who have chosen a vocation within a teaching-learning environment, they do not conceptualise language as facilitator of academic understanding. The notion of different epistemologies for different types of knowledge - and the inability to transfer between them once more comes to mind (Strauss, 1993).

- CULTURE-BUILDING

Literature is unanimous that language is an indisputable part of culture (NECC, 1992; Mawasha, 1992; Beckmann, 1991 and Calitz, 1993). Though there is not strong evidence that language is conceptualised as culture building this category, nevertheless, appeared. It indicates that some students still consider the protection of a cultural identity. It would have been interesting to have investigated this issue further to find out if this feeling of cultural identity protection was paramount amongst the male or female students. The contextual data also reflected consideration for the transfer of heritage via language, once more a facilitator for culture-building. The need for culture-building may reflect the students apprehension that their L1 might be submerged into the more dominant L2 (Prodromou, 1992). Other issues were that language could be used to teach norms and religion to the individuals. (Rensburg, 1991).

- COGNITIVE ACTIVITY

Though nobody referred to the acquisition of language as a cognitive ability as indicated above, cross checking between frequential and contextual data revealed findings which indicate that a few students have, nevertheless, considered language as a cognitive activity. These few students have realised that CALP will enable them to study, conceptualise, help in structuring meaning and to understand instruction. The field notes on the students assignments provide evidence of data which reflect the same aspect, since a few students were
able to comprehend the meaning of concepts and could structure the content of the work in a logical sequence.

INFORMATION AND KNOWLEDGE

The cross-checking between frequential data and contextual data once more revealed that students are passively "receiving information" via language from others who are conveying the information (Henning, 1992). The knowledge that is 'received' is mainly of cultures, languages and religion. The absence of academic knowledge once more highlights the fact that language, and therefore lack of English proficiency, is not considered as an issue for the difficulty the students experience in the academic milieu.

7.2.2 LEARNING AS RESPONSIBLE ACTIVITY

Once more without prior selection of categories the frequential data and conceptual data of the concept learning was analysed to provide opportunity for patterns to emerge in a "bottom-up" manner. The validity of these patterns was cross-checked against the naturalistic observation (fieldnoted data) to ensure a more holistic and reliable view of students' conceptions of learning. The patterns that emerged are as follows:

WRITTEN COMMUNICATION

Both reading and writing are considered as important learning activities. Reading could probably be considered as an important mode of learning, not so much because it provides a gate to more academic knowledge but rather because it is used as a source of reference or in the classroom for students to follow as the lecturer is reading.

Frequential data proved that learning is an activity provided by the teacher to the learner. The contextual data also provided evidence that communication as a learning activity is mostly conducted by others, namely parents and teachers. The learners receive the learning content via the material being read to them. This might be the reason why reading as written mode of communication is considered as a very important aspect in learning. During observation it was found that students tend to sit in class without trying to participate even when the opportunity is created for participation. This has often caused the lecturer who is also burdened with an LEP to resort to oralism or to the textbook as lecturing method. Contextual data also revealed that students referred to the text and practical work, both issues
that can be categorised under written communication. The mentioning of these aspects confirms the findings in the quantitative analysis as well as the data that was collected during observation. Observational data provided evidence that the rural college students depend greatly on the lecturing notes for tests and on copying sentences straight from the textbook when they must do assignments. Reading, however, was not implemented to further their knowledge in a more spontaneous manner.

Writing as a category under written communication also leads to links with learning. Reading and writing are therefore both seen as modes of learning. These findings seem to lead automatically to the next pattern that emerged from the data.

- **LIBERATION**

The ability to be literate may provide the students the opportunity to become liberated. More than fifty percent of the students provided evidence that learning would enhance their lives and that it will lead to upliftment. The contextual data also referred to knowledge of world views, an issue related to the concept of liberation. The frequentual data, however, indicates that learning is mainly a passive activity, yet, many students have indicated that the active side of learning concerns practice and doing. If they are able to practise what is taught, they will be able to do things for themselves and hence will become liberated. Data were fieldnoted also providing evidence of the same issue. The fact that both students and black lecturers went on strike or arranged class boycotts confirm the above findings. They have indicated their aim of freedom being to do what they think is for the best. Students indicated that they realise education may well lead to liberation, therefore they boycotted classes to force the governing body to accept the students who have failed the previous year and to enrol those students (more than eight hundred of them) who still wanted to register as student-teachers but who were not accepted because of their poor matriculation results. (The other fact that the college can only cater for a certain number of students should neither be a consideration if students want to be educated). Learning for liberation therefore seems to imply being accepted and certificated, regardless of the quality or quantity of learning.

- **MORALITY**

Moral standards and religion are taught to these students and it features in their conceptions of learning.
"Sometimes in church the preacher in the church can give you to more knowledge in the way you learning something about the religious"

Both frequential data and contextual data showed that most students perceive morals as something that must be lived out since they should be reflected in good behaviour.

"Learning helps us to behave well"

The observation data reflects a certain amount of contradictory evidence on this issue. Though most students do behave well, the class boycotts and the copying of assignments indicate that some students still encounter difficulty in understanding the concept of moral standards. This issue may elicit many different views therefore it may suffice to say that many students did consider the learning of morals as important. This may well be concluded with one of the student's comments taken from the discourse analysis:

"But, it does not matter whether what you have learned is wright or wrong, only to know the wrongs and the wrights."

- ORAL COMMUNICATION

Joubert (1991:203) maintains that "effective communication is the single most important prerequisite to effective learning". It might, therefore, seem contradictory if oral communication is not considered as important as written communication. Comparing this finding with the findings under frequential data it becomes apparent that the strengthening of oral communication, which mostly consists of teacher communication in schools, is being rejected here. Students have realised that although oral communication is important in learning, it ought not to be seen as paramount to learning. Observational data however, proved to reveal the opposite. Students still find it difficult to rid themselves of the habit of being listeners, though listening need not be seen as a passive activity. Though they have uttered their grievances on lecturers who resort to oralism, they still experience difficulty in contributing orally to a class discussion, probably because of LEP and limited CALP. Once more the findings of the pattern illuminate the emergence of the next pattern.
RECEIVING OF KNOWLEDGE

The fact that students reflect a lack of "languaging" (Perkins, 1991:231) reveals their dependency on "others" for information. Most students have indicated in the contextual data that knowledge for learning is received when taught by the teacher. Comparing this finding with the findings from the frequential data which reflect that most learning activities are considered as passive activites and noting the fact that observational data showed that students depend on both the lecturer and other students for completing their assignments, then all the data confirms that most students have not yet realised that they need to take personal responsibility for their learning task. Learning ought therefore be considered as an activity of self-conduct (Hollander, 1991 and Botha, 1992).

GAINING OF KNOWLEDGE

Both the frequential data and contextual data indicated that there are a small number of students who have realised that knowledge can be "gained" through learning in a more active way. Contextual data, however, showed that the knowledge gained in this manner is not connected with the students academic milieu, but experiential knowledge in general. Only five students, (six percent) have connected research and studying as modes of learning. It is therefore, not surprising to have observed during the field study that students do not know how to study. They are too unsure to venture into the academic world of learning without a "scope" from the lecturer.

UNDERSTANDING

It is interesting to notice that all the data reveal that only a few students consider understanding as an component of learning. Another aspect that is important for the lecturers of a PRESET institution is to notice that although some students have referred to understanding it concerns the understanding of other cultures, languages and other people. FrequentiaJ data proved that only three percent of the students linked understanding to their academic milieu. The observational data also showed that although students know the lesson content must be understood, they do not know how to search for understanding. They are happy to accept a chorus of "yes, Miss" when they ask : "Do you understand class?" The fact that they have not learned how to search for understanding might well have contributed to their lack of CALP, as language assists in understanding (accommodation of newly assimilated knowledge in Piagetian terms).
COGNITION

The appearance of this pattern so low down the hierarchy of learning categories once more confirms that learning is mainly considered an activity of passive listening and memorising. The findings of both sets of data stressed that learning is not considered as an own mental activity. Their limited desire to read and to make use of the library, which facilitates active participation in their own learning confirms the interpretation that they do not connect language adequacy to cognition or metacognition. Concentration as part of cognition was only mentioned by a minority of students. One student explained that learning may result in self-realisation:

"Learning helps us to be what we want to be".

The word "help" stresses the fact that learning has not yet become part of the learner, but it can be called in to apply when needed with help. During both document analysis and participant observation it was noticed that students often depended on "help" in their learning.

USE OF SENSES

The mere fact that this pattern has arisen proves that there are a few students who have realised that the learner ought to be involved in the learning act in totality and that sensory perception plays a vital part.

In conclusion the interpretation of students' conceptions of learning indicates that learning can be interpreted as a passive activity (fifty six percent of the students) received from others rather than accepting it as an own activity (thirty eight percent) where the learners must accept responsibility (eleven percent of the students). Others indicated that learning is a dual effort (twenty percent) where the responsibility lies with both the teacher and the learners (twelve percent). Though there was a strong realisation of the importance of learning, findings have brought to light that the knowledge learned was mostly of cultural and linguistic nature and not academic in the narrower sense of the word.

The interpretation of the patterns of students' conceptions of language and the mode of learning has clearly indicated what the rural students' conceptions of language and of learning are. In order to elucidate the link between these two sets of patterns more cross-referencing needs to be done.
7.2.3 INTERPRETING THE CHAIN OF EVIDENCE IN A CONTEXTUAL WHOLE

That there is a link between the patterns of conceptions about language and learning is evident. The above interpretations of the evidence have elucidated that the link is not at an academic level but rather at a socio-political level of language use and thinking.

The importance of an understanding of the students' conceptions of language and learning is that both these phenomena provide the opportunity for interaction among people which facilitates socialisation (the word is used in the sense of social context and not in its psychological connotation). Socialisation involves communication, (oral as well as written) In the data of this study oral communication includes mainly the expression of world views and feelings while written communication involves the writing of letters to friends rather than academic activities. Communication during learning activity is practised to convey the moral standards of the society in which the learners find themselves. It is furthermore used for constructing knowledge, not so much at the academic niveau, but to understand other cultures and languages. This ensures greater acceptance of the individuals in the society. During interaction at academic level the learners do not actively take part in the communication but become recipients of the knowledge conveyed to them. The importance contributed to learning of other languages emphasises the need to be accepted at a social level. By cross-checking this finding with findings pertaining to oral and written communication it was found that personal reading seems to alienate them from this social interaction with others. This might well be a reason why the findings revealed limited participation in reading. To become literate, however, demands a certain proficiency level of reading and of writing.

Analysing the data semantically provided findings that indicate passive learning since the pattern that emerged from analysing the data on their conceptions of reading focus on the reading of the textbook and not on the extensive teaching for academic knowledge construction.

The fact that so much emphasis was put on literacy in the analysis of "learning" reflects the desire not so much for academic achievement but for social upliftment and liberation. As was indicated students relied greatly upon the textbook and the writing down of notes to help them to learn academic content not by way of understanding but by memorising the facts. Linking the pattern of literacy with the pattern of understanding in the analysis of conceptions of learning provides evidence that much more consideration is given to the understanding of other cultures and languages than to the understanding of academic
information and principles. These findings create a clear conceptual chain of evidence: To know another language ensures better communication, resulting in freer socialisation and creating the understanding of world knowledge which again may promote liberation. This furthermore indicates that the link between language and learning is seen as a socio-political issue and not an academic one.

Cross-checking these findings by linking modes of expressions and of understanding with the mode of liberation, both the contextual data and observational data illuminate the value the students ascribe to liberation. Observational data gave evidence that students want to be free to express their world views especially political views, confirming the emergence of the pattern of "liberation". For that reason the learning of language is important. Some students' contextual data highlighted conceptions of language and of learning in this way:

"Language is the medium through which people can be in a position of saying what they want to say".

"Learning is the upliftmmt of one's knowledge...we get some skills...the only way to the future".

"It (learning) make a communication between people. It gives a knowledge of people in terms of seeking a job. About learning people have to succeed on their lives".

Skills and experience may also be considered as important for they could just as well contribute to the achievement of liberation. When the two main groups of data, namely language and learning, are linked together both language and learning seem to be perceived as important, not for the broadening of the students academic knowledge, but rather for becoming liberated in a socio-political way.

A discrepancy is revealed where the pattern of morality emerges and is linked with language and with learning. That language must express norms or provide knowledge about religion is not reflected strongly - not in the frequentia data nor in the observational data - but it came clearly forward in the contextually analysed data. Another interesting aspect that was found in this pattern is the fact that the construction of morals is not dependent on language but that morals can be taught by setting an example. The findings also revealed that only one student referred to discipline. On reflection after having been a participant observer, the schools and college in the rural area provided evidence that maintenance of discipline is
considered as a problem. That the pattern of morality emerged under learning can also be attributed to a speech on AIDS that was delivered to them during their orientation programme. This may well be linked with students' growing aspirations to be able to express their own views and the conflict this creates in the realisation that norms are sometimes discarded in the process. The disregard for discipline may be because limited value is put on the understanding of self-discipline during learning. The frequent data mainly indicates a passivity towards learning while the observational data gave evidence that students do not apply self-discipline when they are expected to learn. Few students use the free time during class boycotts to learn for the tests that are awaiting them when they return to class.

The document analysis also provided evidence of metaphorical expressions. The oral history of the black nations is characterised by these metaphorical utterances. Analysing the semantics of concepts used in the contextual data brought interesting findings into prominence. To be able to create indirect comparisons, a connection between a concrete or real concept and a fictitious one is made. Metaphors in language usually confirm a high level of thought. These students, however, come from a background where metaphors are often used in their speech. That is probably why exaggerated phrases are used if certain aspects are really considered as important. "language is something without which no understanding between people of different races will be facilitated" or "Language is everything, because without it nothing can exist".

In analysing phrases like: "language is a tool/ instrument/ or vehicle for communication", it confirms that language is exerted to achieve a certain goal. A vehicle is used for conveyance, transportation or as a means by which thought, feelings and ideas can be conveyed. Language therefore transports the speaker perhaps to an educational situation, or closer to the learning goal. The use of the phrase that learning as "the key to knowledge" is not so much to unlock the unknown reality nor the scientific and mathematical knowledge but rather to open the way to cultural and linguistic understanding. Using these metaphors indicates the value students attach to language and to learning in an indirect and stylistically more challenging way. Metaphorical consistency, instead of contributing to conceptual understanding, may create restriction which may hamper learning (Buckmann and Floden, 1992).

In conclusion it is stated that although the study started off with a question on the rural students' conceptions of language and of learning, various other interesting findings have emerged. Yet all confirm that the LEP of students do influence the way they conceptualise
learning. This research has further proved that it is not only their LEP, but also specifically their lack in CALP that created a concept on passivity in learning. They have not taken responsibility for their own learning since learning to them is something that ostensibly "happens" to them, even at college level.

7.3 DRAWING AND VERIFYING OF CONCLUSIONS

The findings of this study indicate that these students:

- have probably not been exposed to contemporary cognitive theory and linguistic theory,

- that their own learning experiences and opportunities for language usage are probably not conducive to understanding learning as pro-active construction of knowledge change and of language as partner in cognition (Henning, 1993(a) and Henning, 1993(b)),

- have no reading experiences that may contribute to L2 proficiency and motivation to learn,

- reflect an understanding of liberation as a possible freedom from instead of a freedom for academic learning and conception of learning does not involve the acceptance of responsibility for their own learning.

These conclusions are verified, first of all by arguing from theory as was done in the interpretation phase under 7.2. Furthermore, steps were taken to account for the conclusions. The model of Miles and Huberman (1988) was used for this validity checking exercise.

7.3.1 CHECKING THE RELIABILITY

It is necessary to determine if the conclusions, drawn from the findings are conceptually relatable. This is an important verification device because the conclusions have to be complimentary and should not be in conflict. This step was executed in chapter six.
7.3.2 CHECKING FOR RESEARCH INFERENCE

The presence of the researcher on the site may affect the data and influence the analysis. The participants may also try to mislead the researcher or withhold evidence. The researcher, on the other hand, may try to interpret the findings according to bias notions. Evidence needs to be weighted regularly and the role of the researcher as full participant has to be described.

According to Wagner (1993:3) the "--- structural features of participant research encourage individuals to construct knowledge about schools in which research, practice and theory are interdependent." The researcher explores the emic view of research participants from an emically embedded perspective. Traditionally this "subjective" view is regarded as less valid than an "objective" view. However, in contemporary education the role of the full participant as researcher is becoming more vital, especially in action research. The researcher has to practise certain procedures for validation. Henning (1992) refers to Erickson (1991) and Miles and Huberman (1988) who suggest techniques to clarify observers' perceptions.

In this study precautionary measures were taken during the collection of the frequent data consisting of the students' personal written sketches as was explained in chapter 6.2. The first data were collected at a time when there were no indications yet of tests to be written. It was during a class discussion where the concept education was explained as introductory to the principles of education. The next set of data were gathered in similar conditions, but at a later date. The raw data can provide evidence of their natural origin. Since the data were the students' own efforts, except where a few made use of one another's ideas, the researcher believes that the data reveal their real conceptions of language and of learning. During the time of obtaining observational data an unforeseen situation occurred where the third year students (of whom many were accepted during a period when the college was forced by political pressure to enrol more students) demanded the removal of the researcher. Although it may seem as if this situation could result in research becoming biased, the researcher realised that it was caused both by students who did not know the researcher and because of the political atmosphere in which our country finds itself at present. Most of the students were not involved but had to abide by the decisions of the SRC. This situation also provided the researcher the opportunity to concentrate mainly on the research project for the rest of the year. The available new data were used for analysis and interpretation. The research site could however not be visited again for the duration of the study. By being withdrawn from the site, the researcher had the
opportunity to withdraw and perceive the evidence from different angles (Miles and Huberman, 1988; Landman, 1992).

7.3.3 CHECKING THROUGH TRIANGULATION

A well known modus operandi is applied when the testing of the research findings is conducted through triangulation. The findings of the collected data are double-checked and strengthened by triangulation (Henning, 1993(c) and Landman, 1992) meaning that the same issue is researched by means of different methods or by different types of analyses of data within the same method.

The frequent data on learning revealed that students mainly depend on other people during learning. This finding is checked with the findings that emerged during the document analysis of the thematic data on learning. The fact that students depended on both the textbook and the teacher for information and help during a learning activity supported the findings. It was furthermore double-checked by correlating it with the observational data which support the data since they often expected from the lecturer to provide a clear indication of what must be learned for a test. At the end an inter-coder was asked to check once more the findings of the data to ensure validity. The reliability was seventy one on the Kendall coordinator coefficient in which the strength of patterns in hierarchical order were assessed.

7.3.4 DETERMINING THE RELEVANCE OF DATA

After the selection and reduction of the data the evidence ought to display valid patterns which are eventually given a certain amount of weight during the conclusion drawing. The validity of the data, the circumstances during which data are obtained and the researcher's efforts to ensure validation all contribute to the quality of the data that is collected.

From the discussions above it becomes evident that different measurements were taken to ensure the validity of the data. The findings indicate that the data selected for the investigation of the research question were relevant to provide the emergence of valid patterns to indicate the students conceptions of language and of learning.
7.3.5 NOTICING CONTRASTS AND MAKING COMPARISONS

To enhance the validity of the study and to ensure correct interpretation and verification, the researcher needs to be sensitive (Strauss and Corbin, 1991) to the appearance of contradicting evidence.

The findings in this study provided data that appeared to be contradictory. By comparing the findings of the pattern written communication in the analysis of data about conceptions of language with that of learning, it seems as if the emergence of the pattern reading may contradict the evidence. It was found that reading is not considered as an important communication device in the language data. Yet in the data of learning it is important. The frequential data provided evidence that students are mainly passive learners who want to "receive" knowledge. The contextual data provided evidence that students view communication as a mode of socialising, but that reading distances the individual from socialising and is therefore not considered as a communication device. When this finding is linked with reading in the learning data, the findings reveal a more durable explanation. Students as passive "receivers" of knowledge depend on the textbook or on the lecturer who reads from the textbook in order to get more information. They are unsure to try to learn on their own probably because of LEP. This conclusion is facilitated by the observation data and by various researchers on this aspect (Joubert, 1991; Webb, 1986; Young, 1986; Perkins, 1991 and Botha, 1991).

7.3.6 DETERMINING THE MEANING OF EXCEPTIONS

Exceptions or outliers (Miles and Huberman, 1988: ) need not weaken the case study but could be appropriated to strengthen the findings and to deepen tentative conclusions.

The contextual data revealed the evidence that one student explained that even animals communicate. Animal communication is not under discussion in this research study yet this finding provided more evidence that students perceive communication as facilitator of social interaction. This could link the pattern of communication with the pattern of socialising.

7.3.7 CONSCIOUS OF UNAUTHENTIC RELATIONS

To ensure valid conclusion drawing and verification, it is important to rule out false relations. This is achieved by considering whether a third factor is not underlying or
influencing the relation that occurred between the two main variables in the conceptual statement of the pattern or category.

This relation might well have occurred in this study. During the students' orientation programme of which the researcher was the convener, the students were addressed by various speakers amongst whom was a doctor who discussed AIDS. The fact that they have considered morality as an important component of learning might well have lead to the emergence of this pattern because they were influenced by this discussion.

7.3.8 REPEATING OF OR REPLICATING A FINDING

This verification device also facilitates the strengthening of validity. Miles and Huberman (1988) maintain that replication during the final analysis of the research data is difficult and less credible. It was, however, inevitable during this stage, since the same findings reappeared during the analysis of data about language and learning.

The reappearance of the students' "passive" participation in both the learning of a language and in general learning enhanced the findings. Validity was thus cross-checked and facilitated by triangulation.

7.3.9 SEEKING FOR DISCONFIRMING EVIDENCE

This verification device is closely related to checking the meaning of outliers and the search for rival explanations which can be employed for checking biases too.

By conducting a literature review and by referring to theory during the interpretation of the data the researcher tried to keep an open mind and checked for rival explanations. The fact that the students revealed LEP and that Mawasha (1992) maintained that the aspiration for standards are disempowering were both considered during the interpretation. The staggering evidence of other literature studies (Lanham, 1986; Webb, 1986; Young, 1986; MacDonald, 1990; Pelser, 1991; Beckmann, 1991; Joubert, 1991 and Perkins, 1991) provide enough information to conclude that the standards that ought to be set for the improvement of the students language proficiency can only be to their benefit. These studies could be used to test the researcher's biases too.
7.3.10 PARTICIPANTS PROVIDE FEEDBACK

Though Miles and Huberman (1988) consider this tactic an important verification device it could not be used in this study because of the circumstances at the research college. However, feedback was received from another lecturer still present at the college. She revealed that the college lecturers find it difficult to create a learning culture, due to ongoing political activity. This feedback facilitated the findings of the study. Further feedback can be provided by presenting the findings of the data to the reader who may consider and evaluate the evidence and interpretation with the final conclusion drawing and determine their validity, reliability and generalisability.

To accommodate this possibility it is necessary to clearly describe the audit trail along which "raw" data moved from collection to analysis and coding.

7.4 AUDIT TRAIL

According to Miles and Huberman (1988) an "audit trail" is necessary to determine the dependability or confirmability of a procedure in order to verify the accuracy and legitimacy of the research findings. In order to draw conclusions the audit trail ensures that the researcher will perceive the data in totality and coherence. The reader refers to the examples of the route which raw data followed from collection to interpretation. The audit trail of the data route was provided in chapter six.

Though the theoretical study provided evidence that language is learned to enhance both social language proficiency and cognitive-academic learning proficiency (Henning and van Loggerenberg, 1991; Wood, 1990 and Hofmeier and Buckland, 1992) this study reflects that according to the students the main focus of language does not fall on language for learning but on language for social interrelationships which facilitate liberation and socialisation. This aspect encapsulates all the other patterns that emerged.

7.5 RECOMMENDATIONS

This study has certain limitations, such as the fact that the findings are not statistically generalisable. However, the implications for research and practice can be argued on the basis of qualitative research practice. Schofield (1990:207) cites Guba and Lincoln (1981) to give
the view of most qualitative researchers. The aim of naturalistic inquiry is to develop an idiographic body of knowledge. Generalizations are impossible since phenomena are neither time nor context free (Schofield, 1990). Transfer of meaning to other cases is done by the dissemince.

- Research implications

The college of education in a rural area reflects a vital need for further research in the role of students' conceptions, not only about language and learning, but also about teaching, management and professionalization.

The researcher is of the opinion that the language and learning problems these rural student-teachers encounter will not be addressed by merely including a four year teaching diploma unless LAC is implemented and the L2 proficiency of both lecturers and students admitted to the college are seriously considered. Investigative studies in these areas need to be done in order to help especially the first year students to adapt to an L2 and academic-learning milieu.

Research should also be conducted on the ability of lecturers to work in groups and how best to implement LAC. It is suggested that the heads of the various Departments (HOD's) ought to provide the lecturers with the necessary assistance and identify the weaker lecturers by spending some time in the different classes. This method of assistance has until this date been a very sensitive issue among the black lecturers who are not used to evaluation of their teaching abilities after the completion of their studies. This aspect may also need further research.

- Curriculum design

Curriculum designers and policy makers need to address the present college curriculum and language policy seriously in order to ensure that LAC is included in curriculum design and practice.

- Practice of the research college

In order to be able to provide the necessary assistance to the first year students the college being researched should acknowledge the students pre-conceptions of language and of
learning. Since it is suggested that LAC ought to be practically included in the curriculum, it ought to be implemented as soon as possible in this PRESET institution.

Lecturers should only be employed in subjects for which they are academically, linguistically and professionally equipped.

Since most of the subjects that students encounter at PRESET level are presented in the L2, it is of utmost importance, that the students language proficiency be at a minimum level of competence which will assist them in learning.

Assignments and tests should be designed in such a manner as to facilitate learning and not memorisation, copying or rote learning.

Although no model for diagnosing student-teachers' qualitative articulation of conceptions of language and of learning was aimed at or constructed during this research, the signs of an emerging model are evident. There are a number of concepts which crystallised during the data analysis, the most salient being quality of expression which the naive sketches elicited. Students seem to be able to write "elaborate" versions of their conceptions, articulating clearly within the limitations of "restricted" linguistic ability. Within the parameter of this embryonic model of a diagnostic device in which conceptions of language and of learning are articulated, the students also exhibit, to a degree, their literary proficiency in the discourse domain of language pedagogy.

7.6 SUMMARY

In this dissertation the researcher has attempted to search for understanding of the nature of rural students-teachers' articulation of conceptions of language and of learning. This last chapter covered the interpretation and validation of findings as well as conclusions and recommendations. The vision of a model for diagnostic purposes was also stated briefly.

The report is concluded with a citation from the written data in which a student reminds her educators that:

"Learning is the process whereby the professional moulds the unskilled to achieve resounding success!"
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ADDENDUM A

EXAMPLES OF FIELD NOTES

1. EXTRACTS FROM UNSTRUCTURED FIELD NOTES

ORIENTATION PERIOD

DAY ONE

- students show excitement:
  - it is a new year and a new experience to be at college
  - to start with their different subjects

DAY TWO

- orientation programme starts:
  - some students did not arrive
  - the students in the hall seem to listen intensively

DAYS THREE to FIVE

- black lecturers are on strike:
  - the orientation programme must be adjusted
  - some students look lost because changes are made to the programme

DAYS SIX to TEN

- During the last week some of the senior primary students did not arrive for all the orientation discussions
- the absentees were mostly males
  (the negative attitude of some lecturers may have dampened the students excitement of the first two days)
- the students who were present seemed to enjoy all the new information and discussions, some even came to tell me that they enjoyed it
- students with whom I had interviews the previous year came to thank me for choosing them as student-teachers. (It was indicated to them that it was more their own attitude towards us and the manner in which they answered the
questions during the interviews as well as their matriculation results that ensured their entrance to the college).

WEEK THREE

Classes start.

- students are all present and listen tentively
- the male students tend to take part in the discussions
- it is difficult to involve most in the class discussions
- students are reluctant to participate orally
- some are inclined to look for help from their friends when a question is directed at them personally
- some resort to lowering their vocal volume (as if they do not want the other students or myself to hear their comments)
- others try to evade eye contact (possibly in the hope that they may be overlooked)
- quite a few students already know that the concept education entails both formal and informal education. (There is a student who maintains that he was the principal of a primary school).
- most of them only perceive education as the formal education they have experienced at school.
- many students write very slowly, therefore dictation becomes difficult.
- students start to talk among one another while notes had to be written down:
  - they were unfamiliar with a concept
  - they did not understand what was said or written on the chalkboard
  - they could not see clearly on the board or transparency (notes were clear; some students struggle with poor eyesight)
- they quickly indicate when a spelling mistake appears on the board;
- first assignment is explained:
  - some students look unsure
  - they had the opportunity to ask questions
  - one student indicated that he does not know what was expected from him although the whole assignment was structured on the board; marks allocated to the different sub-headings were indicated; additional sources were written down and the meaning of concepts were explained.
he could however not indicate where his problem lay

class was asked if the assignment, written down on the board under the
different sub-headings was understood. Quite a number indicated that they
were at a loss. The instructions were explained once more.

students were instructed to read the relevant section in their textbooks with the
question in mind. If there are any queries then we may discuss it again.

WEEK FOUR

A group of the staff once again decided that they are not happy about certain decisions
of the Department and stopped attending classes. Students start to roam around and a few first
year students do not arrive for their classes.

Those who do attend classes seem to be exhausted by twelve o'clock in the afternoon.

From twelve o'clock it becomes difficult to keep the students' attention.

(A possible reason for these two observations could be that the students are not used to paying
attention to lessons for so long)

Ask students to reflect on the notes they have taken the previous day. It appears that the
students:

- wrote notes down without understanding them
- did not do revision the previous day

students are asked to write down their conceptions of learning

Students must write notes from the board:

- it is still slow
- a few questions are asked concerning some concepts still unfamiliar to them
- most students are writing the notes down without any query about the meaning
  of the sentences
- a few students were asked to explain the meaning of some of the sentences
  and they could not
- understanding seems to be a problem and they do not want to indicate their
difficulty in comprehending

Students can not concentrate on listening and taking notes at the same time.
Students are boycotting classes to indicate their grievances against the lecturers who are not attending classes and because not all the textbooks have arrived.

- they need the books to study from
- the notes are not enough
- some lecturers dictate and they are not sure about these notes
- they want all their lecturers to attend the classes and not only a few
- one student indicated that most students are scared to attend some lecturers' classes if the other lecturers are on strike

Students convert to L1 when speaking to one another in and out of class.

WEEK FIVE

Students and lecturers are back in class

- Stories and the reading of books came under discussion
- fairy tales are completely unfamiliar to them
- few students possess books to read at home
- even fewer have recollections of their parents reading or reading to them
- three students are proud to be the owners of home libraries with approximately ten to twenty books on the shelves
- these students are parents, yet they admit that they do not allow their children to use these books
- two other students mentioned that they do allow their small children to page through the books or magazines that they buy
- they want their children to get used to literature (but not to touch books?)

When asked if they think it is important to allow young children to handle books, they gave the following answers:

- books are too expensive
- they seldom buy books
- they borrow books and must give them back
- young children will only tear the pages
- youngsters cannot read yet
- children only look at pictures and are not really interested in the written word

There are, however, a few who maintain:

- books are important for them to learn from
- by reading a book you learn about other people and other countries
(It seems as if literature is mostly for learning and not for relaxation or enjoyment)

When asked if they think they may learn anything from watching television they replied:
- few have television sets at home and they do watch some programmes
- they named certain programmes that they enjoy watching

Question had to be rephrased because the original question was not answered:
- they learn about wild life
- they see how people should behave in restaurants
- school subjects are explained
- they see how people become rich by winning money during certain programmes
- television shows you what soap products are good
- one student remarked that it teaches you about violence
- you see other countries

(the learning of the L2 was not considered; the rephrasing of the question reflects that they may experience problems in staying with a topic, or perhaps because of LEP the question was not understood.)

When questions are put forward students tend to:
- divert from the topic
- they repeat the whole question in their answer and often do not come to a logical answering of the question
- they say they do not know
- give incomplete answers

They seem to find it strange or even funny when they have given an answer that another and even more in-depth question can result from the answer.

Students are asked to write down their conceptions of language

WEEK SIX

Time for the presentation of the assignments are coming closer. Students are reminded that the assignments must be handed in the following Monday. Only a few students told me that they have already started. Some came to see me at the office to seek advice on
how to go about and if they are expected to formulate the sentences in their own words.

They were reminded that an assignment should be their own effort because the assignment was given to help them to learn about and to understand the subject.

Once again I experienced difficulty to involve students in class discussion. Only a few are always willing to participate. Some of them stay passive (hopefully listening!). It sometimes feels as if I cannot reach one or two for they do not respond when I ask them questions or invite them to participate in giving their own views nor do they indicate if they understand or not. Other lecturers, black and white, commented on the same aspect).

Yet there are days, like today, when the class was lively and responsive. It is as if students are motivated to learn and the class was most enjoyable.

On Friday the students allocated a representative to ask about the assignment.
- they maintain they do not understand what is expected from them
- they cannot indicate what their problems are
- they want me to provide them with the different answers under each subheading. They ask questions in such a way that it seems as if they want me to formulate the sentences that must be provided under each heading. After some inquiry it became clear that only a few have started with the assignment and that the others have not even read the chapter through on which the assignment was based, neither have they read any of the additional sources reserved for them in the library
- some even admitted that they have not yet bought their textbook.

One student came to see me today to ask permission to hand in his assignment the following week since he only arrived on Wednesday. After this was discussed with the registrar we realised that there are a few "students" who became students in the hope that they will be accepted as late enrolments. (What a sad case!)

WEEK SEVEN

The first test is discussed.
Students immediately ask for a 'scope' (not something new because this is a request we became quite familiar with.
Scopes, however, are for sale in the shops and not in class!)
- Students want to know if they must only (not mainly!) concentrate on their notes.

Assignments are marked. It is not surprising to find the following:
- only a few students made use of the additional sources in the library
- these students also reflect a certain proficiency in handling the L2 and are able to express themselves clearly and often logically
- only those who used the textbook copied straight from the literature
- quite a few students copied the assignment from their friends. There were five students who provided me with exactly the same assignment, spelling mistakes and all. (The data from the naive sketches also indicates copying amongst the students)
- some students did not provide the relevant information
- others have deviated from the topic or have stopped before they could discuss the most relevant aspects under that sub-heading
- difficulty in understanding "why" and "how" and the difference between explain, discuss and evaluate
- often sentences were selected from the textbook that are contradictory to what they might have just written in the previous sentence
- students do not reread their assignments to make self-corrections
- assignments were not structured to provide a logical follow up of ideas
- some students altogether ignored the structure as was given
- work was overall neat
- some chose the wrong concepts to explain an aspect and contribute a complete different meaning to the sentence
- difficulty was experienced to express the information in their own words
- sentence structures are often incorrect
- some sentences are incomprehensible

That most students only started on the assignment over the weekend was quite clear. Little effort was put into the assignment or the presentation thereof.

Comments were put to the students. They justified the poor presentation as follows:
- most could not get hold of the additional texts, because the other students were busy using them (they had more than a month in which to finish the assignment; there was a week of no classes because of the boycott; the sources could not be removed from the library
and were available to all; and most of them admitted on the Friday that they had not yet started.

When realising that their marks are low the following proposals were put forward:

- re-writing of the assignment (although the due date of next assignment is in two weeks time)
- changing of the marks that they may pass. ("Have pity on us")
Addendum B

Chain of evidence in categorizing language

LANGUAGE

- others
- general
- universal

speech
- talk
- oral
- writing
- reading
- actions
- written

structure
- acquisition
- practice
- imitation
- listening
- teaching
- learning

views
- feelings
- thoughts
- needs
- knowledge
- self

know different languages
- universal communication
- understand different nations
- fluency
- contact and exchange

other people
- other languages
- own language
- in general

own
- heritage
- norms/religion
- others

studying
- conceptualizing
- meaning
- instruction

conveying

receiving

culture
- languages
- religion

socializing

types of communication

acquiring language

expression

liberation

understanding

culture-building

cognitive activity

information

knowledge

meaningful communication

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Addendum C

Chain of evidence in categorizing learning

**LEARNING**

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