THE EFFECTS OF THE LANGUAGE OF INSTRUCTION ON THE PERFOMANCE OF THE TSONGA (SHANGANI) SPEAKING GRADE SEVEN PUPILS IN ZIMBABWE

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THE EFFECTS OF THE LANGUAGE OF INSTRUCTION ON THE PERFOMANCE OF THE TSONGA (SHANGANI) SPEAKING GRADE SEVEN PUPILS IN ZIMBABWE

By

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DECLARATION

I declare that, '**The Effects of The Language of Instruction on the Performance of the Tsonga (Shangani) Speaking Grade Seven Pupils In Zimbabwe",** hereby submitted to the University of Limpopo, for the degree of Doctor of Philosophy in Educational Psychology has not previously been submitted by me for a degree at this or any other university; that it is my work in design and execution, and that all material contained herein has been duly acknowledged.

Makondo D Dr. 16 May 2012

DEDICATION

This thesis is dedicated to all minority language speaking children of Zimbabwe and the   whole world who were compelled to do school work using unfamiliar languages.

ACKNOWLEDGEMENTS

Many people who contributed in this study are not mentioned by name, however, to all; I humbly acknowledge your invaluable assistance and express my heartfelt thanks for your contribution. Thank you.

Abstract

This research project was an endeavor to investigate the effects of the languages of instruction (English and Shona), to teach Tsonga (Shangani) speaking children in Chiredzi district of Zimbabwe. Because of the nature of the study, a mixed method design was used where both qualitative and quantitative methods were adopted to study the performance of the Tsonga (Shangani) minority language speaking learners in five purposively sampled schools. 222 learners participated in the study. The main aim of the study was to investigate the effect of the language instruction in teaching Tsonga (Shangani) speaking Grade Seven children in Environmental Science. In fact, the researcher was interested in finding out whether teaching learners in a foreign language was a bridge or barrier to learning. In this case, the research did not only look at the effect of using English for instructional purposes, but also investigated how other major or dominant indigenous languages which are used for instructional purposes affect the performance of minority language speaking children in Chiredzi district of Zimbabwe. Data for this study were collected using lesson observation, document analysis, the questionnaire and a knowledge test. In this case, fifteen lessons were observed. Fifteen Tsonga (Shangani) speaking Grade Seven learners per school were purposively selected and taught in Tsonga (Shangani) only and the other fifteen Shona speaking Grade Seven children per school were also purposively selected and taught the same topic in Shona, and a third group of fifteen Grade Seven learners per school, were randomly selected and taught in English only. A knowledge test was given to each group thereafter. Children from each language condition were allowed to answer questions in their home languages, except for the third group which was taught in English. This group answered the questions in English with the restricted use of Shona. Each of the test results from the knowledge tests were analysed using a One Way Anova of Variance (ANOVA) and conclusions drawn. The results from other data collection instruments were analysed using qualitative methods like narrative discussions of data. A sample of five learners per school had their exercise books analysed. Data were presented in tables. The results from the knowledge tests given showed a significant difference in the mean marks obtained from the three groups (the Shangani, Shona and English group). The result showed that language has a significant influence on the performance of learners since the p – value was 0.000. This implies that the

performance of learners between the three groups is significantly different. On the basis of these observations, the Null hypothesis was rejected. The same picture was also shown in document analysis and in the questionnaires. Consequently, conclusions were drawn and recommendations made.

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CHAPTER ONE

1.1 Background of the study

1.2 Introduction

Research has shown that language is a crucial means of gaining access to important knowledge and skills. It is also important for communication, learning, social interaction and identity (Golele, 2005). According to Vygotsky (1969) cited in Le Roux (1993), language is key to cognitive development and the way language is used at school; has a bearing into scholastic success. In a multicultural society such as those of Zimbabwe, South Africa, Nigeria, the Democratic Republic of Congo, the USA and others, language diversity exerts a powerful influence on the content, methods of instruction and outcome of school. Lemmer, (1993), observed that in learning institutions, when language is linked to a particular race, cultural group or social class, it becomes a highly contentious issue and may affect the teaching and learning process. Such is the situation in Zimbabwe where, minority language speaking children such as the Shanganis (Tsonga), Vendas, Tongas, Kalangas, Sothos and others, are compelled to learn in English and Shona or Ndebele. Consequently, the researcher's observation was that, this impacts negatively on the performance of learners at Grade Seven Public Examinations. Thus, this study sought to investigate the effects of using a foreign language in teaching primary school learners and to make recommendations for the future.

Vygotsky (1969) pointed out that language is more than a means of communication. He argues that language has a significant part in the development of thought. According to him, humans in general, early in life practice what he calls, private or inner speech, before they vocalize and he pointed out that the mother-tongue provides a better facility for that. Vygotsky (1969) went further to argue that thinking; particularly at an early age of between two and seven, is done in the mother tongue and then translated into the medium of instruction. Therefore, such an argument suggests the mother tongue is critical for human learning and performance. Consequently, scholars agree that where learners are not proficient in the language of school, meaning is usually distorted. Akinnaso (1998) cited in Mwamwenda (2004) points out that the mother tongue as a medium of instruction, is key in facilitating

cognitive development, communicative ability, and cultural transmission. Therefore, it should be used as medium of instruction in a classroom situation.

According to Vygotsky (1939) there is a powerful interplay between the mind and language. He theorised that between birth and two years of age, thought and speech are independent of each other and they merge at age two (Vygotsky, 1969; cited in Miller, 2000). Thereafter, the two develop together; with speech influencing thought. Vygotsky (1997) says that at age three, after learning to talk, speech between people splits into communicative speech which Piaget (1952) called "egocentric speech" or speech for self. At age seven, Vygotsky proposes that private speech becomes inner speech. Children can now silently, "think in words" though inner speech is more abbreviated, idiosyncratic and fragmented than spoken language. Thus, on the basis of his argument, this study was heavily influenced by Vygotsky's socio-cultural theory. A detail of his theory is clearly outlined in chapter two. However, his theory forms the basis of this study.

The researcher observed that in Zimbabwe, most minority language speaking children at primary and secondary school level are denied the chance to express themselves freely and accordingly due to inhibiting language policies which compel them to use English or any of the two national languages; Shona or Ndebele to do school exercises and examinations. This departs significantly on the assumptions put forward by Vygotsky. Although the statistical figures we have do not agree, in Zimbabwe, Shona speakers are in the majority, followed by the Ndebele. According to the report by the Zimbabwe Surveyor General, the Shona make up for the 73% of the Zimbabwean population and 20% are Ndebele speaking. Thus, from the remaining 7%, 3% of them speak the indigenous minority languages (Government Printers, 1998). The other 4% is made up other languages. The researcher felt it compelling to investigate the effect of introducing two foreign languages as mediums of instruction to Tsonga (Shangani) minority language speakers at Grade Seven level in Zimbabwe.

Table 1.1 Graph showing language diversity in Zimbabwe
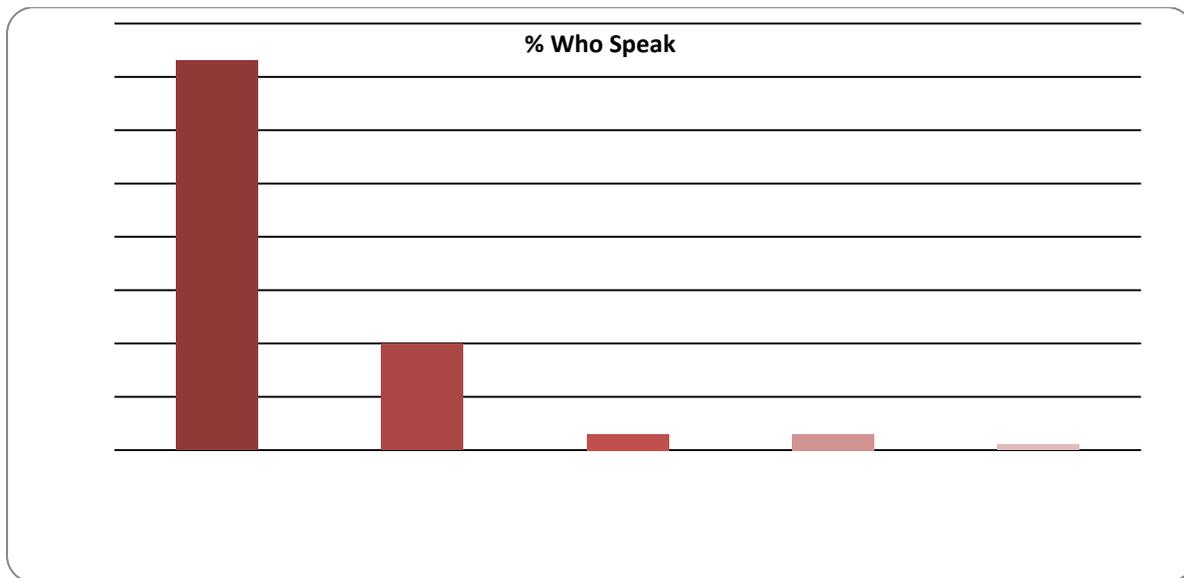
The above graph was adopted from the 2002 Zimbabwe Population Census with statistics showing that Tsonga/Shangani and other languages are minority languages in Zimbabwe. Shona and Ndebele are the dominant languages of Zimbabwe and it is assumed that their national dominance have an impact on the performance of minority language speaking children in the classrooms. Hence the researcher thought of carrying out an investigation into this issue.

1.3 The Zimbabwean language policy

It is important to note that Zimbabwe does not have a comprehensive language policy. The legal status of languages in Zimbabwe is stipulated in the 1987 Zimbabwean Education Act, revised in 1996 and in 2000. According to this Act, English is the official language of Zimbabwe. It is the language of commerce and government, Shona and Ndebele are taken as National languages and they have restricted official use (Hachipola, 1996). These national languages can also be used for commerce, parliament and at other official meetings. However, the minutes are finally captured and written in English. Although prominence is given to English, Shona and Ndebele, Zimbabwe, like other African countries, is multilingual. Other languages like Shangani (Tsonga), Venda, Tonga, Kalanga, Nambya, Chewa and others are also spoken. The 1987 Zimbabwean Education Act, and its subsequent

amendments, recognizes these languages as minority languages (Zimbabwean Education Act, 1996). Thus, the 1987 Zimbabwean Education Act is clear that the three main Languages, Shona, Ndebele and English shall be taught in schools from first grade as follows:

1. English and Shona in areas where the mother-tongue of the majority of the residents is Shona.
2. English and Ndebele in areas where the mother-tongue of the majority is Ndebele.
3. In areas where minority languages exist, the minister may authorize the teaching of such languages in primary schools in addition to those specified above.
4. Either of the languages in "1" and "2" above may be used as a medium of instruction, depending upon which language is more commonly spoken and better understood by the pupils (Nziramasanga, 1999: 79).

The implication of "4" above is that there are no schools that are dominated by minority language speaking children with very few or no Ndebele or Shona first language speakers at all. The picture on the ground shows that there are many areas if not districts which are predominantly minority language speaking areas.

Table 1.2 Languages of instruction and level in the Chiredzi district of

Zimbabwe where the study was conducted

Table 1. 2 Languages of Instruction and Level	
Grade Level	**Language of Instruction**
Grades 1 - 3	Tsonga (Shangani and English)
Grades 4 - 7	English and Restricted Use of Shona
Form 1 - 4	English and (Restricted Use of Shona)
Form 5 – 6	English
Tertiary Level	English
	7

A study carried out by Hachipola in 1996, showed that districts like Chiredzi, Beitbridge, Binga, Kariba and Gwanda are predominantly Shangani, Venda, Tonga, Nambya and Sotho respectively (Hachipola, 1996). On the basis of his observations, it is a matter of fact that the minority language speaking learners, who are in fact the majority of the learners in the aforementioned areas are compelled to learn in two foreign languages (English and Shona or Ndebele).

Figure 1.1 Map of Zimbabwe showing national language distribution
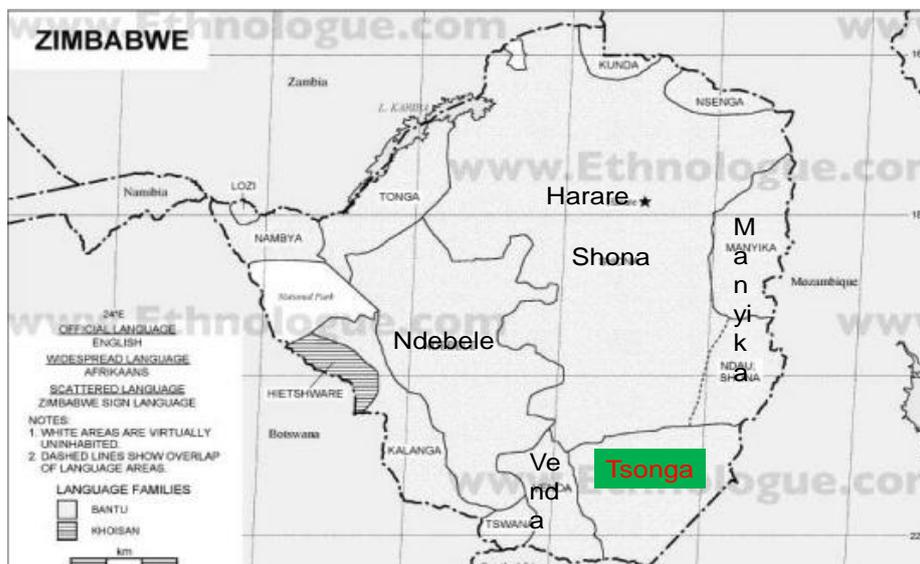
The 1987 Zimbabwean Education Act chapter 25 Section 3, gives the seating minister authority to allow or disallow the teaching of minority languages in the areas where they are predominantly prevalent. Many researchers view this as a weakness because it gives the seating minister the sole mandate to allow or disallow the teaching of subjects in children's home languages in areas where minority languages are dominant. Thus, in this regard, Zimbabwe does not have a standing policy with regards the language of instruction for minority language speaking children. The whole issue was left to the discretion of the sitting minister of Education on whether to allow the use of minority languages for instructional purposes or not. On this note, the affected stake holders lamented that over the successive years, successive ministers of Education manipulated this loop hole to perpetuate their personal

interest. In addition to that, lack of a clear language policy on minority language speaking children explains the reason why there is no legislation and hence no budget for the promotion of minority languages in Zimbabwe. The researcher's observations, particularly for Chiredzi South; is that most minority language speaking primary school children are neither comfortable nor competent in either Shona or English as languages of instruction. Because of the existing language policy, these children are compelled to learn in two alien languages at school; that is, Shona and English. The researcher assumed that this could have been the reason for high failure rate and high school dropout in Chiredzi South primary schools of Zimbabwe. Many of these school dropouts decide to cross the border and look for employment in neighbouring countries such as South Africa, Botswana and Mozambique.

Table 1.3 below shows school performance and district ranking in the General Paper (in which Environmental Science is included) for the years 2005, 2006 and 2007 for Chiredzi district schools in Zimbabwe.

Table 1.3 Result analyses for the selected schools in Chiredzi district.

Year ⟶ School ⟶	2005		2006		2007	
	GP% Pos.		GP %	Pos.	GP %	Pos.
Mpapa P. School	100	1	93,75	6	100	1
Mtirikwi P. School	100	1	75	33	100	1
Chiredzi Govt. P. School	97,37	4	100	3	98,80	5
Citrus P. School	88,89	21	100	1	100	6
Kamba P. School	93,02	8	96.30	7	98,17	11
Kyle P. School	100	1	96.77	15	98,86	3
Muhlanguleni P. School	43	**71**	41,43	**69**	60,78	**81**
Chingele P. School	51,11	**53**	63,64	**49**	70,21	**46**
Chikombedzi P. School	68,97	**47**	50	**54**	54,16	**70**
Machindu P. School	41,32	**49**	40,32	**81**	55,79	**49**
Gurungweni P. School	40,2	**72**	50,79	**61**	79,37	**38**

Note: The first six schools are bilingual. They use Shona as their home language and they are taught in Shona and English, but they can also speak Tsonga (Shangani) while children from the last five schools, predominantly speak Tsonga/Shangani at home.

According to Gudhlanga (2005), the term "minority" is in itself denigrating. Hence, if a language is denigrated, the culture embodied in that language is also denigrated and the same applies to the people who speak that language. Thus, according to him, the children who speak such languages are likely going to have a low self-esteem since the language which they speak at home is looked down upon and hence they may either underperform or drop out of the school system. Gudhlanga (2005) argues that compelling children to use a foreign language as a medium of instruction, alienates them from their culture and identity since language is an embodiment of a peoples' cultural values and symbol of identity. Thus, such claims prompted the researcher to find out if this is true of the language situation in the Chiredzi district of Zimbabwe. In the light of this background, this study intends to investigate and unveil the language related problems faced by minority language speaking children in Chiredzi district of Zimbabwe. To augment Gudhlanga's (2005) findings, a report by the Zimbabwe Schools Examination Council (ZIMSEC) on the performance of learners from the Chiredzi district showed that language problems, among other things, were responsible for poor results at both Grade Seven and "O" level (ZIMSEC Report On The 1994 Examinations, 1995). To this effect, part of the report reads:

> *The perennial problem of poor language usage was still evident. Candidates should be made to realize that one's thoughts can only be understood by other people when these thoughts are clearly communicated. Language is therefore important in achieving the intended objectives. Literal translation from some home language to English has some bizarre ideas being conveyed to some examiners. It was not rare to read about "the man was beaten by lightning" or "I climbed a bus" (ZIMSEC, 1995:* 11)

7

According to this report, the use of foreign languages as mediums of instruction is creating perennial problems for minority language speaking children in Zimbabwe's Chiredzi district. Thus, this observation by ZIMSEC assumes to imply that the language policy which compels candidates to answer questions in foreign languages (English or Shona), compromise the quality of results at Grade Seven level and the general performance in content subjects in the Chiredzi district schools of Zimbabwe. Hence the need to carry out a study of this nature.

1.3 Statement of the Problem

Does use of a foreign language (L2) as a medium of instruction in teaching minority language speaking primary school children, affect performance at Grade Seven level?

1.4 Aim of the Study

This study is an investigation of the effects of using a foreign language in teaching Tsonga/Shangani minority language speaking children in the Chiredzi district of Zimbabwe.

1.4 Objectives of the study

The major objectives of this study are to:

a. Investigate the effects of the use of a foreign language (L2) as a medium of instruction in teaching primary school children.
b. Investigate the relationship that exists between language and classroom performance.
c. Investigate how the indigenous Tsonga (Shangani) epistemologies could be studied using the home language.
d. Make recommendations to the Ministry of Education, Sport and Culture to consider coming up with an all-inclusive piece of legislation.

1.5 Hypotheses

H$_1$. Use of a second language as a medium of instruction and learning at primary school level affects performance at Grade Seven level.

H$_0$. Use of a second language as a medium of instruction and learning does not affect performance at Grade Seven level.

1.6 Rationale

This study was concerned with unveiling the effects of using a foreign language as a medium of instruction in teaching primary school children in the Chiredzi district of Zimbabwe. A lot has been done in studying the effects of using English language when teaching Shona or Ndebele speaking children but very little has been done in studying the effects of both English and either of the two national languages on minority language speaking children. Thus, from the literature review done, there is no evidence to show any research done on the effects of the major languages (English, Shona and Ndebele) on the performance of minority language speaking children in Zimbabwe. Hence this study was relevant because it studied some of the disadvantaged groups of the Zimbabwean communities. In addition to that, the study was also relevant because it sought to contribute immensely to the existing knowledge base on how important the home language (L1) is to learning and performance at primary school level. The study paid particular attention to Shangani (Tsonga) learners who; among other minority language speaking children, are often ignored by policy makers and currently, there is no national budget to deliberately support the development of minority languages in Zimbabwe.

1.7 Significance of the study

From the literature review I have done, I observed that there is no study of this nature which seeks to investigate the effects of using foreign languages in the teaching of Tsonga/Shangani minority language speakers in Chiredzi district of

Zimbabwe. Several studies concentrated on the effects of using English as a medium of instruction in teaching black African children in general. Little was done to look at the effects of using other dominant African languages also in teaching other indigenous minority African children in Zimbabwe. Therefore, the study of this nature was quite significant because it is hoped that its results shall go a long way in assisting policy makers in the formulation of policies that either condones or condemns bilingual or multilingual programmes. According to Nagel (1992), basic Environmental Science concepts are understood better in one's mother tongue. If this observation is correct, the researcher hopes that code-switching to the learners' home language will bridge the gap between the formal language of instruction and the learner's mother tongue. This, it is hoped, shall enhance understanding of new concepts and concept formation. Thus, the researcher believed that the study of this nature was quite critical for minority language speaking people the world over, and to the people of Chiredzi in particular.

1.8 Assumptions

In carrying out this study the researcher had the following assumptions:

a. Use of a foreign language as a medium of instruction at primary school level, impedes classroom performance at Grade Seven.

b. Maximum educational and technological attainments of children, particularly at primary school level, can only be raised if instruction is given in their home language.

c. A child with a larger vocabulary in the language of instruction is potentially able to manipulate a greater variety of concepts in a class room situation and hence this may facilitate maximum classroom participation and performance.

d. Inner speech is part of the thinking process and this is done in the child's home language and hence it facilitates thought processes.

e. Explicit speech is the logical completion of a thinking process and if it is done in a child's home language; meaning is not distorted.

1.9 Limitations of the study

Although a lot of effort was put to remove obstructions and bias in this study, the study was not without its own limitations and constraints. Golden (1976), hints that the most imposing constraint in research, is the non-availability of important resources such as time, money and personnel. The researcher concurs with him. The researcher had financial problems to collect data from a larger and possibly more representative sample. Related to that, this study was carried out during the time when the country (Zimbabwe) was experiencing the worst economic depression since 1965. Consequently, the researcher faced transport problems. Such problems were beyond the researcher's control.

The research questionnaires were written in English (a foreign language to the participants), and thus, most of the participants were not proficient in English for them to respond precisely and concisely. However, a remedy to this problem was that the researcher decided to assist the affected participants so that they could respond appropriately. This proved to be very fruitful as the participants could respond to questions precisely, accurately and freely. The other problem was that, my target population is a population that has been subjected to alien languages for so long and as a result, the participants attached emotions when they gave their responses. This had the potential to distort the results of the study. To guard against this, the researcher remained focused on his research objectives and constantly relied on his research instruments to collect data. In addition to that triangulation assisted in combating issues related to bias. The weaknesses of one instrument were complemented by another instrument. This enabled this study to come up with the valid results.

1.10 Delimitation of the study

Charles, Elliot and Louis, (1991) point out that delimitation answers the questions like what are the concerns of the study. What are not the concerns of the study? How far does it go in the treatment of the issue and how far does it not? Guided by all these questions, this study targeted the indigenous Tsonga (Shangani) minority

language speaking Grade Seven children in Chiredzi South. The study focused on the effects of using a foreign language as a medium of instruction at primary school level. The study did not investigate communication skills because that was done by other researchers. Instead, this study focused on how pupils' conceptual frame works are affected by the use of a foreign language. In addition to that, the study also looked at comments of some Grade Seven teachers concerned. These could easily be seen through document analysis; particularly the learners' exercise books.

1.11 Definition of terms

Language: Sapir (1929) cited in Hayes, (1994), defines language as any means of

communication that uses signs, symbols or gestures within grammar and through which novel constructions can be created.

Goleman, Engen and Davis, (1982), view language as a system of symbols that relates sound or signs to meaning. This study concurs with Kruger and Adam's (1998) definition of language which views it as a purely human and non-instinctual method of communicating ideas, emotions and desires by a system of voluntarily produced symbols.

Impede: This meant to hinder, inhibit or obstruct.

Performance: This meant the ability of students to use fundamental

knowledge to execute the given tasks in an expected manner.

Home Language (L1): This refers to a mother language (a language used at

home) as spelt by the Zimbabwean Education Act Chapter 25:04, Act 5 of 1987. This is the home language. It is a language that is used during social, religious and cultural activities.

Foreign Language (L2): This refers to English and any of the two indigenous

National languages; Shona or Ndebele) as defined by the Zimbabwean Act 5 of 1987. The two national languages are also used as supplementary instructional languages when learners failed to grasp concepts explained in English. The two were not home languages for my target population.

Cognitive development: Mwamwenda (2004), views cognitive development

as the development of a person's mental capacity to engage in thinking, reasoning, interpretation, understanding, knowledge acquisition, remembering, organizing information, analysis and problem solving. Thus, this study views cognitive development as all psychological abilities associated with thinking and learning and hence it is related to learning.

1.12 Summary

This chapter set off by looking at the background of the study. This was meant to situate the research problem into relevant context. The study also looked at the rationale and justification of the study. To achieve this, the researcher came up with a clear or main aim. From this aim, research objectives were drawn, and the statement of the problem was drawn. The importance or significance of the study was also spelt out. Assumptions were also clarified and the limitations of the study spelt out since these threatened the validity and reliability of the study. The chapter closed by defining terms. The following chapter focused on the theoretical perspective of the study. This is meant to put the study into context.

CHAPTER TWO

2.0 Theoretical perspective of the study

2.1 Introduction

Issues on the relationship of language and thought and the origin of language have attracted considerable attention to a number of scholars. Accordingly, it has been a subject of debate for a long time and still, it is an ongoing debate. Many theorists and scholars have given different explanations as to the relationship of language and thought and also on the origin of language. This chapter is devoted to highlighting and discussing some of these views as discussed by various scholars and theorists. Among them are; Noam Chomsky, Whorf and Sapir, Jean Piaget, David Crystal and Lev Vygotsky. This attempt was meant to put this study into context and also, to find out an appropriate theory which constituted a theoretical framework for this study. In doing so, the discussion started off by discussing the views of Noam Chomsky (1968) who argues that all human beings are born with an inherent ability to speak a language. After a thorough discussion of different theories, the researcher observed that Lev Vygotsky's socio-cultural historical theory was appropriate to explain this study; hence, it forms the principal theoretical framework guiding this study.

2.2 Noam Chomsky's theory of language acquisition

According to Chomsky (1968) children are born with an inherent ability to learn any human language. He claims that certain linguistic structures which children use so accurately must be already imprinted on the child's mind at birth. According to him, the mechanism of language acquisition formulates from innate processes. He argues that this is what forces children to listen attentively to speech sounds and also to imitate adults. This theory is evidenced by children who live in the same linguistic community without a plethora of different experiences who arrive at comparable grammars. Chomsky thus proposes that "all children share the same internal constraints which characterize narrowly the grammar they are going to construct" (Chomsky, 1977). He further points out that since we live in a biological world, there

is no reason for supposing the mental world to be an exception. And he believes that there is a critical age for learning a language as is true for the overall development of the human body.

Chomsky believes that every child has a 'language acquisition device' (LAD) which encodes the major principles of a language and its grammatical structures into the child's brain. He argues that children have then only to learn new vocabulary and apply the syntactic structures from the LAD to form sentences. According to him, the LAD triggers at the age of six months and at one year, the child can come up with the first words. Chomsky believes that a child could not possibly learn a language through imitation alone because the language spoken around them is highly irregular. In his argument he went further pointing out that adults' speech is often broken up and even sometimes ungrammatical. Chomsky's (1977) theory applies to all languages as they all contain nouns, verbs, consonants and vowels and he argues that children appear to be 'hard-wired' to acquire any grammar. However, he admits that every language is extremely complex, often with subtle distinctions which even native speakers are unaware of. He points out that all children, regardless of their intellectual ability, become fluent in their native language within five or six years (Kozulin, Gindis, Ageyev & Miller 2003). However, Chomsky's observations agree with those made by other theorists that language is learnt. One such theorist who agrees with that perspective is David Crystal. Thus, it becomes imperative to discuss his theory also.

2.3 David Crystal's theory on child language acquisition

According to Crystal (1968) children learn languages in stages. In his theory, he developed five stages and pointed out that these are not clearly defined and some overlap into the other. These stages are:

Stage One:

Crystal theorised that in the first stage, children use a language for three purposes. These are:

1. To get something they want from their primary care givers or parent

2. To get someone's attention and

3. To draw attention of the care giver to something

In this way, Crystal (1968) argues that children begin to make basic statements such as "daddy car" if they want to draw the attention of their father. It is also during this stage where children begin naming things with single words and then move on to relating objects with other things, places and people, for example, "there mummy". Crystal (1968) argues that at this stage children also relate objects with events, for example, "bird gone" (Kozulin, et al, 2003). Crystal (1968) theorised that children at this early stage do not have much vocabulary, so they use intonation to ask a question. Children use words like: "there, want and all gone" to express a full sentence. This could be said that part of this stage is holophrastic.

Stage Two:

At this stage Crystal theorised that this is when children usually ask questions such as "where?" Questions come first. Their questions often begin with interrogative pronouns (what, where) followed by a noun or verb such as "where gone?" Children become concerned with naming and classifying things by frequently asking, "Was sat?" At this stage, children also begin to talk about the characteristics of things for example: big/small (Kozulin, et al, 2003). Children are taught to learn things in opposite pairs such as up/down and hot/cold.

Stage Three:

Crystal proposes that at stage three children begin to ask lots of different questions but often signalling that they are questions with intonation alone, for example: "Rhulani play in garden mummy?" This is made into a question by varying the tone of voice (Kozulin, et al, 2003). He theorised that children soon begin to express more complex wants by using more grammatically correct language, for example: "I want mummy to take it work" meaning "I want mummy **to** take it **to** work". Verbs such as

"listen" and "know" are also used. Children refer to events in the past and less often in the future. They usually talk about continuing action for examples: "she still in bed" and ask about the state of actions (whether something is finished or not). At this stage, the basic sentence structure has expanded such as: [subject]+[verb]+[object]+[adverb] or any other elements used. Sentences like: "Your dry hands" and "A man dig down there" begin to appear and auxiliary verbs are used in sentences such as "I am going" and phrases like "on the table" [preposition]+[article]+[noun] (Kozulin, et al, 2003).

Stage Four:

At this stage Crystal theorises that children use increasingly complex sentence structures and begin to:

- Elaborate on their explanations

- Ask for explanations using the word: "why?"

- Making a wide range of requests: "shall I do it?"

This leads to use complex sentence structures and they have flexible language tools for expressing a wide range of meanings. Probably the most remarkable development is their comprehension of language and use of abstract verbs for example "know" to express mental operations. They begin to communicate meaning indirectly by replacing imperatives such as "give me" with questions; "can I have?" As well as saying what they mean they now have pragmatic understanding and suit their utterances to context or situation (Kozulin, et al, 2003). Children also use negation (denial/contradiction) for example: "He doesn't want one!" They do not rely on intonation and signals anymore as they explain more fully. They are now able to use auxiliary verbs and may duplicate modal verbs "please, can I, may I." This could be showing that "may" is required for courtesy whilst "can" indicates being able to do something. This takes the discussion to the last stage.

Stage Five:

Crystal theorised that when children reach this stage they regularly use language to do all the things that they need it for. They have the ability to give information, ask and answer questions, request directly and indirectly, suggest, offer, state and express themselves competently. Children are now able to talk about things hypothetically and conditionally. For example, "If I were you, I would…" They are now able to explain conditions required for something to happen; "You've got to turn the tap on first in order to wash your hands" (Kozulin, et al, 2003). As well as making general references to past and future, children now talk about particular times such as: "after tea" and "before bedtime" By this stage children are very comfortable with all questions beginning with words like: "What?" and "When?" where the subject and verb are reversed such as "what does that mean?" They have the capacity to probe issues. After looking at language development, it becomes critical for this study to look at the relationship of language and thought. Theories designed by Whorf and Sapir, Vygotsky and that of Piaget are discussed in the next section.

2.4 The Sapir-Whorf hypothesis

Many theories were put forward to explain language, learning and cognition in relation to the developing child. Whorf and Sapir (1956) cited in Manis (1971) hypothesized that language and thought are related. This theory further asserts that thoughts and behaviour are (or at least partially influenced) by language. Whorf (1956) argues that language largely determines the way in which humans perceive and think about the world in which they live. For him, language serves as more than a passive "interpreter" or "translator" of mental life; instead, it provides an all pervasive framework that actively contributes to our thoughts and perceptions (Manis, 1971). Thus, Whorf's theory is often known as the linguistic-relativism (Orwell, 1984).

Both Sapir and Whorf agree that it is our culture that determines the way that we categorize our thoughts about the world, and our experiences in it. Their proposition has sparked a lot of research and controversy for more than fifty years (Manis, 1971). However, no matter what, Edward Sapir and Benjamin Whorf are credited with developing the most relevant explanation outlining the relationship between thought and language; the Sapir- Whorf hypothesis. The hypothesis consists of two parts; linguistic relativist and the linguistic determinism. The linguistic relativists assume that culture is shaped by language. According to Terwilliger, (2000), linguistic determinism on the other hand, is a process by which "the functions of one's mind are determined by the nature of the language which one speaks. In short, this means that language influences thought. However, Whorf left this theory broad. He did not explain the extent to which language influences thought (Ellis & Beattie, 1986). Although the Whorf-Sapir hypothesis has its own inadequacies in explaining the relationship of language and thought, other scholars seem to agree with them to an extent. Such scholars include Jean Piaget and Lev Vygotsky 1896-1934.

2.5 Piaget and language

As discussed above it seems many psychologists agree in principle that language and thought are somehow related. Piaget (1967) is one such theorist who seems to agree with Whorf and Sapir when he theorized that language and thought are related and they develop together. However, in his later studies, he slightly departed from his earlier assertion and pointed out that language is not enough to explain thought, because the structures that characterize thought, have their roots in action (Behr, Erlwanger, & Nichols 1980). Piaget (1939) strongly believed that the child's egocentric speech is closely related to a child's thinking but later; he then felt that thought precedes language. In this case, Piaget, (1952) theorized that the child, early in life engages in egocentric speech where he/she talks to himself and makes no attempt to communicate with others. This is done in a child's home language hence the argument that the home language is critical in learning. Piaget accepts that egocentric speech transforms itself to socialized speech between 3 to 7 years of age where the child communicates to influence the listener to adopt a course of

action (Behr et al 1980). Crystal also agrees with this assertion (Kozulin, et al, 2003). However, Piaget says that egocentric speech gradually disappears as the child grows older.

2.6 The Socio-cultural theory of Lev Vygotsky

Lev Vygotsky wrote extensively on the relationship of language and thought and in his argument, he theorised that the two are somehow related. On that note he agrees with Whorf and Sapir when he theorized that language and thought are related and they develop together. But, Vygotsky (1896-1934) unlike Whorf and Sapir saw a powerful interplay between the mind and language (Miller, 2000). He proposed that speech and thought at first are independent of each other and he argued that babbling and other such sounds are speech without thought. He called these utterances automatic reflexes. For example, a child cries when uncomfortable. On this note, he differs with Chomsky who argues that humans are born with the capacity to speak a language. This means that they are prewired to speak a language and it can be concluded that the LAD is closely linked to one's mind. However, Vygotsky theorized that at age 2 onwards, language and thought fuse or fuse and function together. He argued that from this age, children learn that objects have names and thus, they use words and symbols (Miller, 2000). Thus, for Vygotsky, after two years, the development of language influences the development of cognition. According to him, if one has not learnt to talk; then one hasn't learnt to think either (Gibson, 1980). The implication of this assumption is that, if we have not a word, or words for a concept, then, we can't think about that concept. Thus, Vygotsky (1969), views vocabulary deficiency in a certain language, especially where it is used as a medium of instruction, as an impediment to classroom performance.

Vygotsky (1969) cited in Dyanda and Mclane (2000), theorized that at age three, speech between people splits into communicative speech (sometimes called "egocentric speech" or speech for oneself) which is audible speech for oneself. According to him, private speech takes place in the child's mother tongue (L1) and it

increases when children meet a difficult task to learn. Vygotsky (1939) unlike Piaget, points out that private speech does not disappear, but it becomes inner speech and it becomes a critical tool in influencing thought.

According to Vygotsky (1964), language is a semiotic system that acts as a "psychological tool" in transforming natural impulses into higher mental processes. In this case, Vygotsky tried to create a theory that allowed for the interplay between two "lines of development''. These are the "natural lines" that emerges from within and the "social historical line" that influences the child from outside (Vygotsky, 1931). Vygotsky called various psychological tools that people use to aid their thinking and behaviour 'signs' and he argued that human thinking cannot be understood without examining the 'signs' the cultures provide (Crain, 2005). For him, speech is the most important sign system because it enables us to reflect on the past and plan for the future. Vygotsky argued that language, especially the mother tongue, is essential to cognition because it helps us to think about the world and it also gives us the means to reflect on and regulate our own thinking by use of inner or private speech.

Thus, according to Vygotsky, the mother tongue is very important to a growing child. Vygotsky maintains that speech facilitates the child's own individual thinking. He argued that by the age of 3 or 4 years, children begin to carry out the kinds of dialogues they had had with others with themselves alone. At first, they do it aloud and later, at the age of 6 or 7 years children tend to carry out such dialogues more inwardly and silently (Crain, 2005). Thus, for Vygotsky, private or inner speech facilitates thinking. What comes out as vocalized material is a product of refined inner speeches that are taking place inside a person before final utterances are made. On the basis of all this, Vygotsky's theory formed the basis of my study. Having discussed Vygotsky's theory, it becomes imperative to look at bilingualism; its definition, strengths, shortcomings and its applicability in an African context.

2.7 Language and Cognition in Bilingual Children

Studies have shown that there are many myths about bilingualism in children. Many of them negative ones. According to Hakuta, (1990) some educators have cautioned

against the use of two languages in children, claiming that bilingualism causes cognitive, social, and emotional damage to children. Although few scholars today would claim that bilingualism could cognitively harm children, this view has been advocated in the past, and is still occasionally witnessed in the media and even some educators take it as a concern in the schools where they are working. It is also the personal experience of this researcher that this opinion was championed by dominant communities who want to continue enjoying dominance and subjugation of weaker and less privileged societies. In this study, weaker and less privileged societies would refer to minority language speaking communities which do not have a say on the nature of education they desire for their children. Language of instruction is also included.

According to Hakuta (1990) of fundamental importance in conceptualizing research on bilingualism are the theoretical tensions available. The underlying assumption is that language is a central part of cognitive activity (Vygotsky, 1934). However, the influential developmental theory of Jean Piaget as discussed before, places a minimal role on language in cognitive development, and therefore Piaget's theoretical approach would maintain that bilingualism should have no effect on cognition. Vygotsky (1934) on the other hand, emphasizes the importance of language in guiding thought processes. He views it as a process of social shaping through linguistic mediation. Therefore, according to his theory, bilingualism can have profound effects on cognitive processes (Hakuta, 1990). This study is heavily influenced by the work of Lev Vygotsky. Thus, his socio-cultural-historical theory forms the theoretical basis for this study.

However, it is critical at this point to indicate that there is an ongoing hot debate on the effect of bilingualism of academic performance of the learners. This debate is championed by two opposing psychological camps; the hereditarianism and the environmentalists. In a study on IQ tests, the hereditarianism argues that bilingualism was not a factor in the low IQ scores, while the environmentalists; in contrast, argue for the position that the bilingual experiences are responsible for cognitive retardation among children (Hakuta, 1990). This is consistent with the then

prevalent views of development that stressed the role of experience in learning in children. Ironically, neither camp is willing to admit that perhaps IQ tests administered in English simply were not a good measure of intelligence for people who were not comfortable in English. Hakuta (1990) points out that to make a meaningful argument in this debate, one should understand that a bilingual individual is not necessarily one who is proficient in two languages, but rather one who comes from a language background other than English and is proficient in English to a varying degree. However, it is imperative for the researcher to hastily and categorically mention that; based on the definition of bilingualism given above, his study population is not bilingual.

According to Hakuta (1990), among the abilities in which bilingual children seem to be superior; which will be of particular interest to the educator, is a skill that has been called metalinguistic ability. This refers to the ability to think flexibly and abstractly about a language (in adults, this can be seen, for example, in poetry where language must be carefully controlled and chosen to fit the governing rules of a language). In children, this can be seen in the ability to make judgments about the grammar of sentences and to appreciate plays or words in jokes. Hakuta (1990) argues out that this theory accepts that all children, both monolingual and bilingual, develop metalinguistic ability but the difference is that the bilingual experience attunes the children to better control their mental processes. Thus from his argument, it follows therefore that bilingual children should, all other things being equal, have an edge in learning the basics of reading. This has been called the additive approach (Ndamba, 2008; Owu-Ewie, 2006; Adler, 2001; Cummins, 2000 & Hakuta 1990). The results from the studies he carried out in the New Haven show that when bilingual children are compared with a group of monolingual children who come from an equivalent socio-economic background, the bilingual children perform better in reading.

2.7.1 Localized trilingualism and the centrality of mother-tongue education

Another approach which was designed to take into account the diversity of the African languages is localized trilingualism. This was developed by Bodomo and Mugane, (1995) and they called it a model of development communication and

education. They believed that with this model, Africa will be able to harness its multilingual resources for accelerated and sustainable socio-cultural, economic and technological development in the 21st century. Accordingly, the researcher saw this model as very suitable for the Zimbabwean education system and it will enable the nation to cater for the diverse languages, much to the benefit of minority language speaking children in general and the Tsonga (Shangani) children of Chiredzi in particular.

In their story Bodomo and Mugane, (1995) illustrate quite well the cursory attention that has often been given the language issue in Africa's development discourse. The two researchers argue that more often than not theories and issues of achieving an accelerated rate of development in Africa are discussed without considering linguistic issues. Two reasons for this apparent neglect of the language issue were identified. The first is that development is often conceived of in a rather narrow sense where the role of language in Africa's development is seen as a bit too marginal to be taken seriously in the development of a people.

Bodomo and Mugane (1995), perceive those people who often say that it may even be better to use "scientific" languages such as English and French since African languages are incapable of expressing certain political notions and all the technical expressions that are inherent in many academic fields as having an blared notion to the role of language in the economic development of a people. The two scholars argue that Africa's own languages are central to African development and ought to occupy an important place in the development discourse. Thus, based on this premise, it is imperative for this researcher to categorically point out that the Tsonga (Shangani) minority language speaking people of Chiredzi ought to use their home languages if development is to take place in both their geographical and social settings. Bodomo and Mugane, (1995) claim that once Africa is capable of liberating itself from the notion of development from the narrow corridors of Gross Domestic Products (GDPs), Gross National Products (GNPs) and the like and reinterpret it in newer paradigms involving a comprehensive transformation of Africa's socio-cultural, economic and technological structures, it can begin to appreciate the importance of language in such a transformation. This observation does not exclude minority language speaking groups. These, too, want to be incapacitated through the use of

their home languages to define and decide their economic directions. On the basis of this observation, it can be argued that mother-tongue education is highly critical in the development of a people.

2.7.2 The relationship between language and development

Bodomo and Mugane, (1995) argue that if development is seen as the sustainable socio-cultural, economic and technological transformation of a society then language becomes an important variable in the development process. According to De Saussure (1959) language is a system of signs and all languages are similar in the sense that all are systems of signs for encoding meaning and the realities of the world. This assumes that there is no language which is superior to the other because an important element of every language is that, it is also culture-specific. However, each language is systematically different from others in the sense that it has a particular way of arranging the signs that encode meaning, and of communicating the world to its speaker (Vygotsky, 1934). In that sense then every language is an efficient tool for encoding the peculiarities of the particular environment in which a people live. A particularly strong view of this aspect of language has been discussed before in 2.6 above.

According to them the fact of the matter is that the 'real world' is to a large extent unconsciously built up on the language habits of a people. We see and hear and otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation" (Sapir 1929). Humans cannot do this in an unfamiliar language. Since languages relate first and foremost to particular cultures, each individual language seems to represent the speakers of the culture it encodes. This is the basis of the tight relationship between language and ethnicity in many parts of the world. In this sense then language has a symbolic function (Vygotsky, 1934). Thus, it is critical in the development of a people.

On the basis of the above realities about language it can be argued that every language is a granary, a repository of the world-view of its speakers. It is this particular language that best contains and expresses the indigenous belief systems, socio-cultural, political, economic and technological of any society (Bodomo & Mugane 1995). New belief systems are immediately related to these existing systems. Consequently, Bodomo and Mugane, (1995) argue that it is in this sense that they notice that the most intelligible and intelligent reactions by speakers to new ideas and technologies are registered through their home language.

2.7.3 The nature of development in relation to language

Bodomo and Mugane, (1995) argue that if development involves the appropriate transformation of the socio-cultural, political and economic systems of a society and if language is seen as a repository and a tool for the expression and communication of these very socio-cultural, political and economic belief systems of the society, then it goes without saying that a successful conceptualization and implementation of this societal transformation can only be achieved through the use of the mother-tongues or the languages indigenous to the society. On the basis of this, the two scholars questioned how Africa can harness indigenous knowledge, how it could generate local initiatives and mass participation in the development discourse if the elite in Africa continues to use languages that are not the languages of the indigenous people? Prah (2003:50) puts things in perspective with the following:

> "The dilemma in Africa with regards to language and development is that...the elite which is entrusted with the leadership in the development endeavor is created in, and trapped by the culture of western society, and favors the reproduction of entire western images in African development. The elite in effect see Africa from outside, in the language, idiom, image, and experience of the outsider; in as far as the African mind is concerned. It is unable to relate its knowledge to the realities of African society. It is estranged from the culture

of the masses, but realizes almost as an afterthought, that development as a simple replication of the western experience is 'mission impossible'."

2.7.4 Towards a model of localized trilingualism

Having discussed the importance of the mother-tongue in the development of society, Bodomo and Mugane, (1995) propose a multilingual communication model which will emphasize the use of the mother tongue and other indigenous languages at various levels of social organization while allowing for a concurrent use of non-indigenous languages at the national and international levels. Their model makes it possible to accommodate all of Africa's languages and uses them as essential tools of communication for development, irrespective of their numbers of speakers. This situation then confirms their contention that there is a linguistic and communicative discrepancy on the African continent and has non-trivial consequences on the development efforts of the people of Africa. According to them development communication is any communication between participants for the purpose of sustainable socio-cultural transformation and the most appropriate language is that language in which the majority of participants in any discourse entity have communicative competence. With the above discussions, it is critical to then look at their model which they termed localized trilingualism.

2.7.5 Localized trilingual model of development communication

Bodomo and Mugane, (1995) pointed out that because the African society is broad and diverse; it was difficult to develop a linguistic model for the whole of Africa. However, it was noted that there is an adequate amount of similarities in Africa's historical experiences and socio-linguistic organization which permits some reasonable amount of generalization. Characteristically, most, if not all, of Africa has experienced foreign invasion and power domination with the result that the colonial or the dominant powers have superimposed their languages over already existing indigenous languages. This introduction of new languages of power has not only increased the multilingual repertoire but has created situations in which attempts have been made to suppress the indigenous languages all together or, at least, relegate them to the confines of the informal sectors of each country (Bodomo & Mugane, 1995). This situation, where the foreign colonial languages are reserved for

the formal sectors while the indigenous languages were reserved for the informal, is quite representative of the African linguistic scene.

Recognizing the diversity and sociolinguistic peculiarities of each African country, Bodomo and Mugane's (1995) model does not attempt to specify a particular and specific language policy for all African countries. What it does is to address the above general diglossic situation and to propose the promotion of the use of Africa's indigenous languages in all sectors and levels of the social organization.

The model proposed is referred to as localized trilingualism (Bodomo & Mugane, 1995) because the average citizen who has gone through basic education should be functionally competent in spoken and written discourse in at least three languages. Ideally, most citizens should be trilingual in Africa, obtaining competence in their home languages, in a wider regional African lingua franca and in a language of wider communication such as English. In this study, the Tsonga (Shangani) speaking people could be taught in their home language and one national language (Shona or Ndebele) and English; the official language of Zimbabwe. These languages could be used for instructional purposes simultaneous. How they could be used is summarized in Table 2.1 below.

Diagrammatic Illustration of localized trilingualism

Table 2.1 diagrammatic illustration of localized trilingualism

Political Administration   Education System   Language of communication

```
   │                          │                      │
   ▼                          ▼                      ▼
┌──────────┐            ┌──────────┐          ┌──────────────┐
│          │  ───────▶  │          │  ──────▶ │  English and │
│ National │  ◀───────  │ Tertiary │  ◀────── │  one African │
│          │            │          │          │   Language   │
└──────────┘            └──────────┘          └──────────────┘
   │  ▲                    ▲  │                   ▲  │
   ▼  │                    │  ▼                   │  ▼
┌──────────┐            ┌──────────┐          ┌──────────────┐
│          │  ───────▶  │          │  ──────▶ │     Home     │
│  Region  │  ◀───────  │Secondary │  ◀────── │  language +  │
│          │            │          │          │     one      │
└──────────┘            └──────────┘          │   Provincial │
   │  ▲                    │  ▲               └──────────────┘
   ▼  │                    ▼  │                   │  ▲
┌──────────┐            ┌──────────┐          ┌──────────────┐
│          │  ───────▶  │          │  ──────▶ │              │
│ District │  ◀───────  │ Primary  │  ◀────── │     Home     │
│          │            │          │          │   language   │
└──────────┘            └──────────┘          └──────────────┘
   ▲                      ╱      ╲                ▲
```

Grass roots development   Indigenous knowledge mass
coming from local initiatives   participation
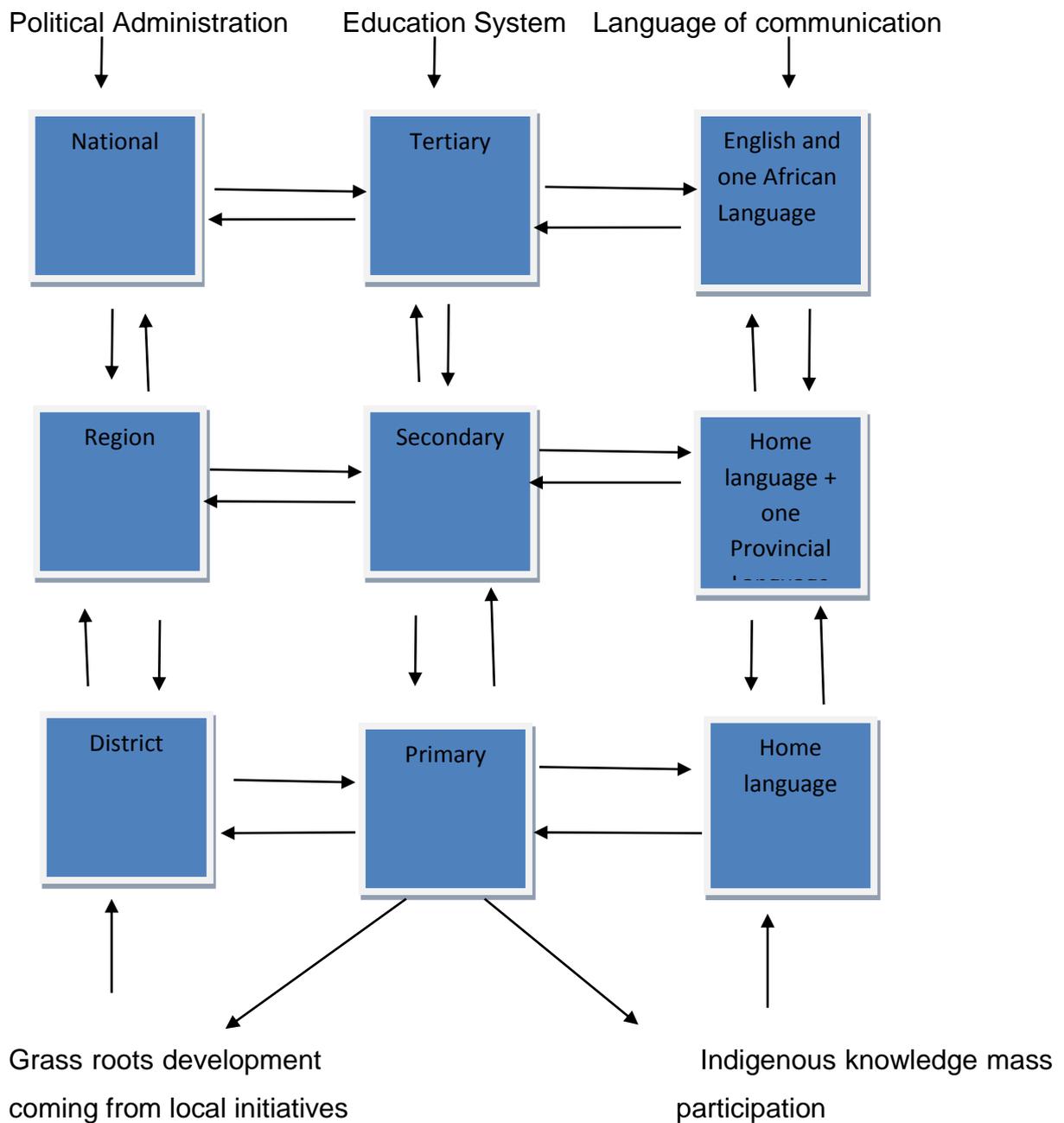
From the diagramme above, this should be the progression in language acquisition and learning:

1. At primary school level and district level - The home language should be used.

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2. At provincial and secondary – home language + regional African lingua franca.

3. At tertiary level – home language + lingua franca + English.

In cases where the home language is the same as the regional lingua franca, then another African language within the region should be learnt. Having given a broad picture of the model it is now imperative to move ahead to consider each level of the social structure.

The implication of this model is that there should be an uncompromising institutionalisation of the local language of the community in all areas of human activities. An imperative goal of the educational system at this level should be to ensure that primary school graduates are well-grounded in their home language and can use it to speak and write about any grade level theme, be it in religion, mathematics or science. Workers coming into districts which use unfamiliar languages such as Binga, Gwanda, Beit Bridge, Victoria Falls and Chiredzi for example, who do not already have competence in local languages for the respective districts, should be given proficiency or induction courses in the languages so that they serve the learners and the society more competently, confidently and accordingly. As said earlier on, this study was highly influenced by the work of Lev Vygotsky. Thus, Vygotsky's theory forms the basis of this study. Having discussed the theoretical assumptions informing this study, the next chapter, (chapter three) of this study is a review of related literature.

CHAPTER THREE

2.0 A Review Of Related Literature

3.1 Introduction

The purpose of this chapter is to review literature on some of the work done by some previous researchers on the topic in question. Some theories on language development were discussed in chapter two and thus, this chapter did not discuss them but it only concentrated on the studies done by various researchers on selected parts of the world. In doing so, the researcher started off by looking at the education of minority groups in the United States of America, then Vietnam, Ghana, Tanzania, Botswana, South Africa and then lastly, Zimbabwe; which is the country of interest in this study. Thus, this kind of approach was necessary because it gave the researcher the opportunity to explore various sections of the world, thereby giving him a global picture on the state of minority children and their endeavour to access fair education in an enabling language environment. In reviewing the related literature, the researcher started off by briefly highlighting Vygotsky's theory which is the theory that informs this study. Thereafter, a world overview was given.

3.2 Mother tongue and cognitive development

Vygotsky (1969) cited in Gibson (1980) argues that if one has not learnt to talk, he/she has not learnt to think either. The implication of this argument is that if we haven't learnt a word or words for a concept, then we cannot think about it. This suggests that cognition and the development of language are intertwined. Thus, the mother tongue is very important in cognitive development (Duminy,1975; Hawes, 1979; Bamgbose, 1991; Awoniyi, 1982; Owu-Ewie, 2006; Cummins 2000 & Adler, 2001). He argues that mother tongue is the language through which children, in early life, learn to organise and relate to their environments. Vygotsky (1969) has the same opinion and he views language; particularly the mother tongue, as a complex semiotic system that acts as a "psychological tool" in transforming natural impulses

into higher mental processes. According to him, language is essential to cognition because it helps us to think about the world around us and to communicate with others (Eggen & Kauchak, 2007). Vygotsky (1969) goes on to argue that children use the mother tongue to produce, test and refine thoughts about their environment. Hence, from his point of view, language is related to cognitive development, especially when he further argues that people use language to reflect and regulate their own thinking. Vygotsky cited in Kruger and Adams (1998), theorised that it is inner thinking which guides thinking and action. This inner thinking is usually in one's mother tongue.

A study carried out by Davey and Davey cited in Kruger and Adams (1998), confirms Vygotsky's (1969) view that language and cognition are related. The duo argues that cognition and language are interdependent. Consequently, this study also sought to investigate the relationship that exists between language and cognition and how use of a foreign language as a medium of instruction affects cognitive development among learners at primary school level.

3.3 The relationship between the child and his /her culture

Vygotsky's theory denies the strict separation of an individual from his/her social environment. Vygotsky (1978) cited in Dyanda (2000), believes that culture defines the parameters in which a child grows up. According to him, cognitive development and language are embedded in people's culture and therefore, the discussion of any child development should be examined within that context. On the basis of his argument, this study sought to investigate the effects of the use of a foreign language in the teaching and learning process of Grade Seven learners in Chiredzi South schools.

3.4 The foreign language and classroom performance

A study carried out by United Nations Children's Educational Fund (1999) of African countries which use a foreign language as a medium of instruction, showed that school can be an alien and daunting place for millions of young children who begin

class work in a language different from their own. The study observed that compelling children to adopt a foreign language as a language of school would mean that children must give up an entire universe of meaning for an unfamiliar one. According to this study, children may come to believe that the language they have known from birth is inferior from the language of school (United Nations International Children's Emergence Fund 1999). Thus, if children feel that way, then it means that they are likely going to develop a low self-esteem and identity. Consequently, this study sought to investigate the challenges that the Grade Seven children in the Chiredzi district of Zimbabwe face when learning Environmental Science in a foreign language. The study by United Nations International Children's Emergence Fund; although it came up with very useful results, it was rather more of a general survey on the situation of primary school education of many African countries as compared to this study, which focuses specifically on Grade Seven learners in Chiredzi South.

3.5 The relationship of language and thought

From the literature reviewed, the researcher observed that research on the relationship of language, and thought, has received considerable attention, particularly from psychologists, psycholinguists and several other social scientists. As early as 1937, studies were carried out to investigate whether language and thought are related and to establish if people could think without a language and whether language affected people's perceptions (Max, 1937). In his study, Max (1937), cited in Manis (1971), observed that deaf-mutes "talk" with fingers as they think, and this shows that language and thought are related. Another study carried out by Stoyva (1965) of people who showed muscle activity when asleep revealed that they were dreaming. Stoyva (1965) cited in Manis (1971), concluded that mental activity is closely associated with muscle activity.

In a study of the American Hopi Indians, Whorf (1956) observed that their language forced them to see the world in a completely different way than do speakers of European languages. Whorf argues that the Hopi language had fewer words relating to time, and that gives them radically different concepts for space and time

(Steinberg, 1993). Whorf (1956) claimed that the Hopis could not use spatial times, such as "before noon, after noon and the like," because they lacked the concept of time seen as a continuum.

The researcher, in this study noted that although Whorf's claims on the relationship between language and thought are somehow valid, later studies on the Hopis, showed contrary results. Whorf did not stay with the Hopis and consequently, he was not conversant with both their language and culture. A recent study by Gipper who lived with the Hopis for some time, showed that although the Hopi language does not have formal tenses, as is the case with English, it has a series of expressions for time (Malotki, 1983). To augment Gipper's observations, Malotki, (1983) also carried a study of the Hopi language whose results also showed that the Hopis use a variety of time referents such as periods relating to harvest, the moon, the sun and other significant events. Consequently, the studies by Gipper and Malotki (1983) show the importance of ethnography in the study of human language because the result of their study showed that language and perceptions are significantly influenced by a person's culture. Their studies show that in order for someone to understand a certain community, it is critical for that individual to understand that community's language. Suzuki cited in Steinberg (1993) has this to say on language;

> *We recognise the fragments of the universe as objects or*
>
> *properties only through words….. Without words, we could not*
>
> *distinguish dogs from cats."*

Thus, his comments show the critical function of a language. Steinberg (1993) argued that it is the mother tongue which is quite vital in social life. Steinberg (1993) also studied the Eskimos and he observed that the Eskimos have a large number of words involving snow. Such examples were given, *apun* = "snow on the ground", *qanikca* = "hard snow on the ground" *utak* = "block of snow." Similarly, the Shona in Zimbabwe have a variety of names for the different wild hares that are found in their localities. For example, we have, *"tsuro danda"* = a type of hare which likes hiding under logs, *"tsuro magen'a"* = a type of hare which enjoys patronizing path ways and *"tsuro musapa"* = a small and cunning hare. Consequently, this researcher saw it

quite interesting to find out if such knowledge would be affected by using a foreign language as medium of instruction at Grade Seven level in Environmental Science.

3.6.1 The Hurdles of Learning English and Learning American Culture by Immigrant Children in The USA

Some recent studies carried out in the USA on the challenges faced by USA immigrant minority language speaking children at school showed that there is a struggle to learn the English language and be accepted in a society that is not always accepting and not always willing to embrace diversity. Olsen (2000) observed that these children are in a strange land and are trying to maintain a sense of identity related to their native culture and also become American. This, according to him, is a heavy burden for young persons. Olsen, (2000) views the social and political issues surrounding immigration and diversity in America as complicating the seemingly basic task of learning English. The role of schools in the Americanization of immigrant students is formally identified as making them fluent English speakers.

He observed that schools in America label and serve these students based on their ability or inability to speak English. The study by Olsen (2000) showed that the immigrant learners struggle to master the English language and then use it for school work. These are some of the many obstacles encountered by immigrant children in their efforts to become proficient in the English language; the language of school. The study by Olsen (2000) showed that these learners often come to realize that in order to be fully accepted, they must abandon their native language and this means surrendering an aspect of their identity. Olsen (2000) observed that these children are caused to feel that they must either speak English or nothing at all. Thus, they become caught in a painful power struggle over the use of English and their native language.

In his study, Olsen (2000) pointed out that educators need to realize that education occurs in the context of a social climate. He argued that the relationships between students and accompanying range of social behaviours have a major impact on how well English Second language (ESL) students learn English and how well all students learn overall. According to him children cannot achieve in an unwelcoming, hostile environment. Olsen (2000) observed that many migrant children are made fun of when they try to speak English and also when they speak their native language; so they end up silent and withdraw from participation. This, he observed, further interferes with their learning and achievement. The same observation was made for the Tsonga (Shangani) children of Chiredzi district of Zimbabwe who struggle to learn in English and Shona; two foreign languages introduced at the same time.

Olsen (2000) observed that the English that ESL immigrant students are taught, is academic English. He also noted that quite often, these immigrant students lack the ability to interact in social settings with English speaking peers because they are in separate classrooms and often have limited opportunity to interact academically or socially. They often have great difficulty learning the "slang" and social English because they have no one to learn it from (Olsen, 2000). He observed that these children come to prefer English out of necessity and they often abandon their native languages to fit in. Furthermore, he observed that these children end up without comfort in either language and may end up losing the ability to communicate with family members and friends in their native land.

From his study Olsen (2000) concluded that ESL students in America remain torn between two worlds until society truly embraces diversity and the notion that biculturalism and bilingualism are assets. He argued that what is needed in the education of ESL children is the development of English and maintenance of the children's native language.

3.6.2 Breaking the Barriers to Meaningful Instruction for Immigrant

   English Learners In The USA: the Vygotskian Style

A related study was carried out by Meyer (2000) on how English Second Language could be taught to immigrant students. In her study, she investigated how teachers could find effective ways of helping English Second Language (ESL) immigrant students overcome barriers to meaningful instruction. She proposed that teachers can use strategies based on the social interactionist theory, such as that of Vygotsky, to create classroom conditions that foster learning by modelling, scaffolding and helping students to construct understanding, with the eventual goal of becoming independent thinkers and problem solvers. The researcher identifies four loads as barriers to meaningful instruction: that is, the cognitive load, cultural load, language load and learning load; and she states that teachers must be skilled at lowering these barriers and sparking student interest and curiosity by developing a creative and an all - inclusive curriculum.

According to Meyer, (2000) 'culture load' refers to the way language and culture are related and the amount of cultural knowledge required comprehending meaning or participating in an activity. Thus, she argued that meanings of words are determined by the use of words within linguistic and cultural settings. Meanings of words are never the same in any two cultures. She suggested that English learners need to learn the words in English as well as the cultural background that gives the words their English meaning. They need to learn words in context to understand the meaning. In addition to that, she added that the information conveyed in American textbooks and lessons is culturally embedded (Meyer, 2000). Some texts or topics can actually be culturally offensive to certain groups of people. Meyer (2000), refers to the culture load also as how teachers expect interaction to occur in a classroom. This would include when to speak, when to stay silent, when to raise hands and when to write. These expectations, she argued, vary from one culture to the next.

Meyer, (2000) offers several strategies to help teachers lighten the culture load for students. One of these strategies is that teachers should treat English learners with

respect and not to be judgmental, and try to build personal relationships with students, their families and communities. She went further to propose that teachers can use information gained through these relationships to develop lessons and activities that help students understand the American culture while still respecting the culture of the student.

Meyer (2000) pointed out that the next critical barrier is 'language load.' This refers to the number of unfamiliar words encountered as an English learner reads a text or listens to teacher or peer academic talk. She proposed that teachers should lighten this load by rewriting or explaining text material. Complex sentences can be broken down into comprehensible parts and academic vocabulary can be presented at the start of a lesson and highlighted.

3.6.3 Proposed effective strategies for teaching English language to immigrant learners in the USA

According to Pellino (2009), in the USA, students who study and use English as a second language (ESL) constitute a significant percentage of the American children's population of the schools. This population continues to increase more rapidly than that of native English speaking students owing to many people migrating to the USA due to political and economic problems in their home countries. However, studies have shown that the minority language speaking students has a higher dropout rate in American schools than the English speaking students (Thompson, 2000). According to him these students are among the lowest ranking in academic achievement and expectations, and he sees them as representing an "at-risk population" which is faced with a wide range of challenges. This, according to Pellino (2009), is a unique challenge for teachers as they strive to help these students achieve in learning the English language and the academic material specified in the content area learning standards. Pellino (2009), views every teacher who teaches subject matter in English to ESL students as not only a teacher of the content area but as a teacher of English Second Language as well. This is so because, according to her, subjects complement each other. She pointed out that educators must continually reflect on their teaching and update their practice to address the needs of

this population, placing a strong emphasis on the humane side of teaching. She suggested that educators must continually focus on these students and find effective ways to arrange their learning to help them achieve. In her study, Pellino (2009), focused on the challenges ESL students face and how they translate into challenges for teachers.

3.6.4 Exploring the possibilities of multilingual education for minority groups in the USA

After realizing all the challenges faced by immigrant children in America, MacKenzie, (2009), proposed the introduction of a multilingual education programme in America. According to MacKenzie (2009) the purpose of a multilingual education (MLE) programme is to develop appropriate cognitive and reasoning skills through a programme of structured language learning and cognitive development, enabling immigrant children to operate successfully in their native, state and national languages. Malone (2005) also shares the same opinion when he pointed out that the provision of a strong foundation in the first language (home language) and then adding a second language (e.g. national) and third languages (e.g. English) enables the appropriate use of both/all languages for life-long learning. Cummins (1988) calls this the additive approach.

MacKenzie (2009) views multilingual education as synonymous to multicultural education where learning begins in the child's known environment and bridging to the wider world. Studies by Cummins (2000), Owu-Ewie, (2006) and Ndamba, (2008) also confirm this. According to Cummins (1988) the additive approach; whereby the first language is maintained and used as a basis for the learning of another language, has benefits for the learner since continued development of both languages into literate domains is a precondition for enhanced cognitive, linguistic, and academic growth. The above researchers argue that the bridging process allows children to maintain their local languages and culture while providing the state and/or national language acqwweuisition and instruction. MacKenzie (2009) argues that this

process provides learners with the opportunity to contribute to national society without forcing them to sacrifice their linguistic and cultural heritage.

3.6.5 Banks' Dimensions of a Multicultural Education

Another approach on multicultural education was designed by Banks. According to him multicultural education is education which encompasses all policies and practices schools might use to improve educational outcomes, not only for students of different ethnic, social class, and religious backgrounds, but also for students of different genders and exceptionalities (Banks, 2009). He designed the dimensions of multicultural education which are widely used by many multi-racial American schools to conceptualize and develop courses, programmes, and projects in multicultural education (Banks, 2008). There are five dimensions which are: content integration; knowledge construction process; prejudice reduction; equity pedagogy; and an empowering school culture and social structure. According to him, although each dimension is conceptually distinct, in practice they overlap and are interrelated (Banks, 1993). The following are the five dimensions which he proposed:

(a) Content integration

According to Banks (2008) content integration deals with the extent to which teachers use examples and content from a variety of cultures and groups to illustrate key concepts, principles, generalizations, and theories in their subject area or discipline. The infusion of ethnic and cultural content into a subject area is seen as logical and not contrived when this dimension is implemented properly. According to him, more opportunities exist for the integration of ethnic and cultural content in some subject areas than in others. He argues that there are ample opportunities for teachers to use ethnic and cultural content to illustrate concepts, themes, and principles in the Social Studies, the Language Arts, and in Music. For Banks (1993) opportunities also exist to integrate multicultural content into Mathematics and Science although they are less ample than they are in Social Studies and the Language Arts. Content integration is frequently mistaken by school practitioners as comprising the whole of multicultural education, and is thus, viewed as irrelevant to instruction in disciplines such as Mathematics and Science.

(b) Knowledge construction process

Another aspect in his dimensions of a multicultural education is the knowledge construction process. This describes teaching activities that help students to understand, investigate, and determine how the implicit cultural assumptions, frames of references, perspectives, and biases of researchers and textbook writers influence the ways in which knowledge is constructed.

Banks (2008) pointed out that multicultural teaching involves not only infusing ethnic content into the school curriculum, but changing the structure and organization of school knowledge. It also includes changing the ways in which teachers and students view and interact with knowledge, helping them to become knowledge producers, not merely the consumers of knowledge produced by others. According to him knowledge construction process helps teachers and students to understand why the cultural identities and social positions of researchers need to be taken into account when assessing the validity of knowledge claims. Multicultural theories assert that the values, personal histories, attitudes, and beliefs of researchers cannot be separated from the knowledge they create. Thus, from Banks' point of view, they consequently reject positivist claims of disinterested and distancing knowledge production. They also reject the possibility of creating knowledge that is not influenced by the cultural assumptions and social position of the knowledge producer (Banks, 2008).

Banks (1993) went further to argue that in multicultural teaching and learning, paradigms, themes, and concepts that exclude or distort the life experiences, histories, and contributions of marginalized groups are challenged. Multicultural pedagogy seeks to reconceptualize and expand the child's knowledge spectrum, to make it more representative and inclusive of the nation's diversity, and to reshape the frames of references, perspectives, and concepts that make up school knowledge.

(c) Prejudice reduction

Banks' other dimension of multicultural education is prejudice reduction. He argues that this dimension seeks to help students develop positive and democratic racial attitudes. According to him it also helps students to understand how ethnic identity is influenced by the context of schooling and the attitudes and beliefs of dominant social groups. He hypothesized that prejudice can be reduced by interracial contact if the contact situations have these characteristics: (1) they are cooperative rather than competitive; (2) the individuals experience equal status; and (3) the contact is sanctioned by authorities such as parents, principals and teachers.

(d) Equity pedagogy

The other dimensions of multicultural education which Banks (2008) raised is equity pedagogy. This, he pointed out that, exists when teachers modify their teaching in ways that will facilitate the academic achievement of students from diverse racial, cultural, socioeconomic, and language groups. This, he proposed, includes using a variety of teaching styles and approaches that are consistent with the range of learning styles within various cultural and ethnic groups, such as being demanding but highly personalized when working with American Indian and Native Alaskan students. It also includes using cooperative learning techniques in Mathematics and Science instruction to enhance the academic achievement of students form minority groups. An equity pedagogy assumes that students from diverse cultures and groups come to school with many strengths.

(e) An empowering school culture

When an equity pedagogy is implemented, teachers implement culturally responsive teaching. They use instructional materials and practices that incorporate important aspects of the family and community culture of their students. Banks (2008) posits that culturally responsive teachers also use the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse

students to make learning encounters more relevant and effective for them. The diagramme below (Figure 3.1) is a summary of Banks' dimensions of a multicultural education system.

Figure 3.1 Banks' dimensions of a multicultural education
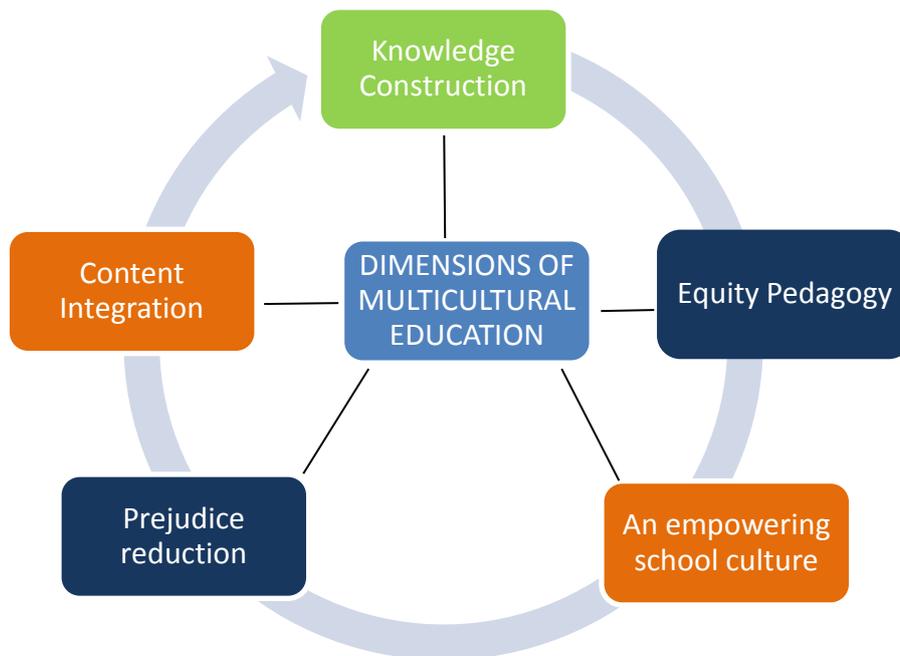
Adapted from Banks, J.A. (2008) "Historical development, dimensions and practice," Banks, J.A (eds.). Hand book of research on multicultural education. (1999). New York. Simon and Schuster MacMillan.

Having explored related literature in the United States of America, the researcher was also interested in reviewing the situation of minority language speaking children in one of the Asian countries. Thus, Vietnam was selected because of the multiplicity of minority language speaking communities there.

3.7 Minority language speaking and poverty in Vietnam

Apart from the studies carried out in the USA, another study was carried out in Vietnam to examine the human rights situations of its numerous minority groups. The study was carried out by a UN Independent Expert on minority issues. In her study, McDougall (2010), observed that in Vietnam, most ethnic minority groups remain the

poorest of Vietnam's poor. She made this observation after a ten-day mission to that country to examine the human rights situation of Vietnam's numerous minority groups. McDougall (2010) observed that persistent problems remain for many of those belonging to Vietnam's minority groups, despite a period of economic growth, progress towards the UN Millennium Development Goals and positive results in poverty alleviation and economic development in general. McDougall (2010), highlighted the importance of education for the poor communities and the key role of education in closing the poverty gap experienced by many minority communities in Vietnam. She argued that access to quality and appropriate education is a gateway to development and poverty eradication for minorities, and it is equally essential for the preservation and promotion of minority cultures, languages and identities. Thus, among many issues to be addressed by the authorities, the UN expert singled out bilingual education as an area of "high priority.

McDougall (2010) observed that in Vietnam there are 54 recognized distinct ethnic groups with unique religious, linguistic and cultural characteristics and identities. Despite significant progress in the provision of education infrastructure, she noted that minorities are achieving poor results relative to majority students and she proposed that much needs to be done to address this fact. In her survey, McDougall (2010) observed that minorities lack adequate opportunities to be taught in their own minority languages from the earliest years of education and struggle with being taught only in the major Vietnamese language.

McDougall (2010) proposed that bilingual education will help minority children to make better early progress and provides a strong and culturally appropriate foundation for their future schooling. The United Nations Human Rights Council (UHRC) expert said this after highlighting a pilot project for bilingual education implemented by the Ministry of Education and Training and the United Nations International Children's Emergence Fund (UNICEF), which has demonstrated positive results for minority students. In her survey the Independent Expert visited Hanoi and travelled to regions of significant minority populations, including the provinces of Dien Bien in the Northern Highlands, Tra Vinh in the Mekong Delta

region and Gia Lai and Kon Tum provinces in the Central Highlands. The purpose of her study was to find out how education is linked to economic empowerment.

After reviewing literature in the Americas and Asia, the researcher was compelled to look at the situation in Africa South of the Sahara. Ghana became the researcher's country of interest since the researcher observed it has a lot in common with his country under study.

3.8 The education language policy in Ghana

3.8.1 The English-Only Language Policy of Education

After carrying out a study in Ghana, Owu-Ewie (2006) concluded that the language of education in multilingual societies has always been a matter of concern to educators and educational planners. Ouadraogo (2000: 89) has pointed out:

> "*Education and language issues are very complex in Africa because of the multi-ethnic, multi-lingual situation*".

Owu-Ewie (2006) observed that the situation is even more severe when the official language of the nation is different from any of the indigenous languages. Owu-Ewie (2006) points out that there is always controversy over which language to use in school especially at the lower primary level in multilingual societies. He observed that forty-eight years after independence, Ghana is still grappling with which language to use as the medium of instruction in the lower primary school (primary one to three/Grade one to three). Owu-ewie (2006) observed that the language policy of education in Ghana has had a checkered history since the colonial era. According to Owu-Ewie (2006), in May 2002, Ghana promulgated a law, which mandates the use of English language (hereafter L2) as the medium of instruction from primary one (Grade one) to replace the use of a Ghanaian language as the medium of instruction for the first three years of schooling, and English as the medium of instruction from primary four (Grade four). According to him, this new

policy has attracted a lot of criticism from a section of academics, politicians, educators, traditional rulers, and the general populace. In his study, Owu-Ewie (2006), looked briefly at the historical development of educational language policy in Ghana, examined what necessitated the change in policy, and responded to issues raised. In his paper he then argues for the reversal of the new policy and proposes the implementation of a late-exit transitional bilingual education model.

3.8.2 The historical overview of the language policy of education in Ghana

According to Owu-Ewie (2006), the controversy about the language to use as the medium of instruction in Ghanaian schools, especially at the lower basic level dates back to the castle schools and missionary era. Before formal education was introduced into Ghana (Spring, 1998), traditional education was conducted in the indigenous languages. With the inception of formal education and the subsequent use of English as the medium of instruction, the indigenous languages were seen as "inadequate" as teaching media (Bamgbose, 2000). Bilingual education in Ghana commenced with the inception of formal education in Ghana which began with the castle schools and was later continued by the Christian missionaries. This period is the pre-colonial period (1529-1925). The languages used were those of the home country (the metropolitan languages). Portuguese, Dutch, Danish and English were used as media of instruction wherever and whenever the Portuguese, the Dutch, the Danes and the English respectively were in power. The situation, however, changed with the arrival of the missionaries, who resorted to the development of the local languages in both their educational and proselytizing efforts (Owu-Ewie, 2006).

Owu-Ewie (2006), observes that during this period, a systematic pattern began to emerge with regard to both education and language use. The first legislation on the use of a Ghanaian language in education was promulgated during this period (MacWilliam, 1969; Graham, 1971; & Gbedemah, 1975). Ghanaian language was to be used as the medium of instruction only at the lower primary level, with English used thereafter. The policy was reversed and became unstable when the administration of the country came under the jurisdiction of indigenous Ghanaians in 1957. Since then, the use of a Ghanaian language as the medium of instruction at the lower primary level has had an unstable history; for a example from 1925 to

1951, a Ghanaian language was used as medium of instruction for the first three years. Between 1951 and 1956, it was used only for the first year. From 1957 to 1966 a Ghanaian language was not used at all, from 1967 to 1969 it was used only for the first year, and between 1970 and 1974 a Ghanaian language was used for the first three years and where possible beyond (to the sixth year). From 1974 to 2002 a Ghanaian language was used for the first three years. This largely depended on the interest of the existing government. There was no standing policy on the medium of instruction in Ghana at that time. A Ghanaian language in this case, is the language of the locality which includes one of the following: Akan (Fante and Twi), Nzema, Ga, Ga-Adangbe, Ewe, Gonja, Kasem, Dagbani, and Dagaare (Owu-Ewie 2006).

According to Owu-Ewie (2006), at present, the education language policy in Ghana states that English should be used as the medium of instruction from primary one, with a Ghanaian language studied as a compulsory subject to the Senior Secondary School (High School) (Ameyaw-Akumfi, 2002). Since the announcement of the change of policy, the debate over the language of education has picked up momentum from academics, politicians, educators, educational planners, traditional rulers, and the general populace (Owu-Ewie 2006).

Owu-Ewie (2006) sees the use of the child's primary language in education, at least in the early stages as having been theoretically and empirically confirmed to be beneficial. He argues that there is a plethora of evidence for the use of L1 in education but Ghana for a number of reasons has decided to espouse an English only language policy in its education. The reasons given include the following (The Statesman, Thursday July 16, 2002):

1. The previous policy of using a Ghanaian language as medium of instruction in the lower primary level was abused, especially in rural schools. Teachers never spoke English in class even in primary six.

2. Students are unable to speak and write 'good' English sentences even by the time they complete the Senior Secondary School (High School).

3. The multilingual situation in the country especially in urban schools has made instruction in a Ghanaian language very difficult. The source added that a study

conducted by the Ministry of Education showed that 50 to 60 percent of children in each class in the urban area speak a different language. "It is therefore problematic if we insist that all the children be instructed in Ga, Twi, or Dagbani depending on whether it is Accra, Kumasi or Tamale".

4. There is a lack of materials in the Ghanaian languages to be used in teaching. The minister of Education declared that "Only five, out of the languages that are spoken by our major ethnic groups, have material developed on them. Certainly, we cannot impose these five languages on the entire nation and people of other ethnic origins".

5. There is a lack of Ghanaian language teachers specifically trained to teach content subjects in the Ghanaian language. The minister added "merely being able to speak a Ghanaian language does not mean one can teach in it".

6. There is no standard written form of the Ghanaian languages. He says "For nearly all the languages that we have, there is hardly any standard written form".

7. The minister, in order to support the claim for the use of English as the medium of instruction from primary one cited an experiment by Rockwell (1989) and indicated that children transfer from L2 to L1 better.

8. The minister pointed out that English is the lingua franca of the state and that all effort must be put in to ensure that children acquire the right level of competence in both the spoken and written forms of the language (Owu-Ewie 2006).

3.8.3 Home language and classroom performance in Ghana

According to Owu-Ewie (2006) from the Ghanaian minister's point of view, the main reason for the change of policy is that students are performing abysmally in English and in other subject areas because of the use of Ghanaian language as the medium of instruction. However, Owu-Ewie (2006), observed that since 1987 there have been educational reviews and interventions like the Free Compulsory Universal Basic Education (FCUBE) and the 2002 Presidential Education Committee, and none has identified the use of a Ghanaian language as a medium of instruction as the source of poor performance in schools, especially at the Basic level. Rather, the

reports of such reviews call for the strengthening of the use of the native languages in schools (Ministry of Education, 1996 & 2003).

Terminating the policy of using a Ghanaian language as the medium of instruction is seen as an unscientific way of ameliorating the problems of the old policy (Owu-Ewie, 2006). The reason given by the minister that there is a lack of textbooks and other materials in the Ghanaian language to facilitate teaching and learning is not peculiar to the Ghanaian language. Most Schools in Ghana are functioning without textbooks and other teaching and learning materials. Sometimes a class of fifty learners has only two English textbooks (Owu-Ewie, 2006). How do our kids learn to read and improve their English proficiency when there are no textbooks? The same situation is experienced by such countries as Zimbabwe. Therefore, according to Owu-Ewie (2006) to say teachers should not teach minority languages because there are no text books, is as good as saying educators should not teach any subject which does not have text books. Instead, Owu-Ewie (2006) proposed that the government must provide funds for the corpus development of Ghanaian languages to incorporate technical and scientific terms into the various Ghanaian languages and also develop the written forms of the less developed ones.

Owu-Ewie (2006) further sees the claim by the minister that children can transfer from the second language to the home language as very intriguing. He saw it as impossible for children to transfer from a second language to a home language when they have not mastered the home language effectively and do not have competent teachers in the second language to teach them to transfer. He argued that transferring from home language to second language is theoretically and empirically more probable. Owu-Ewie (2006) and Saville-Troike, (1988) see the home language as background knowledge, pre-existing knowledge upon which inferences and predictions can be made to facilitate transfer. Krashen (1996), for example, notes that when schools provide children with quality education in their primary language, they give them knowledge and literacy, and the knowledge they have gained in home language helps them make the English they hear and read more comprehensible. In his opinion, it is easier and more cost effective to invest more in the home language of learners to promote transfer to the second language than it is

to do the opposite. Also, Hakuta (1990) points out, that home language proficiency is a strong indicator of second language development. Owu-Ewie (2006) also saw the claim that the multilingual nature of the nation, especially in urban centres, which made the old policy non-implementable as a sign of short sightedness. He argued that the linguistic diversity of the urban classrooms in Ghana should not be seen as a threat to home tongue instruction and unity in the classroom but as something that supports and strengthens the goals of educators. Educators should therefore affirm, accept and respond to the importance of children's home languages as media of instruction. It must be noted that home language education is a right as well as a need for every child (Pattanayak, 1986). He points out that we cannot deny our learners language rights and claim to give them fundamental rights and he sees rights without language rights are vacuous. Thus, he came up with the following mathematical logical proposition; Language Rights + Human rights = Linguistic human rights. For Owu-Ewie (2006), denying the Ghanaian child the use of his/her home language in education is unfair to the children and for Skutnabb-Kangas (2000), it is committing crime which he called "linguistic genocide" in education. There should be a starting point for a search for the best choice among alternatives. Using English is definitely not the best alternative.

3.8.4 The effects of the use of a foreign language in Ghanaian schools

The use of the child's home language in education has shown that it enhances the academic, linguistic, and cognitive achievement of learners (Baker, 2001). Owu-Ewie (2006), proposed that the issue of underachievement/low academic performance, especially in English language in Ghanaian schools despite the use of the child's home language at the lower primary level, needs to be investigated. He argues that merely using the child's home language in education does not guarantee any of the benefits mentioned above. According to him, this will depend on an effective and well planned programme in which proficiency in the home language is developed and attained. On the same note, Lewelling (1991) sees the level of home language proficiency as having a direct influence on second language development and cognitive academic growth.

3.8.5 The early-exit transitional model and academic underachievement in

Ghana

Owu-Ewie (2006) attributed the students' underachievement, despite starting their education in their home languages to the type of bilingual education model practiced in Ghana. The type of bilingual education that was practiced in Ghana before the change of policy was the early-exit transition model. To restate the policy, a Ghanaian language was used as the medium of instruction at the lower primary level (P1-3, equivalent to Grade 1-3 in Zimbabwe), and English as the medium of instruction from class four (Grade 4). At the lower primary level, English was taught as a subject (Owu-Ewie, 2006). In Owu-Ewie's (2006) opinion, besides the teacher factor, lack of materials, lack of supervision, and lack of exposure to the target language, are some of the factors which worked against the model, and this may explain why the Ghanaian child is performing abysmally in English language in particular, and in the academic subjects in general. He observed that in the first place, learners were prematurely transitioned into the use of English as medium of instruction, and second, the transitional process was abrupt. Owu-Ewie (2006) and Lewelling (1991) further pointed out that second language acquisition research has shown that the level of proficiency in the home language has a direct influence on the development of proficiency in the second language and that a disruption in home language development has been found, in some cases, to inhibit second language proficiency and cognitive growth. Saville-Troike (1984) also, made similar observations when he asserts that in almost all cases, a student's relative competence in the native language coincides with the student's relative achievement in English (L2).

From his studies in Ghana, Owu-Ewie, (2006) views the use of a Ghanaian language as the medium of instruction in the early-exit transitional model as too short-term for children to understand the complex workings of their home language for them to transfer it effectively and efficiently to the second language. He argues that at this stage, they have not crossed the threshold where competence in the home language carries over to the second language (Owu-Ewie, 2006). The thresholds theory

indicates that "when there is a low level of competence in both languages, there may be negative or detrimental cognitive effects" (Baker, 2001:167).

3.8.6 The late-exit transitional model and academic achievement in Ghana

Owu-Ewie (2006), argues that the old language policy in Ghana produced children in this category, which may help to explain the low academic performance among learners. There is therefore, he argued, the need to embark on a late-exit transitional model, which will make learners 'balanced bilinguals'; competent in both the Ghanaian language and English. The work of Cummins and Mulcahy (1978) also agree with this view and it contends that the child's advancement towards balanced bilingualism has a probable cognitive advantage. Owu-Ewie (2006) argues that prolonging the use of home language in school will enhance the learning of the second language; hence use of a home language has an added advantage in education.

After making these observations, Owu-Ewie (2006) proposed that Ghana needs to fashion a language policy model that will nurture the learners well into an advanced grade where they would have matured in age and in the home language. Similarly Snow and Hoefnagel-Hohle (1978), concur with Owu-Ewie's observations when they assert that the older the age of the learner, the better they learn the second language because they have achieved a high level of cognitive maturity in the home language. The two scholars added that cognitive maturity, knowledge, and experience in the home language transfers to the second language.

Similarly Hovens (2002) in a study of experimental bilingual programmes in Guinea-Bissau and Niger found that students in the bilingual programmes had better school results especially in language subjects. They found out that this is true when the second language (French) is not introduced too abruptly or too early. Again there are strong arguments for the introduction of the late-exit model of transitional bilingual education. The old policy, which terminated the use of the home language at year three and resurrected the use of English in the fourth year, was very abrupt for Ghanaian learners (Owu-Ewie, 2006). Where is the bridge for the cross over?

Metaphorically, it is like jumping over a trench when you have little or nothing at all to execute the task. Thus, Owu-Ewie (2006) sees it as where the disaster begins and he suggests that the transitioning process must be gradual. Krashen (1999) views, the "gradual exit" model as a way of organising a bilingual programme that ensures effective cognitive and academic achievement, and proficiency in the second language. It makes instruction in the second language at later stages more comprehensible to learners. As a result, as Thomas and Collier (1997, 2000 & 2002) found, students in a late-exit (gradual exit) transitional bilingual program perform well ahead (in English achievement) of their early-exit counterparts.

The findings by Owu-Ewie, (2006) confirm Cummins (1976); Toukomaa and Skutnabb-Kangas (1977) threshold theory which states that the student's level of home language competence has implications for the child. The theory holds that there is a level of home language proficiency that a child needs to attain to avoid the negative consequences of using two languages. This suggests that if the child is prematurely transitioned into the second language, detrimental consequences may be experienced. The implications of the threshold theory and the studies indicated above in Owu-Ewie's (2006) view are that a late exit-transitional bilingual education model should be adopted in Ghana in order to improve academic performance in Ghanaian primary schools.

3.8.7 The need for a paradigm shift to improve academic achievement in

Ghana

As an alternative to the English only policy, Owu-Ewie (2006) proposed the late-exit transitional bilingual education as a modification to the old language policy. The transitional bilingual education (TBE) program proposed here is based on the late-exit TBE model of Ramirez and Merino (1990). The late-exit transitional bilingual education according to Owu-Ewie (2006) allows for about forty per cent (40%) use of the mother tongue in teaching until the sixth year (Grade 6) of schooling. In the Ghanaian context, this means the mother tongue will be used as the medium of instruction from Primary 1 to Primary 4 while English is gradually introduced into the system as the medium of instruction from Primary 5 and finally becomes the medium

of instruction from Primary 6 onwards. From primary one to four, English will be a subject of study and from Primary 6, Ghanaian language will be studied as a core subject up to the end of the Junior Secondary School and continue to be a core subject to the end of the Senior Secondary School program.

3.9 A general survey on the state of minority language speaking children in multilingual African states

3.9.1 Use of a foreign language and classroom performance

A study carried out by United Nations International Children's Emergence Fund (1999) on the situation of African children who use a foreign language for learning and examination purposes, showed that schools are seen as alien and daunting places by millions of young children who begin class work in a language different from their home language. UNICEF observed that compelling children to adopt a foreign language as a language of school imply that children must give up an entire universe of meaning for an unfamiliar one. According to this study, children may come to believe that the language they have known from birth is inferior to that of school (UNICEF, 1999). Thus, if children feel that way, then, it means that they are likely going to develop a low self-esteem and hence a negative self regard.

A study by UNICEF, (1999) showed that children become bilingual in two ways: firstly, by acquiring both languages at the same time in early childhood and secondly by learning a second language after mastering the first language. The former group of children have little language problem (Cummins, 2000). Berk (2009) went further to argue that children of bilingual parents, who are taught both languages at infancy and early childhood, show no special problems with language development. From the start, they separate the language systems, distinguishing their sounds, mastering equivalent words in each and attaining early language milestones (Conboy & Thal, 2006).

The UNESCO Committee of 1953 states that the best medium of instruction for teaching a child is the mother tongue through which children understand better and

express themselves freely. The basic position of the 1953 report, which shows that children learn quicker through their first language than an unfamiliar linguistic medium, is supported by research evidence from many scholars in Africa and globally (Mwamwenda, 1996). Out of the many research studies carried out in Africa, Bamgbose (1991) cites the Six Year Primary Project started in 1970 in Nigeria to establish the effectiveness of the home language as compared to a (foreign language) English L2. The results of his experiment clearly showed that the home languages facilitated more meaningful learning than English. In another research, Cleghorn (1992) also carried out comparative studies on the effectiveness of the home language over English L2 in several schools in Kenya and it was also found out that important ideas were more easily conveyed when teachers did not stick to the requirements of the English-only language of instruction. Those who learn in their home language (L1) were at an advantage. Other researchers also observed that learners who learn through a second language are disadvantaged (Wallwork, 1985; Ngara, 1982; Macnamara, 1973; & Miti 1995). After reviewing literature from the USA, Asia, Ghana and some sections in West Africa, the researcher felt it compelling to look at literature in some selected parts of Southern Africa. Botswana became the first country of interest.

3.9.2 Educational Hurdles faced by minority language speaking children

in Botswana

A study which unveiled what the researcher saw as an unbearable situation for minority language speaking children in Botswana was done by Nyati – Ramahobo in 1996. In her study, Nyati-Ramahobo (1996) looked at minority language use and early educational hurdles for minority language speaking children in Botswana. The results of the study showed that in an almost monolingual country such as Botswana, it is easy for people to take minority language users for granted. Their linguistic problems, especially in education, can become easily overlooked (Nyati-Ramahobo 1996). Although Setswana is the national language and although some 90% of the population speaks Setswana, either as a first or second language, 10% of the people do not speak Setswana at home. As such, they have to learn Setswana at school and use it as a medium of instruction for the first four years

before switching to English, a third language (Nyati-Ramahobo 1996). The study showed that English and Setswana determine the educational achievement of minority language users for the rest of their lives. The situation of minority language speaking children in Botswana is similar to those of Zimbabwe. In her study, Nyati-Ramahobo (1996), systematically evaluated the educational performance of children who speak languages other than Setswana at home and compared their performance with that of children who speak Setswana at home. This was meant to indicate disparities, if any, in the acquisition of literacy skills by minority language users (Nyati-Ramahobo, 1996).

In her study, eighteen primary schools distributed throughout the country were selected. Nine schools were selected from villages which are predominantly Setswana speaking. These schools were classified as category A. The other nine schools were selected from villages representing nine minority languages in Botswana. These schools were classified as category B. In all of the eighteen schools, Nyati-Ramahobo, distributed questionnaires to teachers of standards five, six and seven classes. The questionnaire solicited information such as teacher rating of students' English proficiency, availability of teaching materials in their schools and whether they felt that children who come to school with little or no-competence in Setswana have any special problems. Individual teachers and students were also interviewed. They were asked about the language they spoke, read, wrote and comprehended better, and which language they preferred as a medium of instruction (Nyati-Ramahobo, 1996). They were also asked how they felt about the language of instruction. Responses from each interviewee were written down (in short form) on an interview form.

Primary School Leaving Examination (PSLE) results from 1980 - 1985 were examined to see if there is a pattern in performance between minority language users and Setswana speaking students. Special attention was given to their English and Setswana results. The data were analysed in two ways: A) the teachers' responses on both the questionnaire and the interview were scrutinized to see how each category rated their children. B). the data were then analysed according to standards in each category, to see how children in the same standard but in different categories perform as seen by their teachers (Nyati-Ramahobo, 1996).

3.9.3 Results from Students in Setswana Speaking Villages

The results of her study showed that at Standard five students' ability in comprehension, speaking, reading and writing in Setswana is satisfactory. When they get to Standard six, reading and writing in English begins to improve. They begin to write as good compositions in English as they do in Setswana (Nyati-Ramahobo, 1996).

3.9.4 Results from students from minority language speaking villages

In minority speaking language villages; Nyati-Ramahobo (1996), observed that the receptive language, (comprehending when the teacher spoke) in Setswana as well as writing skills in Setswana were comparatively low at Standard Five. At Standard Six, she observed that their (receptive language) comprehension and writing ability got better. The (expressive language), reading and speaking, however, remained a problem. At Standard Seven, performance in English begins to improve in the first three skills (Nyati-Ramahobo, 1996). At Standard Five, ability in English was much lower than it was in Setswana. This situation continued to Standard Six but at Standard Seven, more students were able to do better in the first three skills in English and they begin to write as good compositions in English as they did in Setswana (Nyati-Ramahobo, 1996). However, the most striking observation Nyati-Ramahobo (1996) made was that speaking ability in English remained low for both categories throughout their primary school lives. Nyati-Ramahobo (1996), observed that the motivation to learn English for both groups was however very high. Both categories saw English as a very important subject for getting jobs and speaking to foreigners. Other important subjects are mathematics and science. In her study, she also observed both groups preferred to use English as a medium of instruction for the same reason as above. Students from minority language villages preferred to use their home language as a medium of instruction in the classroom (Nyati-Ramahobo, 1996).

The results of Nyati-Ramahobo (1996), study showed that comprehension and speaking ability that the Setswana speakers bring to the classroom from home serve as an advantage for them and the lack of these two skills by the other speakers serve as a disadvantage for them throughout their primary school lives. Nyati-Ramahobo (1996), observed that while other speakers are still working on acquiring comprehension and speaking in Setswana, Setswana speakers are already working on reading and writing in Setswana.

When other speakers are working on reading and writing in Setswana, Setswana speakers are already working on reading and writing in English. Nyati-Ramahobo (1996) saw this as the central problem in her study. Other speakers are a step behind the skill acquisition process. The ability to write in both languages (the grey area) for Setswana speakers comes at Standard Six and at Standard Seven for other speakers. This clearly indicates the disadvantage the other speakers face with the use of a foreign language for learning purposes. The results clearly indicated that minority language speaking students have problems in Setswana. Nyati-Ramahobo (1996), observed that the problem of lack of comprehension at lower standards as described above is a contributing factor to lower performance by minority language speaking children.

It was also observed in her study that the attitude toward Setswana is not very positive for minority language speakers. First of all Setswana is competing with English which is seen as very important. Secondly, Setswana is not a language for upward mobility and, therefore, there is no motivation to learn it (Nyati-Ramahobo, 1996). The best they want to do is acquiring it and use it as a national language, outside the classroom. Teachers disclosed that they use Setswana in the classroom most of the time because of their students' lack of comprehension in English. This implies that minority language speaking children might not understand both languages in certain instances, therefore, hampering learning (Nyati-Ramahobo, 1996). On the other hand, this might help them acquire comprehension in Setswana.

3.9.5 When does learning in a third language make a difference?

In her study Nyati-Ramahobo (1996), observed that it is easier for learners to deal with two languages when one is their home language than with two languages when neither is their home languages. Nyati-Ramahobo, (1996), saw it only logical then that other speakers should acquire ground competence (speaking and comprehension) in Setswana before they can be expected to learn in it and embark on English. She argued that research indicates that when children master literacy skills in their first language, it is easy to transfer such skills in to the second language (Ndamba, 2008; Owu-Ewie 2006; UNESCO 1983; & Cummins, 1988). Thus, Nyati-Ramahobo (1996) concluded that minority language speaking students could therefore do better in Setswana if they are taught their first language. This is what Cummins' (1988) call the additive approach.

Nyati-Ramahobo (1996), recommended that one factor that is clear from her findings is that, Botswana has to review her language policy both at policy and implementation levels. She suggested that:

1) Remove the Setswana mark for minority language speaking children from their Primary School Leaving Examination aggregate since it is a clear disadvantage for them when compared to those who use Setswana as their home language.

AND

2) Introduce English as a medium of instruction at an early stage (Standard Three), not at Standard Five, to allow its acquisition more time before they sit for the Primary School Leaving Examination in English. The three years (Standard Five, Six and Seven) are not enough for one to acquire the necessary learning skills for a foreign language and write an important examination in it. This, however, would be useful to everyone and not just minority language speakers.

3) Botswana's educational system needs to be carefully looked into and be the kind of system which removes negative attitudes between different ethnic groups, a kind of system which will help every citizen know and appreciate the differences in cultures and languages which exist in and endorse them as important facets of the

total culture of that country. Nyati-Ramahobo (1996), suggested however, that not all the languages in Botswana should be taught but all the cultures and traditions which exist in the country should be taught and should be made part of the curriculum.

4) A clearly documented language policy which will recognize all ethnic groups as existing in their own right should be drawn (Nyati-Ramahobo 1996). Nyati-Ramahobo, (1996), ended by showing that she has argued that the unifying language, Setswana poses a problem for minority language speaking children in the primary school system.

3.9.6 Minority language speaking and Educational hurdles in Botswana

and Tanzanian schools

A similar and later study done by the Edge Hill College, of the United Kingdom (UK), examined the relationship between educational language policy and classroom practice in two post-colonial African societies; the Republics of Botswana and Tanzania. The results showed that in both societies, English is one of the official languages of instruction but is being challenged by languages which are used far more widely (Arthur, 2006). The researchers found out that Setswana is the first language of approximately 70 per cent of the population in Botswana and some 28 further languages are spoken natively by the remaining 30 per cent. Setswana is established as the medium of the first four years of primary schooling although a new policy proposing Setswana for the initial year of primary school followed by English from year two is yet to be fully implemented (Taylor & Francis, 2001) and (Arthur, 2006).

According to Arthur (2006), in Tanzania, Kiswahili is a second language for the overwhelming majority of the population, learned after or alongside one of over 120 ethnic community languages. It has been the sole medium of primary education since 1967. However, secondary schooling still takes place in English. In his study Arthur (2006) assessed the impact of teaching through the medium of a second language. The study reviewed research on practices in English-medium classrooms at both primary and secondary level in Botswana and at secondary level in Tanzania.

From his studies, Arthur (2006) found out that:

- The majority of teachers in Botswana favour English as the sole medium of instruction throughout primary school but those who speak a minority language other than Setswana or teach speakers of a minority language are less in favour.

- There is extensive use of bilingual "code switching", where the official language of instruction is used alongside other languages known to teachers and learners.

- The patterning of bilingual discourse in classrooms in the two different sociolinguistic settings appears to vary: in Botswana, code switching from English to Setswana has been observed to be the prerogative of teachers while Tanzanian secondary school pupils switch from English into Kiswahili quite freely.

- Classrooms are dominated by teachers lecturing or asking questions, possibly because whole-class routines are less demanding of teachers' English. According to Arthur, (2006) English language is considered to carry the most prestige and there has been recent growth in English-medium private education. However the need and opportunity to use English in employment appears to be extremely limited. The study suggested that policy-makers need to be careful not to mistake popular demand for education in English for practical or communicative necessity.

Because of the observations he made in his study, Arthur (2006), recommended that policy makers should:

- base educational language policy on sound understandings of children's language development and how children can be best assisted to learn through language.

- train teachers in the methodology for teaching of and through second languages and enhance their understanding of how children become competent in a second language.

- legitimise the use of code switching during English lessons to enable English to be comprehended by all learners.

Having looked at two of the Southern African countries which believe in the universal use of the major or national languages as mediums of instruction to all the learners, the researcher is also interested in reviewing literature to establish the situation in yet another nation which use home languages along with English as mediums of instruction to learners. One such country is the Republic of South Africa. To this effect, there are many studies in South Africa which sought to ascertain the feasibility of using the home languages for instructional purposes.

3.10 The relationship of language and classroom performance

3.10.1 The effects of English instruction on isiZulu home language as experienced by Grade Seven learners in South Africa

A study carried by Morrow, Jordaan, and Fridjhon, (2005) investigated the effects of English instruction on home language (isiZulu) competence on Grade 7 learners from three different contexts (rural, urban, and township), where the exposure to and instruction in English and isiZulu vary considerably. In their study, eight schools including 181 learners participated. The assessment tool, constructed in English and translated into isiZulu, was based on the frequency of occurrence of key concepts in a published curriculum package. The learners showed specific patterns of performance dependent on context (Morrow et al, 2005).

The results of their study showed that Johannesburg (JHB) learners performed significantly better in English than in isiZulu, demonstrating the highest level of competence in English, but they recorded the lowest in isiZulu. Similarly, Soweto learners showed similar proficiency in both languages, demonstrating the same level of competence in isiZulu but significantly higher English scores than the Kwa-Zulu Natal (KZN) learners, who did much better in isiZulu than in English (Morrow, et al 2005). Their study however, showed that all learners had difficulty on the tasks involving conjunctions, temporal concepts, conditionals and intensifiers, which were assessed using sentence construction or sentence completion tasks, and required higher levels of language processing. The results highlighted the important role of

language in learning and academic success. The significant influence of language exposure and context was also shown (Morrow et. al, 2005).

The results from Morrow, et al (2005), showed that language proficiency is central to academic success and also confirmed Cummins' (1988) claim that the development of cognitive academic language proficiency (CALP), enables learners to understand and use the decontextualized, formal language register of classroom discourse and text books. However, the trio argued that this is complicated in a multilingual context such as South Africa where many learners are expected to develop cognitive academic skills in a second or additional language. Although language policies; particularly in education, have become more liberal, and learners have the right to home language education, Morrow, et al (2005) and Pluddemann, (2001); observed that English tends to dominate in all educational contexts, because it is seen as the language of power and economic advancement. Kapp, (2000) and Owu-Ewie (2006), observed similar opinions by many African learners. Morrow's et al (2005), also observed that in an attempt to accommodate this strong drive for English, the education department encourages an "additive" approach where both English and home languages are developed for communication and academic purposes. This is based on Cummins' (1988) threshold theory which claims that the cognitive effects of bilingual language acquisition are positive under additive conditions, provided both languages are fully developed. Ndamba (2008) and Owu-Ewie (2006) also share the same view. These conditions are rarely met in the education system and Cummins warns that the cognitive effects may be negative when a poorly developed second language replaces the home language and both languages are below expected levels of development (Cummins, 1988; Baker & Hornberger, 2001).

Such, is the situation in most minority language speaking communities. The three researchers claimed that cognitive consequences may be neutral, however, if at least one language is sufficiently developed to be used for academic purposes. This recommendation is based on Cumminns' (1988) additive approach (Morrow, et al 2005). Their research focused on the extent to which learners are able to acquire the cognitive academic language proficiency (CALP) in their home language (Isi-

Zulu) and also in English, the most common second language for the majority of South Africans (Pluddemann, 2001).

Adler (2001) identified the South African schools under study and classified them under his educational contexts as: 1) Former "Model C" suburban schools (e.g. in Johannesburg), where English is the only language of instruction and the teachers are mostly monolingual English speakers. He observed that in such schools English first language users (L1) and English second language users (L2) learners are taught in the same classes and there is little or no support for the learners' home languages at school. However, he observed that the schools are generally well resourced.

Alder's (2001) second category are Township schools (e.g. in Soweto), where both English and home language are used for instruction and most teachers are multilingual. Most, if not all the learners are L2 English learners in the classes. The schools and community give support to both home language and English although the schools may not be as well-resourced as the suburban schools. His third category of the schools studied, are the rural schools (e.g in the Kwa-Zulu Natal (KZN) Midlands), where both English and the learners' home language are used for instructional purposes, possibly with greater use of home language. In this category the teachers are bilingual/multilingual. All the learners are L2 English learners in the classes. The learners have limited access to English outside school; and schools are poorly resourced (Adler, 2001).

In their study, Morrow et al (2005) employed a comparative design and they utilized both the within group and between group comparisons study. Three groups were compared to each other on two dependent variables, namely, the isiZulu and English test scores. In addition, the isi-Zulu and English scores were compared within each of the three groups of learners. The participants in the study by Morrow et al (2005) were Grade Seven second language English speakers, with isiZulu, the most commonly spoken official language in South Africa as a predominant first language (Pluddemann, 2001). The researchers obtained information about the home

language of the learners from the class teachers and then confirmed with selected participants. Grade 7 learners were selected as it was necessary to ensure that all participants had had sufficient exposure to the academic curriculum in English (Morrow et al 2005). The participants were selected from eight schools in three geographical contexts (Johannesburg, Soweto and Kwa-Zulu Natal) representing the three educational contexts currently identified in South Africa (Adler, 2001). The sample consisted of 181 learners, whose age ranged from 11 to 15 years (Morrow et al 2005). The learners selected from three schools in Johannesburg spoke a variety of languages ranging from English; Afrikaans; Northern Sotho; Sesotho; isiZulu, Tswana; isiXhosa; Venda; Tsonga (Shangaan); siSwati; Igbo; French; German; to Croatian.

The results obtained from the study by Morrow et al (2005), showed that on the English test, the Johannesburg learners obtained high mean scores on all sections. Their overall mean score on the English test was 89.5%. The Soweto learners' overall mean score was 71.43%, with the mean scores varying from 43.1% to 97.7% on different sections of the test. The Kwa-Zulu Natal learners did poorly in the English test, obtaining an overall mean score of only 53.4%. They obtained a mean score below 50% on four sections of the test. In the contrast, the analysis of the isiZulu test results revealed a completely different pattern. The Johannesburg (JHB) learners obtained the lowest overall mean score (58.1%), whilst the Kwa-Zulu Natal (KZN) and Soweto learners obtained 73.5% and 75.1%, respectively (Morrow et al 2005).

According to Bialystok (2001), lack of competence in both languages can lead to a detrimental effect on academic performance as the learner has no adequate language in which to establish the cognitive processes that are the basis of academic learning. Bialystok (2001) claims that it is not the balance between the languages that is important, but rather the need for one language to be developed to a level that is sufficient for schooling. Morrow et al (2005), believed that the Soweto learners may therefore be at a disadvantage academically, despite balanced proficiency in their home language and second language (L2). The reason for this may be that it takes longer to acquire academic proficiency in both languages within an 'additive' context. This conclusion is supported by the finding that, on general linguistic concepts, the Soweto learners did as well as the JHB learners on many

sections of the test, and only performed poorly on the sections requiring deeper levels of language processing.

The study also showed that the learners in Kwa Zulu Natal showed the opposite pattern to the Johannesburg learners. Their isiZulu performance was significantly better than their English performance, which clearly demonstrates lack of sufficient proficiency to cope with the academic curriculum in English. According to Bialystok (2001), education in a weaker language will lead to the learner having limited competence in school and may have a negative effect on cognition (Ndamba 2008; Owu-Ewie 2006; Adler, 2001 ; Cummins 1988).

Thus, the findings from the study by Morrow et al (2005) confirm the complex relationship between dual language acquisition and the education system in South Africa. This is evident in the continued focus on English instruction to the detriment of the home language; the poor socioeconomic conditions and under-resources of a number of schools; and the adherence to old approaches to language in education (e.g. in Kwa-Zulu Natal), where home language instruction in the first three to four years of education, is followed by a rapid, unsupported shift to English, leading to a devaluation of the importance of a learners' home language (Arkhurst, 1997). The drive for English thus appears to hamper the implementation of home language education. Even when parents have been given the opportunity to choose the language of instruction, they tend to choose English (Ndamba 2008; & Kapp, 2000). According to Morrow et al (2005) learners feel that it is impossible to communicate in the public environment outside the townships and rural areas without the use of proficient English.

Other related studies on languages of instruction showed that home language instruction is more important than second language instruction for ultimate literacy and academic achievement in the second language, and learners should be provided with a strong basis in the home language (Ndamba 2008; Adler 2001; Peresuh & Thondlana, 2002; Cummins, 1988). Thus, three researchers concluded that home language maintenance needs to be taken more seriously as a way of

developing the cognitive academic language proficiency of learners in the South African context. According to them, the aim of all education should be to foster bi- and multi-lingualism at all levels of language usage (Morrow et al 2005).

3.10.2 Education for the Griqua minority language speaking children and

      how their educational needs are met

A related study was done by Mochwanaesi, Steyn, and Van der Walt, (2005). These researchers focused on the challenges faced by minority language speaking groups in South Africa. According to them, minority group interests have resurged since the middle of the 20th century and minorities are re-discovering their identities. Mochwanaesi et al (2005), studied the problem of how the educational needs of a minority group could be met. This was investigated by focusing on the characteristics and the (educational) needs of the Griqua community in South Africa. The three researchers, Mochwanaesi et al (2005), found that, although the members of this group insisted on the preservation of their cultural identity, they did not wish to be isolated from broader South African civil society. However, they want to be recognised and run their own schools which will allow them to practice their culture and language. Consequently, they drew up three scenarios which were put forward, in terms of which educational needs could be accommodated and provided for, within the existing constitutional and legislative framework (Mochwanaesi et al 2005).

The Griquas are descendants of Khoikhoi and Europeans, though some of their bloodlines can be traced back to Malaysian and African slaves. They trace their forefathers to two basic clans, the Koks and the Barendses, the first mainly of Khoikhoi and the second mainly of mixed European descent (Oakes, 1989; Van Gass, 1995; Matshikiza, 1999). The name 'Griqua' originates from the Khoikhoi word Grigrikwa. Their founding father, Adam Kok I, was the leader of a series of migrations in the 17th century. Under his leadership, a group of Griquas moved from the southern parts of the Cape Province   to the present Piketberg region. From there, they moved northwards to the Khamies Mountains, and then on further to the area around the Orange River (Matshikiza, 1999). This is the community which

Mochwanaesi, et al studied. In their study, they found out that the Griqua community in South Africa can indeed be regarded as a minority linguistic group (Mochwanaesi, et al 2005). The researchers observed that the Griquas form a discernible group with a distinct and unique ethnic identity. They are relatively few in number and many of them have been assimilated into the so-called coloured group. Because of their eventful history as a group, they have today a non-dominant position in the broader South African community.

In their study Mochwanaesi, et al (2005) observed that the South African Constitution (South Africa, 1996) entrenches all the basic human rights, including the right to associate freely. Thus, the rights of groups are, by implication, also protected. The protection of the rights of individuals as well as of groups is important in culturally diverse/multicultural societies because of the fact that individuals belonging to such groups may perceive the culture of the dominant group to be a threat to their own culture and very existence (Mochwanaesi, et al 2005).

Global attention to the rights of minorities has inspired the Griquas to insist on the recognition of their rights as a minority group. The constitutional dispensation in South Africa, however, has made it impossible for the government to provide in the special needs of minorities. Mochwanaesi, et al (2005) found out that South Africa is one of the countries where the government has found it expedient to govern centrally.

Mochwanaesi, et al (2005) found out that the Griqua parents share the same aspirations, ideals and fears for their children and their education. Despite the fact that the Griqua community has in the past been perceived as being vocal about their rights, the exchanges in the focus groups revealed that they were realistic about what would be possible to achieve in terms of education provision in South Africa. The study found out that the groups mentioned the importance of the preservation and development of Griqua culture, also in the context of formal education in the schools, but they always sought a balance between their own aspirations and wishes

as a community and those of the broader South African community (Mochwanaesi, et al 2005).

The researchers recommended that the government of South Africa should decide to allow members of the Griqua community not only to enjoy their own culture and language as a separate identifiable group, but also to have their own schools and other institutions, and to fund them with public funds. However, they also observed that given the constitutional dispensation, it is unlikely that the present government will follow this scenario (Mochwanaesi, et al 2005). The three researchers recommended that in view of the global recognition of minority rights, including the right to education in the mother language in own institutions, and also in view of the fact that the South African Constitution indirectly guarantees the protection of group rights, the Griquas, as well as other minority groups, can be allowed to freely practice and enjoy their own cultures and languages. They can also erect and maintain their own institutions on condition that learners and their parents' right to freedom of choice are recognised and respected (based on the right to non-discrimination and freedom of association) and that appropriate educational standards are maintained.

3.10.3 The foreign language as a medium of instruction: Challenges

faced by Foundation Phase educators in the Cape metropolitan

Another study done in South Africa by O'Connor and Geiger, (2009), investigated the challenges faced by Grade 1, 2 and 3 (Foundation Phase) educators in government schools in the Cape Metropolitan. The researchers used a mixed-method descriptive design to carry out the study. A self-administered questionnaire and three focus groups were used for data collection. Educator perceptions and experiences regarding English Second and Other Languages (ESOL) learners were described. The study showed that some participant educators at schools that were not former Model C schools had large classes, including large proportions of ESOL learners. Furthermore, there was a shortage of educators who could speak isiXhosa, the most frequently occurring first (or home) language of the region's ESOL learners (O'Connor & Geiger, 2009). The researchers focused on the challenges faced by

educators when teaching ESOL learners. The study also included learners'
academic and socio-emotional difficulties and lack of parental involvement in their
children's education. The result of their study showed that participant educators
indicated a need for departmental, professional and parental support, and additional
training and resources (O'Connor, & Geiger, 2009).

According to the Pan South African Language Board (PANSALB), (2000), the
majority of learners in South Africa are bi- or multi-lingual, and attend school in a
language that is not their first language. The board observed that these learners are
frequently inappropriately referred for Speech-Language Therapy (SLT) for a
'language disorder' (Crago, Eriks-Brophy, Pesco & McAlpine, 1997; Stoffels, 2004).
This is usually based on the assumption that these learners have language disorders
when it is not the case. The researchers, O'Connor, and Geiger, (2009) concluded
that English- second (or other) language (ESOL) learners end up being
'pathologised' because educators may misinterpret language differences as
deficiencies. Consequently, many researchers agree that Speech-Language
Therapists should work with educators to promote language learning so as to
prevent academic difficulties related to language differences (Du Plessis & Naudé,
2003; Jordaan & Yelland, 2003; O'Connor, 2003; & Dawber & Jordaan, 1999).
Thus, many researchers concur that many learners who are taught in a foreign
language are often labelled and "pathologised". Hence, they agree that use of a
foreign language a medium of instruction has a negative effect on the performance
of learners.

South Africa has eleven official languages. According to the Revised National
Curriculum Statement (RNCS), all the eleven languages could be used as mediums
of instructions (Adler, 2001). Thus, the RNCS adopted an additive approach to bi- or
multi-lingualism, whereby the first language is maintained and used as a basis for
the learning of another language (Chick & McKay, 2001 ; The Advisory Panel on
Language Policy, 2000).

According to Cummins, (2000:37) the approach has benefits for the learner as;

> "*Continued development of both languages into literate domains … is a
> precondition for enhanced cognitive, linguistic, and academic growth*".

Cummins (2000), distinguishes between basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP), "the registers of language that children acquire in school and which they need to use effectively if they are to progress successfully through the grades". He also argued that although learners may be able to use English competently among peers and in social settings or for oral communication, (BICS), they may not be proficient in the type of language expected in the classroom (CALP) (Cummins 2000). Cummins (2000) argued that it takes ESOL learners approximately two years to become competent in English BICS while it takes them five to seven years to reach the same level as their first-language peers in terms of CALP (Hall, 1996; Cummins, 2000). Therefore, based on this view and many others, it is inadvisable to examine Grade Seven in a second (foreign) language.

Du Plessis and Naudé, (2003) observed that struggling with a foreign language may affect learners academically and this in turn can lower ESOL learners' self-esteem and confidence and in turn, perhaps affecting other areas of learning and functioning due to frustration, social isolation, and disciplinary problems. In addition to that, Du Plessis and Naudé, (2003) also pointed out that educators have expressed concern that learners do not receive supportive input in their additional language at home. They went further to suggest that there was need for greater parental collaboration and parents need to know about language acquisition and language stimulation.

Alexander, (2002) suggested that there is need to introduce educator training to support the proper implementation of the language-in-education policy in a multilingual approach to education. Many researchers in South Africa agree that in the South African context, educators need training in bilingualism, second language acquisition and learning in a second language (Du Plessis & Louw, 2008; Du Plessis & Naudé, 2003; O'Connor, 2003). Thus, scholars suggest that language-across-the-curriculum should form part of South African educator training courses (Uys, Van der Walt, Van der Berg & Botha, 2007), as this highlights how educator-learner interaction is shaped by language processes like questioning, explaining and

instruction-giving, as well as the role of textbooks. Failure of which, there is communication breakdown in the class room.

The study by O'Connor, and Geiger, (2009) showed that participating educators reported that 87.5% of their ESOL learners had isi-Xhosa as a first language, followed by Afrikaans and then other languages. The study also showed that educators' perceptions regarding the difficulties experienced by ESOL learners taught by the participants in the study experienced various academic challenges such as having to repeat a year, or proceeding to the next grade without adequate grasp of the previous grade's work (O'Connor & Geiger, 2009). Cummins, (2000), argues that having very little exposure to English at home, and tending to speak in their home language to peers at school, many learners may not even have had adequate BICS in English, thereby affecting their CALP in English. The study by O'Connor, and Geiger, (2009), showed that at times educators did not want to affect learners' self-esteem and therefore, ESOL learners who had not coped academically in a grade were promoted to the next grade where they should receive additional support (Western Cape Education Department, 2004). Therefore, progression was not based on academic achievement, but rather on psychological need to avoid frustrating the learners.

However, participants in O'Connor, and Geiger's (2009) study felt that this practice was not always in the best interests of the ESOL learners since they may always remain behind academically. Although the schools had access to rehabilitative support such as psychologists and learning support teachers (Department of Education, 2001), these multifunctional teams were often understaffed and unable to see all the children who needed help (O'Connor & Geiger, 2009).

The study also showed that ESOL learners' first language also influenced their development of English language, for example, pronunciation affected their phonics in their writing, and concepts such as gendered pronouns confused isiXhosa speakers where personal pronouns for male and female are the same (O'Connor & Geiger, 2009). In English, the pronouns "he" or "she" can easily differentiate the

gender of the subject referred while this is not there in isiXhosa and perhaps other African languages. The study also showed that socio-emotional problems associated with learning in a language that is not the children's home language meant learners lost their home language and culture. For example, educators felt that isiXhosa-first language ESOL learners lost their first language vocabulary by replacing some words with English equivalents (O'Connor & Geiger, 2009). This could be the effect of ESOL learners not using their home language for high level cognition (Morrow et al 2005) or due to the predominant use of English in the media and in urban areas (Vesely, 2000). It was also observed that ESOL learners' limited English language skills, led to a difficulty with expressing themselves, and confusion from not understanding instructions also contributed to a lack of confidence (O'Connor & Geiger, 2009). Thus, this shows that use of a foreign language as a medium of instruction affects performance in class.

Discipline and behaviour problems amongst ESOL learners due to large class sizes were compounded by language issues. A significant number of participating educators reported that they frequently experienced discipline problems with ESOL learners and the larger classes were notably more difficult than smaller classes, due to limited comprehension skills of ESOL learners and linguistic and cultural mismatches between them and educators (Du Plessis & Naudé, 2003; Pluddemann et al., 2000; Schulze & Steyn, 2007). In their study O'Connor, and Geiger, (2009), observed that in spite of feelings of sympathy towards ESOL learners, educators felt frustrated working with them, because of heavy workloads. As they first had to teach the language and vocabulary for specific content, they found it impossible to complete the syllabus for the year. Also having learners in the class with better English abilities, educators reported having to teach on diverse language and academic levels (Du Plessis & Naudé, 2003).

The researchers observed that besides practical training, the educators wanted training in isiXhosa, the home language of most ESOL learners (O'Connor & Geiger, 2009). Qualified and student educators in the Western Cape require training in bilingualism, second language acquisition and isiXhosa language and culture. Though some external theoretical training on second language acquisition and

isiXhosa language and culture is needed, SLTs could provide some in-service training in the normal flow of a lesson (Du Plessis & Naudé, 2003).

The review of literature done so far has indicated that the use of a foreign language as a medium of instruction for children who are still struggling with basic expression in that language hampers not only academic achievement and cognitive growth, but also their self-perception, self-esteem and emotional security and their ability to participate meaningfully in the educational process. Studies have also shown that the use in education of a foreign language that alienates children from their own cultural heritage may produce a generation of people who are devoid of cultural values.

Having reviewed literature in different parts of the world on the effects of the languages of instruction on the performance of learners at primary school level, the researcher finds it compelling to particularly review literature in Zimbabwe. Zimbabwe is the focus country of this study. However, the researcher specifically focused on the effects of the languages of instruction (English and Shona) on Tsonga (Shangani) minority language speaking Grade Seven learners. The Tsonga (Shangani) speaking people are found in the Chiredzi district of Zimbabwe. However, some studies carried out throughout the whole country were also reviewed.

3.11 Studies in Zimbabwe

3.11.1 The effects of a foreign language on children's performance

As said in my background of the study, studies in Zimbabwe concentrated on the three major languages, English, Shona and Ndebele. Very little was done on minority languages. A study carried out by Chisaka and Vakalisa (2003) at Brickhill and Chikomo Secondary schools where English is used as a medium of instruction ahead of the children's home language (Shona), showed that the language of instruction contributed to the stratification of pupils. Those in high ability classes contributed more meaningfully in lessons while those in low ability classes had some

problems with English language. When the home language (Shona) was used, a significant number of the learners were able to communicate effectively, competently, confidently and could articulate issues, feelings and experiences very well (Chisaka & Vakalisa, 2003). Although Chisaka and Vakalisa's (2003), study focused on ability grouping as an instructional strategy, their results also showed that a foreign language as a medium of instruction militated against children's performance. This is one of the concerns of my study especially that if secondary school children had problems with the foreign language, I assume that primary school learners would have worse learning problems.

Another study carried out by Shumba and Manyati (2000) in Zimbabwe, showed that the more a person is confronted by a complex problem, the more important the mother tongue becomes. Shumba and Manyati (2000) observed that the issue of language of instruction, communication and conceptual development is critical in any content school subject such as Environmental Science. The duo observed that acquisition of, and development of communicative competencies in that area is crucial if the pupils are to appreciate environmental issues and understand scientific ideas related to Environmental Science. Their study is related to my study which is more on the psychological effect of the use of a foreign language in teaching minority language speaking primary school learners. The observations above seem to agree with Vygotsky (1969 & 1978), whose observations are that the more a person is confronted by a complex problem, the more important the mother tongue becomes.

During the Project Review Mission for Better Environmental Science Teaching (B.E.S.T), Hartmann, Mtetwa, Scheerer and Shumba (1998), noted many instances where pupils could discuss and explain their ideas clearly in their mother tongue, but become tongue tied when called to do so in English (Shumba & Manyati, 2000). Thus, most of the studies cited in this research, showed that the use of a foreign language as a medium of instruction in teaching, has detrimental effects on the performance of learners because the linguistic skills on which much of their cognitive faculties rest, are deemed irrelevant to the task at hand.

3.11.2 The language of instruction and the teacher

It may be naive to look at the education of the child without looking at the role of the teacher and his relationship with the language of instruction. According to Shumba (1995), the majority of teachers in Zimbabwe grew up or teach in an indigenous sociocultural environment. Consequently, they have somehow, acquired the indigenous African world view which should help them to better exemplify and link their subject domain to cultural realities and every day experiences of their students. However, these teachers are denied the chance to do so by the current language policy which compels them to use a foreign language (English) as a medium of instruction (Zimbabwean Educational Act, 1996).

The English language, as medium of instruction carries with it its own western linguistic jargon, culture and western world view. Accordingly, Shumba (1995) noted that because African languages are not used as mediums of instructions in schools, the African epistemologies which are embedded in language, crumble with their languages. This is true with the so called "languages that die". Thus, it was the concern of the researcher to investigate the effects of the use of a foreign language in the teaching of Environmental Science at Grade Seven level in Chiredzi South. Ogunniyi (1988) views science as a second culture for students in many non-western societies. It was for this reason that the researcher chose to study the effect of the use of a foreign language in learning Environmental Science at Grade Seven level, because he observed that since Environmental Science is a second culture, then, there was conflict between African or indigenous science and western science. Thus, this conflict comes out clearly inform of language and hence, the effect of this was one of the matters of concern to the researcher; and hence the investigation.

3.11.3 Home language and academic performance in Zimbabwe

According to Westley (1992) cited in Mwamwenda (1996); Hawes (1979), and Hakuta (1986) cited in Travers, Elliot and Kratochwill, (1996) mother tongue education in the primary years offers the best introduction to literacy that eventually becomes useful in the acquisition of English as a second language. According to

Ndamba (2008), research on second language acquisition shows that if a child masters the first language, then learning another language becomes less problematic because habits of speech, listening, reading and writing can be transferred to the learning of the second language. This agrees with Cummins' (1988) additive approach to language learning. On the basis of this observation, it seems many researchers and academics seem to agree that the home language is quite critical to human learning and performance; particularly at primary school level (Owu-Ewie, 2006; Adler, 2001; Cummins, 2000). Cummins (1981) in Kroll (1990:95) claims that there is an "*underlying cognitive/academic proficiency*" common to languages and this enables transfer of literacy related skills across languages.

A study by Ndamba (2008) showed that second language acquisition is closely related to the proficiency level of the first language. In fact, she argues that proficiency in the home language assist in the development of the second language. She calls this the additive approach (Ndamba, 2008; Owu-Ewie, 2006; Adler, 2001; Cummins, 2000). Therefore, Ndamba (2008), argues that it is important for bilingual education teachers and parents of children in bilingual education programmes in Zimbabwe to understand this. She also proposed that if her ideas are taken seriously, this can contribute to change of attitudes by teachers and parents who neglect the home language in learning for fear that the first language negatively interferes with the learning of a second language.

In her study Ndamba (2008) examined children and parents' language preferences in view of the Zimbabwean language policy derived from the 1987 Education Act, which requires instruction to be conducted in the mother tongue in Grades 1-3. The study was a survey in which interviews and questionnaires were used to gather data from pupils, parents, school heads, "infant teachers and teachers-in-charge of infant departments" (TICs). The sample consisted of 60 pupils, 42 parents, 25 school heads, 152 infant teachers and 17 TICs. Respondents were purposively selected from urban, peripheral-urban, and rural schools in Masvingo district in Zimbabwe. It was found that a significant number of pupils and parents preferred English as the language of instruction at infant level, despite challenges faced in accessing the

curriculum through the use of the second language. Hence, Ndamba (2008) suggested that there is a need for an attitude change and thus, a serious campaign for all stakeholders to appreciate the role played by the home language in the early years of schooling.

However, Ndamba did not study the effects of the mediums of instruction (Shona and Ndebele included) to minority language speakers. She studied language preferences to Shona and Ndebele speakers. This study looked at the effects of Shona, Ndebele and English as mediums of instruction to minority language speakers of the Chiredzi district of Zimbabwe. However, the observations by Ndamba, are quite critical to minority language speaking children such as the Tsonga (Shangani) children in Chiredzi district, the Venda children in Beit Bridge district, the Kalanga children in Plumtree, the Tonga children in Binga and many other minority language speaking children of Zimbabwe who are compelled to do school work in two foreign languages (English and Shona or Ndebele) at the same time.

In her study, Ndamba (2008), agrees with other researchers that learning to read before the spoken word is mastered is to invite "pseudo-literacy" which is a problem predominant in many African nations where children fail to become competent in both the home language and the second language (Owu-Ewie, 2006; Adler, 2001; Cummins, 2000; Bamgbose, 1991 Hawes, 1979; Duminy 1975). In this study, the researcher observed that many children could read English or Shona words but they did not know the meanings of some of the words which they read. For example, children could read the word "exotic" but they did not know its meaning. At the same time, the Tsonga (Shangani) children who participated in this study could read many Shona words, for example "muhacha", but they did not know the meaning of the word either. Thus, researchers argue that because many children are not taught in their home languages, they become incompetent in their home language and also in the language of school.

Similarly, Miti (1995:) lamented on the Zambian situation, where English is introduced and taught side by side with the home language at the beginning of Grade one:

> *"… we have produced thousands upon thousands of children who are unable to read either L1 or L2".*

In his study, Miti (1995) observed that introducing an extra language without having developed the home language fully would simply produce learners who are not good in both languages. This works against Cummins' principles of the additive approach. The child is introduced to yet another language before mastering the grammar of his home language (Miti, 1995).

3.11.4 Bilingualism and cognitive development

A growing body of research suggests that bilingualism promotes overall cognitive development (Borich & Tombari, 1997; Berk, 2009). These authors observed that studies by Hakuta, Friedman and Diaz (1987) indicate that bilingual children perform better on tests of analytical reasoning, concept formation and cognitive flexibility. Travers et al (1993), however, state that the findings that the higher the degree of bilingualism the better the level of cognitive attainment is only possible when the first language is maintained, the social climate is positive, and when the non-English speakers are not negatively judged (Ndamba, 2008).

3.11.5 Use of a foreign language and classroom participation

Chaudron (1988), asserts that in a learning situation where only the second language (L2) is used as a medium of instruction, learners face problems because their task is threefold. The first is that the student has to make sense of the instructional tasks which are presented in a foreign language and secondly, the learner has to attain linguistic competence which is required for effective learning to take place. Thus, learners should have good receptive and expressive language competencies in order to understand instructions and to express themselves accordingly and meaningfully. Finally the last challenge is that the student is faced

with the problem of mastering the content itself. Such is the situation in the Chiredzi district of Zimbabwe where Tsonga (Shangani) language speaking Grade Seven learners are compelled to learn in two foreign languages (English and Shona). Roy-Campbell's (1996:16) presented interview findings from a former Tanzanian student who recalled:

> *"… the feeling of incompetence and loss of confidence as a result of a poor or hardly any grasp of English. I know of classmates who stayed dumb in the classroom rather than to embarrass themselves in a language they were not even sure they understood".*

Thus, because research has shown that the mother tongue is crucial in the initial phase of the child's school life, Zimbabwe has found it necessary to implement an education language policy which recognizes the child's home language in Grades one to three. It was hoped that this language policy for the early grades would reflect some of the expectations and assumptions of bilingualism that learners understand concepts better in their home languages; skills would transfer from the home language (L1) to the second language (L2); all instruction in second language (L2) should be delayed until initial literacy in the home language (L1), and that some oral fluency in the second language (L2) is achieved (Ndamba, 2008). However, Roller (1988) established that Zimbabwean pupils at Grade 5 level had achieved superficial levels of proficiency in English and found very little or no evidence of transfer of skills between home language and second language (L2).

3.11.6 Parents' language preferences and learner's academic performance in Zimbabwe

 A study by Peresuh and Masuku (2002), also showed that in Zimbabwe, the parents' attitude to home language (LI) as a medium of instruction is very poor in most cases. The researchers observed that parents think that English paves way for employment. Their findings showed that for most parents in Zimbabwe, education is equated to the thorough knowledge and proficient use of English. The pedagogical implications of gaining access to the second language, via the primary language, may not make

any sense to many (Peresuh & Masuku, 2002). According to Brock-Utne, (2001) trying to convince a parent that "bilingual education is the best route to full English proficiency is like trying to convince somebody that the best way to go west is to go east first". It is common practice, therefore, for parents in Zimbabwe's low density suburbs to encourage their children to use English in their day to day activities. This has had a negative impact on the primary languages (Peresuh & Masuku, 2002). The two researchers proposed that the primary language must be developed and used in the initial instruction stages until the official language, which is the second language, is thoroughly mastered. This will be done so that linguistic problems do not interfere with concept acquisition and development. Other researchers like Owu-Ewie (2006); Adler (2001); Cummins (2000), Bamgbose (1991); Hawes (1979) and Duminy (1975); share the same view.

3.11.7 The relationship of the home language and learning of indigenous epistemologies

Peresuh and Masuku (2002) also observed that as a way of approaching the task of recognising the force of the child's language and culture; fluency in the student's primary language by a teacher is essential for effective learning. This should not only be for the obvious benefits in communication, but also for the positive image of the students' home languages and cultures which such a teacher can convey. Such an understanding is attained from recognition of the foundational nature of the home language and an appreciation of language and the cultural potency for empowering pupils politically and otherwise (Peresuh & Masuku, 2002). The two scholars pointed out that when students see their home language and culture being valued in school, they form more positive attitudes towards learning in general.

In this study, I was prompted by the fact that most teachers in the Chiredzi district do not use the children's home languages. They use Shona and or English while the children's home language is Tsonga (Shangani). Freeman (1992: 203) concludes;

"*teachers who support their students' bilingualism are teaching to the strengths of the whole child*".

Especially important is the recognition that: a culturally responsive classroom must reach beyond surface or artefact culture and attend to the basic differences in the way children from different backgrounds understand, communicate, and learn. Teachers must understand the nature of the culture, its relationship to language, and the relationship of specific cultures to the culture of schools (Lessow-Hurley, 2005). This observation agrees significantly with Vygotsky's (1969) socio-cultural theory which states that culture and language are closely linked. According to Peresuh and Masuku (2002), for a teacher to operate well in a bilingual-bicultural educational set-up, ideally, that teacher should be bilingual. The duo proposed that if primary languages are to become truly effective tools for expressing national culture, the training of primary language teachers should be treated as a matter of great importance. Such training programmes should be able to incorporate some of the minority languages in Zimbabwe. Peresuh and Masuku (2002) see the integration of minority language teachers in schools as very crucial, especially in inter-cultural education where teachers are expected to operate on the same level and in perfect cooperation. However, Ndawi and Masuku (1998), observed that teachers' teaching is often divorced from the pupils' cultural experiences. Thus, they proposed that a teacher's understanding of the flexibility of a bilingual child's thinking should guide all learning and teaching. That kind of approach is absent in the Chiredzi district where the Tsonga (Shanagani) Grades four to seven learners are taught in two foreign languages (Shona and English).

Peresuh and Masuku (2002) accused curricula of inertia and of lagging behind the dictates of progressive discoveries made in educational research. The two observed that in Zimbabwe, the issue of the use of the learners' home languages as the primary medium of instruction is one such example. The two researchers see confusion between the learning of English for use as a national language of communication, and its role as an effective medium of instruction for all other school subjects and at all levels of education. They argued that the effectiveness of the pupils' home languages as media of instruction, especially in the primary school,

cannot be doubted. Thus, it is argued that countries, including Zimbabwe, whose native languages are not English, should reconsider their present strategies, which emphasise English as a medium of instruction in schools at the expense of their own languages (Peresuh & Masuku, 2002).

In Zimbabwe, it has been argued that promoting common languages, namely, English, Shona and Ndebele is necessary in order to promote national unity and solidarity as this facilitates inter-group communication and mutual understanding. Thus, political considerations are given primacy over pedagogical issues (Peresuh & Masuku, 2002). However, the current political disturbances in Africa, proves this a wrong proposition. A distinction has to be drawn between learning English in order to use it as an official medium of national communication and learning English in English. According to Peresuh and Masuku (2002), a child can be taught English in a medium he/she best understands, namely, his/her home language. This can work even better if the teacher is fully aware of and best understands the child's culture and primary language. The latter, however, makes English fundamental and very powerful in all the school subjects studied by the child. This is the situation most Zimbabwean children find themselves in and worse still minority language speakers who are compelled to learn in two unfamiliar languages at the same time. Except for the national languages (Shona and Ndebele) most, if not all, subjects are taught and examined in English. The national languages are also unfamiliar or foreign languages to minority language speakers and hence the power and centrality of both English and the national languages (Shona and Ndebele), obviously disadvantage the minority language speaking learner in a classroom situation (Peresuh & Masuku, 2002).

3.11.8 The relationship of the home language and learning and

classroom performance

Peresuh and Masuku, (2002) observe that a variety of issues, come to the fore in the general discussion of the child's home language and culture. While these issues may seem to be distinct, they are actually intricately related and have important consequences for the education of the child who enters school speaking a language

different from that of the school administration. The role of the home language in the learning process, the empowering nature of language and culture, and the role of teachers' fluency in the child's home language and familiarity with the culture, therefore, are elements of bilingual bicultural education whose effects cannot be underestimated.

For this reason, in 1997, African state representatives gathered in Harare, Zimbabwe for an intergovernmental conference on language policies in Africa hosted by UNESCO in order to discuss the question of language planning and policy in Africa. The meeting resulted in the Harare Declaration in which each country represented declared its commitment to the vision for Africa as expressed in the following statements:

• A democratic Africa that seeks to enhance the active participation of all citizens in all institutions of social, economic, political, etcetera;

• A democratic Africa where development is not construed in narrow economic goals but instead in terms of a culturally valued way of living together; and within a broader context of justice, fairness and equity for all;

• Respect for linguistic rights as human rights, including those of minorities;

• In broader terms, an Africa that acknowledges its ethno-linguistic pluralism and accepts this as a normal way of life and as a rich resource for development and progress;

• A democratic Africa that seeks to promote peaceful coexistence of people in a society where pluralism does not entail replacement of one language or identity by another, but instead promotes complementary of functions as well as co-operation and a sense of common destiny;

• An Africa where democratisation in a pluralistic context seeks to produce through sound and explicit language policies Africans who are able to operate effectively at local levels as well as at regional and international levels;

• A democratic Africa that provides the environment for the promotion and preservation of an African identity as well as the cultivation of a proud and confident African personality;

- An Africa where scientific and technological discourse is conducted in the national languages as part of our cognitive preparation for facing the challenges of the next millennium (Chimhundu, 2003).

The representatives made a commitment to seriously take positive steps towards implementing language planning and policy that, among other issues, takes into account the raising of the status and usage of indigenous languages. In this study, the researcher investigated the effects of using a foreign language as a medium of instruction on the performance of Tsonga (Shangani) speaking children in the Chiredzi district. The study agrees with the concerns of the 1997 Harare Declarations for the use of indigenous languages as languages of learning and teaching. The concerns are inclusive. They do not discriminate on minority language speaking children; who, too, are not spared by the effects of using a foreign language for learning.

3.11.9 The home language and cognitive development

According to Thondhana (2002), in Zimbabwe, English continues to dominate the education system. There has been, in many cases, little or no conscious effort to promote students' cognitive skills (memory, ability to generalize, ability to grasp relationships such as cause and effect, ability to predict consequences, ability to grasp the essential message of a text); their affective skills (positive attitude to work, loyalty to one's country, tolerance for diversity); and their social skills (ability to work together with, communicate, and support others) in their mother tongue. Consequently, there have been no efforts to promote the use of the mother tongue in technological and intellectual discourse. The above situation has had some of the following serious consequences for educational development in Zimbabwe:

- Indigenous languages have not been taken seriously as subjects of study.

- Too much emphasis has been placed on proficiency in English, which, in many cases, is introduced to children from the first day of school.

- Proficiency in the mother tongue is, in some cases, jeopardized because teachers and parents focus on learning English at school and home.

It is saddening that, in some cases, children come to school proficient in their mother-tongues but soon begin to lose this as the focus is shifted to developing proficiency in English both at school and home (Ndamba, 2008; Owu-Ewie, 2006; Peresuh & Masuku, 2002; Adler, 2001; Cummins, 2000; Bamgbose, 1991; Duminy, 1975).

Thondhlana (2002) argues that despite what appears to be a negative picture regarding Zimbabwe's indigenous languages, some steps have been taken towards stabilizing them. Notable are the following:

- The launching of the ALLEX (African Languages and Literature Lexicography) project at the University of Zimbabwe, which, among other activities, is involved in the development of dictionaries and the creation of literary and technical terminology in indigenous languages. So far, the project has seen the publishing of the first monolingual dictionary in Shona, and another one is expected soon in the Ndebele language.

- The institutionalization of the ALLEX project as the ALRI (African Languages Research Institute) at the University of Zimbabwe. This institute is, in general, responsible for the systematic studying, documenting, and developing of the languages of Zimbabwe.

- The setting up of a national policy advisory panel in 1997. This panel has since submitted its recommendations to government concerning how a comprehensive national language policy should be formulated.

- There are moves to make Shona and Ndebele national official languages along with English as well as to officially recognize all minority indigenous languages of Zimbabwe. This has yet to be gazetted and implemented.

- Development of fictional literature and language books in indigenous languages, particularly in the case of Shona and Ndebele.

- A significant increase in the teaching of Shona and Ndebele as second languages to a variety of learners, both foreign and local (especially in predominantly native-English speaking schools though the teaching is still unsatisfactory).

- The introduction of a Shona-Ndebele newspaper (though more should be introduced).

- Some, though limited, use of a few indigenous languages in parliament, business, education, and media.

Although these are steps in the right direction, it seems obvious that Zimbabwe needs to give the question of the status and usage of indigenous languages some very serious thought. However, according to the findings by Thondhana (2002), the main focus was given to Shona and Ndebele at the expense of other indigenous minority languages like Tsonga (Shangani), Venda, Kalanga, Tonga and others. In addition to that, Thondhlana's (2002) recommendations are focused on improving the status of Shona and Ndebele. Again very little is said about minority languages. Thus, this is the focus of this study.

Sure and Webb (2000) observe that, although the use of colonial languages in education has led to serious problems, it has also brought with it enormous advantages such as access to knowledge, creativity and entertainment of the entire western world, as well as global trade and commerce. The two further argue that European languages have become an integral part of the lives of the African people, and are indeed resources to be nurtured and developed.

There is also the argument that learning a former colonial language does not necessarily involve taking on a new cultural identity. This is attested to by work coming out of English schools world-wide, which has shown that it is possible to adapt a language to give expression to the cultural and intellectual peculiarities of another world. Yet, as noted by Williams and Snipper (1990), language encompasses not only communication, but also heritage, culture, and feelings. It is, therefore, important to note that maintaining a speaker's native language has an affective dimension, that of enhancing the speakers self-concepts and their pride in their cultural background and identity. In addition to that, proponents of that view do not want dominant language speakers to learn in what they see as inferior languages. This makes the whole relationship discriminatory. The results of this study agree with these observations. According to the researcher, compelling minority language speaking children to learn in foreign languages, is to say they should discard their language, culture and world views and start viewing the world

through the eyes of other people. This study also showed that when the minority language speaking children viewed the world according to their own perspective, it was considered as wrong in the school system which promoted other languages ahead of the minority languages.

There are other reasons why it is important to use indigenous languages as the languages of teaching and learning. According to Owu-Ewie, (2006); Thondlana, (2002); Adler, (2001); Cummins, (2000); Bamgbose,(1991); Hawes, (1979) and Duminy, (1975), cognitive and affective development occurs more effectively in a language that the learner knows very well. Thondhana (2002) pointed out that most children from Zimbabwe and elsewhere who are learning through a former colonial language are not proficient in the colonial language when they enter school since their exposure to the school language is often minimal in the home. Secondly, she argued that learning in general (including second language learning) occurs more effectively if the required cognitive development has already taken place through the use of a first language as a language of learning. Owu-Ewie (2006), Adler (2001), Commins (2000), Bamgbose (1991) Hawes (1979) and Duminy (1975) share the same opinion. Cummins (1984) argues that optimal home language education provides a rich cognitive preparation for the acquisition of a second language and that the literacy and cognitive skills already acquired in the home language provides easy transition to second-language medium education (Owu-Ewie, 2006; Adler, 2001; Cummins, 2000; Bamgbose, 1991; Hawes, 1979 & Duminy 1975). Thondhlana (2002) argues that the above points underscore the importance of using indigenous languages in the Zimbabwean education system. On this note, the researcher agrees with her observations.

However, from all the reviews done so far, the researcher feels that much of the debate over the proper language of instruction is political, reflecting people's desire for a society with a universal cultural heritage and language rather than a society with a pluralistic heritages and languages. According to Padilla, Lindholm, Chen, Duran, Hakuta, Lambert and Tucker (1991), ignoring the political aspects, the best method of teaching children is to use the child's native language and English.

3.11.10 Conclusion

By situating the medium of instruction policies of a number of countries in their specific historic and socio–political contexts, the discussion in this chapter simply illustrated the central role that these policies have in socio-political and economic processes. This chapter also showed that the choices made in the medium of instruction, are not purely about educational efficacy but also about social, political and economic participation, social equality and human rights. They determine who has access to resources, power and control and who does not have. As shown in the reviewed literature, such policies are vehicles for political subjugation of minority groups by dominant groups and the masses by the elites both at intra national and international levels. Minority language groups of Botswana, Vietnam and Zimbabwe are good examples of the subjugated groups in their countries of nationality. In countries where resources are scarce, the rate of illiteracy is high, and basic education is available only to a small group of the population, investment in the area of a foreign language as a medium of instruction is ethically untenable.

3.12 Summary

This chapter reviewed the literature related to this study. This was meant to find out the results of those who pioneered in the study on the effects of using a foreign language as a medium of instruction in teaching and learning at primary school level. In doing so, the chapter looked at the global picture of how minority language speaking children are educated. In the end, a survey of studies executed in Zimbabwe was done. By situating the medium of instruction policies of a number of countries in their specific historic and socio-political contexts, the discussion in this chapter simply illustrated the central role that these policies have played in socio-political and economic processes. In carrying out his literature search, the researcher discovered that choices made by many countries on mediums of instruction are not purely about educational efficacy, but also about social equality, political and economic participation and human rights. They determine who has access to the resources, power and control, and who has not. The choices made are vehicles for

political subjugation of minority groups by dominant groups and the masses by the elites of their respective countries at both intra national and international levels. In countries where resources are scarce, the rate of illiteracy is high, and basic education is available to only a small group of population, investment in the use of a foreign language as a medium of instruction to any group of people, is ethically untenable.

To put this study into context, Vygotsky's theoretical perspective was briefly highlighted and evaluated. His socio-cultural theory has a bearing to this study. The chapter looked at the relationship of language and thought, the mother tongue and cognitive development, the child and culture, the foreign language and classroom performance and finally, the interaction of the teacher with the language of instruction. In addition to that, analysing some previous research studies guided the researcher to look at the methods used and those that were not used by the previous researchers. The next chapter focused on research methodology.

CHAPTER FOUR

4.1 Research methodology

A study of this nature which sought to investigate the effects of the use of a foreign language as a medium of instruction in teaching minority language speaking children compelled this research to take both the quantitative and qualitative approaches. This approach is sometimes called the multiple method approach. This was so because in this research, there were some questions that required some degree of measurements of some kind but also there was a need for a greater and deeper understanding of the nature and origins of the problem faced by the Tsonga/Shangani speaking children of Chiredzi district of Zimbabwe. According to Ritchie and Lewis (2003), each of the two research approaches provides a distinctive kind of evidence, and when used together, they can offer a powerful resource to inform and illuminate practice and can come up with detailed, vivid and authentic results. Such results will not leave the reader with unanswered questions. In social sciences, mixed methods research may be defined as:

> *"the collection or analysis of both quantitative and qualitative data in a single study in which the data are collected concurrently or sequentially, are given a priority, and involve the integration of the data at one or more stages in the process of research"* (Creswell, Plano Clark, Gutmann, & Hanson, 2003:212).

The researcher believed that to include both quantitative and qualitative data in his study was going to enrich the results of his study in a way that one form of data collection was not going to manage (Brewer & Hunter, 1989). In addition to that, in this study, using both forms of data, allowed the researcher to simultaneously generalize the results from a sample to a population and to gain a deeper understanding of the phenomenon under investigation. The researcher observed that the mixed method design may be used in a single research study to take advantage of the representativeness and generalizability of quantitative findings and the in-

depth, contextual nature of the qualitative findings (Greene & Caracelli, 2003). One perspective is that mixed methods research uses competing paradigms intentionally, giving each one relatively equal footing and merit. No approach (quantitative or qualitative) is given an upper hand. The two approaches have the same weight in this study and data collection and analysis were done concurrently.

4.2 Rationale for using the mixed method design

In this study the mixed method design was adopted because the researcher observed that both the quantitative and qualitative methods could be combined to use results from one method to elaborate on the results obtained through the use of another method. In doing so, the results collected through the two approaches complemented each other. It was observed that the use of results from one method would help to develop or inform the other method (Goodyear, Tracey, Claiborn, Lichtenbergm & Wampold, 2005; Beck, 2005) and extend the breadth or range of inquiry by using different methods for different inquiry components. Mertens (2003) and Punch (1998), suggest that mixed methods investigations may be used to better understand a research problem by converging numeric trends from quantitative data and specific details from qualitative data. This was true of the researcher's data when he tried to make sense of the data collected from the questionnaires and the knowledge test with that collected from lesson observation and document analysis. The researcher also observed that his research required a mixed method investigation in order to identify variables/constructs that may be measured subsequently through the use of quantitative methods and qualitative methods at the same time. This was necessary because it allowed the researcher to obtain quantitative data and results from a sample of a population and expand on the results through qualitative data and results; and convey the appropriate language for Tsonga (Shangani) speaking Grade Seven children of the Chiredzi district of Zimbabwe.

Because there are many mixed method designs, the researcher chose the concurrent design for his study. Just like the sequential mixed methods research

design, there are three types of concurrent designs. These are the concurrent triangulation, concurrent nested, and concurrent transformative. The researcher chose the concurrent triangulation design, where the quantitative and qualitative data are collected and analyzed at the same time. In the concurrent triangulation design, equal priority was given to both forms of data. However, data analysis was separately done, and integration occurred at data interpretation stage. In this study, interpretation typically involved discussing the extent to which the data triangulated or converged to show the effect of the use of a foreign language as a medium of instruction to teach Tsonga (Shangani) Grade Seven children in the Chiredzi district of Zimbabwe. The researcher thus, observed that the concurrent triangulation design was useful for attempting to confirm, cross-validate, and corroborate study findings. Specifically, quantitative data, in the form of scores from a knowledge test and questionnaires and qualitative data, in the form of results from lesson observation and document analysis, were collected to investigate the effect of using a foreign language on the performance of Tsonga (Shangani) minority language speaking Grade Seven learners. After analyzing the quantitative and qualitative data separately, the results were triangulated (i.e., integrated).

4.3 Ex post facto research design

Since the researcher was also interested in examining retrospectively the effects of using a foreign language in teaching Tsonga (Shangani) Grade Seven learners in Chiredzi district, he was also compelled to adopt the ex post facto research design. When translated literally, ex post facto means 'from what is done afterwards'. In the context of social and educational research the phrase means 'after the fact' or 'retrospectively' and refers to those studies which investigate possible cause-and-effect relationships by observing an existing condition or state of affairs and searching back in time for plausible causal factors. In this study, the researcher was interested in establishing the cause of high failure rate of Tsonga (Shangani) speaking schools when compared to Shona and Ndebele speaking schools at Grade Seven level in the Chiredzi district of Zimbabwe. The researcher was interested in establishing what factors seem to be associated with the high failure rate among the Tsonga (Shangani) speaking children, or conditions, or aspects of that behaviour.

The researcher then observed that the ex post facto research, is the method of teasing out possible antecedents of events that have happened which led to the high failure among Tsonga (Shangani) Grade Seven learners in Chiredzi district.

The point of interest to the researcher was that in identifying the causes retrospectively, the researcher adopted an ex post facto perspective. Kerlinger (1970) defined ex post facto research more formally as that in which the independent variable or variables have already occurred and in which the researcher starts with the observation of a dependent variable or variables. The researcher then studies the independent variable or variables in retrospect for their possible relationship to, and effects on, the dependent variable or variables. The researcher is thus examining retrospectively the effects of a naturally occurring event on a subsequent outcome with a view to establishing a causal link between them. Interestingly, some instances of ex post facto designs correspond to experimental research in reverse, for instead of taking groups that are equivalent and subjecting them to different treatments so as to bring about differences in the dependent variables to be measured, the researcher in an ex post facto experiment began with groups that were already different in some respect (Tsonga/Shangani and Shona speaking schools) and investigated in retrospect for the factors that brought about the difference in performance at Grade Seven level.

4.4 The Qualitative approach

The researcher also noted that in this study, there was also the need for a great emphasis on holistic or detailed description of all that takes place during and out of instructional classes. This was achieved by employing qualitative methods. In qualitative research, the researcher collected data in the participant's classrooms and these were natural settings of the learners and both the participants and the researcher were key instruments in data collection (Fraenkel & Wallen, 1996). The researcher visited the sampled schools, analysed the documents, and taught the participants using a computer recorded voice, observed and recorded the results and administered and marked a knowledge test. All this was done in the learners' classrooms since the researcher observes that human behaviour is vastly influenced by the settings in which such behaviour takes place. Employing the use of a computer recorded voice was meant to standardise the lessons.

The researcher adopted a qualitative approach because he sought to establish the actual words, feelings and actions of the participants. These were obtained through lesson observation and document analysis. Thus, the strengths of the mixed method and the ex post facto designs gave the researcher the intended authentic results. Fraenkel and Wallen (1996) observe that qualitative researchers look at almost everything, including gestures, jokes, conversational gambits, art work and the like. To a qualitative researcher, no data are trivial; or unworthy of notice. Thus, in this study, the researcher was also interested in how children responded to questions from the computer recorded voice and how precisely they answered certain questions. Also of interest to the researcher was how often the children volunteered to participate in the teaching learning process.

4.5 The target population

The target population for this study are the Tsonga/Shangani speaking Grade Seven learners in the Chiredzi district of Zimbabwe. Best and Khan (1993) view a population as any group of people or individuals that have one or more characteristics in common that is of interest to the researcher. Frankael and Wallen (1996) concur with Best and Khan (1993) and they view a population as a group of individuals to which the results of the study were applied. According to the Surveyor-General, cited in Government Printers (1998), there were about seventy five primary schools in the Chiredzi district of Zimbabwe by 1998. Forty two of them are in Chiredzi South and the learners predominantly speak Tsonga/Shangani at home. The other thirty three are in Chiredzi North and are bilingual (they speak both Shona and Tsonga/Shangani). These schools have about seven grades of at least two classes of approximately forty six learners per class. This gave a normal school an average learners' population of about six hundred and forty four (644) learners per school. When this was multiplied by seventy five (75); the approximate number of schools in Chiredzi district, the figure stood at 48 300 learners in Chiredzi district primary schools. However, in this study, I was interested only in Grade Seven learners of Chiredzi South's forty two (42) primary schools. These were

approximately 3 864 at the time when the study was carried out (Government Printers, 1998).

4.6 The sample and sampling process

 As said in chapter one, there are many Tsonga/Shangani speaking schools in the Chiredzi district of Zimbabwe. The study targeted only four hundred and fifty (450) Grade Seven learners. The researcher observed that not all the schools could be studied since the number was too big to manage and some schools had an insignificant number of Shona speaking learners. Another challenge was that some schools had no electricity for using a computer recorded voice for teaching. To deal with such problems purposive sampling was done to select schools that had both Shona and Tsonga (Shangani) speaking Grade Seven children. These schools had electricity so that a computer could be used for standardised lesson delivery. In addition to that, purposive sampling was again used to select those children who spoke a certain given language so that they constituted one group. Thus, fifteen children who spoke Tsonga (Shangani) as their home language formed a group per school. The same applied to those who spoke Shona as their home language. These were code named X and Y groups respectively and these were the experimental group. The Z group were a control group and these were taught the same lesson but the medium of instruction was English with code-switching to Shona where it was assumed that the learners did not understand. These fifteen learners were randomly selected and the language of instruction used was the one which teachers used on a day to day basis in the Chiredzi district schools.

 Thus, the schools which participated in this study were sampled. To this effect, the researcher viewed sampling as a very important aspect of his study. Consequently the researcher selected a relatively small but representative proportion of a population from which valid inferences or generalisations were drawn. Of the forty five participants, fifteen Tsonga/Shangani speakers were taught in Tsonga (Shangani), fifteen Shona speakers in Shona and a control group of fifteen was taught in English. See table 4.2 on page 100 below. The lesson that was taught was

in Environmental Science which the researcher believes that the subject area is rich in scientific terms which are also available in Tsonga and Shona. The topic taught was unfamiliar to all the participants but the content was relevant and appropriate to the grade level and was drawn from their Grade Seven syllabus.

In document analysis, at least twenty five learners' exercise books were randomly selected and analysed. Five documents from each school were randomly sampled and analysed. All the Grade Seven learners in the participating schools completed the questionnaires. The total number of learners who participated in the questionnaire survey was two hundred and twenty two (222). See Table 4.14 in chapter four.

4.7   Data collection methods
4.7.1   Multiple measures

As shown in Table 4.1 below, the researcher employed a number of data collection instruments. This included the document analysis, the questionnaire, lesson observation and a knowledge test. How these were used is explained in the page.

Table 4.1 Showing the data collection instruments

Home Languages ↓	Knowledge Test	Observation	Questionnaire	Document Analysis	
Tsonga (Shangani)	15	15	222	25	
Shona	15	15	222	25	
Engliish	15	15	222	25	

4.7.2 Lesson observation

As shown above, in this study the researcher used a variety of methods to collect data. The researcher used lesson observation in which the lessons were taught using a computer recorded voice. Fifteen selected Tsonga (Shangani) speaking children per school were taught in Tsonga (Shangani). This group was code named the X group. The same lesson was also taught to another fifteen selected Shona speaking children per school using their home language (Shona). This group was also code named the Y group. Lastly, another fifteen randomly selected children per school were also taught the same lesson; but this group was taught in English and some restricted use of Shona. That is, where this group did not understand, code switching to Shona was done. This group was code named the Z group. This was the control group and this was the usual way of conducting lessons in the Chiredzi district of Zimbabwe. This group was mixed up. It contained learners who came from both language conditions. That is, Tsonga (Shangani) and Shona.

Table 4.2 below shows the number of participants in the lessons that were taught per language condition per school.

Betweensubject design				
Table 4.2 showing the number of participants in lesson observation per language condition per school.				
Instructional Languages → Home Languages ↓	Tsonga (Shangani)	Shona	English	Total number of participants
Tsonga (Shangani)	15	15	15	45
Shona	15	15	15	45
Total	30	30	30	90

The researcher sat in class, controlled the computer taught lessons and observed how the learners responded to the questions, how the learners comprehended and communicated using different mediums of instruction. Observations were entered into lesson observation schedules. To augment his findings the researcher also analysed five pupils' exercise books per school, administered questionnaires to all the Grade Seven learners per school.

In a multiple-method research such as this one, when observation is used, its purpose is to collect data regarding the occurrences of certain behaviour in a specific period of time (Best & Khan, 1993). It is common knowledge that there is a danger that the researcher may unconsciously tend to see what he/she expects to see and overlook those incidents that do not fit his/her theory. To guard against this bias, Best and Khan, (1993), advise that a lesson observation guide should be used to

record the responses and proceedings of the lessons (See Appendix 1). An attempt to objectively capture what was seen and heard in the lessons; this lesson observation guide (Appendix 1) was used. The classes taught were of mixed ability and to this effect; grouping was randomly done to ensure that both fast and slow learners were represented in all three groups.

Thereafter, a knowledge test was given to ascertain the level of performance of learners when lessons are given in different languages. Learners were allowed to respond to the questions in their home languages. The test was marked, scores entered in a mark schedule and with the aid of the SPSS a One Way ANOVA was run to find out the effect of the language of instruction on the performance of learners at Grade Seven level by calculating the means, the standard deviation and also to find out if the P-Value is > or < 0.05 which is the standard or significance level. The P – Value is the probability of observing a difference by chance. Therefore, if the P – Value is less than 0, 05, then, there is a statistical difference in the factors analysed. Details of the results of this study are found in chapter five.

4.7.3 Document analysis

Research has shown that documents are an important source of data in many research designs. Best and Khan (1993), point out that when document analysis is used in a descriptive research, current documents and issues are the foci. To this effect, this study analysed twenty five of the affected pupils' current documents which included the assignments, exercises and tests written and marked. Five pupils' exercise books were randomly selected from each of the five selected schools. The records and comments of their Grade Seven teachers were analysed and recorded to find out what the teachers observed during their teaching process on a day to day basis. There were many instances where teachers wrote such comments as; "Off topic"; "You did not understand the question"; "This is vague"; "Your language is difficult to follow"; "Improve your language to facilitate communication"; etcetera. Such comments were of interest to the researcher. Details of such observations were discussed in chapter five.

Thus, the analysis of records (pupils' exercise books) assisted the researcher to find out how learners perceived and described the events, the objects they observed in their environments and explained their perceptions of their environment. In this case, the researcher was interested in the language of school that is, English and Shona. Thus, how the learners used terms, words, phrases and statements to describe environmental phenomena. To this effect, the researcher investigated whether the participants used appropriate terms to describe phenomena and also check their effective use of English and Shona languages. The researcher was also interested in how inappropriate terms were used and how grammatical errors and the interference of the home language distorted the meaning of what the learners wanted to say.

Finally, the researcher was interested in the type of evidence document analysis provided. According to Bell (1993), documents provide 'witting and unwitting' evidence. 'Witting' evidence is perceived to be information that the original author of the document wanted to impart. 'Unwitting' evidence is seen as everything else that can be learned from the document. Thus, in this study, the researcher investigated both the 'witting' and 'unwitting' evidence. It was from the 'unwitting evidence that the researcher came up with underlying assumptions that were unintentionally revealed by the pupils. These assisted the researcher to take note of the effects of a foreign language as a language of school on the performance of Grade Seven pupils. To guide the process of document analysis, a document analysis schedule was developed for that purpose see appendix 2.

4.7.4 The questionnaire

Cooper (1984) defines a questionnaire as a document containing questions designed to solicit or elicit information appropriate for analysis. Spencer (1982), views a questionnaire as a printed list of questions given to respondents who fill in the answers themselves without an interviewer. The researcher believed that it was appropriate to employ questionnaires in his research. Fifteen carefully constructed questionnaire items were drawn. The questionnaires took the form of a Likert scale with responses ranging from **Strongly Disagree** to **Strongly Agree**. Each of these

responses was given a score from 1 to 5. These questions were adopted from a set of questions used for a similar study in Zimbabwe and were carefully reconstructed by two research specialists; Prof. L Cherian (Educational Psychologist and supervisor) and Mrs L Olwagen (Retired statistician with the University of Limpopo) so that they could specifically answer the questions they were intended to answer. A detail of how their validity and reliability was ensured is explained in item 4.7 below. These questions attempted to cover the research objectives drawn. In doing so, the researcher considered McMillan and Schumacher's (2001) recommendations where they had this to say on questionnaires;

> *--- one of the critical considerations is to define and list*
>
> *the specific objectives that the information will achieve. The*
>
> *objectives are based on the research problem ---.*

The participants in the questionnaires were the Grade Seven learners of the five selected schools. In this study, all the Grade Seven learners in the five selected primary schools completed the questionnaires. Each questionnaire was drawn in clear and simple English to cater for the needs of the respondents. Leeds (1974), warns that the language in questionnaires must be unmistakably clear in soliciting precisely what the researcher wishes to learn. Thus, unclear words and phrases were deliberately avoided because it was assumed they could confuse the participants. Where the learners did not understand, explanations were given in the learners' home languages.

4.8 Ensuring the reliability and validity of my instruments
4.8.1 Reliability

Reliability is when an instrument measures consistently, that is, the same thing more than once and result in the same outcomes. Black (1999) says that reliability is concerned with the stability of an instrument over time, in other words, whether it provides much the same scores on two different occasions, that is, after test–retesting. To ensure reliability of my instruments, a test- retest was done. Test-retest

reliability is a measure of how stable an instrument is over time. The questionnaire instruments were administered twice on the Grade Seven pupils during a pilot study in the Chiredzi district. This was at given intervals and the results were observed. The researcher observed that the scores were not affected by time. However, those questions which were found to be vague to the pupils were modified so that they were clearer, precise and concise. The group of pupils who participated in the pilot study did not form part of my study sample.

Thereafter, a correlation coefficient was then run to measure the reliability of the questionnaire instruments. Reliability co-efficient ranges in value from -1.00 to +1.00. If the reliability coefficient of my instruments were in the range of 0.80 to 0.90, then I would be able to say my instruments were reliable (Salkind, 2003). In this study, the difficulty of each item was not determined by item analysis; therefore, it was difficult to place each item into one of the two halves on the basis of similarity and difficult content. Consequently, a co-efficient value obtained in this study of 0,6 was considered a moderate value. According to Ary, Jacobs and Razavier (1996) if we find a correlation co-efficient of 0,65 between two halves of a test, the estimated reliability of the entire test, using the Spearman-Brown was approximately 0,79. On the basis of the tests done on my items, it was observed that my questionnaire items were reliable.

4.8.2 Validity

Validity is the ability of an instrument to measure what it is intended to measure. To ensure this, the researcher designed his data collection instruments in such a manner that they were logically consistent and covered comprehensively all aspects of the abstract concept to be studied. However, there are many types of validity (Black, 1998), but for this study, it is the construct and the content validity which were significantly relevant. To ensure construct validity, a deliberate effort was made to draw an adequate number of questions in questionnaires, and the observation schedules were drawn in a manner that they could incorporate sufficient characteristics that cover all relevant aspects of the concept or construct under study. Similarly, to ensure content validity, the researcher designed questions that

were relevant to the grade level and that were representative of the cognitive emphasis of the participants in the study (David & Sutton, 2004).

4.9 Data analysis

Since in this study, a mixed method design was used, both the statistical and the narrative descriptive methods were used to analyse data. In analysing the results of the knowledge test scores, the SPSS was employed to run an Analysis of Variance (ANOVA) with the home language (Tsonga or Shona) and the language of instruction (Tsonga, Shona or English) as the between – subjects factors. In document analysis, a discourse analysis was adopted and a document analysis guide was drawn and this was used to score instances of home language interferences in the language of school, distortions due to lack of language proficiency, corrupted meaning or meaningless statements and incomprehensible statements. To summarise data from document analysis, percentage tables of responses were drawn and descriptive explanations of observed behaviour applied. Also, in lesson observations, a lessen observation guide was drawn and applied to investigate the set objectives and since this study took a mixed method approach, a narrative descriptive approach was also adopted to describe both the expressive and receptive behaviour in class. Instances of attention and lack of it was also captured and described. See appendix 1.

4.10 Ethical considerations

Research with human beings must be carefully thought out and carefully planned. Experience has taught the researcher that participants are usually suspicious of investigative strangers and they may choose not to participate or open up for fear of victimisation. To avoid this, the researcher introduced himself to the participants and all the stake holders. With the aid of a covering letter from the Provincial Education Director for the Masvingo Province, and the University of Limpopo, the researcher acquainted the respondents with the purpose of his study. Best and Khan (1993), have this to say on the covering letter:

The cover letter should assure the respondents that all information will be held in strict confidence or that the questionnaire is anonymous ---. To omit this would virtually guarantee that many of the questionnaires would go into the waste basket.

Hence the researcher took care of this. In addition to that, before carrying out a study of this nature, there is need to seek consent with the Provincial Education Director for the Masvingo province and the chairpersons of the Parents – Teachers Associations of the affected schools (See appendices 4 and 5). This was done.

4.11 Delimitation of the study

Charles, Elliot and Louis, (1991) point out that delimitation answers the questions like what are the concerns of the study? What are not the concerns of the study? How far does it go in the treatment of the issue and how far does it not? Guided by all these questions, this study targeted the indigenous Tsonga/Shangani language speaking primary school children in the Chiredzi district of Zimbabwe. Chiredzi is found in the South Eastern part of Zimbabwe's Masvingo province. The majority of the people in this district speak Tsonga /Shangani as their home language and therefore it follows that most of the children in this district speak Tsonga/Shangani at home. The study also focused on the effects of using a foreign language as a medium of instruction at primary school level. The study did not investigate communication skills because that was done by other researchers. Instead, this study focused on how pupils' academic performance, perceptions and conceptual frame works were affected by the use of a foreign language. The study was done in the context of Environmental Science since the researcher assumed that it is in that subject area where there are a lot of new and scientific terms. Many of these terms also have other names in Tsonga/Shangani.

4.12 The importance of triangulation in this research

Ary, Jacobs and Razaviel (1996) view triangulation as the use of multiple sources of data, multiple observers and multiple methods to collect data. In this study a number

of data collecting instruments or procedures were employed to make up for the limitations left out by the use of other research instruments. Borg and Gall (1994) also view triangulation as the use of several different kinds of data collecting instruments such as tests, interviews, direct observation and content analysis to explore a single problem or issue.

The researcher used triangulation to cross-validate the data sources and data collection strategies and this enhanced the validity of his research. Babbies (1990) also adds that when a conclusion is supported by data collected from a number of different instruments, its validity is enhanced. Denzin (1989) advises that the flaws of one method are often the strengths of another. Consequently, the researcher saw it fit to employ multiple methods to validate his research findings since, as said above, the inadequacies of one method would be offset by the strengths of another. At the same time, the strengths of one method can be enhanced by the strengths of other methods. Thus, in a study where human participants were involved, the researcher observed that triangulation promoted validity and reliability in the study because human beings have minds and they can change or pretend, to influence the outcome of the results.

4.13 Summary

This chapter has attempted to highlight the methodological issues of the study. These included the background information, the statement of the problem, the aim and objectives, the significance of the study, the review of literature, the sample and sampling procedure, data collection methods and procedures and also triangulation and its importance. The research instruments such as the lesson observation, document analysis, the questionnaire and the knowledge test were also highlighted with their strengths and weaknesses discussed.

CHAPTER FIVE

5.0 Data Presentation And Results

5.1 Introduction

In this chapter, the researcher presented data collected from five primary schools sampled from one hundred and forty two (142) primary schools in the Chiredzi district schools of Zimbabwe. The data is sequenced and developed from the objectives emanating from the study on the effects of using a foreign language to teach Environmental Science at Grade Seven level in Chiredzi primary schools of Zimbabwe. As discussed in chapter four, the data was collected using four data collection instruments. These were lesson observations, a knowledge test, a questionnaire and document analysis. Presentation of data is in table form and it depicts the information gathered through the use of the above-mentioned instruments. Based on the nature of the study and the instruments used, the data collected is both qualitative and quantitative in nature and thus, it also took both qualitative and quantitative approaches in its presentation, interpretation and analysis. A descriptive narrative presentation style was used to describe data collected using qualitative methods, while data obtained through the quantitative approaches were analysed using the One Way ANOVA and descriptive statistics.

The four research objectives discussed in chapter one, which were used to guide the presentation of data in this chapter are as follows:

a) To investigate the effects of using a foreign language (L2) as a medium of instruction in the teaching of environmental science at primary school level.

b) To investigate if the home language as a medium of instruction at primary school level is related to classroom performance.

c) To find out if the home language is related to a person's thinking and learning process.

d) To establish if lack of competence in the language of instruction affect learners' participation.

5.2.0 Data Presentation

As said above, data was collected through the use of four data collection instruments which are lesson observations, knowledge test, questionnaires and document analysis. In lesson observations, the researcher was interested in the learners' responsive behaviour, especially the learners' receptive and expressive language, learners' participation, appropriateness of terms used in sentence construction, concept formation and development, and lastly, the level of performance in the knowledge test given after computer assisted lesson delivery. The above behaviour was observed and recorded from all the three groups, X, Y and Z who participated in the study in each of the five selected schools. As said in chapter four, each of the three groups was taught using a computer recorded voice and this was meant to standardise the lessons. The X group was taught in Tsonga (Shangani) which is the home language to 76.1% of the participants. The Y group was taught in Shona; which is a home language to 23, 9% of the participants in this study. Lastly, the Z group was taught in English with code-switching to Shona whenever the learners did not understand. This is in line with government policy as stipulated in the 1987 Education Act. As said above, all the three lessons were taught using a computer recorded voice so that all the three lessons were standardised.

Observations made on how the learners used the Tsonga (Shangani) language and the Shona language and the English language for learning were recorded, presented and analysed. Conclusions were drawn and recommendations to ease the problems faced by the learners were made in chapter six. The researcher used the following key to rate his observations during lesson observations and document analysis: 1 = very weak; 2 = weak; 3 = not sure; 4= satisfactory and 5 = outstanding.

Data collected using the document analysis method was collected using the same variables as those used during lesson observation. As said in chapter four, ten exercise books per school were randomly selected and analysed. The major concern of the researcher was to find out how the learners used English language to describe environmental phenomena. Spelling, the influence of the home language in sentence construction and concept formation were also checked and taken note of. Apart from the two instruments mentioned above, the questionnaire was also administered

to all the 222 Grade Seven learners who participated in this study. The questions were drawn to answer the research questions mentioned in chapter one. The responses from each question and item were code numbered to facilitate processing, checking and cross-referencing of data. The questionnaire items were coded and entered on data sheets. The researcher used tables to present data as stated in chapter four then used descriptive statistics to describe and analyse data.

These tables depicting the information gathered by use of the questionnaires, lesson observations, knowledge test and document analysis were used as the main mediums of data presentation. From the tables, the patterns and relationships between and among respondents, were discerned and described. Thus, data collected from lesson observation and document analysis in this chapter, were restricted to the descriptive level of research studies. However, data collected through the knowledge test and the questionnaire were analysed statistically. A One Way ANOVA was used to analyse data from the knowledge test given to the learners and descriptive statistics were used to analyse data collected through the questionnaire. Thus, in this study, a mixed method approach was used. As said above, data presentation was done showing how respondents felt about the variables and sub-variables drawn to answer the research questions or sub-problems mentioned in chapter one.

5.2.1 Results from Lesson Observation

5.2.2 The effects of using a foreign language as a medium of instruction on classroom performance

Table 5.1 is a summary of the lessons observed on the learners' interaction or use of English language as a language of instruction. As shown on the lesson observation schedule, each sub-problem was investigated during lesson observations. These sub-problems help to investigate the effects of using a foreign language as a medium of instruction in the teaching of Environmental Science at Grade Seven level.

Table 5.1 Lesson observations on the learners' use of English language. This was the Z group

Percentage Ratings

Rating ⟶	1	2	3	4	5
Variable (Observed behaviour) ↓	**Very weak**	**Weak**	**Not sure**	**Satisfactory**	**Outstanding**
Level of pupils receptive language	20%	40%	-	-	-
Level of pupils expressive language	20%	20%	-	40%	20%
Level of participation in the lesson taught using English language	-	40%	-	40%	20%
Appropriateness of terms used in sentence construction	20%	20%	-	60%	-
Appropriateness of terms used in concept formation and development	40%	20%	-	40%	-
Level of performance on the assignments given	-	60%	-	40%	-

Key

1   = Very weak,
2   = Weak
3   = Not Sure
4   = Satisfactory
5   = Outstandin

As shown on Table 5.1, the researcher's observation ratings on the Z group were spread from very weak (1) to outstanding (4). On the sub-variable: level of learners' receptive language: the results on Table 5.1 show that the researcher rated 20% of the learners as very weak, 40% as weak and the total percentage of those who were weak is 60%. Forty per cent were rated as satisfactory and none of the learners were rated outstanding or not sure. On the basis of the researcher's ratings, it can be concluded that the majority of the learners had problems with understanding the English language as it was used for instructional purposes.

On the level of learners' expressive language, the results on Table 5.1 shows that the researcher rated 20% of the learners in the Z group as very weak, another 20% as weak, 40% as satisfactory and 20% as outstanding. On average the researcher's ratings on the level of learner's expressive language showed that 60% of the learners in the Z group satisfactorily expressed themselves in English while 40% of them did that weakly. Thus, on this variable, the researcher observed that 60% of the learners satisfactorily expressed themselves in English.

On participation in class, when English was used for teaching and learning, the researcher observed that 40% of the learners were weak and another 40% satisfactory. 20% were rated outstanding and thus, on average 60% of the learners in the Z group participated positively. However, the researcher observed that seemingly some of the teachers had informed the learners that since there was a visitor, they should try to participate. This was evidenced by the fact that the majority of learners gave wrong answers to the questions asked and also showed lack of understanding to some of the questions asked.

On the sub-variable: appropriateness of terms used in sentence construction, the researcher rated 20% of learners as very weak, another 20% as weak and 60% as satisfactory. Similarly, on the sub-variables: appropriateness of terms used in concept formation, the researcher observed that 40% of the learners were very weak, 20% were weak and 40% satisfactory. On average, 60% of the learners had problems with terms in concept development.

Thus, these observations could have meant that learners have problems with the English language in concept formation and development. To validate this, the researcher also observed lessons when the learners were taught in their home languages; Tsonga (Shangani) and Shona for those who speak Shona as their home language. The results of which are shown in Table 5.2 below. The next Table summarised the results on how the lack of competence in the language of instruction affected participation in class.

5.2.3 The effect of the language of instruction on participation in class

Table 5.2. Results on the lessons observed when the home languages; both Shona and Tsonga (Shangani) were used for instructional purposes

| Variable (Observed behaviour) | The researcher's observations | | | | |
	1 Very weak	2 Weak	3 Not sure	4 Satisfactory	5 Outstanding
Level of learners' receptive language when the home languages (Tsonga and Shona) were used		-	-		100%
Level of learners' expressive language in their home languages	-	-	-	-	100%
Classroom participation when the children's home languages (Tsonga and Shona) were used	-	-	-	40%	60%
Appropriateness of terms used in sentence construction when the children's home languages (Tsonga and Shona) were used	-	-	-	40%	60%
Appropriateness of terms use in concept formation and development when the children's home languages (Tsonga and Shona) were used	-	-	-	-	100%
Level of performance on the assignments given when the children's home languages (Tsonga and Shona) were used	-	-	-	20%	80%

As stated in Table 5.2 above, the lesson that was taught to the Tsonga (Shangani) "X" group was the same in content and depth as that which was taught to the Shona 'Y' group and both were taught with the aid of a computer recorded voice in order to standardise them. Both were taught in the learners' home languages. As shown in Table 5.2, the researcher rated the learners' receptive and expressive language as 100% outstanding when their home languages were used. The researcher observed that the learners understood the language of instruction used and expressed themselves easily in their home languages. The researcher also noted that participation was enhanced when the participants' home languages were used. Thus, the researcher observed that the home language acted as a bridging gap into an unfamiliar language of school (English) in the Chiredzi district of Zimbabwe.

The results in Table 5.2 show that on the variable; classroom participation, the researcher rated 40% of the learners as having participated satisfactorily and 60% of them as having participated in an outstanding manner. The overall picture is that participation was significantly enhanced when the home-language was used. Where English language only was used in the Z group, the researcher rated the learners' participation at 60% against a 100% rating when the home languages were used. Thus, the ratings show that when the home languages were used, participation was enhanced. On the sub-variable; appropriateness of terms used in sentence construction, the researcher observed that 40% of the learners satisfactorily used appropriate terms and 60% of them were rated outstanding in how they used appropriate terms in sentence construction.

Thus, on this sub-variable, the researcher observed that 100% of the learners used appropriate terms in sentence construction when their home languages were used for teaching and learning. Similarly, on the sub-variable, appropriateness of terms used in concept formation, the researcher rated 100% of the learners in the X and Y groups as outstanding in how they used terms. Thus, on the basis of performance of the X and Y groups on the two sub-variables mentioned above, it may be concluded that use of the learners' home languages or introducing bilingual programmes at primary school level, may benefit the learners in a significant way. When the performance of the Z group which was taught in English only as compared to the performance of the X and Y groups which were taught in their home languages, it

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was noted that these groups performed much better during the lessons and also in the knowledge test given.

5.2.4 Results on data collected through the use of a Knowledge Test

As said in chapter four, after the lessons were taught in each of the three language conditions; Tsonga (Shangani), Shona and English and also, in each of the selected five schools, a knowledge test was given to each group. The groups who were taught using their home languages were allowed to answer questions using their home languages. Below is a table showing the schools which participated in this study and in the knowledge test given and the number of participants per language condition.

Table 5.3: The schools and number of learners who participated in the knowledge test given per language condition

Between-Subjects Factors			
	Language of Instruction	Value Label	Total N0. Per Group
Group	1. Tsonga (Shangani)	X	76
	2. Shona only	Y	76
	3. English and Restricted use of Shona	Z	79
School	1. Chikombedzi Pr. School	A	45
	2. Muhlanguleni Pr. School	B	44
	3. Chingele Pr. School	C	46
	4. Gurungweni Pr. School	D	45
	5. Machindu. Pr. School	E	51

Table 5.3 above shows a summary of the learners who participated in the knowledge test given. These learners were chosen from five selected schools and the study took place in the learners' schools. The learners from each school were divided into

three groups and two of them based on their home languages, while the third group was the one taught in English. These groups were the X, Y and Z. X comprised of 15 learners per school who spoke Tsonga (Shangani) as their home language. These were taught and answered questions using their home language. The Y group comprised of those who spoke Shona as their home language. Again, these were taught a similar lesson taught to the X group, but these were taught using Shona and they wrote a test using their home language as well. Later, a group of 15 learners, sampled from both language conditions, but who did not participate in the previous lessons, were taught a lesson which was assumed to be of the same level of difficulty with the ones taught using the learners' home languages. Both lessons were drawn from the learners' Grade Seven Environmental Science syllabus. Thus, the level of difficulty for both lesson topics; was assumed to be the same. Table 5.3 shows a summary of the learners who participated in the study per language condition and also per school.

The following Table, (Table 5.4) is a summary of the means of the learners' performance per school per language condition.

Table 5.4 Summary of the means of the learners' performances per school per language condition

Dependent Variable: Marks				
Group	School	Mean	Std. Deviation	Total.N0/ School/ Group
X - Shangani (Tsonga)	A	8.40	1.844	15
	B	8.33	1.175	15
	C	7.73	1.981	15
	D	7.40	1.957	15
	E	8.13	1.708	16
	Total	8.00	1.751	76
Y- Shona	A	8.00	1.890	15
	B	6.40	1.352	15
	C	6.81	1.515	16
	D	6.80	1.612	15
	E	6.60	1.502	15
	Total	6.92	1.639	76
Z - English	A	5.07	1.907	15
	B	4.57	2.102	14
	C	4.07	1.580	15
	D	5.13	2.100	15
	E	4.55	2.395	20
	Total	4.67	2.043	79
Total	A	7.16	2.374	45
	B	6.48	2.183	44
	C	6.22	2.280	46
	D	6.44	2.095	45
	E	6.27	2.450	51
	Total	6.51	2.290	231

Table 5.4 above shows a summary of the means of the learners' performances per school per language condition. Also, it shows the number of participants per school per language condition. In total, 231 learners participated in the observed lessons and knowledge test. Those taught in Tsonga/Shangani performed better than the other two groups. The highest mean is 8.40 scored at school A and the lowest being 7.40 coming from school D.

Those taught in Shona (Y) language followed with their highest mean being 8.00 and these, again came from school A. the lowest mean for this group is 6.40 and it came from school B. Those taught in English (Z) language condition, performed poorly with the highest mean being 5.07 and the lowest being 4.07. Both of these means came from school C.

When the 95% confidence interval was calculated, it was observed that the 95% confidence interval means was going to lie from 6.477 – 9.324 for those taught in Tsonga (Shangani). Those taught in Shona, it was between 5.477 to 8.932 whereas those taught in English; the lowest interval mean stood at 3.143 while the highest upper bound was 5.990. The following Table shows the estimated marginal means per language condition per school.

Table 5.5 Estimated marginal means per language condition per school

Estimated Marginal Means					
1. Group * School					
Dependent Variable: Marks					
Group	School	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
X - Shangani (Tsonga)	A	8.400	.469	7.477	9.324
	B	8.333	.469	7.410	9.257
	C	7.733	.469	6.810	8.657
	D	7.400	.469	6.477	8.323
	E	8.125	.454	7.231	9.019
Y - Shona	A	8.000	.469	7.077	8.923
	B	6.400	.469	5.477	7.323
	C	6.813	.454	5.918	7.707
	D	6.800	.469	5.877	7.723
	E	6.600	.469	5.677	7.523
Z - English	A	5.067	.469	4.143	5.990
	B	4.571	.485	3.616	5.527
	C	4.067	.469	3.143	4.990
	D	5.133	.469	4.210	6.057
	E	4.550	.406	3.750	5.350

The researcher was also concerned with ascertaining whether language had a significant bearing on the performance of learners. Thus, Table 5.6 below summarises the findings to that effect.

Table 5.6 Tests of the between subject effect

Tests of Between-Subjects Effects					
Dependent Variable: Marks					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.or P-Value
Corrected Model	494.516[a]	14	35.323	10.727	.000
Intercept	9800.863	1	9800.863	2976.474	.000
Group	442.301	2	221.151	67.162	.000
School	23.772	4	5.943	1.805	.129
Group * School	22.126	8	2.766	.840	.568
Error	711.240	216	3.293		
Total	10985.044	231			
Corrected Total	1205.756	230			

a. R Squared = .410 (Adjusted R Squared = .372)

Table 5.6 above shows the results of a one way ANOVA that was performed to ascertain whether the language of instruction had a bearing on the performance of learners at Grade 7 level. As said above, the languages used to teach the three groups of learners were Tsonga (Shangani) "home language to 76,1[%] of the learners who participated in the study", Shona (home language to 23,9[%] of the learners who participated in the study and these were taught in Shona and a control group (Z) was taught in English; the official medium of instruction. The result shows that there is a significant difference in the mean marks obtained from the knowledge test between the three groups. That is, those taught in Shangani, Shona and English. The result shows that there is a significant influence on the performance of learners since the P-value is 0.000. This implies that the performance of the learners between the three groups is significantly different.

From the observations above, if the means of any two of the language conditions are statistically different (not equal) then we do not accept the Null hypothesis (H_0). In this study the null hypothesis read; "Use of a second language as a medium of instruction and learning does not affect performance at primary school level". However, in this study, the results showed that the language, (group) has a significant effect on the performance of learners because the P-value from the result of the One Way ANOVA performed is zero (0.000). The P-value is the probability of observing a difference by chance. Therefore, if the P-value is less than 0.05, then there is a statistical difference. Thus, on the basis of this observation, the researcher failed to accept the Null hypothesis (H_0). Table 5.7 below is on pair wise comparisons. It compares the three groups.

Table 5.7 Pair wise comparisons

Pair wise Comparisons						
Dependent Variable: Marks						
					95% Confidence Interval for Difference[a]	
Group	Group	Mean Difference	Std. Error	Sig.[a] or P- Value	Lower Bound	Upper Bound
X	Y	1.076[*]	.294	.001	.365	1.786
	Z	3.321[*]	.293	.000	2.614	4.027
Y	X	-1.076[*]	.294	.001	-1.786	-.365
	Z	2.245[*]	.293	.000	1.539	2.951
Z	X	-3.321[*]	.293	.000	-4.027	-2.614
	Y	-2.245[*]	.293	.000	-2.951	-1.539

Based on estimated marginal means

*The mean difference is significant at the .05 level.

As shown in Table 5.7, a post Hoc multiple comparisons (pair wise comparison) was also performed. Again the P-value was less than 0.05 which is conventionally the cut off point for the P-value. The P-value of the Tsonga group and the Shona group is at 0.001 and the same applies for the Shona and English groups. For the rest, the P-value is 0.000. This post Hoc multiple comparisons were performed to ascertain where the actual differences lie. However, this is only done where the Null

hypothesis has been rejected. Thus, in this study, the null hypothesis was rejected and therefore, the post Hoc comparison was necessary. The researcher was also interested in ascertaining whether the schools had a significant effect on the performance of learners. Table 5.8 below compares the schools studied to find out if they had any significant effect on the performance of learners.

Table 5.8 P-value between the schools

		Sum of Squares	df	Mean Square	F	Sig. Or P-Value
Marks obtained in the Environmental Science test	Between Groups	448.777	2	224.389	67.585	.000
	Within Groups	756.978	228	3.320		
	Total	1205.756	230			
School	Between Groups	.853	2	.426	.206	.814
	Within Groups	471.416	228	2.068		
	Total	472.268	230			

The researcher was also interested in ascertaining whether the school as a factor significantly affected the performance. The result of the one way ANOVA showed that the school has statistically insignificant effect since the P-value obtained when testing the statistical differences in the marks obtained from the 5 different schools is 0.814. This figure is greater than 0.05 (the alpha level that was set). Thus, the results show that the school is not a factor. Hence, there is no sufficient support that the schools differed. Any observed differences may be due to chance. Hence, any school can show the same result. Tables 5.9 to 5.21 on the following pages, summarise results from the questionnaires.

5.2.5 Results from data collected through the use of a questionnaire

Table 5.9 Number and percentage of learners who participated in the questionnaire by school and by language

			School					
			A	B	C	D	E	Total
Home Language	Tsonga	Count	17	38	61	20	33	169
		% within School	47.2%	76.0%	88.4%	64.5%	91.7%	76.1%
	Shona	Count	19	12	8	11	3	53
		% within School	52.8%	24.0%	11.6%	35.5%	8.3%	23.9%
Total		Count	36	50	69	31	36	222
		% within School	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

As shown on the Table 5.9, 222 learners participated in completing the questionnaire. 76.1% of them spoke Tsonga (Shangani) as their home language while 23.9% of them spoke Shona as their home language. The participants' ages ranged from 11-16 and the majority of them had ages ranging from 12-13. These formed 38.3% - 35.6% respectively. Table 5.10 below is a summary of the language of instruction commonly used by teachers in Chiredzi district.

Table 5.10 Language of instruction commonly used in classrooms

			Home Language		Total
			Tsonga	Shona	
Q1. Language of Instruction commonly used in class	Disagree	Count	53	16	69
		% within HLang.	31.4%	30.2%	31.1%
	Not Sure	Count	16	7	23
		% within H Lang.	9.5%	13.2%	10.4%
	Agree	Count	100	30	130
		% within HLang	59.2%	56.6%	58.6%
Total		Count	169	53	222
		% within HLang.	100.0%	100.0%	100.0%

Table 5.10 above shows that 58.6% of the participants agreed that their teachers used English (a foreign language) for teaching. 31.1% disagreed and 10.4% were not sure. This takes us to Table 5.11 which shows the language of instruction mostly favoured by the teachers in the Chiredzi district of Zimbabwe.

Table 5.11 **Language of instruction mostly favoured by the teacher**

| | | | Home Language | | |
			Tsonga	Shona	Total
Q2. Language of instruction mostly favoured by the teacher	Disagree	Count	75	26	101
		% within HLang	44.4%	49.1%	45.5%
	Not Sure	Count	25	11	36
		% within HLang	14.8%	20.8%	16.2%
	Agree	Count	69	16	85
		% within HLang	40.8%	30.2%	38.3%
Total		Count	169	53	222
		% within HLang	100.0%	100.0%	100.0%

Table 5.11 shows that 45.5% of the participants showed that their teachers did not always use Shona (a foreign language to 76,1% of the learners) for teaching. 20.8% were not sure but 38.3% agreed. Both Shona and English are foreign languages to the majority of learners in Chiredzi south. Table 5.12 below shows the percentages of pupils who said they participate or not in class when English language is used for instructional purposes.

Table 5.12 Percentages of pupils who participate in class when English language is used for instructional purposes

			Home Language		Total
			Tsonga	Shona	
Q5. **Percentages of pupils who participated in class when English language is used for instructional purposes**	Disagree	Count	69	29	98
		% within HLang	40.8%	54.7%	44.1%
	Not Sure	Count	23	7	30
		% within HLang	13.6%	13.2%	13.5%
	Agree	Count	77	17	94
		% within HLang	45.6%	32.1%	42.3%
Total		Count	169	53	222
		% within HLang	100.0%	100.0%	100.0%

Table 5.12 shows the percentages of learners who participate in class when English language is used for instructional purposes. The results of the questionnaire show that 44.1% of the learners said that they participate in class when English and Shona are used for instructional purposes. On the same note, 42, 3% said they do not participate when English and Shona only are used for instructional purposes. Table 5.13 below summarises the responses of learners on whether they participated when Shona alone was used for instructional purposes.

Table 5.13 Percentages of pupils who participated in class when Shona was used for instructional purposes

			Home Language		
			Tsonga	Shona	Total
Q6. **Percentages of pupils who participate in class when Shona is used for instructional for instructional purposes**	Disagree	Count	64	29	93
		% within HLang	37.9%	54.7%	41.9%
	Not Sure	Count	13	7	20
		% within HLang	7.7%	13.2%	9.0%
	Agree	Count	92	17	109
		% within HLang	54.4%	32.1%	49.1%
Total		Count	169	53	222
		% within HLang	100.0%	100.0%	100.0%

Table 5.13 above shows that 49.1% of the participants showed that they do not participant in class because they are not fluent in Shona. On the same note, 41.9% of the participants disagreed and 9.0% of them were not sure. Both English and Shona are not home languages to 76.1% of the participants. About 54.4% of those who speak Tsonga as their home language agreed that they did not participant in class because they are not fluent in Shona. At the same time 37.9% of the Tsongas disagreed along with 54.7% of the Shona speakers. Table 5.14 below shows the percentages of pupils who participate in class when Tsonga (Shangani) was used for instructional purposes.

Table 5.14 Percentages of pupils who participate in class when Tsonga (Shangani) was used for instructional purposes

| | | | Home Language | | |
			Tsonga	Shona	Total
Q7. Use of Tsonga (Shangani) and learners' participation in class	Disagree	Count	35	31	66
		% within HLang	20.7%	58.5%	29.7%
	Not Sure	Count	8	5	13
		% within HLang	4.7%	9.4%	5.9%
	Agree	Count	126	17	143
		% within HLang	74.6%	32.1%	64.4%
Total		Count	169	53	222
		% within HLang	100.0%	100.0%	100.0%

Table 5.14 above shows that 64.4% of the participants agreed that they participate when questions were asked in Tsonga (Shangani). Of these, 74.6% of them spoke Tsonga (Shangani) as their home language and 32.1% spoke Shona. 29.7% of the participants disagreed. 20.7% of those who spoke Tsonga (Shangani) as their home language while 58.5% of them were Shona. 5.9% of the participants were not sure. Table 5.15 below shows the percentages of pupils who expressed themselves better when they were allowed to use their home languages in class.

Table 5.15 Percentages of learners' expressive language when allowed to use their home languages in class

			Home Language		Total
			Tsonga	Shona	
Q9. Learners' expressive language when allowed to use their home languages in class	Disagree	Count	28	8	36
		% within HLang	16.6%	15.1%	16.2%
	Not Sure	Count	8	4	12
		% within HLang	4.7%	7.5%	5.4%
	Agree	Count	133	41	174
		% within HLang	78.7%	77.4%	78.4%
Total		Count	169	53	222
		% within HLang	100.0%	100.0%	100.0%

Table 5.15 above shows that 78.4% of the participants agreed that they can express themselves better when they were allowed to use their home languages. Of these 78.7% of them spoke Tsonga (Shangani) at home and 77.4% of them spoke Shona. However, 16.2% of the participants disagreed with the observation. 16.6% of them came from those who speak Tsonga (Shangani) as their home language and 15.1% of them spoke Shona. 5.4% of the participants were not sure. The next table shows the percentages of pupils who said they take more time to complete their homework when they use a foreign language.

Table 5.16 Percentages of pupils who take more time to complete their homework when they use a foreign language

			Home Languages		Totals
			Tsonga	Shona	
Q10. **Percentages of pupils who take more time to complete their homework when they use a foreign language**	Disagree	Count	49	25	74
		% within HLang	29.0%	47.2%	33.3%
	Not Sure	Count	18	8	26
		% within HLang	10.7%	15.1%	11.7%
	Agree	Count	102	20	122
		% within HLang	60.4%	37.7%	55.0%
Total		Count	169	53	222
		% within HLang	100.0%	100.0%	100.0%

Table 5.16 above shows that 55.0% of the participants agreed that they take more time to complete their work in Environmental science because they have problems with both English and Shona languages. 60.4% of these participants were Tsonga (Shangani) speakers while 37.7% of them were Shona speakers. 33.3% of the participants disagreed. Of these, 29.0% were Tsonga (Shangani) speakers, while 47.2% of them spoke Shona as their home language. 11.7% were not sure as to what delayed them in completing their work in Environmental Science. Table 5.17 on page 130 below, shows the percentages of pupils who said they fail to understand questions that are asked in English in class.

Table 5.17 Percentages of pupils who fail to understand questions that are asked in English in class

			Home Language		
			Tsonga	Shona	Total
Q11. **Percentages of pupils who fail to understand** questions that are asked in English in class	Disagree	Count	43	26	69
		% within HLang	25.4%	49.1%	31.1%
	Not Sure	Count	20	7	27
		% within HLang	11.8%	13.2%	12.2%
	Agree	Count	106	20	126
		% within HLang	62.7%	37.7%	56.8%
Total		Count	169	53	222
		% within HLang	100.0%	100.0%	100.0%

Table 5.17 above shows that 56.3% of the participants agreed that they fail to understand the questions because they are asked in English. Of these, 62.7% of them came from those who speak Shona. However, 31.1% of the participants disagreed. For those who disagreed 49.1% of them came from those who speak Shona at home and 25.4% of them came from those who speak Tsonga (Shangani) at home. Table 5.18 on page 131 below shows the percentages of learners who said they understood questions when translated into their home languages (Code switching to the learners' home languages).

Table 5.18 Percentages of learners who understood when questions were translated into their home languages (Code switching to the learners' home languages)

			Home Language		
			Tsonga	Shona	Total
Q12. **Percentages of pupils who understood when questions are translated into their home languages**	Disagree	Count	27	10	37
		% within HLang	16.0%	18.9%	16.7%
	Not Sure	Count	6	4	10
		% within HLang	3.6%	7.5%	4.5%
	Agree	Count	136	39	175
		% within HLang	80.5%	73.6%	78.8%
Total		Count	169	53	222
		% within HLang	100.0%	100.0%	100.0%

Table 5.18 above shows that 78.8% of the participants agreed that Environmental Science have big words which could only be understood when the teacher translates them to their home languages. However, 16.7% of these participants disagreed. Of those who agreed, 80, 5% of them spoke Tsonga (Shangani) as their home language while 73.6% spoke Shona. On the same note, 4.5% of the participants were not sure. Table 5.19 below shows the percentages of pupils who said they think in Tsonga (Shangani) and then translate their thought into English (The official language of instruction).

Table 5.19 Percentages of pupils who said they thought in Tsonga (Shangani) and then translate their thought into English (Official language of instruction)

			Home Language		
			Tsonga	Shona	Total
Q13. **Percentage of pupils who said they think in Tsonga (Shangani) and then translate their thought into English**	Disagree	Count	23	23	46
		% within HLang	13.6%	43.4%	20.7%
	Not Sure	Count	9	7	16
		% within HLang	5.3%	13.2%	7.2%
	Agree	Count	137	23	160
		% within HLang	81.1%	43.4%	72.1%
Total		Count	169	53	222
		% within HLang	100.0%	100.0%	100.0%

Table 5.19 above shows that 72.1% of the learners agreed that when they are in class, they think in their home language and then translate their thoughts to the language of school. Of those who agreed, 81.1% of them spoke Tsonga (Shangani) as their home language while 43, 4% of them spoke Shona at home. However, 20.7% of them disagreed that when they are at school they think in Tsonga (Shangani) and then translate it into English language. Of these, 13.6% of them spoke Tsonga at home while 43.4% spoke Shona. However, 7.2% of the participants were not sure. Table 5.20 shows the percentages of pupils who said they easily understood when they are taught in their home languages.

Table 5.20 Percentages of pupils who said they easily understood when they are taught in their home languages

			Home Language		
			Tsonga	Shona	Total
Q1 **Percentages of pupils who said they could easily understand when they are taught in their home languages**	Disagree	Count	34	16	50
		% within HLang	20.1%	30.2%	22.5%
	Not Sure	Count	11	5	16
		% within HLang	6.5%	9.4%	7.2%
	Agree	Count	124	32	156
		% within HLang	73.4%	60.4%	70.3%
Total		Count	169	53	222
		% within HLang	100.0%	100.0%	100.0%

Table 5.20 above shows that 70.3% of the participants agreed that they understood easily if they are taught in their home languages. Out of these, 73.4% came from those who spoke Tsonga (Shangani) as their home language while 60.4% of them spoke Shona at home. About 22.5% disagreed. Of those who disagreed 20.1% spoke Tsonga (Shangani) as their home language, 30.2% spoke Shona as their home language. On the same note, 7.2% of the participants were not sure. Table 5.21 below, shows the percentages of learners who said they preferred learning in their home languages.

Table 5.21 Percentages of pupils who said they preferred learning in

their home languages

| | | | Home Language | | |
			Tsonga	Shona	Total
Q15. **Percentages of learners who said they could easily understand when they are taught in their home languages**	Disagree	Count	49	18	67
		% within HLang	29.0%	34.0%	30.2%
	Not Sure	Count	10	2	12
		% within HLang	5.9%	3.8%	5.4%
	Agree	Count	110	33	143
		% within HLang	65.1%	62.3%	64.4%
Total		Count	169	53	222
		% within HLang	100.0%	100.0%	100.0%

Lastly, Table 5.21 above shows that 64.4% of the participants agreed that they preferred learning in their home language. Of these, 65.1% of them were those who speak Tsonga (Shangani) at home while 62.3% spoke Shona as their home language. However, 30.2% of the participants disagreed. For those who disagreed, 29.0% spoke Tsonga (Shangani) as their home language and 34.0% spoke Shona as their home language. However, 5.4% of the participants were not sure.

Having presented data collected through the questionnaire, the next section presented data collected through document analysis. Consequently, the results below are a summary of observations from document analysis for written evidence on the learners' use of English and Shona languages for learning.

5.3   Results from Document Analysis for Written Evidence on the Learners' use of English and Shona languages for learning

Table 5.22 Percentage ratings of the learners' written evidence on the use of English language.

Observed behaviour in percentages

Variables (observed behaviour)	Percentage Ratings				
	1 very weak	2 Weak	3 Not Sure	4 Satisfactory	5 Outstanding
Level of learners' receptive language	8%	54%	-	28%	10%
Level of learners' expressive language	16%	48%	-	30%	6%
Appropriateness of terms used in exercises, assignments and tests	14%	56%	-	24%	6%
Ability to understand questions	10%	48%	-	32%	10%
Ability to answer questions with precision	10%	48%	-	34%	8%
Appropriateness of terms used to describe, define and conceptualise environmental phenomena	18%	48%	-	28%	6%

The results in Table 5.22 above show the ratings of the learners' documentary use of English language on six sub-variables that were carefully drawn to investigate two of the sub-problems stated in chapter one. These sub-problems were thus used to present and analyse data.

5.3.1 The effects of using a foreign language (English and Shona) for instructional purposes on the performance of Tsonga (Shangani) speaking children in Chiredzi district of Zimbabwe.

To augment data gathered through lesson observations, the knowledge test, and the questionnaire, the researcher also used document analysis to collect data. Document analysis gave the researcher an insight into how the learners used the English language in their exercise books each time they are given a written exercise. This gave the researcher a clear picture on how the learners were advantaged or disadvantaged by using a foreign language for learning. As shown on Table 5.22, the researcher rated 8% of the pupils whose exercise books he analysed as very weak on how they comprehended English language. On the same note, 54% of the learners were rated weak and this put the total percentage of weak learners on comprehending English at 62%. This is quite a significant figure when compared to 28% of the learners who were rated satisfactory and 10% who were rated outstanding. The total percentage of those who comprehended the English language was put at 38%. The researcher noted that cases of learners evading the questions were many. Other learners deviated from the topic when asked to describe certain environmental phenomena.

According to the researcher's observations, the learners evaded questions or deviated from the topic or focus because they could not understand English language. Where the learners seemed to have understood the question, their problem was on attempting to answer the question in English language. Thus, the results of this study showed that the use of a foreign language was a barrier to learning and performance. Consequently, as shown on Table 5.23, on the sub-variable; level of learners' expressive language, the researcher observed that 16% of the learners' expressive language was very weak. At the same time, 48% of the documents analysed showed that the learners were weak and this puts the total percentage of the learners who were generally weak at expressing themselves in English at 64%. Thus, this percentage shows that the learners had problems with using a foreign language for learning. On the same variable, the researcher also noted that only 40% of the learners were on the weak side. In addition to that, the

researcher observed that some people are good in oral language while they are bad in writing. Still on the same variable, 30% were rated satisfactory and 6% outstanding.

The total percentage of the learners whose exercise books showed that they could express themselves easily stood at 36%. This is quite lower than 64% of the learners who had problems in expressing themselves in English (a foreign language to the participants). Thus, the researcher observes that the majority of Grade Seven learners in Chiredzi district are disadvantaged by using a foreign language for learning and doing assignments. Therefore, on the basis of these results the researcher concluded that using a foreign language only, to teach these primary school learners, is a barrier to learning and their academic performance.

5.3.2 The influence of the home language in concept formation

As shown in Table 5.22 on the sub-variable; appropriateness of terms used in assignments, tests and exercises, the researcher observed that 14% of the exercise books analysed showed that the learners were very weak in concept formation. 56% of them were rated weak and put together, this is a total percentage of 70%. Thus, the researcher observed that 70% of the learners could not use appropriate terms in their assignments, tests and other class exercises. Cases of statements that showed a great influence of the mother tongue were many. Below are some of the examples of such statements:

- *The water was raining.*
- *When the water is burned it climbs up.*
- *I could hear that the tea was too sweet.*
- *He was touched with electricity.*
- *I heard a bad smell.*
- *The hen gave birth to six chicks.*

On the same note, only 24% were rated satisfactory and 6% were rated outstanding. Thus, the total percentage of those who used appropriate terms is 30%. This percentage is far less than 70% of those documents which showed that the learners

had problems with using appropriate terms. On the basis of this, the researcher observed that the use of inappropriate terms compromised the quality of the learners' performance in Environmental Science. In addition to that, meaning was distorted by the children's attempt to translate meaning from their home languages, to the language of school. Thus, because of the language policy which does not allow use of minority languages for teaching and learning, the primary school learner finds himself locked in a language dilemma.

Similarly, on the sub-variable: appropriateness of terms used to define, describe and conceptualize environmental phenomena, the researcher rated 18% of the exercise books analysed as very weak and 48% of them as weak. The total percentage of the learners whose documents were rated weak stood at 66%. The total percentage is not far from that of the learners who used inappropriate terms in sentence construction. Evidence of the influence of the mother tongue was very common in how environmental phenomena was described, defined or conceptualized. The following are some of the examples picked up during document analysis;

- *The men were digging a borehole*
- *Moon eclipse is the rotting of the moon*
- *Soil erosion is the flowing of top soil*
- *Tomatoes were beaten by cold in June*
- *The man closed the radio.*

These examples distort meaning and compromised the quality of the learners' work. On a more serious note, they impede performance in class. Data from document analysis was compared with that from lesson observation in Table 5.1 and it was noted that 60% of the learners used inappropriate terms in concept formation and development. In sentence construction, the researcher put the percentage of weak learners at 40%.

The variable discussed above is closely related to the sub-variable: ability to understand questions. As shown on Table 5.22, the researcher observed that 10% of the exercise books analysed showed that the students were very weak in understanding questions. About 48% of the documents were rated weak. This gave a total percentage of 58% of the documents, which were rated weak. Cases of

question evasion and answers that deviated from topics were common. The researcher also observed that the teacher's comments were very clear on the issue under discussion. Similarly, the researcher observed that 10% of the exercise books analysed also showed that the learners could not answer questions precisely as shown by the teachers' comments. Thus, he rated them very weak. The other 48% were on the weak side and this means that the total percentage of weak learners was 58%. However, 34% were rated satisfactory and 8% outstanding on answering questions precisely. On the whole, the results shown on Table 5.22 shows that most of the learners were on the weak side. Thus, the researcher observed that since the learners could not answer the questions precisely, then it may mean that they either did not understand the questions or they lacked the language or vocabulary in answering the questions.

5.4 Summary

This chapter set out to present, analyse, and interpret data on the effect of using a foreign language (English and Shona) as a medium of instruction in the teaching of Tsonga (Shangani) Grade Seven learners in Chiredzi district of Zimbabwe. Judgements of the researcher on the lessons observed were collated with data collected from the learners' written statements, descriptions, phrases and vocabulary from the learners' written documents. Generally, the data collected using the different data collection instruments discussed in chapter three seem to suggest that the use of a foreign language for instructional purposes at Grade seven level; negatively affect classroom participation and performance at Grade Seven level in environmental Science. On the questionnaire administered, the majority of the learners agreed that they think in their mother tongue and then translate their thoughts to English and/or Shona. Consequently, most of the statements and vocabulary used by the learners showed that there is interference of the mother tongue in concept formation and build up. Hence, since school policy does not accommodate the use of home languages, particularly minority languages, the quality of the learners' work is compromised and meanings are distorted.

In conclusion, this chapter attempted to present, analyse and interpret data collected through lesson observation, a knowledge test, document analysis and the questionnaire. The overall results from all the four data collection instruments used show that the use of a foreign language as a medium of instruction at primary school level impedes classroom performance. The results of lesson observations showed that when learners are taught using their home languages and also allowed to answer questions using their home languages, performance was enhanced. Thus, on the basis of the results of this study it seemed as if code switching to the learners' home languages (bilingual or multilingual programmes) could significantly benefit the learners in their learning endeavour. Consequently, chapter six focused on the recommendations made to this effect. Thus, chapter six summarised the whole project, made conclusions and also came up with some recommendations meant to benefit the learners, the educators, the ministry of education and other interested stake holders.

6 Summary, Discussions, Conclusions And Recommendations

7.0 Introduction

In this chapter, the researcher concluded the entire research by giving a summary of the whole research, drew some conclusions from his study and made some recommendations on the basis of his findings. In the summary, the researcher briefly looked at the research problem, the method, designs used, the limitations of the study and the implications of the findings. The conclusion section summed up answers to the research objectives stated in chapter one. These conclusions were made on the basis of the findings in chapter five. On the basis of these conclusions, recommendations for further research, language policy review and recommendations on the appropriate medium of instruction for Tsonga (Shangani) primary school learners in the Chiredzi district of Zimbabwe were made.

6.1 Summary

This study set off to investigate the effects of using a foreign language to teach Tsonga (Shangani) Grade Seven learners in Chiredzi district of Zimbabwe. Since the Chiredzi district is quite a big area, the researcher sampled five schools, which he used for his study. As implied in the delimitation of the study, the researcher's target population were all Tsonga (Shangani) Grade Seven learners. As shown in Table one, 222 learners participated in the study. From each of the selected five schools, all the 222 selected learners completed the questionnaires. At least five learners' Environmental Science exercise books per school were randomly selected and analysed. The total of which, is 25 learners' exercise books analysed in all the five selected schools. Three lessons per school were observed and one of which was taught in Tsonga (Shangani) to 15 Tsonga (Shangani) speaking learners (code named, the X group), the other one was taught in Shona to 15 learners who spoke Shona as their home language (code named the Y group) and the last group was the Z group, which was taught using English and some restricted use of the Shona

language. Using English and the restricted use of Shona is the official method in most Zimbabwean primary schools. Language competency and problems in all the three language conditions were observed, noted and recorded in a lesson observation guide. Data presentation and analysis took both a qualitative and quantitative form since a mixed method approach was used to carry out the study. Thus, chapter five gives a clear picture to that effect.

This study was not without its own limitations and constraints. As said in chapter four, during the study, the researcher experienced financial constraints to effectively carry out the study. As a result of that, the researcher resolved to apply purposive sampling so that he only studied those schools that were easily accessible and yet formed a proper representation of the researcher's target population. In addition to that, transport problems to travel from one school to the other were also a great challenge. However, as said in chapter four, the researcher designed some strategies to address the problem. In addition to that, a brother to the researcher offered transport to enable the researcher to move from one school to the other. Consequently, interesting findings and observations were recorded. Thus, the results of this study are authentic and valid.

6.2 Conclusions

This study set out to investigate four research objectives and these were stated I the form of research questions, namely:

1. Does use of a foreign language as a medium of instruction in the teaching of Environmental Science at primary school level, affect classroom performance at Grade Seven level?
2. Does the use of one's home language (L1) as a medium of instruction at primary school level enhance performance?
3. Is the home language related to a person's thinking and learning process?
4. Does lack of competence in the language of instruction affect learners' participation in class?
5. How can the Tsonga (Shangani) epistemologies be studied using the children's home language?

6.2.1 Does use of a foreign language as a medium of instruction in the teaching of Environmental Science at primary school level, affect classroom performance at Grade Seven level?

To investigate the above problem, the researcher used four data collection instruments. These were, lesson observation, document analysis, the questionnaire and the knowledge test. As shown on table 5.1 of chapter five, the researcher rated 60% of the learners as weak or satisfactory on how they interacted with the English language. The study established that 60% of the learners have serious problems in understanding the English language although it was also established that 60% of them satisfactorily expressed themselves. However, when the researcher considered the results from document analysis he established that although 60% of the learners satisfactorily expressed themselves in English language, their major problem was that they used inappropriate terms in the taught concepts and hence this compromised the quality of their work since most of the terms they used in answering questions and describing environmental phenomena were drawn from their home languages. Hence, they lost a lot of marks in the tests and assignments given. On the basis of this observation, the researcher concluded that learners in Chiredzi district under perform at Grade Seven level because they use two foreign languages to do school work and for examination purposes.

When the results of the Z group which was taught in English only were compared with those from the X and Y groups which were taught in their home languages it was observed that the learners' expressive and receptive language in the X and Y groups were rated 100% satisfactory or outstanding. The researcher concluded that the home language acted as a facilitative tool for learning and a bridging gap into an unfamiliar language of school (English and Shona) and hence it enhanced performance. The researcher also did a post observation conference with the class teachers of the Grade Seven learners. These teachers also confirmed that where English and Shona only were used for instructional purposes, the Tsonga (Shangani) learners under performed. In addition to that, the results from document analysis, where the researcher analysed written evidence from the learners' exercise books

confirmed that learners underperform when a foreign language only, was used for instructional purposes. Similar observations were made by UNICEF (1999), in their survey on the state of children in African schools. Their study showed that the school can be an alien and daunting place for millions of young children who begin class in a language different from theirs.

Similar observations were made by Owu-Ewie (2006) in Ghana where there is an early exit transitional model where the home language is used from P1 – 3, which is equivalent to Grade One and Three in the Zimbabwean situation. From his studies in Ghana, Owu-Ewie, (2006) views the use of a Ghanaian language as the medium of instruction in the early-exit transitional model as too short-term for children to understand the complex workings of their home language for them to transfer it effectively and efficiently to the second language. He argues that at this stage, they have not crossed the threshold where competence in the home language carries over to the second language (Owu-Ewie, 2006). In Botswana Nyati-Ramahobo (1996) observed that minority language speaking children are taught in Setswana at lower level and their performance was comparatively low up until Standard Six, but at Standard Seven and above, she observed that their receptive and expressive language improved. Morrow, et al (2005) made similar observation in South Africa where Zulu language speaking children performed better in an isiZulu test and badly in an English test. This study showed that in Zimbabwe's Tsonga (Shangani) speaking Grade Seven children in Chiredzi district could not perform up to their expected level when they did assignments in a foreign language than when they did when they used their home language.

Thus, the results from document analysis of learners' work written, showed that over 62% of the learners were weak in both understanding and expressing themselves in English. Consequently, the study showed that 70% of the learners used inappropriate terms in their assignments and tests. Thus, on the basis of this, the results from document analysis also showed that learners underperform because of the use of a foreign language as a language of school. The researcher thus, observes that use of a foreign language for instructional purposes implies, in a way,

excluding the Tsonga (Shangani) learners in the school system. This exclusion, it was observed in this study, that it is not only emotional through cultural alienation, but also instrumental by denying learners access to such opportunities as quality education. The researcher observed that Tsonga (Shangani) learners struggle to master and understand two foreign languages before they begin the actual learning process. Similar observations were made by Olsen (2000) where his studies in the USA on the challenges faced by USA immigrant minority language speaking children at school showed that there is a struggle to learn English language and be accepted in a society that is not always accepting and not always willing to embrace diversity.

The results from the questionnaires also showed that 42,3% of the learners did not actively participate in class because they were lacking in understanding the language of school instruction (English and Shona). During the post observation conference, the teachers confirmed that some Tsonga (Shangani) learners did not understand them well when they used English and Shona only during the lessons. During lesson observation, the results of the study showed that the more complex the problem, the more important the home language becomes. Consequently the researcher concluded that the issue of language of instruction, communication and conceptual development is critical for learning; particularly in a subject such as Environmental Science where learners need to use scientific terms to understand and define their environments.

6.2.2 Does the use of the home language (L1) as a medium of instruction at

primary school level enhance classroom performance or learning?

The results of this study showed that use of the home language as a medium of instruction at primary school level enhances performance or learning in the classroom. The researcher observed that during lesson observation, the X and Y groups which were taught the same lesson topics using a computer recorded voice in the same classrooms per school but using their home languages performed much better in a knowledge test than their performance when a foreign language (English) was used. Table 5.4 shows the summary of the means of the learners' performances

in a knowledge test per school per language condition. The results of the study show that the X group (those who were taught in Tsonga "Shangani") scored the highest mean; which was 8.400. These were followed by the Y group (those who were taught in Shona) and their highest mean was 8.000. The highest mean for the Z group (those taught in English), was 5,133 and this was the lowest for all the three language conditions. During lesson observation, the researcher also observed that when learners were taught using English only, they were hesitant to answer some of the oral questions and those who tried, often used inappropriate terms and poor English. This distorted meaning and hence, negatively affected the quality of their work. On the other hand, when the home language was used to teach the X and Y groups, performance was significantly high in both competence to answer questions accurately and correctly and also in their ability to conceptualise the taught material using appropriate scientific terms. Table 5.6 in chapter five summarises these observations. This observation also agrees with those made by Morrow, et al's (2005), in their study in Kwa Zulu Natal, Soweto and Johannesburg schools of South Africa. Their study showed that language proficiency is central to academic success and also confirmed Cummins' (1988) claim that the development of cognitive academic language proficiency (CALP), enables learners to understand and use the decontextualized, formal language register of classroom discourse and text books.

In South Africa, unlike in Zimbabwe, the Department of Education (DoE) encourages an "additive" approach where both English and home languages are developed for communication and academic purposes. This is based on Cummins' (1988) threshold theory which claims that the cognitive effects of bilingual language acquisition are positive under additive conditions, provided both languages are fully developed. Ndamba, (2008) and Owu-Ewie (2006) also share the same view when they observed that if a child masters the first language, then learning another language becomes less problematic because habits of speech, listening, reading and writing can be transferred to the learning of the second language. Such conditions are far from being met in the education of Zimbabwe's minority language speaking children and Cummins warns that the cognitive effects on the children may be negative when a poorly developed second language replaces the home language and both languages are below expected levels of development (Baker & Hornberger,

2001; Cummins, 1988). Such, is the situation of the Zimbabwe's minority language speaking communities.

Results from the questionnaire administered to the students also showed a significant percentage of the learners who said that they could master concepts easily when they are taught in their home languages. Tables 5.9 to 5.21 in chapter five summarise these observations. Thus, from the study, the researcher concluded that the home language has a significant role in learning and performance. The study showed that children, early in life, use their home language (mother - tongue) to organise their environments and relate themselves to it. Apart from organising the environment, the researcher also observed that the home language is crucial in sustaining attention and memorising new information. During a post observation conference, one Grade Seven teacher concluded by saying:

> *human beings work, eat, drink, rest, sleep and*
>
> *dream in their mother-tongues, and as such their*
>
> *developments should be built on the languages*
>
> *that best express their needs, dreams, interests*
>
> *and aspirations.*

6.2.3 Is the mother-tongue related to a person's thinking and learning process?

The study showed that the relationship of a person's language and thinking is clearly shown by what he says and writes. In this study, particularly in document analysis, the researcher observed that learners thought in their home languages and then translated their thought to English (the language of school). Use of Shangani-drawn terms was common in most of the learners' exercise books. As said in chapter four, some of the common statements were as follows:

- *I heard a bad smell.*
- *When water is burned, it climbs up.*
- *The water was raining.*

- *The person was caught with electricity.*
- *The river was full and the bus slept across the river.*

Such statements reveal that learners thought in their home languages and then translated their thought to the language of school. Such statements are unacceptable in the Zimbabwean examination system. Examiners can accept statements that show the influence of either Shona or Ndebele but not minority language groups whose grammar they do not understand. Consequently this affects the quality of their work and hence, it is justifiable to conclude that use of a foreign language as a medium of instruction affects performance of Tsonga (Shangani) language speaking Grade Seven learners.

The results from the questionnaires administered to the learners showed that 72,1% of the learners agreed that they thought in their home language and then translated their thought to English. As observed during this study, linguistic patterns have a profound impact on how humans perceive the world and how they are able to think about it. The researcher observed that these language patterns are fine tuned in one's home language. Hence, the study showed that there is a significant relationship between the home language and a person's thinking and learning process.

6.2.4 Does lack of competence in the language of instruction affect

learners' participation in class?

The results emerging from this study seem to suggest that lack of competence in the language of instruction affect learners' participation in class. Although the ratings in table 5.2 of chapter five show that during lesson observation 40% of the learners in the X and Y groups participated satisfactorily; results from the average participation rating is 100%. Thus, from this study, the overall picture is that participation is significantly enhanced when the home language is used for instructional purposes. Consequently from the results of this study, the researcher concluded that use of the home language is essential in class to enhance learners' participation in class. The researcher also observed that, in a classroom situation, communication is best when

involving a language understood by the learners, and consequently, teaching is best when it uses a language, which is understood by the recipients (the learners).

However, from the literature study done, psychologists make a distinction between receptive and expressive language skills. They see receptive language as the ability to understand what one hears and reads. In other words, it involves language comprehension. In contrast, expressive language is the ability to communicate effectively either orally on paper. This involves language production. In this study, the researcher observed that the participants lacked both the receptive and expressive language in a foreign language while they displayed excellent competence in their home languages. Thus, from the observations made in this study, then, it was quite reasonable to assume that receptive language skills must precede expressive language skills. Therefore, children must understand what words and sentences mean before they use them in speech and writing. In her study on language preferences in Zimbabwe, Ndamba (2008) observed that learners should have good receptive and expressive language competencies in order to understand instructions and to express themselves accordingly and meaningfully. Hence the argument that use of a foreign language as medium of instruction in teaching minority language speaking children, impedes performance at Grade Seven level.

On the basis of the evidence obtained from this research and the results coming from the reviewed literature, it can be concluded that use of a foreign language as a medium of instruction in the teaching of Environmental Science affect classroom performance of Tsonga (Shangani) Grade Seven learners. The results of the study showed that use of a foreign language as a medium of instruction at Grade Seven level may be a barrier to learning. Learners remembered less, and they participated less during class when using a foreign language. Therefore, this significantly impacted on their performance and participation in class. Thus, use of a foreign language as a medium of instruction to teach primary school learners may create hurdles to learning. The following sections looked at the recommendations made thereof.

6.3 Recommendations

In the light of the above conclusions drawn from the observations made, the following recommendations are made:

6.3.1 Provision of a new non-discriminatory language policy

The existing language policy should be revised to accommodate all the languages spoken in Zimbabwe. The researcher observed, in his study that use of a foreign language to teach primary school learners is a barrier to learning. The current language policy in Zimbabwe says that use of a home language (mother tongue) is restricted to Grade 1 up to 3 only. However, this study observed that many Grade Seven learners in Chiredzi district (particularly those who speak Tsonga "Shangani") have problems with English and Shona. Thus, an early exit to English or Shona disadvantages the indigenous Tsonga (Shangani) children and other learners who do not speak English or Shona as their home languages. These fall under the minority language speakers' bracket according to the Zimbabwean 1987 Education Act and its subsequent amendments. Consequently, the researcher recommends that policies to use minority languages as medium of instruction in their areas of prevalence should be put in place. This shall go a long way in helping the learners whose only language of communication is their home language. The all inclusive language policies will boost the esteem of most minority language speakers to confidently respond to classroom questions in the languages which they are both familiar and comfortable with.

In addition to that, the right to existence is protected in the United Nations' Declaration on the Right of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities (United Nations, 1992, article 22) which emphasises that all states shall protect the existence and the national or ethnic culture as well as the religious and linguistic identity of minorities within their respective territories, and shall encourage conditions for the promotion of that identity.

According to Sachs (1995:59), the right to non-discrimination is the most powerful principle to have emerged in relation to the protection of minorities. This right is so central to international human rights law that all but one of the major instruments prescribes it as an article of general application. It is central to the Universal Declaration of Human Rights (United Nations, 1948), especially article 7 which says that all are equal before the law and are entitled without any discrimination to equal protection of the law.

The International Covenant on Civil and Political Rights (United Nations, 1966, article 27) declares: In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with other members of their group, to enjoy their own culture, to profess and practice their own religion, or to use their own language. In addition to that the United Nations' Convention on the Rights of the Child (1992, articles 29, 30) reaffirms the right of the child, including children belonging to minority groups, to receive education according to their religious or cultural needs (Detrick, 1992). Thus, the provision of a new and non-discriminatory language policy in Zimbabwe does not contravene with any international policy, but rather, it will reaffirm the existing international policies on the promotion, recognition and respect of the rights of minority groups.

6.3.2 The introduction of bilingual programmes in primary schools

This study observed that three years of home language use is incontrovertibly not sufficient for learning at primary school level. Thus, the researcher recommends that education planners in Zimbabwe should introduce bilingual programmes at primary school level. This recommendation is made in view of the fact that the study established that use of a foreign language as a medium of instruction affects classroom performance at primary school level. This bilingual programme should be supported by a very good teaching of both the international language (English) and one of the national languages, Shona or Ndebele as separate subjects. This should be done to ensure that the learners' performance at school is enhanced; while at the same time, to ensure that the learners become competent in both the official language (English) and one of the national languages Shona or Ndebele. An all inclusive language policy can take the form of the one designed by Bodomo and Magune (1995) which was discussed on pages 31 to 37. The two researchers

proposed that Africa should introduce what they call localised trilingualism. This approach will accommodate most of the children in schools without discriminating against them in terms of language, ethnicity or race.

6.3.3 Writing of textbooks, which incorporate the indigenous knowledge systems to be taught at primary school level

The study established that because textbooks are written in English or Shona, they carry with them foreign knowledge systems leaving out Tsonga (Shangani) epistemologies in the peripheries. Consequently, these Tsonga (Shangani) knowledge systems are faced by a situation where they are going to gradually vanish from the indigenous African knowledge base. Thus, this study recommends there should be a deliberate attempt to write text books in Tsonga (Shangani). The government should set up a fund for such projects and the books should also address indigenous knowledge systems such as indigenous science. This should cover topics such as indigenous medicinal herbs, animal breeding, taming of cattle for draught and milking purposes, traditional preservation of food, indigenous preservation of fruits, traditional methods of circumcision, midwifery, rain making ceremonies and other related indigenous science. The learners live in their local environments and hence it will assist them to effectively explore their immediate environments.

6.3.4 Provision of an all-inclusive enabling legislation

To realise the above recommendations, the researcher recommends that an all-inclusive and enabling legislation should be put in place. This kind of legislation should recognise all prominent languages in Zimbabwe as official so that bilingual programmes, which should include, minority languages, will receive state funding. This shall go a long way towards helping all the learners in Zimbabwe to receive quality and appropriate education in the languages which they best understand. This will assist the learners to explore or make use of their environments in a more

meaningful way. As said in chapter one, the current situation is that only English, Shona and Ndebele enjoy state funding. Thus, children who speak other languages benefit less from the school system early in their school life. On the basis of this, the researcher agrees with Peresuh and Masuku (2002) who observed that in promoting the use of the home language in all primary schools, Zimbabwe has a distinct advantage in that its indigenous languages are already rooted in the physical environment of the local community. However, the problem is that the core school curriculum is, presently, highly centralised, elite culture oriented, and insensitive to the cultural and linguistic concerns of the sub-cultures of the various linguistic groups. It would, therefore be necessary to rewrite and re-orientate the content and materials presently used in schools, which are geared to an English and Shona language mediated culture.

According to Peresuh and Masuku (2002) the school-wide approach would be easy in Zimbabwe, as schools could use the same common language, which is the home language in the area where the school is located. Already, for the first three years of elementary school, children from Mashonaland (including its urban centres) use Shona, while children in Matebeleland and Plumtree use Ndebele and Kalanga, respectively. Similarly, those in Kariba and the surrounding areas have Tonga, while the Southern Lowveld has Venda. Tsonga (Shangani) could be used in the South Eastern district of Chiredzi. Thus, in the same way, teacher deployment should take cognisance of the linguistic abilities of the teacher *visa-vis* the school he/she wants to work in. A teacher who speaks a language of his learners is quite effective in the learning process of young children. The child's self-esteem, communication factors, and other issues are essential to education and can be greatly facilitated by a teacher conversant with and sympathetic to the language and culture of the child. This is an issue that has received little attention in the past, yet it is very important for minority language speaking children so that they could not be disadvantaged by the language of instruction.

6.3.5 Training and support for teachers

If a bilingual or multilingual programme is to be achieved in Zimbabwe, a new strategy to train and support teachers should be adopted. In-service and pre-service teachers' training programmes should be introduced to take care of the bilingual programmes. This should initially target those teachers who teach in minority language speaking areas. Later, it should cascade to include all primary school teachers. This also implies that a new curriculum, which significantly departs from the current monolingual programme, should be put in place to cater for all the learners. In addition to that, primary school teachers' training colleges should introduce minority languages so that they train relevant educators who have the capacity to handle learners who have language challenges. This suggestion agrees very well with the recommendations made by Peresuh and Masuku (2002) when they suggested that if primary languages are to become truly effective tools for expressing national culture, the training of primary language teachers should be treated as a matter of great importance. They argued that such training programmes should be able to incorporate some of the minority languages in Zimbabwe. Thus, this study sees the integration of minority language teachers in schools as very crucial, especially in inter-cultural education where teachers are expected to operate on the same level and in perfect cooperation. Such teachers create links between the school and minority parents, and introduce the minority culture as content into the curriculum (Byram and Leman, 1990). It is also worth noting that maintaining fluency in the learners' home languages depends strongly upon a teacher's understanding of the child's home language and culture. Thus, this study recommends that teachers should teach from the learners' experiences, provide a strong context for the understanding of the issues learners face, emphasise critical thinking, validate the learners' own cultural experiences, and explore both cultural differences and human universals.

6.4 General conclusion

This study set off to investigate the effects of using a foreign language as a medium of instruction in the teaching Tsonga (Shangani) Grade Seven learners in the

Chiredzi district of Zimbabwe. The researcher was prompted to carry out the study after having observed the performance of the learners in Chiredzi rural primary schools. As said in chapter one; this study had its own limitations and these might have compromised the results. However, efforts were made to minimise the effects of these limitations to the study. The study was heavily informed by the work of Levy Vygotsky who argues that the learner's mother-tongue is crucial in learning. Chapter one of this study gave a background overview of the study. Chapter two looked at the theoretical perspective of the study while chapter three of this study reviewed literature related to this study. Chapter four looked at the research design, data collection instruments and their limitations. Chapter five presented and analysed the data. In chapter six, the researcher drew his conclusions from the findings and then closed his study by making some recommendations.

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LIST OF APPENDICES

APPENDIX 1: Lesson Observation Schedule

Name of school:…………………………………………………………………………….

Class:………………..Group………………Date…………………Time………………..

Subject:………………………………………………………………………………….

Lesson topic:……………………………………………………………………………

Language used:…………………………………………………………………………

Instructions: Tick (√) in the appropriate books which most closely reflect your judgment of the learners' use of English and Shona language and against each variable, using the key provided below, give your own comments.

KEY: 1 = very weak   2 = weak   3 = Not Sure

4 = Satisfactory   5 = Outstanding

A. Learners' use of English and Shona languages						
Observed behaviour	RATING					Comments
	1	2	3	4	5	
Level of pupils' receptive language						
Level of pupils' expressive language						
Class participation						
The influence of mother-tongue in sentences construction						
The influence of mother-tongue in concept formation and development						
Level of performance on the assignment given						

Researcher's comment:…………………….…...……………..
………………………………………………………………………………………………………
…………………………………………………………………………………………………..

SIGNATURE…………………………………………………………………………

APPENDIX 2:   Document Analysis Schedule

Name of school:…………………………………………………………………………….

Class:…………………..Group………………Date…………………Time……………….

Subject:……………………………………………………………………………………..

Lesson topic:…………………………………………………………………………………

Language used:………………………………………………………………………………

Instructions: Tick (√) in the appropriate books which most closely reflect your judgment of the learners' use of English and Shona language and against each variable, using the key provided below, give your own comments.

KEY: 1 = very weak   2 = weak   3 = Not Sure

**   4 = Satisfactory   5 = Out standing**

A. Learners' use of English and Shona languages						
Observed behaviour	RATING					Comments
	1	2	3	4	5	
Level of pupils' receptive language						
Level of pupils' expressive language						
Class participation						
The influence of mother-tongue in sentences construction						
The influence of mother-tongue in concept formation and development						
Level of performance on the assignment given						

Researcher's   comment:……………………………………………………………………………
………
………
………
……………………………………………………………………………………………….

SIGNATURE:…………………………………………………………………………………...

APPENDIX 3.   Questionnaire For Grade Seven Pupils

INSTRUCTIONS: Answer the first part by filling in the spaces provided. For question/item 1-15 just put an (**X**) in the box with a response which agrees with your judgment. Remember, this is not a test; there is no right or wrong answers.

Name of school……………………………………………Grade……………

Your age……………………………………………………………………..

Your home language……………………………………………………………

	Strongly Disagree	Disagree	Not sure	Agree	Strongly Agree
	1	2	3	4	5
1. My teacher always uses English when teaching E.S.					
2. My teacher always uses Shona when teaching E.S.					
3. During the ES lessons, I can understand the teacher's language easily.					
4. The teacher uses simple language to explain in class.					
5. I normally do not participate in class because I am not fluent in English.					
6. I normally do not participate in class because I am not fluent in Shona.					
7. I participate when questions are asked in					

Shangani.					
8. I answer questions when I am allowed to answer in Shangani.					
9. I can express myself better when I am allowed to use my home language.					
10. I take time to complete my work in Environmental Science because I have problems with English and Shona language.					
11. I fail to understand some of the question because they are written in English.					
12. Environment Science have big terms that I do not understand. When the teacher translates them to my home language, I understand.					
13. I think in Shangani/Tsonga and then translate my thought to English.					
14. I could easily understand when I am taught in my home language.					
15. I prefer learning in my home language.					

APPENDIX 4:   Informed Consent

I,_____(Caregiver) and

I,_____(child)

- hereby **agree to participate** in this study conducted by Davison Makondo to investigate the effects of the language of instruction on the performance of the Tsonga (Shangani) speaking Grade Seven pupils in Zimbabwean schools.
- **The research has been explained to us and we understand what will be expected of us.**
- We understand that the Ministry of Education, Sport and Culture; represented by the Provincial Education Director for Masvingo province is aware of this academic project.
- We participate in this study on condition that all our results will be treated with **strict confidentiality.** We acknowledge that the results of this research project may be published in any journal, but however, our names and those of our families, will not be mentioned.
- **We understand our participation is voluntary, and we remain free to withdraw from the project at any time without prejudice.**

Child_____Date_____

Caregiver_____Date_____

APPENDIX 5: Consent Letter By The Chairperson of The Parents Teachers, Association

I …………………………………………………………….. being the Chairperson of the Parents teachers' Association, do hereby confirm that I understand that Mr. Makondo Davison is doing a Ph.D programme with the University of Limpopo and is carrying out a study on the effects of the language of instruction on minority Tsonga /Shangani speaking Grade Seven pupils.

I agree that he should, observe lessons, analyze documents and ask the sampled learners to complete questionnaires. I also understand that all collected information will be treated with strict confidence, and that any publication of it ; in whole or in part; will respect the participants' anonymity.

Postal address: --

Telephone :   --

Signature: --

Date   :   ---

APPENDIX 6: Letter to The Provincial Education Director For

                           Masvingo Province

UNIVERSITY OF LIMPOPO

Turfloop Campus

Faculty of Humanities

 School of Education

Private Bag x 1106

Sovenga

0727

SOUTH AFRICA

Tel. 015 268 2928

Fax no. 15 268 2869

14 June 2010

Dear Sir/Madam

The Provincial Education Director For Masvingo Province

Re: APPLICATION FOR PERMISSION TO CARRY OUT A STUDY IN YOUR SCHOOLS IN CHIREDZI DISTRICT

I Davison Makondo being a PhD student at the University of Limpopo in South Africa, do hereby apply for permission to carry out an academic study in your schools in Chiredzi district upto the 09th of July 2010. My concern is to investigate the effects of the language of instruction on minority Tsonga (Shangani) speaking Grade Seven pupils in Zimbabwean schools.

In this study, I intend to sample five primary schools in Chiredzi South and the learners shall be required to attend to at least three lessons taught using three different languages using a computer recorded voice. The content taught shall be something selected from their syllabus. Pupils' exercise books shall also be analysed and thereafter, they shall be asked to complete questionnaires.

Please note:

1. Information obtained from this study will be used exclusively for the purposes of research.

2. All information will be treated with strict confidentiality. The learners' names will not be reflected in the thesis, nor will they be discussed with any one.

3. Participants are free to withdraw from the study at any time should they feel that their rights are being infringed with. However, this is not expected.

I hope you will co-operate.

Thank you in anticipation

Yours Sincerely

Davison Makondo

Prof. L. Cherian:………………....………… Date: 14 June 2010

(Supervisor)

Prof. M.J. Themane……………………….. Date: 14 June 2010

(HOD. Department of Educational Studies)