FACTORS AFFECTING THE ACQUISITION OF ENGLISH AS A SECOND LANGUAGE

by

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FACTORS AFFECTING THE ACQUISITION OF ENGLISH AS A SECOND LANGUAGE

This dissertation considers the factors affecting the acquisition of a second language and those factors thought to be the most important in the acquisition of English as a second language.

An examination of the theories of language acquisition is followed by a literature study and discussion of the factors appearing to be of importance in second language acquisition.

The account of the empirical investigation, conducted in an English medium school in Botswana, includes the formulation of hypotheses, discussion of the sample, a description of the measuring instruments used and a summary of the general procedure followed.

The results of the empirical investigation suggest that the most important factors in the acquisition of English as a second language are age, intelligence, the amount of English spoken at home, pupil perception of parental support and first language acquisition.

In conclusion, some of the educational implications of this investigation are considered.
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CHAPTER ONE
INTRODUCTION

1.1 Analysis of the Problem

All children are entitled to an education in their mother tongue. This is also the type of education that will provide the best results but one must agree with Turner (1966: 14) that knowledge of a major international language is important for every country in Africa if it is to develop to the full, economically, socially and politically and assume its proper place in the world.

Botswana has two official languages - English and Setswana. At the end of the primary school years, students sit the national primary school leaving examination (P.S.L.E.). This examination is presented in English, apart from a Setswana paper for citizens. Acceptance into secondary school depends on a high pass in English. All secondary and tertiary education is in English.

Children from all over the world come to Botswana with their parents. Some speak English as a first language, some as a second language, while others have learnt English as a foreign language and some have no knowledge of English at all. The first language a child learns is the mother tongue and while all subsequent languages learnt may be considered as second languages, a distinction can be made between a second language that has social functions within the community where it is learnt and a foreign language which is learnt primarily for contact outside one's own community. Thus for children in Botswana, where English is used all around them, English is a second language while for example French, which is also taught in the English medium schools in Botswana, is a foreign language.

Teachers in the English medium schools are aware of the importance of English, especially of comprehension, for upon the child's understanding of English depends his understanding of all subjects being taught in the English medium.

Thornhill Primary School, where the author has been teaching for the past ten years, is a typical example of this situation. This school is an English medium school in Gaborone, the capital of Botswana, attended by approximately 750 children aged between 5 and 14 years. About 80% of the pupils have English as a second language. There are a large number of different nationalities within the school, with children coming from 40 to 50 different countries. Setswana speakers
comprise the largest group - about 35%. Amongst the staff there are also teachers with English as a second language. Those teachers who speak English as a first language come from different backgrounds and different education systems e.g. England, Scotland, Ireland, Wales, United States of America, Zimbabwe and South Africa.

Language is a vital component of the learning process. When children are learning through the medium of a second language it is even more important that we give them the most effective help possible to enable them to understand to the best of their ability. The greater our understanding of the factors involved in second language acquisition, the more effective our help is likely to be.

Burstall (1978: 1) wrote that, "There have been few carefully designed long term studies of the factors affecting the acquisition of a foreign language during childhood and adolescence" and that existing studies tended to concentrate on measuring language proficiency and neglected the possibilities of motivational factors. Six years later Littlewood saw little change in the situation. "The sum of our knowledge about the factors influencing second language learning is very limited and imprecise." (Littlewood 1984: 68). Klein (1986: 167) maintained that research into second language acquisition had too short a history to supply conclusive evidence on any important question. There is obviously a need for as much research as possible in this field to contribute to our existing knowledge of the factors affecting the acquisition of a second language. Research findings can influence teaching methods and improve the quality of help given to children as they attempt to master a second language.

Some of the most important factors so far identified would seem to be aptitude and intelligence within the cognitive domain with self esteem, motivation and attitude in the affective sphere (Brown, H. D. 1987; Gardner, R.C. 1985; Littlewood, W. T. 1984; Vrey, J. D. 1984; Ausubel, D.P. 1978). The opportunity to learn, with sufficient time to do so, plus variety of experience and the pupil's perception of the meaningfulness of the task would also seem to be of importance (Brown, H. D. 1987; Harley, B. 1986; Ellis, R. 1985; Littlewood, W. T. 1984; Vrey J. D. 1984).

One problem encountered in researching into second language acquisition is a confusion of terminology. Some refer to language learning and some to language acquisition. The term 'acquisition' was first introduced to avoid the association between the word 'language' and Behavioural learning theory (McDonagh 1986: ...
8). Some, for example Krashen (1981), use the term 'learning' to refer to the conscious processes of internalising a language while the term 'acquisition' is used to refer to subconscious processes. Strevens (1978: 3) suggested using 'acquisition' for language acquired without benefit of a teacher e.g. untutored mother tongue, and 'learning' for either institutional processes with a teacher or self study. While Krashen (1981) views 'acquisition' and 'learning' as different functions, mutually exclusive, Littlewood (1984: 3) and Brown (1987: 189) believe it is not possible to accurately define the terms 'conscious' and 'subconscious'. Brown prefers the terms 'controlled' and 'automatic' processing to conscious and subconscious. Both Littlewood and Brown prefer the idea of an intermingling of the two processes in which 'learning' involves more guidance and intervention and 'acquisition' involves more spontaneity, although both processes can occur within or without the classroom.

Klein (1986: 20) agrees that there is no clear evidence that 'learning' and 'acquisition' are distinct and separate processes and points out that guided learning can also mean guiding to learn spontaneously. Similarly while there is sometimes a distinction made between 'learning strategy' for conscious efforts and 'learning processes' for the subconscious, Littlewood (1984) and others use the term 'learning strategy' to apply to both the conscious and subconscious.

Ellis (1985: 6) also doubts whether a valid distinction can be made between the terms 'acquisition' and 'learning' and uses the term 'acquisition' to apply to conscious or subconscious processes in which a language other than the mother tongue is learnt in a natural or a tutored setting. For the purposes of this study the two terms, 'learning' and 'acquisition', will be interchangeable and refer to any way in which a child is helped to master a second language.

1.2 Formal Stating of the Problem

There appears to be general agreement that more research is needed in all areas of language acquisition. One area of concern would seem to centre around which factors have an effect on the acquisition of English as a second language and of these factors which single factor or group of factors would seem to be most important. The following three questions can therefore be considered as the formal statement of the problem:

1. How does language acquisition occur, especially second language
1.3 Aim of the Investigation

The investigation consists of two sections, a literature study and an empirical investigation.

The aim of the literature study is twofold. Firstly to analyse theories of language acquisition and secondly to identify factors which influence language acquisition. Teaching methods and a good theoretical knowledge can render a teacher better equipped to make sound pedagogic judgements. Theories provide a framework of general principles and suggest which factors, or combination of factors, contribute to the success or failure of the second language learner.

The aim of the empirical investigation is firstly to determine how the factors which seem to be of importance according to the literature study affect the acquisition of English as a second language and secondly to determine the most important factor or factors.

1.4 Programme to be Followed

Chapter Two will be devoted to a survey of the theories of language acquisition, including the two main approaches, the Psychological and the Linguistic, as well as neurofunctional, functional and social approaches.

A literature study and discussion of the factors that appear to be important in second language acquisition will comprise Chapter Three. In this chapter cognitive factors such as intelligence, language aptitude and learning strategies and affective factors such as motivation, attitude, personality and the social environment will be considered as well as age, gender, left/right brain functioning and the role of formal instruction.

Chapter Four will be concerned with the empirical investigation. This includes the formulation of hypotheses, a discussion of the sample and a description of the measuring instruments used in the investigation. The general procedure followed in
the empirical investigation will also be discussed as well as the processing of the data.

The results of the empirical investigation will be discussed in Chapter Five.

Finally Chapter Six will consider the educational implications of the research.
CHAPTER TWO
THEORIES OF LANGUAGE ACQUISITION

2.1 Introduction

As teaching methods are the practical application of theories i.e. knowing why we are teaching in a particular way, it is most important to have a good understanding of the theories of language acquisition. There does not appear to be one single, comprehensive theory of language acquisition but many theories, both explanatory and descriptive, offering insights into different aspects of language acquisition. Wilkins (1982: 25) has said that, "Actually there is very little that is known incontrovertibly about language learning, although there are many strongly held beliefs."

The main approaches to the theory of language acquisition are the psychological approach and the linguistic approach. Each approach has exerted influence on the other. Prominent theorists in the psychological field are Skinner with the Behaviourist view, Ausubel, Piaget and Bruner with a Cognitive view and Rogers with a Humanistic approach. In the linguistic field the views of Chomsky have been most important, while Bloomfield, Fries, Stevick, Sajavaara, Krashen, Carroll, Bialystok and Ellis have also contributed to linguistic theory. There are also neurofunctional, functional and social theories which will be discussed later in the chapter (2.3.3 and 2.3.4).

2.2 What is Language?

Language is essentially a human activity for the purpose of communication and is inextricably bound up with culture. The Bullock Report (1975: 47) refers to language as one of the ways we represent the world to ourselves i.e. the objects, people and events that make up our environment. As it is necessary to help children to understand both the spoken and the written word and to express themselves in a variety of ways, language is a vital component of the learning process.
There have been attempts to define the term *language* for centuries. Judith Greene (1986: 17) says that, conventionally, language is defined as having two main functions:

1. external communication with other people
2. the internal representation of our own thoughts

Edith Garvie (1976) agrees that language is essentially a human activity for the purpose of communication with oneself (thought) and others. It may be oral (heard or spoken) or graphic (read or written), consisting of sounds, symbols, words and groups of words with rules governing the pattern thereof. It is affected by the ability and the state of the user, the purpose to which it is put and the situation in which it is used.

Brown (1987: 4) gives the following general definition which is based on the consolidation of many other definitions.

**Language**

a) is systematic and generative
b) is a set of arbitrary symbols
c) consists of symbols which are primarily vocabulary, but may be visual
d) consists of symbols which have conventionalised meanings to which they refer
e) is used for communication
f) operates in speech communities or cultures
g) is essentially human
h) has universal characteristics and is acquired by all people in much the same way

2.3 **Theories of language acquisition**

There are two main approaches to the theory of language acquisition. These approaches belong to the school of psychology and the school of linguistics.

The main psychological approaches are:

a) the Behaviourist view, with Skinner as the main exponent
b) the Cognitive view, with Ausubel, Piaget and Bruner as the main exponents
c) the Humanist view of Rogers

The linguistic approach includes:

a) the Structural - Descriptive school with Bloomfield and Fries as the main exponents
b) the Generative - Transformational approach of Chomsky
c) the views of Stevick and Sajavaara who combine Creative Construction theory with a Skill Formation model
d) Krashen's Monitor model
e) Carroll's Conscious Reinforcement model
f) Bialystok's Strategy model
g) Ellis's Variable Competence model

These two main approaches are linked, with the linguistic school influencing psychological thinking and psychology having an influence on linguistic theories.

Linguists tend to study underlying competence i.e. one's knowledge of a language, including grammar and vocabulary, which enables one to produce and understand sentences, both written and oral. Competence is seen as underlying knowledge which is not observable. (Greene 1986: 17.)

Psychologists are more interested in performance i.e. the way people use language, including both the production and comprehension of sentences in speech and writing. Performance is observable, the realisation of competence. (Greene 1986: 18.)

Cognitive psychologists do not isolate competence and performance but study the mental processes responsible for the production and the comprehension of language i.e. they describe the knowledge responsible for language behaviour. (Greene 1986: 18.)

Brown (1987: 9) lists common characteristics of the Structural - Descriptive School of Linguistics and the Behaviourist School of Psychology, in the 1940's and 1950's, as an over-riding interest in the what of language acquisition, including repetition of sounds and language patterns, with positive reinforcement of correct or desired responses leading to the formation of habits which conformed to the correct adult model of language. Emphasis was on the language actually produced, which was both observable and measurable.
A common characteristic of the Generative-Transformative School of Linguistics and the Cognitive Psychologists of the 1960's and 1970's is, according to Brown (1987: 9), an interest in the why of language acquisition, including the processes involved in the production of language which cannot necessarily be observed or measured.

2.3.1 The Psychological Approach

Psychological learning theories range from classical Behaviourism and Neobehaviourism to cognitive learning theories and humanistic psychology. Behaviourism is the study of overt behaviour. Pavlov is the best known exponent of classical Behaviourism with Skinner as the main exponent of Neobehaviourism. Ausubel is well known for his cognitive learning theory and Piaget for his interest in the cognitive development of children.

Bruner shares much in common with Piaget while Rogers is an important exponent of humanistic psychology.

2.3.1.1 The Behaviourist View - Skinner

The Behaviourist view aims at explaining all behaviour, including language learning, as a modification of simple reflexes, through the formation of habits, to form more complex units of behaviour. Great emphasis is placed on the environment which provides models to imitate and rewards to help learning take place.

Pavlov's experiments dealt with unconditional (natural) responses and conditional (learned) responses. He and Thorndike, in the U.S.A., found, in their experiments with animals, that when a conditioned response was followed by a result beneficial to the learner then the response was reinforced, while behaviour not rewarded died away (Stones 1966: 58). For example, if one's advice is continually ignored then soon one would cease to offer advice.

Skinner, Spence, Hebb and Guthrie were all Neobehaviourists interested in coordinating the behaviour of the whole organism. They viewed the organism and its behaviour as a single system. Into the Stimulus-Response (S-R) of Pavlov's experiments was introduced the organism, giving S-O-R, Stimulus-Organism-Response. The state of the organism had to be taken into account, for example
actual physical condition such as state of health, lethargy, etc. and the complexity of the organism, including level of development. In human beings the organism has all the complexity of a highly developed central nervous system. (Stones 1977: 63.) The instrumental conditioning of Skinner and the Neobehaviourists differed from the classical conditioning of Pavlov in that the required response was instrumental in producing reinforcement i.e. behaviour rewarded will be repeated. Human beings tend to repeat behaviour that is satisfying and avoid behaviour that is not (Lindgren 1976: 188).

Littlewood (1984: 5) refers to Skinner's book, 'Verbal Behaviour', which he considers contains the essence of the Behaviourist approach to language learning. Language is not viewed as a mental phenomenon but as a behaviour, and like other forms of behaviour it is learnt by a process of habit formation, the main components being:

a) imitation of sounds and patterns heard around the child

b) reinforcement positive reinforcement will act as a reward and lead to maintenance or repetition of the desired behaviour.

negative reinforcement, or lack of reward, will cause the behaviour to weaken and die away.

intermittent reinforcement. Skinner found that it was not necessary to reinforce every single response and that people seem to work harder if they receive reinforcement only part of the time. (Lindgren 1976: 188.)

c) repetition people tend to repeat behaviour that has been satisfactorily rewarded. Repetition leads to habit formation.

Verbal behaviour is thus conditioned until habits coincide with the adult model. A child's utterances are seen as a faulty version of adult speech, and mistakes are viewed as the result of imperfect learning and incomplete habit formation.
Brown (1987: 33) says that according to recent research it is interaction, with both peers and adults, that is important rather than just exposure to a stimulus, in this case language. Ellis (1985: 13) also stresses the importance of interaction rather than just input. Critics of Behaviourism say that a child creates language and does not just imitate its parents' speech. Chomsky points out that in many cases there is no correlation between the language observed in input and the language produced by the learner. Littlewood (1984: 5) does not agree that language is merely verbal behaviour and says that there is a complex system of rules underlying actual behaviour, and it is this that enables people to create and understand an infinite number of sentences, most of which have not been encountered before. Chomsky also maintains that it is experience that activates an innate capacity that we have to acquire language. (Ellis 1985: 15.)

Neobehaviourist theory emphasised the importance of the stimulus and also reinforcement of the correct response. In practice the stimulus was the presentation of information while reinforcement meant letting the child know his answer was correct (positive reinforcement) or incorrect (negative reinforcement). Should the answer be incorrect then either the information would be presented again until the child achieved a correct response or the child would be given the correct answer, followed by another presentation of the material.

Neobehaviourist views had a great impact on language teaching, leading to programmed instruction and audio-lingual methods in which information is presented in a series of sub-tasks, with step by step guidance and rewarding of success until a set of behavioural objectives have been achieved. Although the audio-lingual method of language teaching would appear to have fallen into disfavour, it has made a valuable contribution to language teaching with its emphasis on imitating and practising actual units of utterances rather than isolated sounds and words. This introduces an element of meaningfulness into the Behaviourist approach. Language skills at all levels require practice so there is a place for some drilling within the classroom. One advantage of drills is to make certain aspects of language production automatic and thus free the learner to concentrate on other areas of language learning. However Clark (1975: 358) stresses that to be successful the learner must understand the grammatical generalisation underlying the drill. It is important that the teacher guide the child to focus on the crucial points of the drill and help him understand both what and why he is learning.
A stimulus-response method in language teaching can help to discriminate between sounds and between the sequence of sounds e.g. German speakers of English have to distinguish between man and men. Imitation, provided the learner understands why and what he is imitating, can help with pronunciation.

2.3.1.2 The Cognitive View - Ausubel

The association theories of the Behaviourists, with their origins in research on animals and human studies on rote learning, were rejected by those taking a cognitive view and supporting a theory of assimilation. Ausubel, a leading exponent of this school of thought, believed that meaningful learning occurs through the interaction of new information with relevant existing ideas in the cognitive structure. The result of this interaction between the new material to be learnt and the existing cognitive structure is an assimilation of the old and new meanings to form a more highly differentiated cognitive structure. (Ausubel 1978: 65.)

The cognitive structure consists of organised existing knowledge (Vrey 1984: 249). Meaningful learning both influences and is influenced by the existing cognitive structure. Meaningful learning, or the assimilation of new information, modifies the existing cognitive structure. However, new information will only be potentially meaningful if it can be related to existing knowledge. Vrey (1984: 282) says meaning lies not in the symbol but in the individual. The acquisition of meanings is an active, not a passive process. For meaningful learning to take place there must be relevant prior knowledge to make new information potentially meaningful. (Ausubel 1978: 64.)

Meaningful learning is not synonymous with learning meaningful material. Meaningful material is only potentially meaningful. Ausubel (1978: 27) points out that both reception learning, i.e. the presentation of information, and discovery learning may be rote or meaningful. Meaningful learning takes place when new knowledge is related to what the learner already knows while rote learning occurs when there is a lack of prior, relevant knowledge. Rote learning consists of an arbitrary association (Ausubel 1978: 64). The existence of relevant prior knowledge in the cognitive structure provides anchorage for the new information. Learning which has taken place in a meaningful way, and not by rote, is less likely to be forgotten and is more easily retained, recalled, and available for transfer (Ausubel 1978: 200).
Concepts are an important part of assimilation theory. Concepts are seen as building blocks which become more abstract, precise and differentiated with age. Concepts are simplified, generalised representations of reality and make possible the invention of a language with relatively uniform meanings for all members of a culture and thus facilitate communication. Concepts make possible abstract ideas. Ausubel says this capacity for acquiring language is one of the most distinctive features of human development. (Ausubel 1978: 81.)

James Asher (Cook 1986: 127) in his comprehension approach to language teaching emphasises that the central element in the acquisition of a second language is meaning, or understanding, of all elements of language and communication. Meaningful learning takes place when new knowledge is related to what the learner already knows. For example learning to read is dependent upon previously acquired mastery of the spoken language. Written messages are related to the familiar spoken word, whose basic vocabulary and syntax have already been mastered. Second language learners have already learnt to read and are not dependent upon the spoken word. They can convert written words and phrases in the new language into the first language equivalent. We use language to name or label concepts or ideas. Second language learners can relate names or labels in the new language to existing first language words. It is inefficient and unrealistic, according to Ausubel (1978: 72), not to relate new knowledge in the second language to existing knowledge in the first language. Thus the first language is used as a model, against which similarities and differences can be noted.

Brown (1985: 69) refers to the assimilation theory as the subsumption theory because material is subsumed i.e. related to existing knowledge in the cognitive structure. He says that this theory provides a strong theoretical basis for rejecting the conditioning models of practice and repetition in language teaching. In a meaningful process such as second language acquisition there is no room for mindless repetition or imitation. Thus the audio-lingual method, based almost exclusively on the behavioural theory of conditioning, which relies heavily on rote learning, is seriously challenged by the assimilation (or subsumption) theory. However (see 2.3.1.1.), provided the repetition or imitation is not mindless, but accompanied by understanding, it may well have a role to play.
2.3.1.3. The Cognitive View - Piaget

Piaget, a French-Swiss psychologist interested in the cognitive development of children, saw cognitive development as a continuous, sequential process with a well defined sequence of stages (Stones 1977: 133). On the basis of his research he concluded that every child passes through phases of cognitive development, such phases being fixed and following in a strict sequence. Piaget emphasised the importance of both heredity and environment. A child's inborn knowledge is constructed as he interacts with the environment and he develops cognitive concepts and skills when he is neurologically and experientially ready.

Thus knowledge is neither preformed, as Chomsky believed (see 2.3.2.2) nor the direct reflection of an individual's experience as advocated by the Behaviourists (see 2.3.1.1) but according to Piaget the learner is an active agent in the construction of his own knowledge.

Piaget's main stages of development are:

- **0 - 2 years**: sensory - motor stage
- **2 - 4 years**: pre conceptual stage
- **4 - 7 years**: intuitive stage
- **7 - 11/12 years**: concrete operational stage
- **11/12 + years**: conceptual thought stage

The sensory motor stage is characterised by a visual, auditory and tactile exploration of the immediate environment, while in the pre conceptual stage thought and action are largely linked as the command of language increases. Both language symbols and actions become the media for thought. Language is important as a developmental task for school readiness. The intuitive stage coincides with the beginning of school, when the child begins to acquire basic skills and effective communication. Vocabulary is now large enough to enable the child to follow teaching. Concepts of number, weight, length and height are now introduced. At the concrete operational stage children are able to think about their actions although they are still dependent on concrete reality for working out mental operations.

There appears to be general agreement with Piaget that language contributes to thought once the stage of formal operations has been reached. There is however controversy as to whether language influences the development of thought or
thought influences the development of language prior to this stage. Bruner (McNally 1977: 141) believes that a child uses language to transform his experiences into thought. Vygotsky (Greene 1975: 74) and Whorf (Greene 1975: 76) agree with Bruner that thought is derived from language. Piaget's view, however, is that thought influences language and that a child cannot understand a verbal expression unless he has mastered the underlying concept. As an example Piaget uses the concept of conservation at the concrete operational stage e.g. understanding how the same volume of water can appear different according to the shape of the container into which it is poured. If the concept of conservation could be explained by language alone then there is no reason why, once mastered, it should not apply to all content areas whereas in fact conservation of substance appears around the age of seven to eight, conservation of weight at around nine to ten years and conservation of volume at about eleven to twelve. (McNally 1977: 142.)

Piaget, like Ausubel, emphasised the importance of assimilation i.e. that in order to learn the child must relate the new knowledge to what he already knows. Everything encountered in the new language or culture will be linked to the first language and culture e.g. 'In German the verb is put at the end of the sentence but we say it this way.' Piaget believed that a child assimilates the language he hears to his own structures which are in turn a function of his present level of mental development.

The implications of Piaget's theory for primary school teachers are very important for it is at this level of education that the child will be at the stage of concrete operations. If, as Piaget maintains, thought precedes language at this stage then by providing conditions for the optimal development of cognitive structures the primary school teacher will also be providing conditions which will assist in language development. Opportunity must be given for gaining experience at the correct coping level i.e. taking into account the child's level of mental development. The importance of activity is also stressed by Piaget. The passive learner cannot absorb experience. Experience is created as the learner tries to adapt to the new knowledge by relating what he perceives to what he already knows. Therefore the second language teacher should try to exploit first language knowledge by encouraging genuine activity, discussion and interpersonal interaction. In this way the child will have a chance to develop real meaning as he builds his cognitive structures, actively constructing his own knowledge. (McNally 1977: 143.)

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2.3.1.4 The Cognitive View - Bruner

Bruner, an American psychologist, advocates a system of cognitive development similar to that of Piaget. He also believes children develop in stages, but his three stages are less rigid than Piaget's. (Lindgren 1976: 53.)

Bruner's stages consist of:
- the enactive
- the iconic
- the symbolic

The enactive stage is one of action, or knowing how to, e.g. knowing how to ride a bicycle. The iconic or image stage represents objects through visual images which are internalised so that they can be memorised and recalled. The symbolic stage is that of the abstract.

Two essential prerequisites for learning language, in Bruner's opinion, are firstly that the child should learn the conventions governing the use of gestures and utterances within society. For example French speakers use their hands in a more demonstrative way when speaking than do English speakers. To raise one's eyebrows in a gesture of polite incredulity may give a different emphasis to what one is actually saying. Secondly the child should learn to take on the different roles that are adopted by people who are communicating verbally e.g. the role of information giver, information seeker, counsellor etc. A mother's influence will be very important in this regard during the early years of first language acquisition. (Atkinson 1983: 178.)

When learning a second language the teacher will be important as a role model. It is therefore of vital importance that the language teacher is teaching his/her first language as the child's second language or is competent in the second language to the extent of having fully internalised all the gestures and utterances peculiar to the language, so that they are produced instinctively and provide a role model for the second language learner.

Like Piaget, Bruner's research shows the increased importance of language as a medium of knowledge in the primary school period. However, unlike Piaget (see 2.3.1.3), Bruner believes that language guides thought at first. He sees a correlation between a child's performance and the language he uses to describe his
reasons for that performance. (Bruner 1983.)

Bruner supports the idea of a language acquisition device (LAD - see Chomsky 2.3.2.2) that can recognise the grammatical and the ungrammatical but believes this operates in unison with LASS, a language assistance support system. By this he means that the child's language will be adapted to a lower level than that of the adult to constitute an appropriate input for LAD. Caretaker language is the term that is often used to describe a mother's speech to a young child, when delivery is slower, vocabulary is simplified and sentences both shortened and repeated. In second language learning a version of caretaker language may well be a factor helping children to learn the language. LASS, according to Bruner, will help LAD to function, as it operates in small context-related steps rather than by taking in a chunk of language as input and trying to extract all the grammatical rules from it in one go. (Bruner 1983: 49.)

2.3.1.5 The Humanistic Approach of Rogers

Carl Rogers places more emphasis on learning than on teaching. He sees the goal of education as the facilitation of change and learning. Learning how to learn is of prime importance. Teachers should establish a warm, interpersonal relationship with open communication, trust and acceptance. (Brown 1987: 70.)

Roger's theory is that if the context of learning is properly created then humans will learn all they need to. This theory emphasises language learning in a meaningful context with open communication, trust and acceptance. (Brown 1987: 70.)

According to Brown (1987: 70) one drawback of this theory is that a non-threatening environment may lack the level of anxiety necessary for successful learning (Lindgren 1976: 227) and also much valuable time may be lost in discovery learning (finding out facts and principles for themselves) rather than guided discovery.

2.3.2 The Linguistic Approach

Linguistics is the study of the forms taken by particular languages and also by language as a general system. Psycholinguistics describes the functions that are served by particular linguistic forms and also by language in general. Bloomfield
and Fries were exponents of the Structural-Descriptive school of thought which aimed to describe human language by applying scientific principles of observation and identifying the structural characteristics thereof. The Generative-Transformational school, with Noam Chomsky as a leading exponent, tried to show that language could not be seen simply in terms of observation but that explanations of levels of adequacy, which account for competence, were also needed (Brown 1987: 9). The idea of creative construction put forward by Chomsky i.e. that a child actively builds up his own system of rules on the basis of his personal experience, can also be seen in the theories of Stevick and Sajavaara which combine creative construction with performance skill.

Krashen's Monitor Model, Carroll's Conscious Reinforcement Model, and Bialystok's Strategy Model all focus on the linguistic aspect of acquiring a second language.

2.3.2.1. The Structural-Descriptive School of Thought - Bloomfield and Fries

The Structural-Descriptive school maintained that certain basic structures govern and explain any object of study, including the acquisition of language. Languages are infinitely varied and undergo change over time but there are rules and laws governing language itself and changes within the language. Basic structures, according to this theory, are as follows: (Gibson 1984: 8.)

1. a notion of wholeness
   Language as a whole is more important than just words.

2. reality lies in relationships
   We understand meaning not by reference to the word itself but by seeing it in the context of the words around it i.e. within the totality of language.

3. decentring the subject
   A word is explained by reference to the context.

4. self - regulation
   As new words are incorporated into the language and old words changed, so a language system changes itself to ensure its own survival. The seeds of change are in-built.
5. **transformation**

There is dynamic interchange between parts of language and between the parts and the whole, thus ensuring change. Therefore structures are subject to change, but according to the laws of the system.

The Structural-Descriptive school believed that the study of language is best done by examining the relationship between the parts of language at a particular time rather than studying language over time i.e. one should study language as it exists now rather than searching for historical roots. (Gibson 1984: 8.)

A school of descriptive linguistics developed around the work of Bloomfield in America. Bloomfield studied the general principles underlying language. Both Bloomfield and Fries argued that emphasis on structure does not mean that meaning is disregarded. Fries maintained that words should be classified according to their particular use in a sentence and not be given a rigid classification according to meaning. (West 1975: 36.)

If teachers know and attempt to teach the fundamental structure of a subject it will, according to Bruner (Gibson 1984: 152) make the subject more comprehensible, promote better memorisation and utilisation, act as a model for understanding other things and narrow the gap between elementary and advanced knowledge. A school syllabus is structured in that certain aspects of certain subjects have to be taught in certain years. Thus a child builds on his knowledge in a meaningful way rather than acquiring knowledge in a haphazard fashion. For example, in English grammar, children are taught 'opposites' in a structured way e.g. opposites where the word changes, such as **good** and **evil** and opposites adding a prefix which is further subdivided into the prefixes **un**, **in**, **im** and **dis**. Children may benefit from learning grammar rules, e.g. those governing the spelling of plural nouns. Learning such rules, meaningfully and not just by rote, might give them confidence and encourage them to apply the rules they now know well. Cloze procedure, whereby words are deleted from a passage and the child has to fill the gap with a word making sense, is a procedure in which the meaningfulness of a word is gauged by looking at the word in the context of the whole. Cloze tests are often used as a measure to assess reading comprehension. The grammar-translation method concentrated on teaching explicit rules of language and linking them with a problem solving situation e.g. given a written sentence in one language one has to solve the problem of formulating the content correctly in another language. This was a highly successful method but was not linked to the communication skills on which
more emphasis is placed nowadays. Emphasis was thus on the structure of language rather than on facility in using it. However this method did emphasise the active learner being engaged in a problem solving situation. (Stern 1983: 470.)

Piaget was a structuralist who also stressed the importance of the child as an active agent contributing to his own growth. In common with Chomsky (2.3.2.2.), Piaget saw the child "constructing" his own structures. He emphasised the construction of systematic, self regulating, transformational structures which develop through the activity of the child. (Gibson 1984: 33.)

2.3.2.2. Chomsky's Generative-Transformational View

Like the cognitive psychologists, linguists, such as Chomsky, are interested in the knowledge representations which underlie linguistic competence. Chomsky's approach saw language acquisition as innately determined by a language acquisition device (LAD). Our experience, or environment, activates this innate capacity, but the role of the linguistic environment is not as important as LAD. Input acts as a trigger to activate LAD, which is a set of mental processes responsible for language acquisition. LAD is innate, containing knowledge of linguistic universals which guide language processing i.e. a basic cognitive ability possessed by all humans which provides principles of organisation that make language learning possible. This universal hypothesis distinguishes between core rules found in all natural languages and language specific rules for different languages (Klein 1986: 145). Chomsky's view that language development is predominantly controlled by biological forces and that experience is only necessary as a releasing agent for what has already been determined by heredity is sometimes referred to as the Nativist view.

Chomsky (Brown 1987: 18) criticises Skinner's reinforcement theory of language learning which sees the child as a passive receiver of language. Chomsky says the child is an active producer, constantly forming hypotheses based on input received, and testing them in speech or comprehension. As the child's language develops so the hypotheses are continually revised. The child constructs his own rules and then gradually adapts them in the direction of the adult system. The child's language is not being shaped by external forces but is being creatively constructed by the child as he interacts with those around him. Chomsky emphasises the unobservable, abstract linguistic structures as opposed to the Behaviourist emphasis on the observable and measurable. Chomsky says language is not learned verbal
behaviour because underlying the actual behaviour is a complex system of rules enabling the speaker to create and produce an infinite number of sentences, most of which have not previously been encountered. Similarly our ability to recognise and understand a grammatical sentence in English is evidence that we must know the rules of English grammar. It is the innate LAD which enables children to construct their own underlying system. This cannot be explained by habit formation. Chomsky stresses that at any given point the child's language is a legitimate system in its own right and not an imperfect version of the adult system, as believed by the Behaviourists.

Chomsky (Greene 1986: 67) represents the Generative-Transformational school of thought. He believed that the Generative-Transformational grammar accounts for the ability of a native speaker to form grammatical sentences he has never spoken before and also to interpret, as grammatical or ungrammatical, sentences he has never heard before. Generative-Transformational grammar moulds together what is heard (surface structure in a sentence) and what is meant (deep structure). For example, "Racing cars can be dangerous." There is only one surface structure in this sentence but at least two deep structures depending on whether one is referring to a type of car or an activity.

Generative refers to the rules for generalising whether or not sentences are grammatical while transformational rules generate more complex sentences by changing around the word order e.g. an example given by Klein (1986: 53) is, 'Jane hit the boy.' becoming, 'The boy was hit by Jane!'

The term LAD is not used much now but few would question the basic notion that children possess an innate ability to acquire language. Discussion now centres on whether there is a specific capacity for language alone, whether language acquisition can be explained in terms of a general cognitive capacity or if the truth lies somewhere in between.

A large number of studies since the 1960's have examined children's language in terms of its own underlying system and show that children develop their grammatical system until it corresponds with that of the adult community. (Littlewood 1984: 21.)
2.3.2.3 Skill Learning and Creative Construction - Stevick and Sajavaara

Both Stevick and Sajavaara combine the creative construction theory with the skill formation model. Stevick bases his theory on creative construction while incorporating skill learning. Sajavaara, on the other hand, takes skill learning as the framework and incorporates creative construction into this. (Littlewood 1984: 77.)

The Skill Learning Model emphasises second language learning as a performance skill with cognitive and behavioural aspects. Cognitive aspects include internalisation through learning grammar rules, vocabulary etc. Behavioural aspects include practice so that performance becomes automatised, and fluency and accuracy improve. Whilst the skill is being learnt component parts may be broken down, isolated and practised separately i.e. part-skill practice, or the whole skill may be practised at once. For example in learning to play a piece of music one may practise the whole piece or one may practise relevant scales or certain bars or phrases. In learning to play tennis one may practise serving or backhand strokes (part skills) or may play a complete game to get an overall picture of what the game is all about (whole skill). When learning to write a letter (whole skill) one may practise part skills such as punctuation, letter headings or different ways of ending letters. There is a wide range of possible levels of difficulty for both part skills and whole skills. The acquisition of skills consists mainly of the automatisation of lower level skills so that more time may be given to higher levels.

Skill learning emphasises second language learning as a performance skill with cognitive and behavioural aspects while the creative construction theory is concerned with how a learner builds up his own underlying system of rules, creatively constructed from the input he receives from exposure to the language. (Littlewood 1984: 76.)

Implications of these theories for second language learning are that part skill training will equip the learner with some of the sub skills needed for language use. By mastering separate aspects of language through either cognitive techniques such as explanation or graded exercises or by habit forming techniques such as repetition or drill, conscious attention is focused on the actual items to be understood or learnt. While not involving actual communicative interaction such skills will help form pre-communicative abilities, be they written or spoken, and if learnt meaningfully will be available for transfer.
2.3.2.4 Krashen's Monitor Model

Krashen saw acquisition and learning as two different functions, mutually exclusive. He regarded acquisition as subconscious and learning as conscious. Communicative language was seen as acquired in a subconscious manner while formal language was learnt. Krashen believed that the learned system acts as a monitor in checking on and improving the formal correctness of the language used. It is likely that monitoring occurs in varying degrees rather than being completely present or absent. Krashen was of the opinion that monitoring should play a minor role and not interfere with fluency of communication. (Brown 1987: 188.) Littlewood (1984: 77) argues that there is no clear evidence for the separation of the two systems, and that there is insufficient knowledge of psychological processes to be able to state that only consciously learnt rules can be used for monitoring or that a learner's spontaneous output reflects only what he has acquired subconsciously. Learning in both formal and informal settings may be conscious or subconscious.

Krashen's view that language proficiency begins with language input which must be comprehensible to the learner has important implications for second language learning. Potentially meaningful material at the correct coping level will assist meaningful learning.

2.3.2.5 Carroll's Conscious Reinforcement Model

Carroll based this Conscious Reinforcement Model on traditional learning theory and present day cognitive psychology. The major concept is one of reinforcement, not as in behavioural psychology but a cognitive view involving the individual's perception of the appropriate response for a specific context. The individual searches for an appropriate response in order to communicate and those responses that achieve their purpose become automatic. Carroll's idea of a performance grammar is a type of cognitive control centre similar to Krashen's language monitor. However, unlike Krashen, Carroll makes no distinction between acquisition and learning in terms of factors affecting the learner when confronted with new learning material. (Gardner 1985: 128.)

2.3.2.6 Bialystok's Strategy Model

Bialystok claims that her model accounts for individual differences in successful
language learning as well as differentiated skill development within the same individual. She believes there are three levels in language learning, namely input, knowledge and output. Input refers to any language exposure from a formal classroom setting to an informal setting to magazines and newspapers. Such exposure gives rise to knowledge relevant to the second language, conscious linguistic knowledge of the second language (explicit knowledge) and an automatic, intuitive knowledge (implicit knowledge). This knowledge leads to output which is both comprehension and production of language.

Bialystok's language learning strategies are those of formal practice, functional practice, monitoring and inferencing. Formal practice includes mastery of grammar, pronunciation and rules while functional practice is aimed at improving communication. Language production is monitored by considering and modifying language behaviour based on knowledge of a language code, similar to that of Krashen. Inferences are made on the basis of first language knowledge (transfer), implicit language knowledge and clues derived from the context in which the language was encountered. (Gardner 1985: 130.)

2.3.2.7 Ellis's Variable Competence Model

Ellis, (1985: 269) drawing on the work of Bialystok and others, bases his theory on two distinctions within the framework of language use; process and product. Process refers to both competence and procedures. Competence means knowledge of linguistic rules while procedures means the ability to make use of these rules. Product refers to discourse, either planned, involving conscious thought, or unplanned and spontaneous. Ellis maintains that both competence and the application of procedures are variable and attempts to account for the variability of language learners' language. He incorporates theory of language use and second language acquisition within the same framework. (Ellis 1985: 269.)

2.3.3 Neurofunctional Theories

Neurofunctional theories explain language acquisition in neurolinguistic terms. Based mainly on the work of Lamendella they are concerned with the different functions of the left and right hemispheres of the brain, and with the information processing systems responsible for the development and use of language. It would seem that while the entire brain is capable of performing all functions, the left hemisphere is most responsible for linear, sequential, analytical and rational
thinking. It is here that reading and language are located.

Penfield's Brain Plasticity Theory suggests that before the ages of 9 to 12 a child can learn two or three languages fairly easily but after this age, for purposes of language learning, the human brain becomes progressively more rigid. He therefore recommends that a second language be taught at an early age. As this theory is largely based on the ability of a brain damaged by injury or disease to regain lost or disrupted language it is not necessarily relevant to the ability of a healthy brain to acquire a second language. (Harley 1986: 4.)

Biologically based theories of a critical period for language acquisition link the critical period to the completion of cerebral lateralisation of the language function to the left hemisphere at puberty, thus making language acquisition after puberty more difficult. However this theory is still speculative and there is disagreement about the age of completion of lateralisation and whether or not a biologically based critical period coincides with lateralisation. (Harley 1986: 5.)

Krashen (Harley 1986: 8) and others, who support a cognitively based theory of a critical period for language acquisition, hypothesise that Piaget's stage of formal operations, beginning around puberty, may be the basis for the end of the critical period for second language acquisition. However Ausubel (Harley 1986: 8) and others see no cognitive reason why adults should be less efficient than children in learning a second language, and indeed think it more logical to assume that the adult's more advanced maturity and experience of the second language should enable him to deal more effectively with the abstract nature of language than could a child. Taylor suggests that factors other than age contribute to adults' lack of success in second language acquisition. He mentions lack of motivation and lack of a positive attitude towards the target language and culture as underlying reasons. (Harley 1986: 8.)

2.3.4 Functional and Social Theories

Work on the meaning and functions of a child's speech has led many to play down the role of a specific language acquisition capacity in explaining a child's development and they prefer to account for it in terms of a child's growing mental capacity and communicative needs (Littlewood 1984: 8). However a functional approach does not necessarily mean that a knowledge of the structure of language is not important. Grammatical competence is part of communicative competence.
Functional theories maintain that children must be taught the code i.e. the basic structural principles of language as well as use of the code i.e. how to use knowledge of the code to communicate. Social theories advocate that children need to know the rules of language and also the social conventions governing its use i.e. the use of language appropriate to social situations. Thus functional and social theories emphasise the use of language and the importance of teaching language as communication but do not necessarily ignore the importance of the structure of language.

Focus in the 1980's, according to Klein (1986: 17), was on communicative competence i.e. the natural, authentic function of language in which stress is placed on speaking and listening, and the affective becomes more important than the cognitive. Language learning is motivated by real communication needs, both functional (the conveying of messages without misunderstanding) and social (the desire to integrate and be socially acceptable) (Littlewood 1984: 70). Thus the child learns because he needs to know. According to Brown (1987: 12) psychologists are showing growing interest in interpersonal relationships and the value of group work while linguists are more concerned with the nature of communication and communicative competence.

2.3.4.1 Halliday's Functional Theory

Halliday adopts a functional approach to language learning and sees the child as acquiring language in order to do certain things. The child learns language at the same time as learning other things through language. Language actively symbolises the social system and is also an expression of the social system. Language is organised into different functional components, used in different ways and for different purposes. (Halliday 1978: 3.) An example of this within the classroom is the teaching of letter writing which may be a formal letter applying for a job or registering a complaint, or an informal letter inviting a friend to a party.

2.3.4.2 Schumann's Acculturation Theory

Schumann's Acculturation Hypothesis (Ellis 1985: 250) is concerned with learning language, without instruction, in the environment in which it is spoken. Schumann believes that the more a person aspires to be integrated with the second language community, the more successful he will be in language learning. He believes the major factors in language learning to be social and affective and sees these forming
part of the larger construct of acculturation, which is the social and psychological integration of the learner with the target language group.

2.3.4.3 Hatch’s Discourse Theory

The Discourse Theory proposed by Hatch (Ellis 1985: 259), also stresses the importance of communication, claiming that language acquisition grows out of the interpersonal uses to which language is put and that it is the functions of language that dictate its structure. According to Ellis (1985: 259), this theory does recognise the importance of the cognitive aspect but it is not really concerned with internal processes.

2.3.4.4 Giles's Accommodation Theory

The Accommodation Theory of Giles, also referred to as the Intergroup Theory by Gardner (1985: 137), sees the answer to successful language learning in intergroup relationships between linguistic minority groups and the target language community. The central concept is the development and maintenance of a positive self image as the major motivating force. Thus Ellis (1985: 253) is doubtful that this theory has much relevance for the classroom. However, the self concept of the learner (self concept of himself as a person, as a student and as a language learner) could be an important factor relating to achievement in learning a second language and will be discussed in Chapter Three.

2.3.4.5 Lambert's Social Psychological Model

Lambert's model is concerned with the implications of the development of proficiency in a second language on the individual's self-identity and in turn the implications of the individual's self-identity for second language acquisition. (Gardner 1985: 132.)

2.3.4.6 Clement's Social Context Model

Clement's Social Context Model assumes that second language acquisition includes not only the learning of language skills but also the adoption of other patterns of behaviour of the second language community. This model also see language acquisition involving changes in self-identity. (Gardner 1985: 137.)
Gardner's Socio-Educational Model

Gardner (1985: 145) is concerned with the role of individual differences in second language acquisition. His Socio-Educational model has roots in both Lambert's Social Psychological model (see 2.3.4.5) and Carroll's Conscious Reinforcement model (see 2.3.2.5). The central theme of this theory is that second language acquisition takes place in a particular cultural context and cultural beliefs will not only influence the general level of second language proficiency that will be achieved in the community but will also influence individual differences in achievement. His theory has an empirical foundation and focuses on the reliability and validity of measures defining variables such as aptitude, motivation, intelligence and opportunity to learn which will directly influence second language achievement.

Conclusion

Language teaching is an art rather than a scientific process and proceeds to some extent by trial and error (Corder 1975: 1). Nevertheless it is still better to have some general principles rather than none at all. Theories and models provide a framework and suggest which factors or combination of factors contribute to the success or failure of the second language learner (Stern 1983: 357). According to Brown (1987: 148), once we have found a healthy theoretical perspective, with a broad choice of methods, intuition forms an essential component. Such intuition must be based on firm theoretical grounding and experience. While much research is not directly applicable in the classroom, a teacher with knowledge of all research findings is better equipped to choose or create material and make sound pedagogic judgements.

It would appear that there is no one single approach that would be suitable at all times, in all circumstances, for all pupils. The answer is probably an eclectic approach, maintaining flexibility and choosing the best methods for each given situation. Courtney Cazan (1985: 109) says that different aspects of language may well be governed by different principles of language learning and cognition. This implies a knowledge of all existing theories. Clark (1975: 472) points out that while all theories are characterised by overemphasis on a single aspect as the central issue in language learning or teaching, they all contribute new insights although not sufficient on their own. She also favours an eclectic approach to meet the variety of individual and learning differences.
Meaningful learning, as advocated by Ausubel and Piaget, is important and thus new information must be related to existing knowledge and presented at the correct coping level. This is facilitated by the structuring of material, as emphasised by the Structural-Descriptive school of thought. At the same time the Behaviourist view of the importance of practice also has a role to play. Providing there is an element of meaningfulness e.g. the meaning of a word is understood and there is a knowledge of sounds, blends and phonic analysis, then rote learning of vocabulary and spellings can help a second language learner.

Stevick and Sajavaara, in their Skill Formation and Creative Construction models, combine the behavioural aspects of practice and habit formation with creative construction, whereby a child actively constructs his own language as he interacts with those around him. Bialystok's strategies also include mastery through practice of grammar, pronunciation and rules plus functional practice and improved communication while Ellis, too, emphasises a knowledge of the rules and the ability to make use of them. Chomsky, representing the Generative-Transformational school of thought, supports the idea of creative construction whereby a child actively interacts with those around him and on the basis of input from that interaction forms hypotheses which he then tests in speech and comprehension. It is therefore important that a child be given sufficient opportunity to speak, think, write and play an active role. Piaget's view that thought precedes language also shows the necessity of providing plenty of opportunity for the child to be actively involved in situations encouraging the development of cognitive structure and hence language.

Behaviourists stress the importance of praise and knowledge of success. Not only can spelling test results, for example, act as positive reinforcement but they can also help to improve the self image of the child as a language learner. Giles and Lambert both emphasise the importance of self concept.

Classroom atmosphere and the role of the teacher can be important in the acquisition of a second language. Bruner mentions that, as a role model, the teacher must be completely fluent in the language. Rogers stresses the importance of an atmosphere of trust and acceptance in the classroom in which the child must feel free to try without fear of ridicule or criticism and to realise that it is acceptable to make mistakes and to try to learn from them. Active involvement, as advocated by Chomsky, Piaget and Ausubel amongst others, will flourish in this kind of atmosphere.
CHAPTER 3
FACTORS IN SECOND LANGUAGE ACQUISITION

3.1 Introduction

There have been few carefully designed long term studies of the factors affecting the acquisition of a second language and according to Littlewood (1984: 68) "the sum of our knowledge about the factors influencing second language learning is very limited and imprecise."

Although Cook (1986: 7) says it would be a mammoth task to describe all the varieties of learner differences relevant to second language learning, the following factors do appear to be important.

Achievement, or proficiency, is a factor which shows the extent to which the language has been understood by the learner and made part of his cognitive scheme.

Cognitive factors include language aptitude and learning strategies such as transfer and overgeneralisation. These two strategies are used by learners as they actively build up their own system of rules on the basis of personal experience. This is creative construction as advocated by Chomsky and the Generative-Transformational school (see 2.3.2.2). Meaningfulness is a factor emphasised by Ausubel and other exponents of a cognitive theory of language acquisition (see 2.3.1.2).

Affective factors include motivation and attitude. Motivation may be intrinsic, extrinsic, integrative or instrumental. These factors are interwoven with personality variables such as anxiety, introversion and extroversion, self esteem, risk taking, empathy and toleration of ambiguity.

However, it is somewhat arbitrary to separate cognitive and affective factors, as in practice there is much overlap between the two. Both Lambert's Social Psychological Model (see 2.3.4.5) and Carroll's Conscious Reinforcement Model (see 2.3.2.5) are concerned with individual differences such as aptitude, intelligence, motivation and opportunity to learn. Gardner's Socio-Educational Model focuses attention on the reliability and validity of such variables (see 2.3.4.7).
Factors such as learning styles, field dependent styles being linked to the inductive and field independent styles being linked to the deductive, are associated with theories of lateralisation, or left/right brain functioning (see 2.3.3).

Other factors include the role of formal instruction, the classroom climate, teacher factors, time and the opportunity for learning. Age and gender are also factors as are social environment and the role of parents.

3.2 Cognitive Factors

Research shows that language and cognition are inextricably intertwined. Language development depends on the concepts a child forms about the world and the meanings he feels stimulated to communicate. Cognitive factors determine the meaning of language and also make sense of the linguistic system itself. Piaget maintained that language is dependent on, and springs from, cognitive development (Brown 1987: 29).

The second language learner has usually already formed basic concepts about the world so there cannot be the same link between language and cognitive development that exists in first language acquisition. Nevertheless this can still be a factor because at times the second language learner is required to develop an awareness of new concepts and distinctions. For example many languages have a function wishing one a good appetite (Bon appetit in French, Mahlzeit in German). There is no such language function in English. Therefore an English person learning French or German would have to add a function (a new concept) while French and German learners of English would have to learn not to use a function. (Cook 1985: 191.) Cromer refers to the German distinction between wissen (to know a fact) and kennen (to know a person), whereas in English one word (know) suffices for both meanings. Cromer found that language development helped concept development and concept development helped language development (Cromer 1974). Cook (1986: 73) refers to Cromer’s research but says that more research is needed on the relationship between second language acquisition and cognition.

3.2.1 Intelligence

There are various theories but no universal agreement on the exact nature of intelligence. Most evidence points to a general ability and a constellation of
separate measurable abilities and aptitudes. There is a positive relationship between intelligence and linguistic development, especially at the more complex levels. The more intelligent a person is, the more observant he is and the more able to assign and understand meaning (Ausubel 1978: 257). Vrey (1984: 137) agrees that there is a positive relationship between linguistic ability and intelligence, each influencing the other. Cook (1986: 92) refers to Peter Skehan's research at the Army School of Languages which suggested that intelligence was one of three important factors in the acquisition of a second language, the other two being memory and a fairly even pattern of abilities. Intelligence is an important factor determining how well and how quickly an individual understands a learning task or an explanation. In most second language tasks, therefore, a positive correlation is to be expected between intelligence and achievement in the second language. However, it would seem that success in second language learning is related not only to intelligence but also to more specific language learning abilities referred to as language aptitude.

3.2.2. Aptitude

"Language aptitude is a phenomenon whose exact nature is not yet known" (Littlewood 1984: 62) but it can be defined as a specific set of learning abilities relating to the acquisition of language. Chomsky referred to this innate ability to acquire language as a language acquisition device (LAD).

Carroll and Sapon (Gardner 1985: 20) believed the ability to identify sounds, the ability to memorise words and the ability to recognise how words function grammatically in a sentence all form part of language aptitude. These abilities have been included by Carroll and Sapon in their Modern Language Aptitude Test (1965). Pimsleur included tests of similar abilities in his Language Aptitude Battery in 1966 (Gardner 1985: 21). Gardner (1985: 37) claims that research literature supports the generalisation that there is an aptitude for languages, including such abilities as phonetic coding, grammatical sensitivity, memory, verbal intelligence and auditory ability. The greater the underlying abilities the greater the proficiency in a second language. In 1969 Bartley (Gardener 1985: 56) administered the Modern Language Aptitude Test (Carroll and Sapon 1965) to Grade Eight students of a foreign language and demonstrated that the foreign language drop outs had lower aptitude scores, as well as a significantly less positive attitude, than those opting to continue learning a foreign language.
Gordon (Gardner 1985: 67) administered the Elementary Modern Language Aptitude Test (Carroll and Sapon 1967) to 129 Standard Six students, aged 11 years to 15 years, in Belize, Central America in 1980. He also administered a modified version of the Attitude/Motivation Test Battery (Gardner, Clement, Smythe, and Smythe 1979) and measures of English proficiency. The results showed that language aptitude had the best correlation to English achievement: (0.40 to 0.82), followed by attitude (0.07 to 0.38), integrative motivation (0.20 to 0.28) and motivation (0.23 to 0.26).

Gardner (1985: 22) states that of all the variables studied as correlates of second language achievement, language aptitude is probably the most consistent predictor, despite fluctuations in validity coefficients.

Aptitude alone is not sufficient to explain the variation in second language achievement. Gardner (1980: 255-270) found that in twenty nine groups of Canadian learners of French the results of the Modern Language Aptitude Test (Carroll and Sapon 1965) accounted for only 17% of learner variations in proficiency which means that 83% of proficiency variation is due to factors other than language aptitude alone.

### 3.2.3 Learner Strategies

Strategies are ways that learners choose to tackle general or specific learning problems. Language learners use a variety of ways to help them gain command of a language skill, choosing either one strategy or several in sequence, depending on the task.

#### 3.2.3.1 Range and frequency of learner strategies

O'Malley, Chamot, Stewner-Manzanares, Russo and Kupper (1985: 557) studied the range and frequency of learner strategies used by students learning English as a second language. The results indicated the use of a wide variety of learning strategies. Seventy high school students of high academic ability were selected for observation and interview. All, except five, were from Spanish speaking countries and were at the beginner or intermediate stage of learning English as a second language. The strategies identified were classified into a scheme developed by Brown and Palincsar as being metacognitive, cognitive and socioaffective. Out of 638 reported instances where learning strategy was used 30% were metacognitive,
53% cognitive and 17% socioaffective. In the metacognitive category, which can be defined as knowledge about planning, monitoring and evaluating work, the most frequently mentioned strategies for both beginners and intermediate students were self-management and advance preparation. The most common cognitive strategies were repetition, note taking and imagery. Translation and imagery were used less often by the intermediate students who preferred contextualisation and resourcing. Co-operation and the asking of questions for clarification were the most popular strategies in the socioaffective category, both being used by the beginners and intermediate students. The application of strategies varied according to the learning task but appeared to be used most often for vocabulary learning (17%) and pronunciation (14%).

O'Malley, Chamot, Stewner-Manzanares, Russo and Kupper also gave strategy training for listening and speaking tasks to 75 high school students in English second language classes. One third of the students came from Spanish speaking countries, one third from Asian countries and one third from other language backgrounds. All were at the intermediate level. The results varied but indicated that strategy training could be effective.

Littlewood (1984: 67) cites two Canadian studies by Naiman (1978) and Wesche (1979) which seem to show that successful language learners employ a wide variety of strategies which demonstrate their active involvement in learning e.g. silently repeating what they hear, making use of newspapers and radio and thinking out answers in class and comparing them with the answers accepted by the teacher.

### 3.2.3.2 Learning strategies and Communication strategies

Brown (1987: 91) differentiates between learning strategies and communication strategies. Learning strategies are related to input i.e. process, storage and retrieval of information while communication strategies relate to output i.e. how meaning is expressed and how the learner acts on what he knows. Communication strategies may be used when the learner becomes aware that he does not have sufficient knowledge to cope with a situation and needs to compensate for his lack of linguistic knowledge. Strategies may include avoiding communication, simplifying or altering the message, omitting some items, creating new words, for example referring to a bucket as a water holder, using a first language word, using a dictionary or resorting to non-lingual resources such as facial expressions. Lily Wong-Fillmore (Littlewood 1984: 67) notes a common strategy among children...
whereby they attach themselves to a group of other children and pretend to understand, even if they do not.

3.2.3.3 Meaningfulness, Transfer and Overgeneralisation

Transfer and overgeneralisation are learner strategies that rely on meaningfulness. They both relate new material to previous knowledge as a means of simplifying a confusing variety of information to make it more manageable. Overgeneralisation results from using previous knowledge of the second language (vertical transfer) while lateral transfer uses first language knowledge when learning a second language.

Transfer is a learner strategy that relies on meaningfulness. Meaningfulness refers to the ability to relate new learning to existing knowledge. Ausubel (see 2.3.1.2) emphasises that new material can only be assimilated into the existing cognitive structure if the relevant anchoring ideas are available. He emphasises meaningful learning and says that meaningful material is learnt more rapidly and is more likely to be remembered, less likely to be forgotten (Ausubel 1978: 147). Piaget (see 2.3.1.3), like Ausubel, stressed the importance of relating new knowledge to what is already known and said that at first everything encountered in the new language will be linked to the first language and culture. Krashen too (see 2.3.2.4) believed that potentially meaningful learning material presented at the correct coping level will assist meaningful learning. Transfer is when knowledge acquired in one field is transferred to another field (lateral transfer) or when knowledge already acquired makes it easier to acquire more complex knowledge in the same field (vertical transfer). It is clear that transfer does not automatically take place but depends on previously acquired knowledge. Only when learning has been consolidated in the cognitive structure can it be available for transfer.

Lateral and vertical transfer may be positive or negative. Positive transfer is when previous learning helps subsequent learning. This is also known as facilitation. Negative transfer is when previous learning hinders subsequent learning. This is also referred to as interference. An example of positive lateral transfer is the adjective preceding the noun in English 'a small tree' and also in French 'un petit arbre'.
Negative lateral transfer might occur in the instances in French where the noun precedes the adjective:

e.g. in English happy children
in French des enfants contents

'des contents enfants' would be incorrect in French; an example of negative transfer.

An example of negative lateral transfer is given by Hakuta and Cancino (1977: 295) who refer to a Spanish speaker saying, "Is the house of my mother." The two errors can be traced back to the Spanish, "Es la casa de mi madre." Spanish allows the deletion of the subject pronoun, thus 'It is' becomes 'Is'. Also in Spanish the possessed precedes the possessor, thus 'the house of my mother'. In English one would say 'my mother's house.'

An example of positive vertical transfer would be a learner forming a plural by changing the y at the end of a singular noun to an i and adding es. Negative vertical transfer would be if the learner over generalised and, following the same rule, changed the y to an i and added es on nouns ending in a y which was preceded by a vowel, not realising that such words belong in a different category needing only s to make the plural. Whether lateral transfer or vertical transfer is the dominant strategy depends on the learner's degree of proficiency in the target language. A beginner will know less of the new target language than will a more advanced student and will thus rely more heavily on first language knowledge. Errors will occur in the transfer of knowledge from the first to the second language. As the learner becomes more proficient in the second language, reliance on the first language will decrease and errors due to target language overgeneralisation will increase.

Taylor (1975: 76) refers to Brown who points out the difficulties of comparing the linguistic productions of various speakers when we cannot tell for sure if they are 'impulsive' speakers prepared to take a risk or 'reflective' speakers who will only use what they know (see 3.5.4). Corder (Taylor 1975: 76) suggested a way round this might be to test direct translation from the native language to the target language so that the student is forced to attempt a desired target language structure. If this has not been completely mastered it can be seen if there is overgeneralisation of the target rules or negative transfer from the first language i.e. application of acquired knowledge in the target language in an inappropriate context or existing knowledge from the first language applied to the target language where it is
incorrect. Taylor (1975: 73) administered a test requiring written translation of 80 Spanish sentences to 20 adult Spanish speaking students of English. These students were in the fifteen week Intensive Course in English at the English Language Institute at the University of Michigan in the autumn of 1973. Elementary students had little or no prior knowledge of English while intermediate students had all had prior instruction. The results showed that the elementary students' reliance on lateral transfer strategies was significantly higher than the intermediate students and the intermediate students' reliance on vertical strategies was significantly higher than the elementary students.

These findings are consistent with the theory that second language acquisition is an actively meaningful creative process (creative construction) dependent on the learner's ability to assimilate and subsume new information into already existing cognitive structures, relying on prior learning to facilitate new learning.

3.2.3.4 Creative Construction

Creative construction (see 2.3.2.2) means that a child actively constructs his own language. Both first and second language acquisition is similar in that the learner progresses through a series of stages by means of rules that he formulates and tries out for himself. An example of creative construction is the overgeneralisation (negative vertical transfer) of the rule adding 'ed' to make the past tense, thus 'goed' instead of 'went'. For both first and second language learners such a created language is a system in its own right and not an imperfect version of adult language. In the case of second language learners it is sometimes referred to as 'Interlanguage'.

3.3 Left / Right Brain Functioning

There is a theory that as a child's brain matures various functions become lateralised to either the left or the right hemisphere (Brown 1987: 88). These neurofunctional theories are based mainly on the work of Lamendella (see 2.3.3). The left hemisphere is associated with logical, analytical thought while the right hemisphere perceives and remembers. While both sides operate together it is hypothesised that second language learners with left dominance tend to be field independent (see 3.3.2) and prefer a deductive style while those with right dominance tend to be field dependent and prefer an inductive style (see 3.3.2). Brown says that while few studies have explicitly set out to correlate these factors
(i.e. field independent/deductive style and field dependent/inductive style) there does seem to be a strong relationship.

3.3.1 Lateralisation and Gender

The lateral organisation of the brain seems to develop differently for boys than for girls. In 1976 Witelson found that male lateralisation of language to the left hemisphere results in a narrower, though more precise, ability in language. Maturation of the left hemisphere seems to occur earlier and be more pronounced in girls which may account for their apparent superiority in verbal learning. Language develops earlier in girls and remains into middle age as a superior function. (Clark 1983: 25). While it must be remembered that the whole brain is capable of all activities, if the left hemisphere is dominant then preference will be for more structured, organised tasks while if the right hemisphere is dominant then it will be easier to see the whole problem, to be more spontaneous and more tolerant of ambiguity (see 3.5.6).

Lateralisation to the left or right hemisphere can explain preferred learning styles. Burstall in 1975, Gardner and Smythe in 1975, Gagnan in 1974 and Jones in 1950 all found that girls tend to demonstrate a significantly more positive attitude than boys towards language learning (Gardner 1985: 43).

3.3.2 Field Dependent / Field Independent Styles

Brown (1987: 78) refers to cognitive variations including differences between individuals and also differences within individuals. Learning style and strategies vary from one learner to another. Cognitive styles refer to the way a learner approaches new study material e.g. in an analytical meaningful way or in a non-analytical rote fashion. A learner with a field dependent style takes a wide view, perceiving the whole, while a learner with a field independent style is able to distinguish the parts from the whole. Brown (1987: 85) says that some degree of both field dependence and independence is necessary for successful language learning. Naiman (Littlewood 1984: 63) found that proficiency in listening and imitating sentences (this relates to Behaviourist theory) seemed to be related to field independence and hypothesised that the field independent individual would tend to be more successful at second language learning because he would be able to separate the relevant language stimulus from the total context while the field dependent individual would tend to be distracted by the whole and not be able to
differentiate between the component parts.

Field independence relates to classroom learning e.g. analysis, drill, mastering examples. Naiman (Brown 1987: 85) found that field independence correlated positively and significantly with language success in the classroom. Hansen and Stansfield (Brown 1987: 86) also found a relationship between field independent/field dependent cognitive styles and foreign language achievement. They assessed the field independence of 253 students in an introductory level university course in Spanish and correlated this with measures of Spanish proficiency including a written examination, grade averages, oral skill evaluation, a final examination, the final course grade and a Cloze test. Significant correlations ranging from 0.19 on the oral grade test to 0.35 for the Cloze test, were obtained for all measures of achievement. However when the effects of school ability were cancelled out the correlations were substantially reduced, showing a correlation between field independence and academic ability but not necessarily between field independence and second language acquisition.

In 1985 Abraham (Brown 1987: 82) found that second language learners who were field independent performed better in inductive lessons, where the rule is first articulated before proceeding to examples, while field dependent learners were more successful inductive learners, inferring the rules and meanings from data around them. Brown (1987: 87) says that if field independent learners perform better in the classroom, one could hypothesise that field dependent learners, with their preference for the inductive, would be more successful with the communicative aspect of second language learning. However, while no one seems to deny the plausibility of this hypothesis there is little evidence to support it.

Brown (1987: 88) concludes that it is likely that second language learners have a general inclination to be field dependent or field independent but given certain contexts can exercise a sufficient degree of the appropriate style. Vrey (1984: 258) says that while cognitive style is important there is no one best style to suit all circumstances.

3.4 Affective Factors

Research indicates that attitude and motivation may be important factors in the acquisition of a second language. While it has been suggested that personality variables such as anxiety, introversion, extraversion, self-esteem, risk taking,
empathy and toleration of ambiguity may influence attitude and motivation there is no strong evidence that such personality variables are factors in the achievement of a second language.

3.4.1 Motivation

Motivation is the driving force behind all action. It is a precondition of learning, both initiating and sustaining learning. Vrey (1984: 236) differentiates between a learning motive, which is the driving force behind an act of learning and a primary motive, which involves the concept of self maintenance and self enhancement. Motivation may be intrinsic, coming from inside the learner or extrinsic, imposed from outside. If motivation is extrinsic it will only become effective, according to Vrey (1984: 236), when the learner himself makes it intrinsic. For example a teacher's enthusiastic attitude and favourable comments may provide extrinsic motivation for a student to become enthusiastic about a learning event but later on enthusiasm must come from the student himself. The student must realise that one learns to gain knowledge, for self satisfaction and fulfilment and not to receive praise and favourable comments.

Motivation to learn a language refers to the extent to which an individual is prepared to strive to master the language because of a desire to do so and also because of the satisfaction experienced in this activity (Gardner 1985: 10). Experiences of success in learning a language will further motivate the individual to continue learning.

According to Brown (1987: 114) motivation may be global, situational or task orientated and all three are required to some extent for second language learning. Global motivation is general motivation while in this context situational motivation refers to the learning of a second language and task orientated motivation refers to a specific language learning task. Motivation is crucial in determining whether a learner embarks on a task in the first place, how much energy or effort he is prepared to expend on it and the length of time he perseveres.

Considerable research e.g. Clement, Gardner and Smythe 1977, Gardner and Lambert 1959 and 1972, Gardner and Smythe 1981 and Gliksman 1981 (Gardner 1985: 34) has demonstrated that achievement in second language acquisition is related to measures of attitude and motivation. Results of this research indicate that attitude, motivation and language aptitude are all important factors influencing the
rate of acquisition of a second language. Individuals with high levels of language aptitude are more able to cope with new material as it is presented, while those with positive attitudes who are well motivated will work harder, putting in more effort to acquire material and showing more interest. Much of this research has made use of the Attitude/Motivation Battery (Gardner, Clement, Smythe & Smythe 1979) or tests derived therefrom. Gardner and Smythe (1981) and Gliksman (1981) have shown that the various attitude and motivation measures are:

1. meaningfully related to each other
2. relatively independent of language aptitude
3. related to measures of proficiency in the second language

Gardner formed a composite score of these measures, known as the AMI (Attitude/Motivation Index). This index summarised the major affective variables presumed to be involved in second language acquisition, including attitudes to the target community, interest in foreign languages, motivational intensity or the amount of effort the learner is prepared to expend, desire to learn the target language, attitude towards the language and evaluation of both the course and the teacher, integrative orientation and instrumental orientation minus class anxiety. The AMI correlated significantly (p<0.01) with French grades in 28 samples. The AMI was also shown to be relatively independent of language aptitude as defined by the short form of the Modern Languages Aptitude Test (Carroll and Sapon 1959). (Gardner, Lalonde & Moorcroft 1985: 208.) (See 3.2.2.)

3.4.1.1 Integrative and Instrumental Motivation

Motivation in second language learning may be integrative or instrumental. Both are extrinsic forms of motivation. Integrative motivation occurs when the learner is interested in the people and the culture of the second language community and wishes to communicate while instrumental motivation occurs when the learner is interested in the second language as a useful instrument in furthering his goals e.g. gaining qualifications, improving employment etc. As an example of instrumental motivation, Littlewood (1984: 56) mentions learners who study English as an 'international language' in order to communicate with others who have learnt it as a second language rather than for the sake of contact with the native community.
3.4.1.2 Integrative Motivation

Gardner and Lambert's Canadian studies showed that, for high school students learning French, oral language performance correlated with integrative motivation while in all but one of the studies in America integrative motivation was not a significant factor (Strong 1984: 2 and Gardner 1985).

Studies by Lambert in 1959 and Spolsky in 1969 (Lukmani 1972: 261) showed that the proficiency scores in the new language of learners who were integratively motivated were much higher than those who were more instrumentally motivated. Lambert tested English speaking students learning French in Montreal and Spolsky tested three groups of foreign students attending university in the U.S.A. Subsequent studies by Lambert yielded similar results (Lukmani 1972: 261). Two studies, by Gliksman in 1976 and Naiman in 1978, found that the more integratively motivated the pupil, the more frequently the pupil volunteered to give information and the more frequently the correct answer was given (Gardner 1985: 127).

Strong (1984: 1) studied the relationship between integrative motivation and the acquisition of second language proficiency among groups of Spanish speaking kindergarten children in an American classroom. Twenty-one pupils spoke Spanish and twenty-four were monolingual English speakers. Integrative motivation was measured by discovering the children's preference for friends, playmates and workmates. Strong found no positive association between integrative motivation and the acquisition of proficiency. Further comparisons between beginners and advanced students of English as a second language showed considerably more integrative orientation towards the target language group by the advanced students than the beginners, leading Strong to suggest that integrative motivation follows the acquisition of second language skills rather than promoting them. Strong (1984: 4) refers to a study by Hermann in 1980 of seven hundred and fifty German children learning English as a second language. Those who had been learning for five years had significantly higher levels of positive attitudes towards the target language. Strong does point out that integrative motivation may be different for children than for adults when it comes to learning a second language.

3.4.1.3 Instrumental Motivation

Studies by Gardner and Lambert (Gardner 1972: 121) of learners of English in the
Philippines, where English is learnt as an international language, have shown that the level of instrumental motivation correlates best with success in second language learning. Yasmeen Lukmani (1972) found similar results when she studied learners of English in India. Sixty Marathi speaking high school students were tested on English proficiency and their motivation for learning English. The pupils come from lower middle class families belonging to a comparatively non-westernised section of Bombay society. They had all studied English as a second language for about seven years. The results showed that they were instrumentally motivated to learn English and that instrumental motivation scores correlated significantly with English proficiency scores, the higher the motivation the higher the achievement. On a Pearson Product-Moment correlation, Cloze test scores (to measure English proficiency) correlated significantly with instrumental motivation ($p < 0.001$) but not with integrative motivation. The students saw themselves as belonging to one community (Marathi). They did not wish to integrate with the English community but wanted to learn English so that they could understand and cope with the demands of modern life. The reasons given for learning English included getting a good job, coping with university classes, travelling abroad and widening their outlook.

Littlewood (1984: 57) suggests that most learners are motivated by a mixture of integrative and instrumental motivation. Lukmani (1972: 261) and Brown (1987: 116) agree that the two are not mutually exclusive.

3.4.2 **Attitude**

Attitude is a complex concept. It is an evaluative reaction to something on the basis of an individual's beliefs and opinions. Attitude and motivation go hand in hand and are both important in showing the learner's active involvement in learning the second language. Gardner (1985: 10) says that the acquisition of a second language is a long and arduous task so any concept of motivation must include an attitudinal foundation that sustains the motivation. Brown (1987: 123) stresses the importance of the learner perceiving and appreciating the differences between the second language culture and his own culture as language and culture are interwoven. The acquisition of a second language is also the acquisition of a second culture. The act of learning a second language is unlikely in itself to change attitudes although a negative attitude resulting from false stereotyping e.g. all Americans are loud and brash, may be changed by a teacher's encouragement of a realistic understanding of the second language culture as being different from the first but nevertheless still
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respected and valued. A review of the research literature (Gardner 1985: 39) suggests that attitude towards learning a language and attitude towards the second language community both tend to correlate with proficiency in that language and that both types of attitude have been shown to be relatively independent of intelligence or language aptitude. Studies by Gardner and Smythe 1975 and Burstall 1975 (Gardner 1985: 44) found a relationship between attitude towards the second language and achievement in the language. Gardner says that although this relationship is quite common, not all studies support it. However, research findings seem to show that there is a stronger relationship between attitude and achievement in language learning than between attitude and many other school subjects. Duckwith and Entwhistle (Gardner 1985: 42) studied the attitudes towards different subjects of 312 second year and 292 fifth year grammar school students in the U.K. in 1974. For the second year students there were few significant correlations except for the correlation between attitude and achievement in French. For the fifth year students the correlation between attitude and achievement in Maths, Physics, Chemistry and French was 0.38. Neidt and Holland in 1967 obtained similar results in a university context and found greater correlations between attitude and achievement in German than in English or Anatomy. (Gardner 1985: 41.)

3.5 Personality

There is no strong evidence of a consistent relationship between personality variables and achievement in second language learning, but at least two researchers, Krashen (1981) and Rivers (1964) have suggested that personality variables could influence attitude and motivational characteristics (Gardner 1985: 25).

A number of personality characteristics have been proposed as likely to have an influence on second language learning. While it is difficult to demonstrate these in empirical studies they have often been supported by observation or intuition. Such characteristics include anxiety, extroversion or introversion, self esteem, willingness to take risks and empathy. Personality may also affect the learner's preferred learning style (see 3.3.2). Littlewood (1984: 65) maintains that despite inconclusive results at the moment many believe that personality will one day be shown to have an important influence on success in second language learning. It is likely that personality interacts in complex ways with other factors to affect learning. It is also possible that it may be a particular combination of personality traits that is important rather than a particular trait. Gardner (1985: 26) says that
although there is much theorising and speculation there is a lack of published empirical research and further research is needed.

3.5.1 Anxiety

Anxiety can be defined as a state of apprehension or worry. Some learners have a high anxiety level while others have a low anxiety level. High anxiety students tend to be constantly keyed up and in a state of tension. Low anxiety students are very relaxed and in control of themselves and the situation. Such students may work slowly. High anxiety students may try to avoid the learning task, fearing failure. Under-achievers often fall into this category. It may be difficult to rouse low anxiety students sufficiently to involve them in the learning task. Most people fall somewhere between these two extremes. Lindgren (1976: 227) says that a moderate amount of anxiety is necessary for successful learning. He mentions research in Australia which found that students with moderate anxiety performed significantly better academically than those in the high or low anxiety groups. The learning situation may also generate anxiety which may help or hinder learning. If it appears threatening, complex or confusing (e.g. if a learner is presented with a task beyond his coping level) then learning will be hindered. Situations that may provoke anxiety when learning a language include the learner being asked to pronounce unfamiliar words in front of others in the classroom, fear of public correction, failure to understand what is required of him or inability to express himself clearly.

In 1976 Gardner, Smythe, Clement and Gliksman (Gardner 1985: 34) found that anxiety was a good predictor of second language achievement after aptitude and motivation. Gardner found that while there was no evidence to conclude that general anxiety prevented individuals from successfully learning a second language, those who became anxious in a second language learning context or situation were less successful than those who did not. Research suggests a positive relationship between situational anxiety and proficiency in a second language, although the inconsistency of research results prompt Gardner to caution that one must pay careful attention to the nature of the anxiety concept being measured and also the situation in which it is being investigated. Scovel (1978: 129) also mentions the mixed and confusing results of research into anxiety and its relationship to second language learning. He refers to studies by Swain and Burnaby, Tucker, Chastain and Backman.
Swain and Burnaby studied English speaking children involved in a French immersion programme. They found a negative correlation between anxiety and one measure of the children's proficiency in French but at the same time found no other significant correlations, negative or positive, with any other proficiency measure.

Tucker also found that anxiety correlated with one measure of proficiency in French but not with any others.

Chastain found a negative correlation between anxiety and student test scores in French, using an audio-lingual method, but found a positive correlation between anxiety and the scores of German and Spanish students, using traditional methods.

Backman found that the two Spanish speakers learning English who achieved the least were the highest and lowest scorers on an anxiety measure, demonstrating how too little anxiety can be as detrimental to language learning as too much.

Brown regards the non-threatening environment advocated by Roger's humanistic theory as a potential disadvantage in that it may not be conducive to a level of anxiety sufficiently high to ensure successful language learning (see 2.3.1.5).

Gardner and Smythe measured French class anxiety and general class anxiety. The French class anxiety reflected the general class anxiety and also the anxiety specific to the language learning situation which tends to interfere with language acquisition (Gardner 1985: 34). A study by Gardner in 1983 (1985: 161) showed that low level anxiety was caused by initial proficiency and motivation but that levels of anxiety were not determinants of final achievement.

3.5.2 Extroversion and Introversion

Extroversion and introversion are factors of personality. Brown (1987: 109) defines an extrovert as a person who derives his sense of wholeness and fulfilment from outside e.g. reactions, praise, opinions of others, while an introvert derives his sense of well being from his inner resources. Although extroverts tend to be more gregarious than introverts, this is not necessarily always so. It has often been suggested that extrovert people are well suited to second language learning because they tend to be outgoing but Naiman found a negative result when investigating whether good language learners scored higher in a standardised test of extroversion. Tucker (Tucker, Hamaya & Genesee 1976: 214) got a more positive
result, finding that success in second language learning seemed to correlate with learner scores on some traits associated with extroversion, such as assertiveness and adventuresomeness. Irrespective of learning ability, people with outgoing personalities may enjoy more social interaction, attract more teacher attention and be less inhibited about speaking in public (Littlewood 1984: 64). Brown (1987: 109) says that it is not clear if extroversion or introversion helps or hinders second language acquisition but agrees with Littlewood that extroversion may be a factor in developing general oral communicative competence.

3.5.3 Self Esteem

Self esteem is a personal judgement of worthiness, derived from experience with oneself, others and the outside world. As with motivation, self esteem may be:

1. general i.e. how one feels about oneself
2. specific e.g. oneself as a language learner
3. task orientated e.g. oneself as a speaker of the language.

Brown (1987: 102) says that although there is no conclusive statistical evidence, studies by Brodkey and Shore and also by Gardner and Lambert indicate that self esteem may be an important variable in second language acquisition. Self esteem and language success interact, with high self esteem leading to language success and experience of language success heightening self esteem. Heyde (Brown 1987: 102) found a positive correlation between all three levels of self esteem (general, situational and task) and performance on oral production of a second language.

Presumably learners with high self esteem are less likely to feel anxious when communicating in a second language, in an unfamiliar setting. They may also be more prepared to take risks.

3.5.4 Risk Taking

Self esteem is closely associated with risk taking. Those unsure of themselves are less inclined to take risks. Risk taking, or making calculated guesses, is an important factor in second language learning. Rubin says a good language learner makes willing and usually accurate guesses. Brown (1987: 105) also mentions a study which found that people with high motivation to achieve are moderate, not high, risk takers. (A high risk taker may make wild rather than calculated guesses). Moderate risk takers are likely to be in control and rely on their skill or
previous knowledge. According to Brown successful language learners appear to fit this pattern.

3.5.5 Empathy

Research results on the relationship between empathy and second language learning have been inconsistent. Taylor, Catford, Guiora and Lane (Gardner 1985: 34) hypothesised that the more sensitive an individual is to the feelings and behaviour of others, the more likely he is to perceive and recognise subtleties and unique aspects of the second language and incorporate them into his speech. Although it seems reasonable to hypothesise that empathy will relate to integration, the research supporting this hypothesis is questionable. One problem is that the MME (Micro Momentary Expression) test used for empathy has not been proved to be a valid test. (Gardner 1985: 34.)

3.5.6 Tolerance of Ambiguity

Naiman (Littlewood 1984: 64) says that presumably if one can tolerate uncertainty without feeling insecure, then one is less likely to be overwhelmed by the large amounts of material encountered in second language learning. According to Brown (1987: 89) an open mind accepts facts which appear to contradict what is already known while a closed mind rejects any proposition that does not fit into the existing cognitive structure. A flexible, adaptive style promotes rapid understanding while a rigid style makes learning more difficult. Cognitive style is also affected by personality e.g. a learner not prepared to take risks is more likely to opt for a rigid style. In second language learning there is much apparent contradiction e.g. words, rules, word order and the cultural system may all differ from those of the first language. Successful language learning needs tolerance of ambiguity although Brown (1987: 89) does point out that too much tolerance can be detrimental and prevent meaningful learning. Brown (1987: 90) refers to Naiman who found that tolerance of ambiguity was one of only two significant factors predicting the success of high school learners of French in Toronto while Chapelle, relating tolerance of ambiguity to success in acquiring English as a second language in adult learners in Illinois in 1983 found that learners with a high tolerance for ambiguity were slightly more successful in certain language tasks. Brown concluded that research suggests, although not too strongly, that tolerance of ambiguity may be an important factor in second language learning. (Brown 1987: 90.)
3.6 Role of Formal Instruction

There is general agreement that contact with speakers of the target language is important. Schumann, in his Acculturation model, argues that such contact is critical to second language learning. Clement's research (Rockhill 1985: 4488) also emphasises the importance of target language contact. Krashen and Seliger (1975) point out that instruction is also important and suggest that the classroom is at its most efficient when it functions as an informal, linguistic environment as close as possible to a natural environment (Rockhill 1985: 4488).

Formal instruction can have an effect on both the route and rate of learning. If learning is part of a reasonably invariable route, which Ellis (1985: 15) says is possibly Chomsky's language acquisition device triggered off by environmental factors, then formal instruction could help or hinder language acquisition. Ellis maintains that the few studies in this area, although not conclusive, suggest that formal instruction is unable to change the route but may help or hinder the rate of learning. For example, studies on the acquisition of morphemes by De Villiers and De Villiers and also Dulay and Burt (Chun 1980: 290) suggest that although second language learners develop at different rates they follow a natural sequence of development (Wilkins 1982: 8). Therefore formal instruction following the same order could help in the acquisition of language whilst trying to impose an order alien to the natural order of acquisition could hinder learning. Ellis (1985: 16) says that more empirical research is needed.

Littlewood (1984: 60) says studies show that, given the right kind of natural exposure to a second language, formal instruction is not necessary. However formal instruction can help learning by controlling the learner's exposure to language, making the learner aware of significant features or patterns, giving opportunity for practice and providing feedback. Krashen (Littlewood 1984: 60) argues that formal instruction is only a crucial factor if it is the learner's sole or major source of language experience. He says that if the learner has ample opportunity for natural acquisition through communication then formal instruction may play a complementary role, but more research is needed. Krashen (Rockhill 1985: 4488) does think that formal instruction is more important for adults because they are more likely to be inhibited in a natural, communicative situation as well as having greater dependence on grammar rules and conscious learning.
Long (1983: 359) reviewing research findings, concluded that there was considerable, but not overwhelming, evidence that instruction is beneficial for children and adults, for beginners, intermediate and advanced students. Of twelve studies six, including those of Krashen and Seliger 1976 and Krashen, Seliger and Hartnett 1974, supported the conclusion that instruction does make a difference.

Littlewood (1984: 61) also mentions the immense variety of teacher approaches, some more successful than others, but it is not clear which factors determine their success. Studies of the effectiveness of different methods have proved inconclusive. Various approaches include:

1. controlling exposure to language in advance, so that the learners are not overwhelmed by the material.
   A factor in first language acquisition is sometimes referred to as 'caretaker language'. This is when a mother speaks to her child slowly and distinctly, using shorter, more simple sentences, a limited vocabulary and more repetition. If this is an important factor in first language acquisition, as several observational studies have suggested (Littlewood 1984: 15), then it may suggest the type of language most likely to help second language learners and this could be reproduced in the classroom. Bruner (see 2.3.1.4) refers to LASS, a language support system by which a child's language will be adapted to a lower level than that of the adult to constitute an appropriate input for LAD, the language acquisition device advocated by Chomsky (see 2.3.2.2). Krashen also emphasised that language input is related to meaningfulness and must be comprehensible to the learner (see 2.3.2.4).

2. making learners aware of significant features or patterns

3. providing opportunity for practice

4. ensuring the learner receives feedback about performance

5. helping with learning strategies (see 3.2.3). Classroom instruction has the potential to influence a wide range of skills, both production and comprehension skills, to which strategies can be applied. Pupils can be helped to apply the most appropriate strategy for the particular language activity being presented. Once students have experienced success in applying strategies within the classroom they may be able to transfer such
strategies to a natural learning environment (O’Malley, Chamot, Stewner-Manzanares, Kupper and Russo 1985: 44).

3.6.1 Computers

Language arts, according to Rubin (1984: 201), are probably the most problenmatical area in which to assess the impact of computers, "yet language arts may well be the area in which computers can have the most dramatic impact." Kenning and Kenning (1983: 1) point out that the idea of using computers for teaching purposes in subjects like modern languages arouses mixed feelings and meets with a variety of reactions. Computers can be a very effective teaching aid but can also provide lengthy repetitive drills just as boring as similar drills in a text book, according to Kenning and Kenning (1983: 115) while games and competitions offer plenty of scope and "may make a significant contribution to language acquisition and learner motivation." Drill and practice, as advocated by the Behaviourists, can help build and consolidate the basis necessary for achieving a reasonable level of communicative competence. Word processing, writing and editing one's own work gives scope for active learner participation and accords more with the cognitive view of language acquisition. By working in pairs communicative skills can also be encouraged between students.

3.6.2 Climate of the classroom

This is an important factor in Roger's humanistic theory (see 2.3.1.5) which refers to an atmosphere of warm, interpersonal relationships with open communication, trust and acceptance. Purkey (Vrey 1984: 235) mentions six factors that are important in creating the best classroom atmosphere for learning and also for heightening motivation. These factors are realistic expectations for each individual learner, mutual respect between teacher and student, warmth of feeling, a democratic atmosphere with co-operation rather than competition, experience of success and freedom both of choice and from anxiety (see 3.9.1). Gardner (1985: 123) says that the provision of a warm, supportive environment within which a child can develop an integrative motive towards language study will have a clear effect on second language acquisition. Donahue and Kunkle (1979) emphasise the importance of enthusiasm on the part of the teacher and state that research studies repeatedly confirm that if an elementary teacher is eager and involved then so are the pupils.
Vrey (1984: 212) says that as well as being responsible for the climate of the classroom the teacher is also responsible for extrinsic motivation, for awakening interest and arousing the will to learn, for explaining in such a way that the student understands and for making learning tasks meaningful to the student. The quality of conversation is important so that there is meaningful dialogue and not just a question and answer session. Children do not learn language by listening to the teacher but by practising it themselves. Second language research tends to support conclusions from first language research that teachers tend to do most of the talking and dominate classroom speech. Legarreta, in 1977, investigated five bilingual kindergarten classes and found teacher talk accounted for 77% of the conversation. In 1984 Enright, studying two bilingual kindergarten classes, similar in context to Legarreta's sample, found 64.5% of talk was by teachers while in 1986 Ramirez studied seventy two pupils, whose first language was Spanish, from kindergarten to grade three and found teacher speech responsible for 70% of talk (Chaudron 1988: 50). However Chaudron suggests that more important than 'how much' is how this talk is directed at the pupils. Henzl (1979), Hakansson (1986), Steyaert (1977), Dahl (1981), Wesche and Ready (1985), Ishiguro (1986) and Mannon (1986) all found that teachers' speech to second language learners was slower in comparison with other contexts and conditions and seemed to involve a large number of modifications on normal conversational speech (Chaudron 1988: 64). The reasons for this were not clear. Chaudron cautions against concluding that this is a general trend because some of the studies produced conflicting findings while some factors, e.g. the identities of speakers and listeners, was not consistently controlled. Furthermore most research has concentrated on describing the features of teacher speech with little emphasis on the effects thereof on learners' development.

Cooley, Leinhardt and McGrail (1977: 121) say that although it can be assumed that a teacher's knowledge will have some bearing on student achievement, there have been few attempts to establish this relationship empirically. They refer to one study by Coleman in 1966 which found a relationship between a simple test of teachers' vocabulary and student achievement. However to assess teacher effectiveness more research needs to be done and more variables covered.

McDonough (1986: 4) also mentions as teacher factors age, sex, workload, value system, preferred teaching style and whether or not the teacher is a native speaker of the language being taught. Bruner (see 2.3.1.4) emphasises the importance of
the teacher as a role model and says it is vital that the teacher is teaching his first language or is totally competent in the second language to the extent of having internalised all gestures and utterances peculiar to the language.

3.6.4 Time

Every learner requires a certain minimum amount of time in which to understand a learning task, which should be comprehensible, relevant to the learner and challenging but not beyond his coping level. Bloom's theory of the mastery of learning (Lindgren 1976: 201) maintains that given suitable methods of instruction and sufficient time, 90% of students can master the material in the curriculum. Experience of success then increases motivation. It is important that each child should work at his own speed until he has achieved understanding. Strict adherence to school time table allocations may mean some children have insufficient time to understand a learning task.

Carroll (Harley 1986: 21) believes the amount of time spent in learning is a more important factor than age when it comes to competence in a second language.

Harley (1986: 123), while maintaining the importance of time, points out that the results of research show time alone is not a guarantee of proficiency in a second language.

Wilkins (1980: 34) points out that for almost all a child's waking hours from the age of about twelve months to fifteen years he is in contact with language directed at him, language produced in his presence and language he himself produces. Klein (1986: 9) also emphasises the enormous amount of time expended on a child's first language and says that despite being exposed to language almost every waking hour he is still a long way from full command of the language. Wilkins (1982: 31) compares one year in a classroom learning a second language with between one and three weeks exposure to the mother tongue. Strevens (1978: 29) says that despite lack of hard evidence there is a growing feeling that a more intense session will achieve more effective learning e.g. 25 hours per week for four weeks on a hundred hour course will be more effective than the same course over five hours a week. He does caution against fatigue of both student and teacher if the course is too intense. Klein (1986: 9) says that the intensive training of a second language total immersion policy e.g. 12 hours a day for four to six weeks (500 hours), usually results in a reasonable command of the language, although limited
in vocabulary and sentence structure. Therefore Klein says that it is a myth to say that first language acquisition is quick and easy compared with second language acquisition. There is also no sharp dividing line between first and second language acquisition as far as time is concerned because the learning of a second language is often initiated before the mastery of the first language is completed.

3.6.5. Opportunity for learning

An important factor in second language learning is the opportunity the learner has to use the second language, whether in the classroom or within the second language community itself. Littlewood (1984: 57) says that it is important for the learner to interact on a personal level and not just to 'visit the country'. Opportunity is interwoven with communicative needs which may be functional (conveying messages, avoiding misunderstandings etc.) or social, arising from a desire to integrate. Communication needs may be immediate or long term. In order to achieve communicative competence the second language learner must develop strategies (see 3.2.3) for relating structures to their communicative function in real life situations. This requires ample opportunity for practice.

Klein (1986: 50) says that the pressure of communication needs is likely to accelerate a learner's progress while limited communication needs are likely to slow it down.

The second language may be used in an informal setting e.g. interaction with native speakers or in a formal setting within the classroom. Cook (1986: 7) says that a mixture of the formal and the informal can coexist in the classroom.

The conclusion of the NFER report (McEwen, Gipps & Sumner 1975), studying minority groups in England, mentions a finding that children who speak English at home have a distinct advantage over those who never or hardly ever do so.

Learning opportunity also covers the effects of formal instruction (see 3.6), the climate of the classroom (see 3.6.2) and the amount of time available (see 3.6.4).

3.7 Age

Age is an important factor distinguishing first language learners from second language learners. A second language learner will be older than when he acquired
his first language. There are several theories concerning age and second language learning, putting forward biological, cognitive and affective arguments. Most of these maintain that younger learners have an advantage over older learners in acquiring a second language. However Chun (1980: 228) says there is no clear empirical support for the hypothesis of a general decrease in second language learning ability with age. According to Strevens (1978: 43), every learner who can acquire the mother tongue and is not senile has the potential for acquiring a second language. Strevens also says that there is agreement that each additional language learnt presents a lighter load than the previous one. Klein (1986: 15) agrees that a second language can be acquired in a variety of ways, at any age, for different purposes and to varying degrees.

3.7.1 Critical period for language acquisition

The critical period theory, which was based on studies of animal behaviour, was extended to language learning by Lennenburg amongst others (see 2.3.3). He maintained that language was best acquired between the ages of two and puberty. Before the age of two the maturation factor made language learning impossible and after puberty the loss of 'cerebral plasticity' which was supposedly caused by the completion of cerebral dominance, or lateralisation of the language function to the left or right hemispheres of the brain, made language learning more difficult (Chun 1980: 288).

Klein (1986: 9) rejects the idea of a critical period as a factor. He says that this theory which maintains that language is best acquired between the age of two years and puberty when the brain is more elastic is based on the false notion of the acquisition of first language being quick and effortless. Lamendella (Klein 1986: 10) says there is no conclusive biological evidence that the brain is elastic until puberty when the functions of the left and right hemispheres become 'wired in'. The very existence of successful adult language learners, however few, is evidence against the critical period theory.

Chun (1980: 289) refers to four longitudinal studies of naturalistic second language acquisition. None of these support the critical period theory but all suggest that different aspects of language are best learned at different ages depending on biological, cognitive, affective and social factors.
Ervin Tripp studied a group of 31 English speaking children, aged four to nine years, learning French in French speaking Switzerland. The results of a number of tests on comprehension, imitation and translation showed that generally the older children (7 to 9 years) learned faster than the younger ones (4 to 6 years). Although this is not strictly speaking relevant to the critical period theory as all children tested were below the age of puberty, it does indicate a general increase in language learning ability with age.

In 1978 Ekstrand compared four groups of Swedish school children aged eight, nine, ten and eleven who had been taught English as a second language in ten minute sessions twice a week, using an audio-visual method. All children received exactly the same treatment. After eighteen weeks they were tested for pronunciation and comprehension. The performance of the children was found to increase with age. (Harley 1986: 31.)

In 1975 Fathman studied 140 children aged between six and fifteen years. They were from varied language backgrounds, all learning English in the U.S.A. Fathman found that the younger ones (6 to 10 years) did better at pronunciation while the older children (11 to 15 years) achieved better results on tests of morphology and syntax, thus supporting the idea that language learners excel in different areas of language learning at different ages.

Snow and Hoefnagel-Hohle (1978) compared the findings of a laboratory study with a study of naturalistic second language acquisition. In the laboratory study 136 English speaking subjects aged between five and thirty-one years were asked to repeat five Dutch words twenty times each, immediately after a stimulus. In the naturalistic study 47 English speakers aged from three to sixty years, learning Dutch in Holland were tested on a number of aspects of language learning including phonology, morphology, syntax and vocabulary. The results of the laboratory study showed that pronunciation ability improved with age while in the naturalistic study the adults had the initial advantage although the younger ones caught up later.

Chun, studying 26 English speakers, aged six to forty-one years, learning French in France without formal instruction, found similar results to those of Snow and Hoefnagel-Hohle. The older children (13 to 17 years) did best on a number of measures but each of the age groups (6 to 12, 13 to 17, 18 to 41) excelled on at least one measure of language learning.
3.7.2 Age at which the learning of a second language is begun

Studies in both formal and natural settings have found that those who begin to learn a second language as older children or adults acquire academic type skills at a faster rate than those who began as young children. In school settings it has been found that older learners often end up on a par with those who began learning at a younger age.

In 1974 Burstall compared the achievement in French of a large sample of school students, some of whom began to learn French at the age of eight and the others at the age of eleven. After three years, having learnt French for the same amount of time, the older learners were ahead on three of the four skills tested (listening, reading and writing) while the younger learners achieved more highly on a speaking test. (Harley 1986: 62.)

Dunkel and Pillet found that American school children who began learning French in grade 3 did not do as well five years later on a standardised group test of formal grammar in French as students of the same age who had only had one year of French at secondary level. (Harley 1986: 62.)

3.7.3 Age and pronunciation

Chun (1980: 289) mentions two cross sectional studies which produced conflicting results regarding age and pronunciation. Olson and Samuels tested sixty students (20 elementary, 20 junior high and 20 college students) on thirty-three German phonemes and found that the junior high and college students did significantly better than the elementary students after two weeks of pronunciation instruction (ten sessions of 15 to 25 minutes each). However Asher and Garcia found that in a study of a group of seventy-one Cuban immigrants, aged seven to nineteen years who had been in the U.S.A. for between one and eight years, the younger children who had arrived between the ages of one and six years did best on a test consisting of reading four English sentences, achieving a native-like pronunciation. Nevertheless some older children had achieved excellent pronunciation so age cannot be considered a definite factor.

Seliger et al in 1975 studied 350 subjects and found that 85% of those who had arrived before the age of ten achieved native like pronunciation of the target language, as opposed to 50% in the ten to fifteen year age range and only 8% of
those over sixteen years. Oyama also found that Italian immigrants who had arrived in the U.S.A. before the age of eleven achieved higher scores on a listening comprehension than those who arrived at an older age.

3.7.4 Age and attitude

Studies by Gardner and Smythe (1975), Jones (1950) and Jordan (1941) indicate that attitudes towards learning become less positive with age and there is also a correlation between attitude and achievement. Gardner suggests attitude may be dependant on prior achievement in language learning and expectations become more realistic with age. (Gardner 1985: 44.)

3.7.5 Age and interpersonal communication

Scarcella and Higa, in 1981, concluded that older learners may be better at sustaining conversation in ways to obtain the most comprehensible input but there is also evidence from Cathcart et al in 1979, 1983 and 1986 as well as Strong in 1983 and 1984 that young second language learners can be effective in initiating and sustaining conversation (Chaudron 1988: 103). There is no conclusive evidence of a link between initiating conversation and language proficiency.

Some studies show that in the early stages of interpersonal communication time seems to be a more important factor than age.

3.7.6 Summary

In conclusion the research results do not support the critical period theory that language learning becomes more difficult after puberty but do suggest (e.g. Chun and Fathman) that different aspects of language learning are best learnt at different ages and also that there is a tendency for language learning to improve with age (e.g. Tripp and also Snow and Hoefnagel-Hohle).

Ekstrand found that the performance of children with regard to pronunciation and comprehension improved with age. Snow and Hoefnagel-Hohle and also Chun found similar results with pronunciation although both Chun and Seliger found that the younger a child begins to learn a language the better his chances of a native-like pronunciation.
Fathman's studies supported the idea that younger children did better with pronunciation but found that older children achieved higher results on tests of morphology and syntax.

Burstall showed that older learners in a school setting acquired academic type language skills at a faster rate than those who began young but often ended up on a par or even better as found by Dunkel and Pillet.

There is a positive correlation between attitude and achievement and Gardner suggested that attitude becomes more positive with age.

In interpersonal communication time and opportunity seem to be more important factors than age.

3.8 Social environment, including the role of parents

Social environment has a tremendous influence on linguistic development. Linguistic ability and vocabulary extension is closely related to the socio-economic status of the family (Vrey 1984: 134). Hamachek (1985: 85) says that there are marked social class differences in language development and usage e.g. the lower the social class the weaker the child's language skills. A child in an environment encouraging the use of language will grow more proficient. Research (Hamachek 1975: 86) suggests a positive relationship between the amount of time and effort mothers spend in encouraging pre-school verbal activities and the child's language proficiency. Bernstein (Downey and Kelly 1979: 121) found that families from different social backgrounds have different attitudes towards child rearing, thus forming different kinds of relationships between parents and children and these relationships in turn affect the use of language. Middle class children are encouraged to play, talk, join libraries, ask questions and are ready to play an active role when they go to school. Lower class children are not encouraged to ask questions, are told what to do rather than being helped to work things out for themselves and are therefore prepared to play a passive role at school. Many working class parents are more concerned that their child should behave well in school rather than achieve well academically. The general attitude of parents is likely to be more important than specific encouragement for the child to study for examinations or complete language homework. The child's perception of parental support, which is not necessarily the same thing as the parents' perception of support, does not relate directly to performance in class but is related to his
willingness to continue language study and the amount of effort he puts into learning the second language (Gardner 1985: 122). The conclusion of the 1975 NFER (National Foundation for Educational Research) report, studying minority groups in England, mentions a finding that children who speak English at home have a distinct advantage over those who never or hardly ever do so.

Social environment is also a factor in that the language learner may acquire knowledge in the formal setting of a classroom or in a natural setting. For a second language learner of school going age, as opposed to a foreign language learner, it will most probably be a combination of both as he will be living in a society where the language surrounds him.

3.9 Conclusion

There are many factors playing a part in the acquisition of a second language, but probably more important than a single factor may be a particular combination of factors and the interplay between factors which themselves may change according to the circumstances. One must always bear in mind that each learner is an individual and individual differences, and combinations thereof, will have an effect on the acquisition of a second language. There is no doubt that more empirical research is needed in all areas, although it may be very difficult to accurately measure certain factors, especially those in the affective sphere.

Nevertheless, based on current research some factors such as general intelligence, language aptitude, meaningfulness, motivation and attitude would appear to be more significant than others. Personality factors such as self esteem may play an important part and might influence motivation to learn a second language and attitude towards a second language but there is insufficient evidence to state this with any certainty. Moderate anxiety, as opposed to extremes of high or low anxiety would also appear to be a personality factor playing a part in successful second language acquisition.

The role of formal instruction, learning strategies, time and opportunity to learn all go hand in hand and together add up to important factor. Time and opportunity are factors which also include the amount of English spoken at home. While all children in this study received the same amount of time and opportunity to learn in the formal setting of school and all followed the same curriculum, albeit at their correct coping level, the amount of English spoken at home varied considerably.
Age would seem to be an important factor in that research indicates a tendency for language learners to improve with age.

Gender also plays a role in that language acquisition and development would seem to be stronger in girls.

Therefore factors appearing important which should be measured, where suitable tests can be found, and compared with achievement are intelligence, language aptitude, learning strategies, meaningfulness, motivation, attitude, anxiety, age, gender and the amount of English spoken at home.
CHAPTER FOUR
THE EMPIRICAL INVESTIGATION

4.1 Introduction

This chapter will discuss various hypotheses, the sample, measuring instruments, the general procedure of the investigation and the processing of the data.

4.2 Hypotheses

The main aim of this study is to establish which factor, or group of factors, explain the greater proportion of the variance of the acquisition of English as a second language. Factors identified in Chapter One (see 1.1) included intelligence, aptitude, self-esteem, motivation, attitude and the opportunity to learn. With this aim in mind and in light of the literature study which led to awareness of the additional factors of age, reading age, spelling age, gender and anxiety, the following hypotheses should be stated.

It was to be expected that pupils with high intelligence would acquire English as a second language at a higher level. The same applies to motivation. The following hypotheses were formulated.

Hypothesis 1

*There is a significant positive correlation between the intelligence of pupils and the acquisition of English as a second language.*

Hypothesis 2

*There is a significant positive correlation between the motivation of pupils and the acquisition of English as a second language.*

It was to be expected that during the primary school years the learning of English as a second language would increase with age. The following hypothesis was thus formulated.
Hypothesis 3

There is a significant positive correlation between the age of pupils and the acquisition of English as a second language.

Similarly one would expect to find that the higher the reading age and the spelling age of pupils, the higher would be the level of their acquisition of English as a second language.

Hypothesis 4

There is a significant positive correlation between the reading age of pupils and the acquisition of English as a second language.

Hypothesis 5

There is a significant positive correlation between the spelling age of pupils and the acquisition of English as a second language.

It was to be expected that low self esteem would relate to low achievement in the acquisition of English as a second language and high self esteem to high achievement. With regard to anxiety it was expected that high anxiety would relate to low achievement in the acquisition of English as a second language and low anxiety to high achievement. Therefore the following hypotheses were formulated.

Hypothesis 6

There is a significant positive correlation between the language acquisition of pupils and their self esteem.

Hypothesis 7

There is a significant negative correlation between anxiety and the language acquisition of pupils.

It was expected that second language students who spoke more English at home, would achieve more highly in language acquisition than those who spoke little or no English at home, as both time and opportunity would seem to be important factors.
Hypothesis 8

There is a significant difference between the language acquisition of pupils who always or often speak English at home and pupils who rarely or never speak English at home.

Research indicates that girls are better able to acquire language than boys, so it was to be expected that the girls in this sample would achieve more highly than the boys (see 3.3.1). Therefore the following hypothesis was formulated.

Hypothesis 9

There is a significant difference between the language acquisition of boys and girls.

It was expected that a combination of factors rather than a single factor would be more likely to explain the greater proportion of the variance of the acquisition of English as a second language. Therefore the following hypothesis was formulated.

Hypothesis 10

A combination of gender, age, learning opportunity, spelling age, reading age, intelligence and first language achievement will explain a higher proportion of the variance of the acquisition of English as a second language than any of these factors on its own.

4.3 Sample used in the investigation

Tests were administered to three mixed ability classes of Standard Five children: ninety one children ranging in age from 9 years to 12 years 9 months, the average age being 10.95 years with a standard deviation of 0.52. Of these ninety one children 50 were girls and 41 were boys.

The tests were administered at the end of the school year. All pupils had followed the same syllabus, although at levels suited to their abilities i.e. the correct coping levels, and all pupils sat the same end of year examinations.
The children were allocated to groups. First it was necessary to discover whether each child spoke English as a first or second language and how much previous experience they had of the language at home and at school. Home language was defined as the language the child spoke most often at home, irrespective of nationality, the parents' first language or the parents' country of origin. For example a Setswana child may have English as a home language or may be bilingual, speaking English and Setswana equally (Group 2) while a child from Ghana with Ghanaian parents may have English as a home language. In a few cases parents were of different nationalities themselves, speaking different languages e.g. Sotho and Tswana and using English at home. The children completed a questionnaire. Each question was read aloud, explained and then time was given for the answer to be completed. All answers, including dates of birth, were checked with school records and by discussion with the deputy principal. It was decided to use a questionnaire, rather than just ask the pupils for information, for several reasons. Firstly, to ask the children individually would have been very time consuming. To explain what was required to a whole class and ask them to record their answers on paper might have led to confusion as many children of this age are not particularly good at following instructions. Therefore the easiest way of obtaining this information, recorded in a uniform fashion to simplify the process of double checking, seemed to be the questionnaire. By seeing and hearing the questions simultaneously the chances of total comprehension would hopefully have been enhanced.

The majority of children (55%) were Batswana, some with English as a first language but most with English as a second language although some were equally at home in both English and Setswana. Other nationalities included British, Indian, Sri Lankan, Pakistani, Zambian, Zimbabwean, South African, Tanzanian, Ghanaian, Sotho, Kenyan, Norwegian, Swedish, Danish, German, Australian and American.

On the basis of their answers to the questionnaire, children were allocated to one of the following four groups:

Group 1  English as a first language.

Group 2  English as a second language but often spoken at home. All or most of primary education through the medium of English.
Group 3  English as a second language but rarely, if ever, spoken at home. All or most of primary education through the medium of English.

Group 4  English as a second language but rarely, if ever, spoken at home. Early primary education not in English.

The number of pupils allocated to each group was as follows:

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>32</td>
<td>35.1%</td>
</tr>
<tr>
<td>Group 2</td>
<td>36</td>
<td>39.6%</td>
</tr>
<tr>
<td>Group 3</td>
<td>18</td>
<td>19.8%</td>
</tr>
<tr>
<td>Group 4</td>
<td>5</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

4.4   Measuring Instruments

A useful source for tests available in England, the United States of America and the Republic of South Africa was TESTS, a comprehensive reference for assessment in psychology, education and business, edited by Sweetland and Keyser. Suitable tests were found for the measurement of achievement, intelligence, self concept, perceptions of student self, reading perceptions, motivational intensity, interest, perceptions of parental support and anxiety levels. It proved impossible to locate suitable tests for other factors such as aptitude and learning strategies. In addition to standardised tests, end of year school examinations were used to test achievement. Copies of these tests may be found in the Appendices.

4.4.1   Achievement Tests

End-of-year school achievement tests were given in Spelling (see Appendix 1, Comprehension (Appendix 2 and Appendix 3) and Grammar (Appendix 4 and Appendix 5). Standardised achievement tests used were as follows:

- English Progress Test C2 (NFER 1971)
- English Progress Test C3 (NFER 1977)
- Graded Word Spelling Test (Vernon 1989)
- The Primary Reading Test (France 1978)
4.4.2 Intelligence Tests

Two intelligence tests were given, one an oral verbal test and the other a non verbal test.

Oral Verbal Intelligence Test - OVIT (Young 1984)
Non-Verbal Test BD (NFER 1970)

4.4.3 Tests for Self Concept

The Affective Perception Inventory (Soares & Soares 1989) was used to measure self concept and the concept of self as both a student and a reader (Appendix 6). The API includes the following three subsections.

1. Self concept (see Appendix 6a)
2. Student self (see Appendix 6b)
3. Reading perceptions (see Appendix 6c)

4.4.4 Tests for Motivation

A questionnaire devised by the author (see Appendix 7) and based on Gardner's Attitude/Motivation Index (Gardner 1985: Appendix A) was compiled in four parts to measure:

1. motivational intensity (attitude) - Appendix 7a
2. the desire to learn English (interest) - Appendix 7b
3. perception of parental support - Appendix 7c
4. anxiety - Appendix 7d

4.5 Measuring Instruments in more detail and Procedure followed using these Instruments

4.5.1 Achievement Tests

4.5.1.1 End-of-Year School Achievement Tests

These tests had been devised by the author, with assistance from colleagues, four years previously and had been used each consecutive year to ensure continuity of

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standards. The tests were designed to be comprehensive, to cover all aspects of the year's work, to be seen by the children as 'fair' and to differentiate between ability levels. Results from Spelling, Grammar and Comprehension tests were used. Marks from creative writing tests (composition and letter) were not used because, despite detailed criteria, an element of subjectivity cannot be avoided. Copies of the tests used will be found in Appendices 1 to 5.

i  Spelling

Sixty spellings were given (Appendix 1) comprising words that children of this age should know, words that could be systematically attacked using skills of phonetic analysis, words taken from spellings that had been systematically learnt throughout the year and words taken from other areas in the syllabus. An example is the word *photosynthesis*. This word had been encountered by all children during Science lessons and all spelling groups were familiar with *ph* sounding like *f* and *y* sounding like *i*.

Each teacher said the word aloud and then put it into a sentence to show its meaning in context before repeating the word once more. All the scripts were marked by a class teacher and then checked by the author before each score was converted to a percentage.

ii  Comprehension

Two examinations were given to cover as many aspects of comprehension as possible and to avoid one lengthy examination which may have been beyond the attention span of some children.

The first examination (Appendix 2) presented an attractive picture and an interesting story about a mail bag robbery. This text was taken from *Sound Sense*, Book 7 (Tansley 1969). Most questions required a full sentence answer. A detailed marking scheme was devised to ensure absolute fairness and consistency. However an open mind was also necessary to consider answers that were different but upon reflection proved to be correct. Emphasis was on full sentence answers which was interpreted to mean a sentence containing all the necessary information, preferably given in the child's own words and presented in such a way as to make sense or be comprehensible to the reader.
The children were instructed to answer in full sentences unless they were asked for a different form of answer. A few questions specifically asked for a one word answer. Marks were deducted if such answers were given in complete sentences as the ability to follow directions is an important comprehension skill.

An example of a question requiring a full sentence answer is as follows:

9 On which night did they see a man looking at cars?

Two and a half marks were awarded for a correct answer, given in a full sentence. The following answers would all have been awarded the maximum marks.

a. He saw him on Monday night.
b. He saw a man looking at cars on Monday night.
c. The boy saw him on Monday night.
d. The boy saw a man looking at cars on Monday night.
e. It was on Monday night that the boy saw a man looking at cars.
f. It was on Monday night.

'On Monday night did the boy see a man looking at cars' would not score full marks. The answer is basically correct but not expressed in a fully comprehensible manner (also an aspect of comprehension) and would thus have half a mark deducted, giving a score of two. The answer 'Monday night' would score one mark. Although the answer is basically correct there has been no attempt to follow the instructions to answer in a full sentence, given both orally and in written form on the question papers.

An example of a question requiring a one word answer is as follows:

11. Give one word from the passage which means the same as:
11d a police officer

Either 'sergeant' or 'inspector' would be acceptable.

For questions requiring a one word answer one mark was given. Incorrect answers or answers presented in a full sentence failed to gain a mark.
The second examination (Appendix 3) was divided into two main parts, the first of which was verbal reasoning, offering multiple choice answers, and the second a comprehension passage, shorter and more difficult than that in the first examination, requiring inferential skills and more advanced knowledge of vocabulary. This second part was designed to differentiate between ability levels at the upper end of the scale. The first six sections requiring multiple choice answers had been taken from or adapted from the following:


The second section, entitled 'The Raft', was taken from *Signposts to English*, book 2 by L. Buchanan (Wheaton 1978) page 72.

'The Mail Bag Robbery', with full sentence answers and vocabulary words, accounted for 50% of the total marks, the verbal reasoning paper for 31% and 'The Raft', which included more inferential comprehension, accounted for 19%.

### iii Grammar

Once again two papers were given so that knowledge could be comprehensively and fairly tested without the examination being too long, with the danger of children becoming tired and losing concentration.

The first paper (Appendix 4) was presented in multiple choice format and accounted for 34% of the total grammar marks. Pupils had to provide written answers for the second paper (Appendix 5) which accounted for 66% of the marks.

There were sixty eight items on the first paper, carrying half a mark each for a correct answer.
Examples from each section are as follows:

A. Choose the Verb  (2% of the total percentage)

They waited until Mary left the classroom.
   a) They  b) waited  c) Mary  d) classroom

B. Find the Opposite of  (4.5% of total)

found  a) lose  b) loose  c) lost

C. Choose the Adverb  (2% of total)

He worked hard and was awarded a prize
   a) worked  b) hard  c) awarded  d) prize

D. Complete the Simile  (3% of total)

as light as:  a) morning  b) a feather  c) a daisy  d) lightning

E. Give the Feminine of  (2.5% of total)

monk:  a) monkey  b) nun  c) vixen  d) stallion

F. Give the Masculine of  (2.5% of total)

mare:  a) mayoress  b) stallion  c) emperor  d) nun

G. Complete these Collective Nouns  (5% of total)

a _____ of bees  a) shoal  b) business  c) swarm  d) set

a litter of _____  a) milk  b) paper  c) puppies  d) petrol

H. Choose the Noun formed from these Verbs  (2% of total)

enter:  a) exit  b) entrance  c) entertainment
I. Choose the correct occupation (3% of total)

One who repairs pipes and drains is a
a) drainer  b) piper  c) plumber

J. Choose the correct word to complete these sentences (2.5% of total)

a) because  b) before  c) while  d) if  e) that
I went to the bank ______ I went to the shop.

K. People. Complete the following (3% of total)

One who serves of his own free will is a
(a) waiter  b) volunteer  c) host

L. Choose the best adjective (2% of total)

To be healthy we must eat ______ food.
  a) fattening  b) nutritious  c) sweet

The second paper (Appendix 5) covered grammar which had been revised or learnt throughout the year. There was much emphasis on punctuation which had been an important part of the syllabus and can be crucial for comprehension. Punctuation, which accounted for 35.5% of the total mark, included full stops, question marks, exclamation marks, inverted commas, possessive apostrophes and contractions using apostrophes. Also tested in this paper were common and proper nouns, pronouns, plural nouns, homophones and alphabetical order.

The sections of this paper were as follows:

A. Rewriting sentences including missing punctuation. There were 25 items of punctuation missing altogether, each carrying half a mark. (12.5% of total marks)

B. Homophones. Pupils were asked to underline the correct word from a choice in brackets. Half a mark was given for each correct answer. (5% of total)
  e.g. I (would, wood) like everyone (to, too, two) (right, write) a (piece, peace) for the school magazine ........
C. Direct speech. Pupils were asked to rewrite sentences including inverted commas and other missing punctuation. Half a mark was given for each correctly placed item of punctuation and half a mark deducted for each incorrectly placed item. (10.5% of total)

e.g. The spectators exclaimed its a goal should be rewritten as
     The spectators exclaimed, "It's a goal!"

Half a mark would be deducted if the exclamation mark were placed after the word exclaimed. Similarly, if at the end of the sentence the exclamation mark were placed after the inverted commas, then the score would be half a mark instead of one mark. Correctly punctuated this sentence would score 3 marks for six correct items of punctuation.

D. Recognition of common nouns and proper nouns. Pupils were asked to underline common nouns and circle proper nouns. Half a mark was given for each correct answer and half a mark deducted for each incorrect answer. (6% of total marks)

E. Pronouns. Pupils were asked to rewrite sentences, replacing underlined words with pronouns. Half a mark was awarded for each correct answer and half a mark deducted for each incorrect answer. (4% of total marks)

F. Alphabetical order. Pupils were asked to put groups of five words into alphabetical order. The first group of words all began with the same letter, in the second group the first two letters were the same and in the last group all words began with the same three letters. Half a mark was given for each correctly placed word. As soon as an incorrectly placed word was encountered scoring stopped for that group of words. (6% of total marks)

G. Rewriting a very short story that is missing punctuation altogether. The 25 missing items of punctuation each scored half a mark. Half a mark was deducted for incorrect punctuation. This section was quite difficult and was designed to differentiate between more able and less able students. This section was taken from Signposts to English Book 4 by L. D. Buchanan (Wheaton, 1977). (12.5% of total)

H. Apostrophes. Pupils were asked to insert missing apostrophes, both possessive apostrophes and contractions. Correctly placed apostrophes
scored half a mark whilst half a mark was deducted for those that were incorrectly placed. (3.5% of total)

I. Plurals. Pupils were asked to write the plurals of twelve nouns, covering all the spelling rules for plurals that had been revised or learnt during the year. Half a mark was given for each correctly spelt plural. (6% of total)

4.5.1.2 Standardised Achievement Tests

All the tests used were intended for first language students. While the school achievement tests were based on the syllabus that had been taught, these standardised tests would show not only how well each student had mastered English but also how second language students compared with first language students.

i English Progress Tests C2 and C3

These tests measured attainment in basic English skills, including comprehension, vocabulary, spelling, punctuation, use of words in context, the ability to arrange phrases in meaningful order and the ability to write creative English. There was no precise time limit but children were not allowed to ask any questions once the test had commenced. Instructions for administering the test, given in the teacher's manual were strictly adhered to.

English Progress Test C2 was standardised by administering it to a representative sample of children aged 9.09 years to 10.09 years. The scores of 5499 children were collected and the data used to construct a conversion table from which could be discovered a child's standardised score, using his test score and age. The method used in constructing the conversion tables for both C2 and C3 was an adaptation of that devised by Lawley and described in an article in the British Journal of Psychologists (Statistical Section), volume 111, part 11, June 1950. From this table one can find a child's standardised score. The mean is 100 and the standard deviation 15, therefore in numerical distribution the standardised score is similar to intelligence quotients although not derived from mental age. The reliability of C2 was found to be 0.969 according to Kuder-Richardson formula 20.

English Progress Test C3 was standardised by administering it to 5747 students aged between 9.09 and 10.08 years. In this test the mean raw score for girls was found to be significantly higher than that for boys, so separate conversion tables
were constructed for boys and girls. Reliability, estimated by Kuder-Richardson formula 20 was 0.964.

ii  Graded Word Spelling Test

This test was based on the assumption that children who perform well or badly on a fairly short list of arbitrarily selected words would be likely to perform similarly on other word lists at the same levels of difficulty. The test, consisting of 80 words based on the Macmillan Spelling series and supplemented at random by more difficult words from a dictionary, had been graded in average order of difficulty for British and Canadian children with about six words for each age group from six to eighteen years. The test was given to 3313 pupils in English schools and 1909 in Canadian schools for standardisation purposes. The reliability coefficient was .94 although Vernon does caution that high reliability does not necessarily guarantee accuracy, since the classes actually tested may not have been accurately representative of the whole school population of the two countries.

The administration of the Graded Word Spelling test was similar to that of the school end-of-year spelling test. First the word was said aloud, then a short sentence showing the word in context was read out, followed by the word again. All instructions were carefully followed, the children being given a certain section of words of an appropriate range of difficulty. The instructions for group administration of this test stressed the importance of the choice of the set of words. Those chosen were words 10 to 70, sixty words in total. All spelling words were marked by the author, according to the instructions. One mark was given for each correct spelling. Half marks were not allowed for 'nearly correct' or doubtful words nor for incorrect parts of speech e.g. 'initial' instead of 'initials'. Once marked, the number of errors were subtracted from the possible maximum of sixty and then nine marks were added, one for each of the words omitted at the beginning of the test. The scores were then converted to spelling ages using the table provided.

iii  NFER Primary Reading Test

This is an untimed multiple choice test. Level 2 was used for Standard Five pupils. The 48 items were arranged in equal and ascending grades of difficulty to discriminate within the full ability range. More than 20,000 children were involved in the standardisation of the test. By using tables, raw scores can be converted to
reading ages, standard age scores, stanines and percentiles. For the purposes of this research, reading ages were calculated. The reliability coefficient, according to Kuder-Richardson formula 20, ranged from 0.932 to 0.969 for all groups.

As with all other tests, children worked in the familiar, relaxed atmosphere of their own classroom. The instructions were read to them and practice items were done together before each child completed the test at his own speed.

4.5.2 Intelligence tests

Intelligence is an important factor which influences achievement in language and should be measured. Two tests were used, an oral verbal test (OVIT) and a non-verbal test (Non-Verbal Test BD). The oral verbal test was used so that children using a second language would not be handicapped by poor or slow reading skills. Table F in the OVIT test manual shows that correlations between intelligence and reading are small and that spelling is unrelated to intelligence. However this test does rely on vocabulary and one must bear in mind that cultural or language difficulties could interfere with the results e.g. the word 'linoleum' or even the abbreviation 'lino' is not a word with which children in Botswana would be familiar. Verbal intelligence tests are a measure of reasoning using verbal modes of thought and a knowledge of language. Therefore when attempting to measure intelligence as a factor in second language acquisition a false picture may be given if a verbal test alone is used. Nevertheless OVIT provides a useful indication of intelligence, especially if taken in conjunction with the Non-Verbal Test BD. The non-verbal test was used in an effort to obtain as true an intelligence quotient as possible without relying on language. Thus second language children would not be handicapped by lack of vocabulary or poor understanding of English.

4.5.2.1 Oral Verbal Intelligence Test (OVIT)

The OVIT is divided into four subtests and administered in two separate sessions. A and B were given together and then C and D a week later. Each test has two parts, the first consisting of an explanation and practice session and the second comprising the test itself. Each session of two subtests takes about half an hour to complete. Strict timing is not possible but the speed of presentation has to be carefully regulated to a deliberately slow rhythm, with each of the four words corresponding to letters on the answer sheet being said at the rate of one per second. Each subtest has 20 items in the test section.
Each question was read aloud to the children, followed by a choice of four answers. This was then repeated. On the answer sheet only the first letter of each possible answer was given, the correct one to be circled e.g.

**Subtest A**
Which one has wings?  
Cloud  biscuit  river  sparrow  
The answer sheet will appear thus:  
c  b  r  s

**Subtest B - 'odd man out'**
Which is not like the others?  
robin  crow  swallow  worm  
The answer sheet shows  
r  c  s  w

**Subtest C - analogies**
cup is to drinking as plate is to ____?  
walking  mat  carpet  eating  
The answer sheet appears thus:  
w  m  c  e

**Subtest D - opposites**

yes  growl  lamp  no  
The answer sheet shows:  
y  g  l  n  
Both words in this subtest had to be correctly circled to score a mark.

By using a table, individual scores could be converted to an intelligence quotient, which is an indication of intelligence. Standardisation of this test gave equal weight to the distribution of scores of girls and boys.

4.5.2.2  Non-Verbal Test BD

This test measures the non-verbal ability of children aged 8 years to 11 years. The test is in four sections: cyphers, similarities, analogies and series. There is a detailed oral explanation and also practice items before the commencement of each section to ensure that all children fully understand what is expected of them and that poor readers will not be handicapped.

The test was standardised with 14 650 children aged 8.01 years to 9.00 years in 1964 and with 16 737 children aged 9.07 years to 11.00 years in 1965.

The conversion table was an adaptation of that devised by Lawley (see 4.5.1.2.i). Standardised scores were distributed with a mean of 100. Significant differences
between girls and boys led to separate conversation tables. The reliability coefficient, calculated by Kuder-Richardson formula 20 was 0.98 for the cypher section (Questions 1 to 25) and 0.94 for the other three sections (Questions 26 to 100).

This test was administered in strict accordance with the manual of instructions.

4.5.3 Affective Perception Inventory

Self concept, and the esteem in which a person holds himself, has been suggested as an important factor in learning. The Affective Perception Inventory measures nine components of self perception, of which three have been used, namely:

- how the student sees himself as a person
- how the student sees himself as a student
- how the student sees himself as a reader engaged in reading tasks

(see Appendix 6)

Self perceptions are indicated by a bi-polar format of sentences, which are opposite in meaning, at each end of a continuum e.g.

I read well ______________ I do not read well

To obtain an index score for each scale, values of plus 1 were given for answers on the left (positive) side of the continuum and minus 1 for answers on the right (negative) side. The total number of negative marks were then subtracted from the sum of positive marks and the scores thus obtained were converted to a percentage to facilitate comparisons with other tests. Above 50% indicated positive scores and below 50% negative scores.

Construct validity of the test was as follows:

- self concept \( r = .55 \)
- student self \( r = .56 \)
- reading perceptions \( r = .72 \)
Construct validity consisted of Multitrait-Multimethod Coefficients.

a. Convergent validation using
   Monotrait-Heteromethod Coefficients (M-H) self, peers, teachers

b. Discriminant validation using
   Heterotrait-Monomethod Coefficients (H-M) - self, peers, teachers
   Heterotrait-Heteromethod Coefficients (H-H) - self/peers, self/teachers, peers/teachers

It was emphasised to the children that there were no right or wrong answers. They were asked to give the answer that was most true for them and were told that telling the truth would provide the information needed to help them improve their English.

4.5.4 Motivation

Motivation seems to be an important factor in second language learning. A questionnaire was given in four parts, on four separate occasions, to measure the following aspects of motivation:

- attitude (or motivational intensity)
- interest (or desire to learn English)
- perceptions of parental encouragement
- levels of anxiety

This questionnaire (Appendix 7) was based on Gardner's AMI (Attitude Motivation Index) which was used to summarise the major affective variables presumed to be involved in second language learning. The AMI had been summarised from the Attitude/Motivation Test Battery of Gardner, Clement, Smythe and Smythe 1979. Data would seem to indicate that this test battery is valid but more research needs to be done. Data from 28 samples showed the AMI correlated significantly with French grades in 24 samples ($p < .01$) and was also relatively independent of language aptitude as defined by the short form of the modern language aptitude test (MLAT) by Carroll and Sapon 1959.

A. Attitude or motivational intensity

This section consisted of ten questions with a multiple choice answer format.
Children were asked to choose the answer that was most true for them. Answers scored one, two or three marks. The order of answers was random and differed from question to question. e.g.

**When I have a problem understanding something the teacher says, I**

a. ask the teacher for help  
   3 marks  
b. only ask for help if I know there will be a test soon  
   2 marks  
c. forget about it.  
   1 mark

**When it comes to English homework I**

a. put some effort into it but do not try as hard as I could  
   2 marks  
b. work very carefully, making sure I understand everything  
   3 marks  
c. do it fast without thinking much at all  
   1 mark

**B. Interest or desire to learn English**

The format of this section was similar to that of section A. e.g.

**In class I**

a. am happy to learn only in English  
   3 marks  
b. would rather learn half in English and half in my own language  
   2 marks  
c. would prefer to learn in my own language.  
   1 mark

**C. Perceptions of parental support**

Ten items were each presented in statement form, followed by:

a. always (4 marks)  
b. most of the time (3 marks)  
c. sometimes (2 marks)  
d. never (1 mark)

Children were asked to circle the answer most true for them. e.g.

**My parents speak to me in English**

a. always  
b. most of the time  
c. sometimes  
d. never

**D. Anxiety**

This section was presented in a similar format to that of C. e.g.

**I am too shy to answer questions out loud in class**

a. always  
b. most of the time  
c. sometimes  
d. never

Each part was administered at weekly intervals in an attempt to get as true a picture as possible. Children were assured, when completing the questionnaires, that there were no right or wrong answers, but only answers that were most true for them.
This was especially important for the section dealing with perceptions of parental support. They were assured that their parents would do what was in their best interests and that some parents might consider their children needed less help than others. This was to avoid either arousing feelings of disloyalty to parents or of falsified answers to 'protect' parents.

Each question was read out to the children, and explained when necessary, to ensure that all children fully understood what they were supposed to do. Answers were completed one at a time before the next question was read out.

4.6 General Procedure of the Investigation

All testing took place within the last term of the school year. End-of-year school examinations were given to all pupils at the same time while other tests were administered week by week, each class completing the same test within the same week. Class teachers invigilated the school examinations having agreed to follow exactly the same procedure regarding timing, giving of instructions etc. to ensure uniform conditions. All other tests and questionnaires, with the exception of the NFER Reading Test, were administered by the author. Such tests were given as early as possible in the school day to avoid fatigue, especially as the term proceeded and summer temperatures increased. The NFER Reading Test was administered to the whole school by one teacher. All tests were written by children sitting at their own desks in their own classrooms, thus ensuring a sense of security in familiar surroundings. Desks were separated so that children sat on their own to prevent any copying.

4.7 Processing of the Data

All the tests administered, with the exception of the NFER Reading test, were marked by the author and interpreted according to the norms of the test. The NFER Reading test was administered to the whole school by one teacher from the Special Needs department, and marked and interpreted by that same teacher according to the norms of the test.

All results were transcribed for computer processing at the University of South Africa.

In addition to the above tests the results of school achievement tests in Setswana
spelling and Setswana language (Grammar and Comprehension) were processed in the same way. All Setswana tests were administered and marked by three Setswana teachers, each teacher marking all the tests in a particular subject according to pre-agreed criteria.
CHAPTER FIVE
RESULTS OF THE INVESTIGATION

5.1 Introduction

The results of the empirical investigation were processed on computer and will be analysed according to the hypotheses that were propounded in Chapter Four (see 4.2).

To test hypotheses 1 to 7 pupils for whom English was a second language i.e. groups 2, 3 and 4, were used. In total they numbered 59. Pearson Product-Moment correlations were calculated to test each of the seven hypotheses.

To test hypotheses 8 and 9 a t-test procedure was used to ascertain whether there were significant differences. Pupils from all four groups (91 in total) were used to test these hypotheses.

Regression analyses were used to test Hypothesis 10 in order to determine which variables were the best predictors of success in the acquisition of English as a second language.

5.2 Testing of Hypothesis 1

With regard to Hypothesis 1, stated in paragraph 4.2, the following null hypothesis was tested:

_There is no significant positive correlation between the intelligence of the pupils and the acquisition of English as a second language._

To test this null hypothesis Pearson Product-Moment correlations, shown in table 5.2.1, were calculated for all pupils in Groups 2, 3 and 4 for whom English was a second language.
5.2.1 Table of results

<table>
<thead>
<tr>
<th></th>
<th>VERBAL INTELLIGENCE QUOTIENT</th>
<th>NON-VERBAL INTELLIGENCE QUOTIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVERAGE</td>
<td>0.53</td>
<td>0.64</td>
</tr>
<tr>
<td>C2</td>
<td>0.61</td>
<td>0.64</td>
</tr>
<tr>
<td>C3</td>
<td>0.54</td>
<td>0.64</td>
</tr>
</tbody>
</table>

Number of pupils = 59           p < 0.01 in all cases

Average = the average score obtained in all end-of term school tests i.e. English Spelling, Comprehension and Grammar.
C2 = English Progress Test C2 (NFER)
C3 = English Progress Test C3 (NFER)

The null hypothesis should be rejected. A significant positive correlation exists between intelligence and the acquisition of English as a second language. There seems to be a higher correlation between non-verbal intelligence and the acquisition of English as a second language than between verbal intelligence and the acquisition of English as a second language.

Research has shown (3.2.1) that there is a positive relationship between intelligence and linguistic development. In the acquisition of a second language, therefore, a positive correlation, as seen in the results of this research, is to be expected.

5.3 Testing of Hypothesis 2

Relating to Hypothesis 2, stated in paragraph 4.2, the following null hypothesis was formulated:

*There is no significant positive correlation between the motivation of pupils and the acquisition of English as a second language.*

To test this null hypothesis Pearson Product-Moment correlations, given in table 5.3.1, were calculated for those pupils in Groups 2, 3 and 4 for whom English was a second language.
5.3.1 Table of results

<table>
<thead>
<tr>
<th></th>
<th>MOTIVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVERAGE</td>
<td>0.18</td>
</tr>
<tr>
<td>C2</td>
<td>0.18</td>
</tr>
<tr>
<td>C3</td>
<td>0.17</td>
</tr>
</tbody>
</table>

Number of pupils = 59  p > 0.05 in all cases

Average = the average score obtained in all end-of-term school tests i.e. English Spelling, Comprehension and Grammar.
C2 = English Progress Test C2 (NFER)
C3 = English Progress Test C3 (NFER)

The null hypothesis cannot be rejected. There are no grounds for maintaining that there is a significant positive correlation between motivation and the acquisition of English as a second language.

Considerable research (3.4) has demonstrated that achievement in second language acquisition is related to measures of attitude and motivation. Much of this research made use of the Attitude/Motivation Battery (Gardner, Clement, Smythe & Smythe 1979) or tests derived from the Attitude/Motivation Battery but calculations according to Pearson Product-Moment correlations showed no significant positive correlation.

5.4 Testing of Hypothesis 3

The following null hypothesis was formulated with regard to Hypothesis 3, stated in paragraph 4.2.

*There is no significant positive correlation between the age of pupils and the acquisition of English as a second language.*

To test this null hypothesis Pearson Product-Moment correlations, shown in Table 5.4.1 were calculated for all pupils in Groups 2, 3 and 4 for whom English was a second language.
5.4.1 Table of results

<table>
<thead>
<tr>
<th></th>
<th>AGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVERAGE</td>
<td>0.53</td>
</tr>
<tr>
<td>C2</td>
<td>0.63</td>
</tr>
<tr>
<td>C3</td>
<td>0.44</td>
</tr>
</tbody>
</table>

Number of pupils = 59  
\( p < 0.01 \) in all cases

Average = the average score obtained in all end-of-term school tests i.e. English Spelling, Comprehension and Grammar

C2 = English Progress Test C2 (NFER)

C3 = English Progress Test C3 (NFER)

The null hypothesis can be rejected. A significant positive correlation exists between age and the acquisition of English as a second language.

The age of the subjects ranged from 9 years to 12 years 9 months as stated in paragraph 4.3. It seems that the higher age relates to a higher acquisition of English as a second language. The results of this research support the findings of Tripp and Ekstrand (3.7.1) that the language achievement of primary school children increased with age.

5.5 Testing of Hypothesis 4

With regard to Hypothesis 4, stated in paragraph 4.2, the following null hypothesis was tested:

There is no significant positive correlation between the reading age of pupils and the acquisition of English as a second language.

To test this null hypothesis Pearson Product-Moment correlations, shown in table 5.5.1 were calculated for all pupils for whom English was a second language.
5.5.1 Table of results

<table>
<thead>
<tr>
<th></th>
<th>READING AGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVERAGE</td>
<td>0.75</td>
</tr>
<tr>
<td>C2</td>
<td>0.68</td>
</tr>
<tr>
<td>C3</td>
<td>0.72</td>
</tr>
</tbody>
</table>

Number of pupils = 59  p < 0.01 in all cases

Average = the average score obtained in all end-of-term tests i.e. English Spelling, Comprehension and Grammar
C2 = English Progress Test C2 (NFER)
C3 = English Progress Test C3 (NFER)

The null hypothesis can be rejected. A significant positive correlation exists between the reading age of a pupil and the acquisition of English as a second language.

Research indicates (3.7.1) that the higher the chronological age of primary school children the higher the language achievement. Therefore it also seems likely that the higher the reading age of such pupils the higher the language achievement.

5.6 Testing of Hypothesis 5

Relating to Hypothesis 5, stated in paragraph 4.2, the following null hypothesis was tested:

*There is no significant positive correlation between the spelling age of pupils and the acquisition of English as a second language.*

To test this null hypothesis Pearson Product-Moment correlations, given in table 5.6.1 were calculated for all pupils in Groups 2, 3 and 4 for whom English was a second language.
5.6.1 Table of results

<table>
<thead>
<tr>
<th></th>
<th>SPELLING AGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVERAGE</td>
<td>0.79</td>
</tr>
<tr>
<td>C2</td>
<td>0.77</td>
</tr>
<tr>
<td>C3</td>
<td>0.66</td>
</tr>
</tbody>
</table>

Number of pupils = 59 p < 0.01 in all cases

Average = the average score obtained in all end-of term school tests i.e. English Spelling, Comprehension and Grammar

C2 = English Progress Test C2 (NFER)
C3 = English Progress Test C3 (NFER)

The null hypothesis can be rejected. A significant positive correlation exists between the spelling age of a pupil and the acquisition of English as a second language.

Research suggests (3.7.1) that the language achievement of primary school children increases with chronological age. It therefore seems likely that the higher the spelling age the higher will be the language achievement of such pupils.

5.7 Testing of Hypothesis 6

With regard to Hypothesis 6, stated in paragraph 4.2, the following null hypothesis was formulated:

There is no significant positive correlation between the self esteem of pupils and the acquisition of English as a second language.

To test this null hypothesis Pearson Product-Moment correlations, given in table 5.7.1, were calculated for all pupils in Groups 2, 3 and 4 for whom English was a second language.
5.7.1 Table of results

<table>
<thead>
<tr>
<th></th>
<th>SELF ESTEEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVERAGE</td>
<td>0.16</td>
</tr>
<tr>
<td>C2</td>
<td>0.16</td>
</tr>
<tr>
<td>C3</td>
<td>0.14</td>
</tr>
</tbody>
</table>

Number of pupils = 59      p > 0.05 in all cases

Average = the average score in all end-of-term school tests. i.e. English Spelling, Comprehension and Grammar

C2 = English Progress Test C2 (NFER)

C3 = English Progress Test C3 (NFER)

There are no grounds for rejecting the null hypothesis. A significant positive correlation between self esteem and the acquisition of English as a second language could not be shown.

Although previous research (3.5.3) indicates that self esteem may be an important factor in the acquisition of English as second language, a significant correlation was not shown in this investigation.

5.8 Testing of Hypothesis 7

The following null hypothesis was tested with regard to Hypothesis 7, stated in paragraph 4.2.

*There is no significant negative correlation between the level of pupil anxiety and the acquisition of English as a second language.*

To test this null hypothesis Pearson Product-Moment correlations, shown in table 5.8.1 were calculated for all pupils in Groups 2, 3 and 4 for whom English was a second language.
5.8.1 Table of results

<table>
<thead>
<tr>
<th></th>
<th>ANXIETY</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVERAGE</td>
<td>0.17</td>
</tr>
<tr>
<td>C2</td>
<td>0.16</td>
</tr>
<tr>
<td>C3</td>
<td>0.20</td>
</tr>
</tbody>
</table>

Number of pupils = 59  
\( p > 0.05 \) in all cases

Average = the average score obtained in all end-of-term school tests i.e. English Spelling, Comprehension and Grammar

C2 = English Progress Test C2 (NFER)

C3 = English Progress Test C3 (NFER)

The null hypothesis cannot be rejected as there are no grounds for believing that a significant negative correlation exists between anxiety and the acquisition of English as a second language. The correlations obtained were low and insignificant, indicating that no relationship exists.

Research in Australia (3.5.1) showed that students with moderate levels of anxiety performed significantly better academically than those with high or low levels of anxiety. Thus the lack of a significant negative correlation between anxiety and the acquisition of English as a second language would seem to support these research results.

5.9 Conclusion with regard to the testing of Hypotheses 1 to 7

Intelligence (5.2), age (5.4), reading age (5.5) and spelling age (5.6) all showed a significant positive correlation with the acquisition of English as a second language. With regard to previous research, these results were to be expected.

There are no grounds for maintaining that a significant positive correlation exists between motivation (5.3) and the acquisition of English as a second language nor between self esteem and the acquisition of English as a second language. With regard to previous research, these results were unexpected.

A significant negative correlation between anxiety and the acquisition of English as a second language could not be shown (5.7) but this could be interpreted as
supporting previous research findings that those pupils with moderate levels of anxiety achieved more highly, academically, than those with high or low levels of anxiety.

5.10 Testing of Hypothesis 8

For Hypothesis 8, stated in paragraph 4.2, the following null hypothesis was tested.

There are no significant differences between the language acquisition of those pupils who always or often speak English at home and those pupils who rarely or never speak English at home.

Pupils from all four groups (91 in total) were used in the testing of this hypothesis. Group A represents pupils who always or often spoke English at home (Groups 1 and 2) while Group B represents those who rarely or never spoke English at home (Groups 3 and 4).

Language acquisition was seen as consisting of several variables, namely:
- end-of-term school tests in:
  - English Grammar
  - English Comprehension
  - Spelling
- the average score of the above tests
- English Progress Test C2 (NFER)
- English Progress Test C3 (NFER)
- Spelling age
- Reading age

To determine whether the language acquisition of Group A differed from Group B the mean of each group was calculated for each variable and thereafter a t-value was calculated to determine whether the two means differed significantly.

Table 5.10.1 shows that the null hypothesis can be rejected in all instances which means that a significant difference exists between Group A and Group B. In every case the mean of Group A was higher than that of Group B, indicating that pupils who always or often spoke English at home achieved more highly than those who rarely or never spoke English at home.
These results support the finding of the National Foundation for Educational Research in England and Wales (3.8) that, in a study of minority groups in England, pupils who spoke English at home had a distinct advantage over those who never or hardly ever spoke English.

5.10.1 Table of results

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>GROUP</th>
<th>N</th>
<th>MEAN</th>
<th>S</th>
<th>t*</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH</td>
<td>A</td>
<td>68</td>
<td>79.54</td>
<td>11.61</td>
<td>3.05</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td>GRAMMAR</td>
<td>B</td>
<td>23</td>
<td>70.21</td>
<td>15.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGLISH</td>
<td>A</td>
<td>68</td>
<td>63.63</td>
<td>15.21</td>
<td>3.59</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td>COMPREHENSION</td>
<td>B</td>
<td>23</td>
<td>50.30</td>
<td>15.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPELLING</td>
<td>A</td>
<td>68</td>
<td>64.25</td>
<td>20.67</td>
<td>2.30</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>23</td>
<td>53.04</td>
<td>18.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AVERAGE</td>
<td>A</td>
<td>68</td>
<td>68.82</td>
<td>13.39</td>
<td>3.34</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>23</td>
<td>57.69</td>
<td>14.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2</td>
<td>A</td>
<td>68</td>
<td>101.26</td>
<td>11.39</td>
<td>3.25</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>23</td>
<td>92.86</td>
<td>8.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C3</td>
<td>A</td>
<td>68</td>
<td>99.13</td>
<td>10.46</td>
<td>3.50</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>23</td>
<td>90.17</td>
<td>10.97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPELLING</td>
<td>A</td>
<td>68</td>
<td>11.88</td>
<td>1.62</td>
<td>2.53</td>
<td>p&lt;0.05</td>
</tr>
<tr>
<td>AGE</td>
<td>B</td>
<td>23</td>
<td>10.92</td>
<td>1.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>READING</td>
<td>A</td>
<td>68</td>
<td>9.91</td>
<td>1.30</td>
<td>3.70</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td>AGE</td>
<td>B</td>
<td>23</td>
<td>8.82</td>
<td>0.94</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* df = 89 in all cases

5.11 Testing of Hypothesis 9

With regard to hypothesis 9, stated in paragraph 4.2, the following null hypothesis was tested.

*There is no significant difference between the language acquisition of boys and that of girls.*

Pupils from all four groups (91 in total) were used in the testing of this hypothesis. Group X represents girls and Group Y represents boys.
Language acquisition was seen as consisting of the following variables:

end-of-term school tests in:
   English Grammar
   English Comprehension
   Spelling

the average score of the above tests:
   English Progress Test C2 (NFER)
   English Progress Test C3 (NFER)
   Spelling age
   Reading age

To determine whether the language acquisition of boys differed from that of girls the mean of Group X (girls) and the mean of Group Y (boys) were calculated for each variable and thereafter a t-value was calculated to determine whether the two means differed significantly.

Table 5.11.1 shows that boys and girls seem to differ significantly with regard to Grammar, Comprehension, Spelling, the average score, C2, C3 and Spelling age. There is however no significant difference with regard to Reading age.

With regard to previous research i.e. that girls achieve more highly than boys, this result was to be expected (see 3.3.1).
5.11.1 Table of results

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>GROUP</th>
<th>N</th>
<th>MEAN</th>
<th>S</th>
<th>t*</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH X</td>
<td>50</td>
<td>80.84</td>
<td>12.82</td>
<td></td>
<td>3.03</td>
<td>p &lt; 0.01</td>
</tr>
<tr>
<td>GRAMMAR Y</td>
<td>41</td>
<td>72.73</td>
<td>12.49</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGLISH X</td>
<td>50</td>
<td>64.38</td>
<td>16.94</td>
<td></td>
<td>2.74</td>
<td>p &lt; 0.01</td>
</tr>
<tr>
<td>COMPREHENSION Y</td>
<td>41</td>
<td>55.24</td>
<td>14.22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPELLING X</td>
<td>50</td>
<td>65.92</td>
<td>22.42</td>
<td></td>
<td>2.35</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td>AVERAGE Y</td>
<td>41</td>
<td>55.92</td>
<td>16.91</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2 X</td>
<td>50</td>
<td>101.92</td>
<td>11.91</td>
<td></td>
<td>2.68</td>
<td>p &lt; 0.01</td>
</tr>
<tr>
<td>C3 Y</td>
<td>41</td>
<td>95.75</td>
<td>9.45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPELLING X</td>
<td>50</td>
<td>12.04</td>
<td>1.78</td>
<td></td>
<td>2.70</td>
<td>p &lt; 0.01</td>
</tr>
<tr>
<td>AGE Y</td>
<td>41</td>
<td>11.15</td>
<td>1.27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>READING X</td>
<td>50</td>
<td>9.80</td>
<td>1.40</td>
<td></td>
<td>1.27</td>
<td>p &gt; 0.05</td>
</tr>
<tr>
<td>AGE Y</td>
<td>41</td>
<td>9.45</td>
<td>1.15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* df = 89 in all cases

5.12 Conclusion with regard to the testing of Hypotheses 8 and 9

The results seem to indicate that both the amount of English spoken at home and gender are important factors in the acquisition of English as a second language. The language acquisition of the group who always or often spoke English at home was significantly higher than that of the group who seldom or never spoke English at home. With regard to gender the language acquisition of girls was significantly higher than that of boys in all instances except for reading age, where there was no significant difference.

5.13 Testing of Hypothesis 10

To test Hypothesis 10, stated in paragraph 4.2, several regression analyses were used to determine which variables were the best predictors of success in the acquisition of English for children learning English as a second language.
5.13.1 Average in end-of-year school tests as dependent variable

For the first analysis the average score in end-of-term school tests in English Grammar, English Comprehension and Spelling was used as a dependent variable while gender, age, the amount of English spoken at home, the amount of education received in English (instruction), verbal and non-verbal intelligence, student perception of self as a person, as a student and as a reader, attitude towards learning English, pupil perception of parental support, interest in learning English, anxiety and achievement in Setswana spelling and Setswana language (Grammar and Comprehension) were used as predictor variables.

In Table 5.13.1.1 $R^2$ indicates the proportion of the variance in the acquisition of English explained by the predictor variables. Non-verbal intelligence explains the largest proportion of the variance of the average of end-of-term school marks, namely 36%.

When age was entered 45.5% of the variance could be explained.

Non-verbal intelligence, age and achievement in Setswana language explained 51.4% of the variance of the average of end-of-term school marks.

When the amount of English spoken at home was entered 54% of the variance could be explained and 54.6% when the amount of instruction received in English was added.

No other variable could explain a significantly larger proportion of the variance already explained by the previous variables. One could therefore say that with regard to Setswana children who had English as a second language, non-verbal intelligence, age, achievement in Setswana language (Grammar and Comprehension), the amount of English spoken at home and the amount of education (instruction) received in English explain, more or less, 54% of the variance of achievement in English as measured by school achievement tests.
Table of results

Average in end-of-year school tests as dependent variable

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>R²</th>
<th>F</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>NON-VERBAL INTELLIGENCE</td>
<td>0.360</td>
<td>25.33</td>
<td>1.45</td>
<td>(p &lt; 0.01)</td>
</tr>
<tr>
<td>AGE</td>
<td>0.454</td>
<td>18.33</td>
<td>2.44</td>
<td>(p &lt; 0.01)</td>
</tr>
<tr>
<td>SETSWANA LANGUAGE</td>
<td>0.514</td>
<td>15.17</td>
<td>3.43</td>
<td>(p &lt; 0.01)</td>
</tr>
<tr>
<td>ENGLISH SPOKEN AT HOME</td>
<td>0.540</td>
<td>12.35</td>
<td>4.42</td>
<td>(p &lt; 0.01)</td>
</tr>
<tr>
<td>INSTRUCTION</td>
<td>0.546</td>
<td>9.90</td>
<td>5.41</td>
<td>(p &lt; 0.01)</td>
</tr>
</tbody>
</table>

5.13.2 C2 as dependent variable

For the second analysis English Progress Test C2 (NFER) was used as the dependent variable while gender, age, the amount of English spoken at home, the amount of instruction received in English, verbal and non-verbal intelligence, student perception of self as a person, as a student and as a reader, attitude towards learning English, pupil perception of parental support, interest in learning English, anxiety and achievement in Setswana spelling and Setswana language (Grammar and Comprehension) were used as predictor variables.

In Table 5.13.2.1 \(R^2\) indicates the proportion of the variance explained by the predictor variables. Age explains the largest proportion of the variance of English Progress Test C2, namely 40%.

When verbal intelligence was entered 52% of the variance of English Progress Test C2 could be explained. Age, verbal intelligence and non-verbal intelligence together accounted for 57% of the variance of English Progress Test C2.

When gender was entered, then 60% of the variance of English Progress Test C2 was explained.

With the addition of anxiety 61% could be explained and when perception of parental support was entered then 62% of the variance of English Progress Test C2 could be explained.
No other variable could explain a significantly larger proportion of the variance of English Progress Test C2 than that already explained by the previous variables. It could therefore be said that with regard to Setswana children who had English as a second language, age, verbal intelligence, non-verbal intelligence, gender, anxiety and pupil perception of parental support explain, more or less, 62% of the variance of achievement in English as measured by English Progress Test C2.

### 5.13.2.1 Table of results

#### C2 as dependent variable

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>R²</th>
<th>F</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>0.40</td>
<td>30.08</td>
<td>1.45</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td>VERBAL INTELLIGENCE</td>
<td>0.52</td>
<td>24.64</td>
<td>2.44</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td>NON-VERBAL INTELLIGENCE</td>
<td>0.57</td>
<td>19.58</td>
<td>3.43</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td>GENDER</td>
<td>0.60</td>
<td>15.80</td>
<td>4.42</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td>ANXIETY</td>
<td>0.61</td>
<td>13.15</td>
<td>5.41</td>
<td>p&lt;0.01</td>
</tr>
<tr>
<td>PERCEPTION OF PARENTAL SUPPORT</td>
<td>0.62</td>
<td>10.90</td>
<td>6.40</td>
<td>p&lt;0.01</td>
</tr>
</tbody>
</table>

### 5.13.3 C3 as dependent variable

For the third analysis English Progress Test C3 (NFER) was used as the dependent variable while gender, age, the amount of English spoken at home, the amount of instruction received in English, verbal and non-verbal intelligence, student perception of self as a person, as a student and as a reader, attitude towards learning English, pupil perception of parental support, interest in learning English, anxiety and achievement in Setswana spelling and Setswana language (Grammar and Comprehension) were used as predictor variables.

In Table 5.13.3.1 R² indicates the proportion of the variance explained by the predictor variables. Non-verbal intelligence explains the largest proportion of the variance of English Progress Test C3, namely 38%.

Non-verbal intelligence and verbal intelligence together accounted for 42% and when age was entered then 46% of the variance could be explained.
intelligence, verbal intelligence, age and achievement in Setswana language explained 48% of the variance.

When the amount of English spoken at home was entered 52% of the variance could be explained and 54% when pupil perception of parental support was added.

Non-verbal intelligence, verbal intelligence, age, achievement in Setswana language, the amount of English spoken at home, pupil perception of parental support plus pupil perception of self as a reader accounted for 56% and with the addition of anxiety accounted for 57% of the variance.

No other variable could explain a significantly larger proportion of the variance already explained by the previous variables. One could therefore say that with regard to Setswana children who had English as a second language, non-verbal intelligence, verbal intelligence, age, achievement in Setswana language, the amount of English spoken at home, pupil perception of parental support, pupil perception of self as a reader and anxiety explain, more or less, 57% of the variance of achievement in English as measured by English Progress Test C3.

### 5.13.3.1 Table of results

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<tr>
<th>VARIABLE</th>
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5.13.4 Reading age as dependent variable

Reading age was the dependent variable for the fourth analysis while the predictor variables were gender, age, the amount of English spoken at home, the amount of instruction received in English, verbal and non-verbal intelligence, student perception of self as a person, as a student and as a reader, attitude towards learning English, pupil perception of parental support, interest in learning English, anxiety and achievement in Setswana spelling and Setswana language (Grammar and Comprehension).

In Table 5.13.4.1 $R^2$ indicates the proportion of the variance explained by the predictor variables. Non-verbal intelligence explains the largest proportion of the variance of reading age, namely 41%.

Non-verbal intelligence and age together explained 48% of the variance and when the amount of English spoken at home was entered then 51% of the variance was explained.

The addition of pupil perception of parental support accounted for 55% and when pupil perception of (self as a person) was entered then 56% of the variance was explained.

When verbal intelligence was entered then 57% of the variance could be explained and 58% with the addition of interest shown in learning a second language.

Thus with regard to Setswana children who had English as a second language, more or less 58% of the variance of achievement in English as measured by Reading age can be explained by non-verbal intelligence, age, the amount of English spoken at home, pupil perception of parental support, pupil perception of self as a person (self concept), verbal intelligence and interest shown in learning English.
5.13.4.1 Table of results
Reading age as dependent variable

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5.13.5 Spelling age as dependent variable

For the fifth analysis Spelling age was the dependent variable while the predictor variables were gender, age, the amount of English spoken at home, the amount of instruction received in English, verbal and non-verbal intelligence, student perception of self as a person, as a student and as a reader, attitude towards learning English, pupil perception of parental support, interest in learning English, anxiety and achievement in Setswana spelling and Setswana language (Grammar and Comprehension).

In Table 5.13.5.1 R² indicates the proportion of the variance explained by the predictor variables. Age explains the largest proportion of the variance of reading age, namely 30%.

Setswana spelling and age together explained 42% of the variance and when the amount of instruction received in English was entered then 49% of the variance was explained.

The addition of verbal intelligence accounted for 51% and when pupil perception of parental support was entered then 53% of the variance was explained.
When gender was entered then 54% of the variance could be explained and 55% with the addition of achievement in Setswana language. The amount of English spoken at home, when added to the variables already mentioned, explained 56% of the variance.

Thus about 56% of the variance of achievement in English as measured by Spelling age can be explained by age, achievement in Setswana spelling, the amount of education (instruction) received in English, verbal intelligence, pupil perception of parental support, gender, achievement in Setswana language (Grammar and Comprehension) and the amount of English spoken at home.

5.13.5.1 Table of results

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</table>

5.14 Conclusion with regard to the testing of Hypothesis 10

The results show that the best predictors of success in the acquisition of English as a second language for primary school children are non-verbal intelligence and age. Also important are the amount of English spoken at home, first language acquisition (in this case achievement in the Setswana language), pupil perception of parental support and verbal intelligence.
5.14.1 Intelligence

Intelligence, verbal and non-verbal, were both significant predictors for the dependent variables C2, C3 and reading age. Non-verbal intelligence was also a significant predictor for the average of all the school achievement tests in English (Spelling, Grammar and Comprehension) while verbal intelligence was a significant predictor for spelling age. Previous research (3.2.1) has shown that intelligence is an important factor in second language acquisition.

5.14.2 Age

Age was a predictor of success in all five of the dependent variables used in the regression analyses. This was not unexpected since in paragraph 3.3.1 it was shown that a significant positive correlation exists between age and the second language acquisition of primary school children.

5.14.3 Amount of English spoken at home

The amount of English spoken at home was a significant predictor for the dependent variables C3, reading age, spelling age and the average of the school tests in Grammar, Comprehension and Spelling. This result supports the findings of the National Foundation for Educational Research in England and Wales (3.8).

5.14.4 First language acquisition

Pupil perception of parental support

Two other factors that appear significant according to regression analyses are first language acquisition, in this case achievement in the Setswana language (Grammar and Comprehension) and pupil perception of parental support. Both were significant predictors for spelling age and for C3. The former was also a significant predictor for the average of school achievement tests in Grammar, Comprehension and Spelling while the latter was a significant predictor of reading age.

Ausubel stressed the importance of relating new knowledge to existing knowledge and said that at first everything encountered in a new language is related to the first language i.e. lateral transfer (3.2.3.3). Language learning aptitude (3.2.2) is considered an important factor in second language acquisition and although it
proved impossible to test this, the Setswana results may possibly be an indication of both language aptitude and intelligence, although this cannot be stated with any certainty.

The fact that pupil perception of parental support was identified as an important factor confirms Gardner's belief (3.8) that a child's willingness to study the language and the amount of effort he is prepared to put into such study can be related to the child's perception of parental support.

5.14.5 Other factors

Factors appearing as important in only two of the regression analyses were the amount of education (instruction) received in the medium of English, gender, pupil perception of self as a reader and anxiety. None of the other variables tested met the 0.5 level of significance for entry into the regression model and cannot, therefore, be considered of importance.

The amount of instruction received in English as a factor implies that the greater the amount of time spent learning in the English medium, the greater the achievement in English. This is related to the opportunity to learn (3.6.5).

As far as gender is concerned, previous research (3.3.1) shows that girls tend to achieve more highly than boys.

With regard to pupil perception of self as a reader, although there is no conclusive statistical evidence, studies (3.5.3) indicate that self esteem may be an important factor in second language acquisition. However, the results of this research indicate that this may be so only in the following two instances.

1. pupil perception of self as a reader in the case of C2 and C3 English Progress Tests
2. self concept in respect of reading age

Perception of self as a reader would therefore appear not to be such an important factor.
5.15 Conclusion

There are many factors in the acquisition of English as a second language. Each factor has a role to play. Factors, or groups of factors, may assume greater or lesser importance according to different aspects of language acquisition.

However some factors do appear to be more important than others. They are:

- age
- intelligence, both verbal and non-verbal
- first language acquisition (achievement in Setswana)
- the amount of English spoken at home
- pupil perception of parental support
6.1 Introduction

The aim of the literature study was to analyse various theories of language acquisition (Chapter Two) and also to identify those factors which may influence language development (Chapter Three), while the aim of the empirical investigation (Chapter Four) was to determine how such factors affect the acquisition of English as a second language and to determine the most important factor or factors (Chapter Five).

There does not appear to be any one single comprehensive theory but rather many theories offering different insights into different aspects of language acquisition (see Chapter Two). Knowledge of these theories plus the insight gained from experience will enable the teacher to choose an eclectic approach with the advantage of flexibility and the ability to choose the best method for any given circumstance. Such an approach will give variety and help meet the wide range of individual and learner differences.

While our knowledge of the factors which may influence language acquisition is still "limited and imprecise" (3.1) it is likely that a combination of factors may be more important than a single factor. Based on current literature research (see Chapter Three) some factors appear to be more important than others, namely intelligence, language aptitude, learning strategies, meaningfulness, motivation, attitude, anxiety, age, gender, the amount of English spoken at home and the time and opportunity to learn. Personality factors such as self esteem and anxiety were also of potential importance.

As far as the empirical investigation was concerned (see Chapter Four) it was not possible to locate suitable tests for all the factors which emerged as important from the literature study. Of the factors it proved possible to test, the following appeared to be the most important: age, verbal and non-verbal intelligence, the amount of English spoken at home, pupil perception of parental support and first language acquisition i.e. achievement in Setswana (see Chapter Five).
6.2 Some Educational Implications

6.2.1 Educational implications derived from the literature study

From the literature study of theories of language acquisition it became clear that:

1. the best approach to second language learning would seem to be an eclectic one.

2. where formal instruction is used, the natural sequence of learning as well as learning strategies and learning styles should be borne in mind.

3. the teacher and the climate of the classroom should also be taken into account

6.2.1.1 An Eclectic Approach - with special reference to the Behaviourist and the Cognitive approaches of the Psychological School of Thought

The two main psychological approaches to language learning are the Behaviourist approach (2.3.1.1) and the Cognitive approach (2.3.1.2). The Behaviourist view is that language learning, in common with all learning, is a process of habit formation, relying on imitation, repetition and reinforcement with implications of drills, practice and rote learning. In contrast the Cognitive view maintains that all learning must be related to existing knowledge and must be meaningful. Thus, when learning a new language there will be lateral transfer when new knowledge of the second language is related to existing knowledge of the first language. Later there will be vertical transfer when new knowledge of the second language is related to existing knowledge of the second language.

These two theories are not mutually exclusive and an eclectic approach would enable the teacher to use ideas from both these theories and from other theories as well. It is possible for rote learning to have an element of meaningfulness, for example learning vocabulary or expressions in the second language, the meaning of which is fully understood. Repetition, seen as necessary, meaningful practice can build confidence which is helpful for successful communication. Role playing in a meaningful situation might make use of repetition to help learn certain phrases or expressions. For example in a 'shoe shop' situation in which the customer wishes to purchase a pair of shoes the size and colour of the shoes could vary as could the
way of enquiring e.g.

"Do you have any black shoes in size 5?"
"Please could I buy a pair of black shoes, size 5?"
"I wonder if by any chance you have a pair of size 5 black shoes?"

Similarly the replies could be equally varied e.g.

"I’m sorry but we’re out of stock at the moment. Would you like me to order them for you?"
"If you’d like to take a seat I’ll go and have a look."
"Please wait a moment while I check!"

Such a role playing situation could begin in a structured way, with elements of the Behavioural approach such as imitation and repetition but within a meaningful social context. This could continue in an unstructured way with free expression, giving scope for individual differences and abilities. Once the pupil feels confident about different ways of requesting and replying, then such knowledge is available for transfer to other situations.

6.2.1.2 The Role of Formal Instruction - with special reference to natural sequences of learning, learning strategies and learning styles

Reviewing research findings, Long (3.6) concluded that there was considerable evidence that instruction is beneficial for all language learners. In order to make the most effective use of instruction in the classroom we need to be aware of natural sequences of learning and also of learning strategies and styles.

i. Natural sequences of learning

Ellis (3.6) says the results of the few studies conducted in this area are not conclusive but do suggest that there is a reasonably invariable route for learning e.g. studies on the acquisition of morphemes by De Villiers and also by Dulay and Burt (3.6) suggest that although second language learners all develop at a different rate they follow the same route i.e. a natural sequence of development. If this is so then by following the same order the teacher will be making more efficient use of time. Also formal instruction could help learning by reinforcing the natural sequence of acquisition rather than hinder learning by imposing a different order of
acquisition to that being followed naturally.

ii. Learning strategies and learning styles

Strategies are the ways chosen by pupils to tackle general or specific learning problems. Research indicates (3.2.3) that strategies can play an important part in the acquisition of a second language.

Pupils can be taught a variety of strategies. They can be made aware of them and shown how to use the best strategy to suit themselves and the task in hand i.e. to choose the most appropriate strategy. Take, for example, revision. Many children throughout their years in school are periodically told to 'revise' but how many of them are actually taught revision strategies? Different subjects often require different strategies and some strategies suit some children better than others, depending on their personality and their preferred learning style among other things.

Learning styles (3.3.2) and strategies (3.2.3) vary from one learner to another but the teacher can promote awareness of styles and strategies rather than leaving pupils to stumble on them by accident. This not only helps the student to make the most effective use of time but also promotes a better understanding of self.

For example a pupil with a field dependent style is likely to prefer an inductive approach whereby he sees the whole first and the parts later. He may well find it easier to learn by being presented with material from which he has to deduce the rules. On the other hand a pupil with a field independent style is likely to be more successful learning the rules first and then proceeding to examples.

Some degree of both dependent and independent styles are needed for successful language learning (3.3.2). Therefore pupils should be made aware of both styles and that there will be occasions when one may be preferable to the other. All pupils should be given opportunities to use their preferred style in order to achieve more highly. For example a teacher could

a) give examples and ask the pupil to make deductions
b) teach the rule and then give examples
c) offer the pupils a choice

In the last case the second choice could be used as a reinforcement exercise.
6.2.1.3 Teacher factors and the climate of the classroom

Studies repeatedly confirm (3.6.2) that if a primary school teacher is eager and involved then so are the pupils. It is important to show enthusiasm and to try to arouse the children's enthusiasm. A wide variety of topics or subject matter to appeal to all interests, and also to arouse new interest, is important. A warm, supportive, democratic (as opposed to autocratic or laissez faire) environment (3.6.2) in which the pupils are accepted and respected will have a clear effect on second language acquisition. In such an atmosphere pupils will feel free to try without fear of laughter or ridicule if they choose an inappropriate word or mispronounce words.

Children do not learn a language by listening to the teacher but by practising the language themselves. Piaget stressed the importance of practical experience (2.3.1.3). Second language research tends to support the findings of first language research (3.6.3) that teachers spend too much time talking and dominating classroom speech. Obviously some teacher talk is both necessary and relevant but teachers must guard against unnecessary speech and ensure that pupils are given every opportunity for conversation.

6.2.2 Educational implications derived from the empirical investigation

With regard to the empirical investigation the most important factors in the acquisition of English as a second language seem to be age, verbal intelligence, non-verbal intelligence, the amount of English spoken at home, pupil perception of parental support and first language acquisition, in this case achievement in Setswana.

6.2.2.1 Age

The results of this investigation show that the language achievement of children increased with chronological age (5.4). Piaget's theory (2.3.1.3) sees the cognitive development of children as proceeding through a series of well defined stages which follow each other in strict sequence. The stage of concrete operations, which is estimated at being between seven and eleven years, is followed by the age of conceptual thought from the age of eleven or twelve years onwards. The children in this sample ranged in age from 9 years to 12 years 9 months, so according to Piaget would fall into one of these two stages.
While the child must progress through one stage before proceeding to the next, there is no hard and fast rule about how long each stage will take. A child's knowledge will be constructed as he interacts with the environment and develops cognitive concepts and skills when he is neurologically and experientially ready. The implications of Piaget's theory for primary school teachers are very important. By giving a child who is at the stage of concrete operations every opportunity to acquire relevant experience the teacher may help him reach the stage of conceptual thought sooner.

The developmental stage of concrete operations is when the child is able to think about his actions but is still dependent on concrete reality for working out mental operations. Piaget's view that thought influences language means the child cannot understand a verbal expression unless he has mastered the underlying concept. Therefore a primary school teacher should provide conditions in the classroom that give the child the best chance of developing cognitive structures. By doing this the teacher will also be providing the conditions which will help language development. For example to learn a word in English the child must understand what that word means. He will not understand by being 'told' but must have had experience of the meaning of the word e.g. the word bird. If the child has watched a bird flying or perching on a tree, then he will understand some of the vocabulary connected to this concept. However he will not be able to understand an abstract concept of a bird flying if he doesn't know what a bird is. Therefore the primary school child should be given the opportunity to acquire as much practical experience as possible. Activity is important as the child will learn by doing. Experience is created as the learner tries to adapt new knowledge by relating it to what he already knows (2.3.1.2).

6.2.2.2 Intelligence

The high correlation between intelligence and success in learning English as a second language does not mean that the more intelligent pupil will necessarily be more successful in learning a second language but that he is more likely to be so. While the individual's potential intelligence is determined to a large extent by heredity, the opportunity to reach that potential can be offered by both the school and the home. The best way to achieve this is to aim to make the pupil's learning experiences varied and interesting and to ensure that while working at his correct coping level he is always sufficiently challenged. This, of course, applies to all subjects and not just to English lessons. Parents can be encouraged to provide a
stimulating environment at home as well as visiting the library, the museum and attending plays and concerts whenever possible.

6.2.2.3 The amount of English spoken at home

If the amount of English spoken in the home is an important factor in the acquisition of English as a second language it is of prime importance that parents are aware of this. Many parents in Botswana struggle to pay the fees necessary to send their children to an English medium school in the belief that their children are receiving a better primary education, a better chance of a good secondary education and ultimately a chance to do well for themselves, their families and their developing country. If children speaking English at home all or most of the time achieve more highly than those who rarely or never speak English at home then parents should be informed of this and not left to assume that the acquisition of English as a second language can be safely left to the school and that the parents' responsibility ends with the admission of their child to an English medium school and the payment of fees.

Informing the parents should also involve offering practical help. For example one possible suggestion is that parents could allocate a certain time of day when all the family will be together, such as a family meal time, when all conversation is in English.

While television programmes may help it is not enough to know that the child is watching a programme in English without being sure that he understands what he is hearing. A discussion afterwards could be helpful, ranging from a précis of the content to the child's views or feelings about what he has been watching.

For parents who do not have a good command of English themselves it may be helpful to suggest that in addition to attempts to converse at home they should also encourage their children to attend extra curricular activities such as a drama society or a computer club where they will be working with a partner and discussing what they are doing. The teacher should, if possible, attempt to pair a second language speaker with a first language speaker.

As it is important that the school and parents work closely together in the interests of the child it would be preferable to discuss these ideas at an informal meeting rather than conveying information by means of a circular. Circulars are not always
read or remembered while the more personal approach can include discussion and will often be more successful. It might also be helpful to run courses for parents, aimed at giving them practical guidance in the areas where they feel they need help.

While emphasising the importance of the amount of English spoken at home it should also be remembered that another factor appearing important in the acquisition of English as a second language is achievement in Setswana (5.14.4) so a balance is necessary.

6.2.2.4 Perception of parental support

Since a child's perception of parental support seems to be an important factor in the acquisition of English as a second language then parents should be encouraged not only to take an interest in their child's work but also to feel that they are cooperating in harmony with teachers in the interests of the child.

One way of achieving this is to hold teacher/parent meetings at which teachers can explain what happens in the classroom, what the children are being taught, how and why, and answer queries relating to fears or worries that parents may have.

Another way is a school policy which enables easy access to teachers. While lessons cannot, obviously, be interrupted, some parents feel more at ease knowing they may visit the class teacher at certain times each day, or within the week, for informal discussion without having to make a more formal approach by arranging an appointment. Other parents prefer to arrange an interview at a specific time. Therefore a flexible system to suit everybody will be the most likely to achieve close co-operation. Parental encouragement of reading at home as well as taking an interest in homework will also help to encourage a positive perception of parental support.

6.2.2.5 First language acquisition

First language acquisition, in this case achievement in Setswana, seems to be an important factor in second language acquisition. Klein (3.6.4) points out that despite the enormous amount of time expended on a child's first language, by the age of fifteen he is still a long way from full mastery of the language. Therefore with more limited time available for learning a second language it is essential that all help given in the classroom is as effective as possible. Paragraph 6.2.1.2
discusses how natural sequences of learning and knowledge of learning strategies and styles can help. Awareness of and effective use of learning styles (3.3.2) and strategies (3.2.3) can apply equally to both first and second language acquisition while the natural sequences of learning (3.6) would appear to be similar for first and second language learners.

Piaget (2.3.1.3) and Ausubel (2.3.1.2) both refer to new learning being related to existing knowledge. Therefore when teaching a second language the teacher should, when possible, try to exploit first language knowledge. This may mean enlarging conceptual knowledge in a practical way (see 6.2.2.1) or using first language knowledge in lateral transfer (3.2.3.3).

It is also important in an English medium school, when for most pupils English is the second language, that the child's first language is perceived as being equally as important as English. Since first language acquisition seems to be a factor in the acquisition of English as a second language, then in the case of Botswana this means ensuring that sufficient time is allocated for Setswana lessons so that Setswana pupils are able to achieve as highly as possible.

6.3 Evaluation of the research

In the first chapter three questions were posed as the formal statement of the problem (1.2). The first question asked how language acquisition occurred, especially second language acquisition. The literature study (Chapter Two) analysed various theories of language acquisition and answered this question as far as it is possible to answer it for "the sum of our knowledge about the factors influencing second language learning is very limited and imprecise." (Littlewood 1984: 68). There is general agreement that a need exists for as much research as possible in this field. This research contributes to our existing knowledge of the factors affecting the acquisition of English as a second language.

The second question posed in Chapter One (1.2) was "Which factors affect the acquisition of a second language?". Various factors which could possibly have an effect on the acquisition of English as a second language were identified from the literature study (Chapter Three). These were intelligence, age, language aptitude, learning strategies, motivation, attitude, anxiety, self esteem, gender, the amount of English spoken at home, time and opportunity.
The results of this research support previous research findings that intelligence (3.2.1), age (3.7.1), the amount of English spoken in the home (3.8) and pupil perception of parental support (3.8) are indeed important factors in the acquisition of English as a second language. First language acquisition, in this case achievement in Setswana, is also shown to be an important factor. Girls are shown to achieve more highly than boys (5.11). This result, which also supports previous research findings was to be expected. Time and opportunity are aspects of both the amount of English spoken in the home and the amount of instruction received in the medium of English. These are shown to be important factors in the results of the empirical investigation in this research.

However the results of this research do not agree with the previous research findings concerning motivation (3.4.1) attitude (3.4.2) and self esteem (3.5.3). As considerable research (3.4) has indicated that motivation and attitude are important factors influencing second language acquisition the results of this research are unexpected, especially as this research used an adaptation of the Attitude/Motivation Battery (Gardner, Clement, Smythe & Smythe 1979) which was used in much of the previous research. As far as self esteem is concerned (3.5.3) previous studies seem to indicate that it is an important factor in second language acquisition although Brown (1987: 102) does point out that there is no conclusive statistical evidence to support this. The results of this research do not show self esteem to be an important factor in second language acquisition.

Scovel (1978: 129) mentioned that the results of research into anxiety are mixed and confusing. The results of this research could be interpreted as supporting previous research which shows that pupils with moderate anxiety levels are likely to achieve more highly than pupils with high or low levels of anxiety (5.9).

The third question posed in Chapter One asked which factors could be considered most important in the acquisition of English as a second language. The empirical investigation in this research identified age, intelligence, first language acquisition, the amount of English spoken at home and pupil perception of parental support as the most important factors (5.14).

This chapter (6.2.2) has already discussed how the results of this research can be of benefit to the teacher of English as a second language in the classroom so that the most effective use may be made of time and effort, on behalf of both the pupil and the teacher. The importance of the amount of English spoken in the home and
pupil perception of parental support as factors in the acquisition of English as a second language also have a message for the school administration in that frequent meetings with parents and dissemination of information are vitally important if parents are to make a full contribution to their child's progress.

There are, however some shortcomings in this research in that some factors which appeared to be important from the literature study were not measured in the empirical investigation. Previous research suggests language aptitude as an important factor (3.2.2) but it proved impossible to locate a suitable test for this. Nor did it prove possible to measure learning strategies and styles both of which would seem to be important factors (3.2.3.2).

The sample tested included children with a wide range of abilities and differing commands of English but nevertheless the sample was relatively small. These shortcomings themselves hold the seeds of future research possibilities.

6.4 Future research possibilities

The sample used in this investigation consisted of ninety one children taken from three mixed ability classes within the same school year i.e. Standard Five. One obvious possibility for future research is to extend the sample to include all English medium primary schools in Botswana. The population could also be further extended by either widening the age range to be investigated or by extending the research to other countries with a similar situation to that in Botswana (see Chapter One).

A further possibility would be to test similar samples i.e. all the Standard Five children from Thornhill Primary School in succeeding years. The same tests as were given in this research could then be administered.

Because of the nature of an expatriate society, where many people stay only a few years and children of late primary school age frequently leave for boarding schools in their own countries or neighbouring countries it is unlikely that the sample tested could be retested a couple of years later (with changes to some of the achievement tests, naturally) except in the case of Setswana children.

Another possibility for future research would be to find or devise some way of measuring the factors that would appear to be important from the literature study.
but whichproved difficult or impossible to measure in this particular investigation, namely aptitude and learning strategies and styles.

Research studies (6.2.1.2) have suggested that there are natural sequences of learning and that formal instruction could help learning by reinforcing the natural sequence of acquisition. However Ellis (3.6) mentions that few studies have investigated these natural sequences. Therefore further research in this area would be useful.

Some of the results of this investigation concur with previous findings while others differ. In some areas, for example anxiety, research results are confusing. All research, whether the findings agree with or differ from previous findings, contributes to our knowledge so that we may understand all aspects of second language learning as fully as possible and thus be in the best position to give effective help and guidance to the second language learner.


## APPENDIX 1

### End-of-Year School Achievement Tests

#### SPELLING TEST

<table>
<thead>
<tr>
<th>against</th>
<th>Saturday</th>
<th>fought</th>
</tr>
</thead>
<tbody>
<tr>
<td>southern</td>
<td>mammal</td>
<td>suddenly</td>
</tr>
<tr>
<td>because</td>
<td>Gaborone</td>
<td>bridge</td>
</tr>
<tr>
<td>building</td>
<td>believe</td>
<td>quarrelled</td>
</tr>
<tr>
<td>television</td>
<td>forty-four</td>
<td>direction</td>
</tr>
<tr>
<td>scissors</td>
<td>correction</td>
<td>mountain</td>
</tr>
<tr>
<td>special</td>
<td>prettiest</td>
<td>scientist</td>
</tr>
<tr>
<td>laughter</td>
<td>knowledge</td>
<td>except</td>
</tr>
<tr>
<td>quietly</td>
<td>should</td>
<td>cabbage</td>
</tr>
<tr>
<td>awkward</td>
<td>measure</td>
<td>optician</td>
</tr>
<tr>
<td>receipt</td>
<td>knives</td>
<td>instead</td>
</tr>
<tr>
<td>answer</td>
<td>somewhere</td>
<td>tongue</td>
</tr>
<tr>
<td>ninety</td>
<td>meant</td>
<td>famous</td>
</tr>
<tr>
<td>mystery</td>
<td>straight</td>
<td>surprise</td>
</tr>
<tr>
<td>label</td>
<td>giant</td>
<td>opposite</td>
</tr>
<tr>
<td>ceiling</td>
<td>future</td>
<td>choir</td>
</tr>
<tr>
<td>dangerous</td>
<td>island</td>
<td>sufficient</td>
</tr>
<tr>
<td>double</td>
<td>permission</td>
<td>amphibian</td>
</tr>
<tr>
<td>stomach</td>
<td>trousers</td>
<td>moist</td>
</tr>
<tr>
<td>parallelogram</td>
<td>cucumber</td>
<td>pharmacist</td>
</tr>
</tbody>
</table>
THE MAIL BAG ROBBERY

"It's no use, Sergeant," said Inspector Day. "The mail bag robbery has beaten us. The raiders have left no trace. The car they used in the raid on the mail van has been found abandoned. The empty mail bags were left inside."

"There is just one chance, sir," said the Sergeant. "The car was stolen from the railway station. The railway police have a train-spotters' club there. Perhaps one of the train-spotters may have seen the raiders taking the car away."

"It's a faint chance, but worth taking," answered the Inspector. "Go to the main office at the railway station. You may find someone who saw the car being driven away."

The Sergeant soon returned bringing a boy with him. "This boy may help
us, sir," he said. He turned to the boy and said, "Tell the Inspector your story."

The boy began, "On Monday night, I was at the railway station. I had finished train-spotting and was ready to go home. As it was raining I waited on the station. While I was waiting I remember seeing a man looking at several cars. He got into a Ford car and drove off. I wrote the number down. Here it is."

"That is the number of the stolen car. Good lad! Would you recognise the man again?" said the Inspector.

"Oh yes, sir," answered the boy.

The Inspector gave the boy a photograph and said, "Is this the man?"

"Yes sir, it's him all right," replied the boy.

The Inspector turned to the Sergeant and said, "Send a message to all stations to pick up Albert Ray. He is our man." Within two days Albert Ray was arrested and had confessed. The boy was well paid for helping to trap the raiders.
THE MAIL BAG ROBBERY (continued)

Now you have read the story answer these question in full sentences.

1. What did Inspector Day say had beaten them?
2. What was the make of the stolen car?
3. Who was arrested for the robbery?
4. Where was the car stolen from?
5. What did the police find in the stolen car?
6. Why did the police sergeant go to the railway station?
7. Who ran a train-spotters' club?
8. Why did the boy wait at the station?
9. On which night did the boy see a man looking at cars?
10. What does "confessed" mean?
11. Give one word from the passage that means the same as:
    a) theft
    b) a picture taken by a camera
    c) thieves
    d) a police officer
    e) information sent from one person to another.
12. What does "abandoned" mean?
13. Give one word from the passage that means the opposite of:
    a) full       b) up       c) started       d) lost       e) few
14. Do you think Albert Ray was guilty or innocent?
15. What do you think the mail bags contained?

16. Write out the sentence in the passage which tells us that the lad was rewarded for helping in the "mail bag robbery."

17. What did the inspector mean when he said "it's a faint chance, but worth taking?"

18. What would an observer or a person who gives evidence or testifies be called?
APPENDIX 3

End-of-Year School Achievement Tests

ENGLISH COMPREHENSION TEST 2

A. Write only the letter of the correct answer.

1. My aunt is
   a) my sister's mother  b) my brother's wife
   c) my father's sister  d) my daughter's mother

2. My cousin is
   a) my sister's child  b) my aunt's child
   c) my grandmother's niece  d) my mother's sister

3. My uncle is
   a) my father's brother  b) my brother's son
   c) my father's father  d) my brother's cousin

4. My grandfather is
   a) my uncle's brother  b) my brother's father
   c) my father's father  d) my brother's uncle

B. Five children made plasticine models.

Sandra and Jane chose green plasticine. Martin and Janice chose blue plasticine. Toby and Jason chose red plasticine. Jason and Jane made pigs. Toby and Janice made giraffes. Sandra and Martin made elephants.

1. Who made a blue elephant?

2. Who made a red giraffe?

3. Who made a green pig?

4. Who made a blue giraffe?

5. Who made a red pig?

6. Who made a green elephant?
Write only the letter of the correct answer

1. Which of these is not on Telegraph Road?
   a) Hospital  b) Cinema  c) School  d) Church
   ___

2. Which is not on Grange Road?
   a) Post Office  b) Cinema  c) Library  d) Police Station
   ___

3. Which is nearest to the Police Station?
   a) Fire Station  b) Cinema  c) School  d) Post Office
   ___

4. The car park is not on
   a) Grange Road  b) Caldy Road  c) Grange Hill  d) Banks Road
   ___

5. Which is opposite the cinema?
   a) Library  b) Church  c) Fire Station  d) Post Office
   ___
D. Look at this picture:

Now choose the sentence in each section which best fits the picture. Write only the letter of the correct answer.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>a) The man will fall on land.</td>
<td>b) The man will fall in water.</td>
<td>c) The man will jump to safety.</td>
</tr>
<tr>
<td>2.</td>
<td>a) He was going for a swim.</td>
<td>b) He jumped in.</td>
<td>c) He is the victim of an accident.</td>
</tr>
<tr>
<td>3.</td>
<td>a) He was dressed for swimming.</td>
<td>b) He was not dressed for swimming.</td>
<td>c) He has changed to swim.</td>
</tr>
<tr>
<td>4.</td>
<td>a) Something unexpected has happened.</td>
<td>b) Nothing unexpected has happened.</td>
<td>c) Everything is fine.</td>
</tr>
<tr>
<td>5.</td>
<td>a) He wants to put the case in the water.</td>
<td>b) He brought the case for swimming.</td>
<td>c) He just happened to be carrying the case.</td>
</tr>
</tbody>
</table>
E. Who is speaking to whom? Match the letters and numbers to show which two people are talking to each other. Write the number next to the letter at the bottom of the page.

A. NO, I CAN'T MEET YOU TOMORROW.
B. YES SIR, ONE WILL BE THERE IN TEN MINUTES.
C. I NEED A NEW SINGING FOR MY GUITAR.
D. I'M AFRAID SHE'S NOT IN AT THE MOMENT.
E. YES, IT FEELS FUN. I'LL BE FIT FOR TOMORROW.

1. IS THAT LEG ANY BETTER?
2. JONES' MUSIC SHOP?
3. CAN I SPEAK TO JANE PLEASE?
4. I WANT A TAXI AT 12 REAL STREET, PLEASE.
5. SAME PLACE USUAL TIME?

A_____ B_____ C_____ D_____ E_____
F. Here is the Contents page from a magazine:

<table>
<thead>
<tr>
<th>HOW MAGAZINE</th>
<th>CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Features</strong></td>
<td><strong>Fiction</strong></td>
</tr>
<tr>
<td>HOW's successful year</td>
<td>Danger in Damascus by Joel King</td>
</tr>
<tr>
<td>With a dog in the desert</td>
<td>Caribbean Carnival by Lara John</td>
</tr>
<tr>
<td>An interview with Miss World</td>
<td>African Holiday by Eli Nbotu-Episode 4</td>
</tr>
<tr>
<td><strong>Leisure</strong></td>
<td><strong>Do it yourself</strong></td>
</tr>
<tr>
<td>Book reviews</td>
<td>Change your spark plugs</td>
</tr>
<tr>
<td>Film reviews</td>
<td>Getting the best from a window box</td>
</tr>
<tr>
<td>This month's best buys</td>
<td></td>
</tr>
<tr>
<td><strong>Fashion</strong></td>
<td><strong>Health</strong></td>
</tr>
<tr>
<td>Jackets for 'him &amp; her'</td>
<td>Slim-but be careful</td>
</tr>
<tr>
<td>Make your own pullover</td>
<td>Walking is good for you</td>
</tr>
<tr>
<td>Hats of the last century</td>
<td>Your tear out exercise chart</td>
</tr>
<tr>
<td><strong>Recipes for the month</strong></td>
<td></td>
</tr>
<tr>
<td>A variety of long, cool drinks</td>
<td>29</td>
</tr>
</tbody>
</table>

Answer the following questions as briefly as possible (i.e. one word answers where possible)

<table>
<thead>
<tr>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Which pages does the magazine invite you to tear out?</td>
</tr>
<tr>
<td>2. Which page would you turn to to read about films?</td>
</tr>
<tr>
<td>3. How many interviews does the magazine contain?</td>
</tr>
<tr>
<td>4. Would you say this was a weekly, monthly or quarterly magazine?</td>
</tr>
<tr>
<td>5. Which section would you turn to for help with your car?</td>
</tr>
<tr>
<td>6. What exercise does the magazine say is good for you?</td>
</tr>
<tr>
<td>7. How many years of hats are discussed in the fashion section?</td>
</tr>
<tr>
<td>8. Which episode of African Holiday would you expect to have been in the last issue of HOW?</td>
</tr>
</tbody>
</table>

Appendices Page 141
G.

THE RAFT

The raft swept, with steady, easy motion, down the straight, broad river. Bevis did not need his pole. He stood without its help, all aglow with joy.

The raft came to another bend and Bevis, with his pole, guided it round, and then, looking up, stamped his foot with vexation, for there was an ancient hollow willow right in front. He hoped to sail round it and even shoot the cataract of the dam below and go under the arch of the bridge. Before he could make up his mind what to do, bump! The raft struck the willow and then it swung slowly round and one side grounded on the bank, and he was at a standstill.

Answer these questions in full sentences:

1. Who was on the raft?

2. How did he steer the raft?

3. What words show that he was happy at first?

4. What words show that he was later annoyed?

5. Why was he annoyed?

6. What lay beyond the willow?

7. Why did the raft stop?

8. Which words from the passage mean a) movement, and b) very old?
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7. Why did the raft stop?

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End-of-Year School Achievement Tests

ENGLISH GRAMMAR TEST 1

Choose the letter of the correct answer (a, b, c, d or e)
Write only that letter on your answer sheet:

CHOOSE THE VERB

1. They waited until Mary left the classroom.
   a) They        b) waited      c) Mary       d) classroom

2. We rested while the others climbed to the top of the hill.
   a) rested      b) others      c) top        d) hill

3. I walked faster because I knew the sun would soon set.
   a) faster      b) because     c) knew      d) soon

4. "Donkeys bray, horses neigh!" exclaimed my mother.
   a) donkeys     b) but         c) exclaimed  d) mother

FIND THE OPPOSITE OF

5. ugly         a) wicked      b) beautiful    c) nice

6. rough        a) smooth      b) tough       c) tender

7. few          a) more        b) many        c) lots

8. found        a) lose        b) loose       c) lost

9. below        a) over        b) above       c) under

10. honest      a) truthful    b) dishonest   c) liar

11. sober       a) seldom      b) unsober    c) drunk

12. hero        a) enemy       b) heroine    c) coward
13. possible     a) unpossible  b) impossible  c) impossible

CHOOSE THE ADVERB

14. The nurse gently bandaged the sore knee.
   a) nurse         b) gently      c) bandaged     d) sore

15. The horse galloped swiftly through the wood.
   a) galloped      b) swiftly     c) through     d) wood

16. He worked hard and was awarded a prize.
   a) worked        b) hard       c) awarded     d) prize

17. He ran well and easily won the race.
   a) He            b) well       c) won        d) race

COMPLETE THE SIMILE

18. as thin as
   a) paper        b) a rake     c) grass       d) a giraffe

19. as light as
   a) morning      b) a feather  c) a daisy     d) lightning

20. as quick as
   a) a cheetah    b) a fox      c) lightning   d) houses

21. as _______ as a pancake
    a) safe         b) round      c) flat        d) proud

22. as _______ as a daisy
    a) green        b) pretty     c) fresh       d) light

23. as _______ as the hills
    a) steady       b) safe       c) old         d) flat
MASCULINE AND FEMININE

Give the feminine of

24. monk
   a) monkey  b) nun  c) vixen  d) stallion

25. fox
   a) bitch  b) mare  c) vixen  d) stallion

26. duke
   a) duck  b) countess  c) drake  d) duchess

27. gander
   a) groom  b) hen  c) duck  d) goose

28. hero
   a) coward  b) heroine  c) enemy  d) hostess

Give the masculine of

29. widow
   a) bachelor  b) witch  c) widower  d) wizard

30. mare
   a) mayoress  b) stallion  c) emperor  d) nun

31. duck
   a) duchess  b) drake  c) duke  d) countess

32. hen
   a) goose  b) cockerel  c) hermit  d) heroine

33. countess
   a) cashier  b) counter  c) earl  d) cousin
COMPLETE THESE COLLECTIVE NOUNS

34. a _______ of bees
   a) shoal  b) business  c) swarm  d) set

35. a _______ of stairs
   a) carpet  b) flight  c) lift  d) suite

36. a _______ of fish
   a) school  b) flight  c) shoal  d) swarm

37. a _______ of thieves
   a) herd  b) gang  c) school  d) regiment

38. a _______ of furniture
   a) set  b) sheaf  c) suite  d) suit

39. a school of
   a) whales  b) books  c) pupils  d) children

40. a litter of
   a) milk  b) paper  c) puppies  d) petrol

41. a bunch of
   a) musicians  b) elephants  c) flowers  d) bouquets

42. a team of
   a) friends  b) soldiers  c) oxen  d) thieves

43. a sheaf of
   a) flowers  b) corn  c) furniture  d) china

CHOOSE THE NOUNS MADE FROM THESE VERBS

44. enter  a) exit  b) entrance  c) entertainment

45. depart  a) deposit  b) department  c) departure
46. intend a) invention b) intention c) inattention

47. hate a) hatred b) hatter c) hat

**CHOOSE THE CORRECT OCCUPATION**

48. One who sells fruit and vegetables is a
   a) greengrocer b) vegetarian c) plumber

49. One who sells meat is a
   a) chef b) butcher c) veterinary surgeon

50. One who rides horses in races is a
   a) joker b) jockey c) veterinary surgeon

51. One who repairs pipes and drains is a
   a) drainer b) piper c) plumber

52. One who makes sure the game is played according to the rules is a
   a) judge b) umpire c) conductor

53. One who takes money at a till is a
   a) collector b) tiller c) cashier

**CHOOSE THE CORRECT WORD TO COMPLETE THE SENTENCE**

   a) because    b) before    c) while    d) if    e) that

54. You can watch the film ________ you promise not to talk.

55. The boys played football ________ their father washed the car.

56. He could not swim in the Gala ________ he had a bad cold.

57. It was so dark ________ I could not find the way home.
58. I went to the bank _______ I went to the shops.

PEOPLE - COMPLETE THE FOLLOWING

59. One who lives sparingly and hoards money is a
   a) spendthrift  b) bankrupt  c) miser

60. One who teases those weaker than himself is a
   a) blackleg  b) bully  c) bachelor

61. A child whose parents are dead is a
   a) hermit  b) widower  c) orphan

62. A martyr is a person who
   a) loves and wishes to serve his country
   b) is forced to suffer and die for a belief
   c) travels to a sacred place as a religious devotion.

63. One who serves of his own free will is a
   a) waiter  b) volunteer  c) host

64. One of the hunters was captured and eaten by
   a) a glutton  b) a guest  c) a cannibal

CHOOSE THE BEST ADJECTIVE

65. To be healthy we must eat _______ food
   a) fattening  b) nutritious  c) sweet

66. A frog has a _______ skin
   a) scaly  b) furry  c) smooth

67. Basket making is an _______ craft
   a) ancient  b) awkward  c) energetic

68. Our trip to the Okavango was _______
   a) fast  b) nice  c) splendid
APPENDIX 5

End-of-Year School Achievement Tests

ENGLISH GRAMMAR TEST 2

A. Write out these sentences using punctuation:-

1. mr jones davids father has promised to take us to india in november

2. john mary and lorato are all in the thornhill school team

3. gaborone museum is open on wednesday friday saturday and sunday

B. Write these sentences underlining the correct word from the brackets

I (would, wood) like everyone (to, too, two) (write, right) a (piece, peace) for the school magazine (witch, which) you will be able to (by, buy) at the end of term. (Hear, Here) is some paper but please do not (waist, waste) it. (There, Their) must be at least half a page of writing and you must rule (of, off) at the end.

C. Direct Speech. Rewrite these sentences and fill in the missing punctuation:

1. Sit down and get on with your work said the teacher

2. The spectators exclaimed its a goal

3. Has anyone seen the missing child asked the policeman

4. This she said is my final offer
D. Underline the common nouns and circle the proper nouns in these sentences

1. Mary is going to Zimbabwe for the holiday.

2. The boys arrived last April.

3. Tebogo and Kabo went to the cinema on Saturday.

4. Yesterday the pupils went to Lobatse.

5. Those girls live in Lejara Road.

E. Pronouns: Write out the following sentences using a suitable pronoun instead of the underlined words:

1. Mrs Mullen could not open her office because Mrs Mullen's key had been lost.

2. Mr Nunes and Mrs Richards filled the little pool so that Mrs Richards could teach poor swimmers to swim.

3. Mrs Cann and I went to the bank when the teachers had collected the money.

4. I read the book from cover to cover although the book did not interest me.

5. When you have finished with all the books bring them to Mrs Pinard and me.
F. Write these sets of words in alphabetical order

1. milk mast mess mule mountain
2. snap slide shed spot swift
3. blanket blaze blast blame blade

G. Write out the following with all the correct punctuation

isnt that a girls bicycle he inquired yes sir was sams reply its my sister joans shes lent it to me until six oclock

H. Put apostrophes in the following sentences

1. The ladies hats were blown off by the wind.
2. The childrens books were under the teachers desk.
3. Its not unusual of her to be late for school on Friday mornings.
4. The womans nose was blue with cold and the childs hands were freezing.
5. "I think hes going to leave at Christmas", said the teacher

I. Plurals: Write the plurals of these words

1. bush 2. monkey 3. ox 4. kangaroo
2. policeman 6. mouse 7. tooth 8. piano
9. enemy 10. handkerchief 11. tomato 12. leaf
APPENDIX 6a

Affective Perception Inventory

Age/Grade: __________
Sex: __________ Name / Number: __________

Self Concept

What kind of person do you think you are right now? Give a picture of yourself by circling the words at the end of the line which best tell you how you look at yourself as a person:

Example:

I am a fat person. _____:_____ I am a skinny person.

Be sure to circle only one set of words for each line. Remember: There are no right or wrong answers - only answers which best show how you feel about yourself as a person at this moment.

(1) I am a boy _____:_____ I am a girl (1)
(2) I am a happy person _____:_____ I am not a happy person (2)
(3) I am kind to people _____:_____ I am not kind to people (3)
(4) I have many friends _____:_____ I do not have many friends (4)
(5) I am not easily hurt _____:_____ I am easily hurt (5)
(6) I like to be with others _____:_____ I would rather be alone (6)
(7) I think of others _____:_____ I think only of myself (7)
(8) I do not worry a lot about things _____:_____ I worry a lot about things (8)
(9) I am not afraid of things _____:_____ I am afraid of many things (9)
(10) I can wait for things _____:_____ I want things right away (10)
Self Concept (Continued)

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<thead>
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<tbody>
<tr>
<td>11</td>
<td>I do not mind things changing</td>
<td><em><strong><strong>:</strong></strong></em></td>
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<tr>
<td>12</td>
<td>Before I do something I think about it</td>
<td><em><strong><strong>:</strong></strong></em></td>
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<td>13</td>
<td>I like the way people act</td>
<td><em><strong><strong>:</strong></strong></em></td>
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<td>14</td>
<td>I do not get angry easily</td>
<td><em><strong><strong>:</strong></strong></em></td>
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<td>15</td>
<td>I do what I want to do</td>
<td><em><strong><strong>:</strong></strong></em></td>
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<tr>
<td>16</td>
<td>I do things well</td>
<td><em><strong><strong>:</strong></strong></em></td>
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<tr>
<td>17</td>
<td>I think I can do things well by myself</td>
<td><em><strong><strong>:</strong></strong></em></td>
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<td>18</td>
<td>I think people can be trusted.</td>
<td><em><strong><strong>:</strong></strong></em></td>
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<tr>
<td>19</td>
<td>I am somebody special</td>
<td><em><strong><strong>:</strong></strong></em></td>
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<tr>
<td>20</td>
<td>I am glad I am me</td>
<td><em><strong><strong>:</strong></strong></em></td>
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APPENDIX 6b

Affective Perception Inventory

Age/Grade: __________

Sex: __________ Name/Number: __________

Student Self

People are different in the ways they think about themselves because of the different things they do. A boy can be a son, a brother, a skater, and a pupil in school. A girl can be a daughter, a sister, a baseball player, and a pupil in school. What kind of pupil are you? Give a picture of yourself as a pupil by circling the words at the end of the line which you think best tell how you look at yourself as a pupil.

Example:

I am happy in school ____:____ I am not happy in school.

Be sure to circle only one set of words for each line. Remember that there are no right or wrong answers - only answers which best show how you feel about yourself as a pupil.

(1) I like to learn: ____:____ I do not like to learn (1)
(2) I work hard in school ____:____ I am lazy in school (2)
(3) I learn quickly ____:____ I learn slowly (3)
(4) I do well in school ____:____ I do not do well in school (4)
(5) I like to work with others ____:____ I like to work by myself in school (5)
(6) I do neat work in school ____:____ I do careless work in school (6)
(7) I get things done on time in school ____:____ I do not get things done on time in school (7)
(8) I am smart ____:____ I am not smart (8)
Student self (Continued)

(9) I want my school work to ____ : ____ I do not care how my school work is good.

(10) I like to try new things in school ____ : ____ I am afraid to try new things in school.

(11) I feel good when I am in school ____ : ____ I do not feel good when I am in school.
APPENDIX 6c

Affective Perception Inventory

Age/Grade: __________

Sex: __________ Name/Number: __________

Reading Perceptions

How do you feel about reading: How do you see yourself as a reader? Give a picture of how you feel by circling the words at the end of the line which best tell how you feel in reading.

Example:

I can print my name ____ : ____ I cannot print my name

Be sure to circle only one set of words for each line. Remember that there are no right or wrong answers - only answers which best show how you feel in reading.

(1) I like to read ____ : ____ I do not like to read (1)

(2) Reading is easy for me ____ : ____ Reading is hard for me to do (2)

(3) I am a fast reader ____ : ____ I am a slow reader (3)

(4) I read many books ____ : ____ I do not read many books (4)

(5) I am a good reader ____ : ____ I am not a good reader (5)

(6) I like to figure out words ____ : ____ I do not like to figure out words (6)

(7) I like to write ____ : ____ I don’t like to write (7)

(8) Writing is easy for me ____ : ____ Writing is hard for me (8)

(9) I am good at writing stories ____ : ____ I am not good at writing stories (9)
Reading Perceptions (Continued)

(10) After reading something, I want to read it to someone else. After reading something, I am afraid to read it to someone else.

(11) It is easy for me to remember what I read. It is hard for me to remember what I read.

(12) I am in a good reading group. I am in a slow reading group.
APPENDIX 7a

Motivation/Attitude Questionnaire

ATTITUDE OR MOTIVATIONAL INTENSITY

1. **When I am not at school I think about the English I have learned in school**
   
   a) often  
   b) hardly ever  
   c) sometimes

2. **If I did not go to an English medium school**
   
   a) I would try to improve my English by reading books or talking to people  
   b) I wouldn't bother learning English  
   c) I would try to find someone to give me English lessons

3. **When I have a problem understanding something the teacher says, I**
   
   a) ask the teacher for help  
   b) only ask for help if I know there will be a test soon  
   c) forget about it

4. **When it comes to English homework, I**
   
   a) put some effort into it but do not try as hard as I could  
   b) work very carefully, making sure I understand everything  
   c) do it fast without thinking much at all

5. **Thinking about how hard I work in English, it is true to say**
   
   a) I do just enough work to get along  
   b) I do very little work  
   c) I really try to learn English as well as I can

6. **If I could choose to do extra work in English**
   
   a) I would say no  
   b) I would say yes  
   c) I would only do it if my teacher specially asked me to
7. **When I get my work back**

   a) I always do my corrections and think about them carefully  
   b) I put my book in my desk and forget about my corrections  
   c) I do my corrections but don't really think about them

8. **When we are in class**

   a) I often put up my hand to answer questions  
   b) I only put up my hand to answer easy questions  
   c) I never say anything unless I am asked

9. **When television programmes are in English**

   a) I never watch them  
   b) I sometimes watch them  
   c) I try to watch them as often as I can

10. **When I hear an English song on the radio or television**

    a) I listen to the music but pay attention only to the easy words  
    b) I listen carefully and try to understand all the words  
    c) I change the station or switch off the television
APPENDIX 7b

Motivation/Attitude Questionnaire

INTEREST OR DESIRE TO LEARN ENGLISH

1. In class
   a) I am happy to learn only in English
   b) I would rather learn half in English and half in my own language

2. Outside school
   a) I never speak English
   b) I speak English all or most of the time
   c) I speak English sometimes but prefer to speak my own language

3. I like learning English
   a) more than other subjects
   b) the same as other subjects
   c) least of all

4. If I could join a club where only English was spoken
   a) I would go sometimes
   b) I would be very interested in joining
   c) I would not want to join

5. If I could choose to learn English
   a) I would definitely want to learn
   b) I would not want to learn
   c) I don't know if I would want to learn or not

6. I find learning English
   a) not at all interesting
   b) no more interesting than other subjects
   c) very interesting
7. **In the holidays**
   
a) I try to play with friends who speak English all or most of the time  
b) I try to play only with friends who speak my language  
c) I sometimes play with friends who speak English  

8. **At home I try to read books or comics in English**  
   
a) as often as I can  
b) never  
c) sometimes  

9. **If I could choose to go and see a play or film in English I would**  
   
a) only go if I had nothing else to do  
b) definitely go  
c) not go  

10. **If I know enough English to understand a television programme**  
    
a) I watch sometimes  
b) I watch as often as I can  
c) I never watch
APPENDIX 7c

Motivation/Attitude Questionnaire

PERCEPTIONS OF PARENTAL SUPPORT

1. My parents try to help me with my English homework
   a) always    b) most of the time    c) sometimes    d) never

2. My parents speak to me in English
   a) always    b) most of the time    c) sometimes    d) never

3. My parents think I should spend more time speaking English
   a) always    b) most of the time    c) sometimes    d) never

4. My parents are very interested in my English work
   a) always    b) most of the time    c) sometimes    d) never

5. My parents encourage me to do well in English
   a) always    b) most of the time    c) sometimes    d) never

6. My parents encourage me to speak English as much as possible
   a) never    b) most of the time    c) sometimes    d) never

7. My parents say it is important for me to know English
   a) always    b) most of the time    c) sometimes    d) never

9. My parents say I must try my best in English
   a) always    b) most of the time    c) sometimes    d) never

10. My parents tell me to ask my teacher for help
    a) always    b) most of the time    c) sometimes    d) never
Motivation/Attitude Questionnaire

ANXIETY

1. I am too shy to answer questions out loud in class
   a) always b) most of the time c) sometimes d) never

2. I am not sure if I am saying the right thing
   a) always b) most of the time c) sometimes d) never

3. I think a) all b) most c) none of the other children speak better English than I do

4. I feel nervous or confused when I speak in class
   a) always b) most of the time c) sometimes d) never

5. I am afraid the other children will laugh at me when I speak English
   a) always b) most of the time c) sometimes d) never