THE IMPACT OF ENGLISH LANGUAGE ON PUPILS' ACADEMIC PERFORMANCE
IN PRIMARY SCHOOLS OF BUSIA COUNTY, FUNYULA
DIVISION SAMIA DISTRICT
KENYA

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A RESEARCH REPORT SUBMITTED TO THE COLLEGE OF EDUCATION, OPEN AND DISTANCE LEARNING IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE BACHELORS OF EDUCATION OF KAMPALA INTERNATIONAL UNIVERSITY

AUGUST, 2012
DECLARATION

I, Ngira Jackline Nasirumbi, do declare that the work presented in this study is my original work and has never been presented to any institution for an academic award.

Sign: [Signature] Date: 24/04/2013
APPROVAL

This thesis has been submitted for examination with my approval as the candidate's university supervisor.

SIGN........................................
Gwokalya Edith
Supervisor

DATE.................................
27/08/2012
DEDICATIONS

This research is dedicated to my parents, late Fredrick and Loice Ngira, my beloved husband; Tom Manoti for his love and tireless sacrificial efforts, moral, social, spiritual, physical and economic encouragements, my children; Mercy, Mogamba, Manoti and my entire siblings for both spiritual and financial support. The endurances he has gone through that formed a strong academic foundation for me up to this level.
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ABSTRACT

The research on the impact English language as a mode of Instruction to the Academic performance in Funyula division, Samia District. The study focused on how English language influences the pupils' performance in other subjects in primary schools, classifying the different mother tongues in relation to English language towards the performance and to investigate the prevalence of the problem of language barriers in relation to the academic performance.

Using a cross-sectional survey research design, the samples employed in the study were got from the primary Schools. The researcher made use of the questionnaire technique with the aid of interviews to collect data. The data was categorized through the use of descriptive statistics with the aid of frequencies, percentages.

The major findings of the study were; English was the language used for communication in class for instruction, this was found that students' understood to a percentage of 61.7% effective but the pupils were not fluent with a percentage of 60%. The researcher also found out that there is a relationship of poor academic performance with the way pupils appreciate English Language both in class and outside class activities. These findings found out that if MT is not developed sufficiently for them to become fluent readers and writers, their understanding of the vocabulary and syntax of their own language will be limited. This gap in their understanding of the structure of their first language limits their ability to learn the second language (L2). A strong foundation in MT is required for learning L2, as: "The level of development of children's mother tongue is a strong predictor of their second language development,

Recommendations include; the researcher recommends that the teaching strategy should be devised in the lessons taught in these schools and be adopted, with suitable modification, for bilingual students who are acquiring English as a new language of instruction. Nevertheless, the researcher stresses that the issue of a sudden language switch needs a deeper and longitudinal study to assess the implications of sudden change of the language of instruction on student understanding and their achievement academically.
CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

In the United States, the Centre for Minority Education and Research of the University of California carried out one of the most comprehensive longitudinal studies (1981–91) of bilingual education programs to date. The objective of the study was to determine whether teaching Spanish-speaking students (who had limited English proficiency) mostly in English or in combination with Spanish enabled them to catch up to their native English-speaking peers in basic skills (English reading, language arts, and mathematics). Students in 51 schools across five states were sampled.

Okwany (1993) carried out a study to examine the attitudes of Kenyan high-school students toward the national language, Kiswahili. This study was intended to provide useful information for evaluating the Kiswahili-language curriculum. Okwany used a stratified random approach to select the sample of 483 students from three school types in one province in Kenya. The Attitude/Motivation Test Battery (Gardner & Smythe 1981) was adapted to suit the Kenyan context and was administered to the sample. The questionnaire explored seven dimensions of attitudes toward Kiswahili with respect to gender, ethnic background, and school type. Experienced Kiswahili teachers held focus-group interviews to identify factors that might explain these attitudes. In addition, the study explored the effects of making Kiswahili a mandatory subject.

The mother tongue is indeed the primary language of learning, as evidenced by the differences between the level of achievement attained by students in the English-immersion programs and that achieved by students in the late-exit bilingual programs. The latter scored significantly higher in the three basic skills. Early transition to English-only programs does not work. Students do not maintain or develop the linguistic and cognitive skills acquired in the first language. Proficient access to the second language can occur via second-language-content classes for the remaining 50% of instruction time. Additive bilingual or multilingual programs, coupled with an integrated approach
to the curriculum, provide the best results in the acquisition of both knowledge and competencies in the second language (Ramirez 1994).

In a world with trade barriers being broken, with single markets in areas such as Europe growing, and with economic competition rapidly developing on a global scale, competence in languages, in general, is increasingly important. Those who have multi-linguistic capital may, indeed, be in a position to increase their economic capital. It so happens that English has gained a unique status in this context of the liberalization of world trade and the globalization of economy, and it would be foolish not to take advantage of this. The language situation in Mauritius being intimately bound up with the socio-economic realities, success in this society is therefore defined by proficiency in English (and, for that matter, French which is another European language used and taught in schools) in both the oral and the written mode.

There seems to be a consensus in Mauritius on matters of language and education that English should remain a language through which students gain access to different types of academic knowledge. Literacy education for Mauritians in and through the English language is associated with economic advancement and social progress. In a multilingual setting like Mauritius, where French-based Creole, the home language of the majority of the population and the language of inter-ethnic communication, is equated with being powerless and underprivileged, literacy in the official medium (i.e. English) is regarded as a major key to self advancement as well as empowerment.

Kenya is richly endowed with a diversity of languages and subsequently a handful of dialects, these forms part of the first languages that in turn affects students’ understanding and conformity with the second languages which is English, which also serves as a medium of instruction in most Kenyan schools.

1.2 Statement of the Problem

Comprehensive education aimed at ensuring that English language in primary schools is perceived as a prerequisite among students as a way for improving on the pupils’ performance in other languages, studies show that students have not considered English
language as an important subject instead they prefer to interpret exams in their mother tongues and this has drastically affected their academic performances at different levels, others are dropping the language and do not give it serious attention among others, and it’s against such detrimental circumstances that this investigation is undertaken.

1.3 Purpose of the Study

The general aim of the study was to establish the impact of languages on the students’ performance in science subjects in primary schools.

1.4 Specific Objectives

i) To investigate how English language influences the students’ performance in science subjects in primary schools.

ii) To classify the different mother tongues in relation to English language towards the performance in science subjects in primary schools.

iii) To investigate the prevalence of the problem of language barriers in relation to the academic performance by students in science subjects in primary schools.

1.5 Research Questions

i) How has English language influenced the students’ performance in science Subjects in primary schools?

ii) What are the different mother tongues in relation to English language towards the performance in science subjects in primary schools?

iii) What are some of the causes of poor performance in relation to language barrier by students in science subjects in primary school?

1.6 The Scope of the Study

The study was carried out in Funyula Division, Samia district, Western Region of Kenya, reason being it is a special area of interest to the researcher. Contextually, the study focused on how English language influences the students’ performance, identify reasons as to why different students with different mother tongues perform differently, classifying
the different mother tongues in relation to English language towards their performance and identify the problems brought about as a result of language barrier in relation to the performance by students in science subjects in the school both in the internal assessment and the national examinations between 2005 and 2008.

1.7 Significance of the Study

The findings of the study will assist teachers of English language in different schools concerned with the teaching in English, researchers and policy makers like, the Ministry of Education, District education Officers who take part in an essential role in promotion of education programmes in the district and other parts of the country.

The findings will also provide up to date literature to academicians (who are interested in exploring the field of English literacy) in the Library of Kampala International University (KIU). This can help them understand the subject better so that they can identify specific matters that need research and developments.

The study will also be useful to other researchers in the field of education especially teachers and students pursuing bachelors in education specializing in English who would wish to expound on the area of languages to obtain a foundation in the form of literature review like the institute of languages in other universities besides KIU.
CHAPTER TWO
LITERATURE REVIEW

2.0 Chapter Overview

This chapter entails, a review of the theoretical, conceptual and related literature on how English language influences the students' performance in science subjects in primary schools. Specific interest areas on the philosophy and understanding of education and its processes will be given. The chapter reviews the works of other scholars who have written about the topic of the study or those who have addressed similar issues as those of the variable that will be available in the study.

2.1 Theoretical Framework

Language of thought theories fall primarily into two views. The first view sees the language of thought as an innate language known as mentalese, which is hypothesized to operate at a level below conscious awareness while at the same time operating at a higher level than the neural events in the brain. The second view supposes that the language of thought is not innate. Rather, the language of thought is natural language. So, as an English speaker. On one hand, the Sapir-Whorf hypothesis theorized that the language habits of our community predispose certain choices of interpretation (Durkin & Shire, 1991). This simply means, according to Durkin and Shire (1991), that people think and perceive things in a way made possible by “the vocabulary and phraseology of their language” (p.12). Hence, “concepts not encoded in their language will not be accessible to them, or at least will prove very difficult” (p.12). On the other hand, Einstein, in his response to Hadamard’s (1945) informal survey, was quoted as having said that “the word or the language, as they are written or spoken, do not seem to play any role in my mechanism of thought” (Davis & Hersh, 1980:308). It is worth noting that, although the Sapir-Whorf hypothesis has not been generally accepted, especially in the domain of mathematics education (Zepp, 1989), there is evidence that shows the language we
speak has an influence on our thought patterns (Brodie, 1989; Durkin & Shire, 1991; Silby, 2000). On the other hand, studies have shown that the cognitive style of most mathematicians coincides with Einstein’s statement (Hadamard, 1945). Nevertheless, it is necessary to make a distinction between the process of creating mathematics by professional mathematicians and that of communicating mathematics to students in a classroom. While the former is dominated by thought, the later is mediated by language. Therefore, in whatever school of thought one might be, language has a crucial role to play in communicating and developing mathematics education. Many frameworks have been developed from both a sociolinguistic as well as a psycholinguistic point of view in an attempt to link the various elements of language and mathematics. Among these frameworks is the one developed by Gawned (1990). According to Ellerton & Clarkson (1996), Gawned’s framework is based on a “sociolinguistic premise” (p.990). The framework acknowledges that the language of the classroom has a “formative effect on the learners’ understanding of mathematics” (p.990). According to the framework, as far as the mathematics learner is concerned, “mathematical concepts only have meaning within the linguistic and social context from which they were derived” (p.994). As noted earlier, studies are inconclusive on the effect of bilingualism and multilingualism on student mathematical learning. However, some studies have shown that student proficiency in his or her first or second language plays a role in his or her cognitive activities. (Secada, 1992; Silby, 2000). Cummins’ s ‘threshold hypotheses’ states that for learners who speak two or more languages, the interplay in the learning process between the language codes may either assist or detract them from learning.

On one hand, if a bilingual or multilingual student has reached a “threshold” of competence in the two or more languages, then the learner may have a cognitive advantage. On the other hand, those bilingual or multilingual students who are not really fluent in either of the two or more languages tend to experience difficulty in mathematics (Ellerton & Clarkson, 1996). At the start, Cummins (2000) distinguished between what he called basic interpersonal communicative skills (BICS) and cognitive academic language proficiency (CALP). According to Cummins, while conversational fluency is often acquired to a functional level within about two years of initial exposure to the
second language, it takes at least five years to catch up with native speakers in academic aspects of the second language. Cummins’ distinction between the conversational and academic has made a lot of impact on many educational policies and practices in both North America and the United Kingdom. Similarly, many of the current empirical studies on the implications of bilingualism revolve around this distinction. The results all point to the fact that linguistic factors have a significant effect on student learning of mathematics. However, it has been observed that most of the research on bilingualism and multilingualism is carried out in developed countries. Therefore, the need for urgent research investigation, particularly in developing countries, to determine the extent and nature of the role of bilingualism has been called upon (Austing & Howson, 1979; Ellerton & Clarkson, 1996). As part of our effort to minimize the language difficulties of our bilingual Arabs mathematics students, who are experiencing and acquiring English as a new language of instruction, an experiment was carried out. In the next section, a detailed report of the experiment is presented.
2.2 Conceptual Framework

Effects of Languages in Relation to the Pupil’s Performance of Science Subjects

**Independent variable**
- Culture
- Illiteracy
- Limited awareness
- Language barrier

**Dependent**
- Introduction of books which are translated
- Teach in English
- Encourage learners to read different novels in English

**Intervening variable**
- Government should intervene at different levels
- Create awareness.
- Sensitize English programmes.

**Moderating variable**
- Proper interpretation of questions
- Increased language proficiency
- Better/increased performance in relation to other subjects

Researcher made (2012)
The Conceptual framework tries to explain the system of concepts and their interrelationships. It illustrates the benefits of improved language proficiency as a dependent variable which will help in students’ proper interpretation of exams, improved performance among others. But however much as the above can be achieved there are always interferences that hinder the usage of English subject in relation to science subjects they include; culture, high levels of illiteracy and language barrier among students, from the above constraining variables we shall get the intervening variables.
which will breed the moderating variables. As the two constraining variables are interrelated, that is independent and dependent variable they will produce an intervening variable and the output from the three, that is will be a moderating variable which is the outcome.

2.3 How English Language influences the pupils' Performance

Social awareness of and efforts spent on foreign language teaching have been clearly increasing in Turkey for years. Along with this awareness and effort, language teaching has undergone many fluctuations and dramatic shifts over the years resulting in more emphasis on the need for all students to become competent language learners (Ayo, 2004). These fluctuations and shifts in foreign language teaching in Turkey have brought about striking changes which have created several problems as well. One of these problems is related to the selection of schools and their program content. In Turkey, after compulsory elementary school, students study hard to get into state or private primary schools where they have one year preparatory stage and follow an immersion program. They have to take a central exam to be a student there. These schools use English as the medium for instruction for mathematics, sciences and other academic subjects. Other primary schools which also accept students after this central exam teach academic courses in the native language, Turkish, and teach English as a course for four hours a week (Banda 2000).

The politics of English education has thus created a caste system of languages - which is Eurocentric and discriminatory-by relegating home languages to an almost non-existent position in the school curriculum. Moreover, an educational policy which establishes the languages to be used as a medium of education at primary, primary and university level is a key factor in determining how successful speakers of the lesser used languages are within the education system. While modern social and economic systems require certain kinds of language competence, they simultaneously create conditions which ensure that vast numbers of people will be unable to acquire that competence (Bisong 1995).
With English taking up an important position in the Mauritian educational system, it has become one of the most powerful means of inclusion into or exclusion from further education, employment, or social positions. Ngugi (1986) describes his experiences in Kenya, where English became ‘the main determinant of a child’s progress up the ladder of formal education’.

Studies of Polzenhagen and Michael (2004) reveal that, in general, the students had a positive integrative attitude toward Kiswahili (that is, desire to belong to a given linguistic group), irrespective of the type of school attended, ethnic background, or gender. The study also revealed that this attitude was related to factors both external and internal to the classroom environment. It was concluded that the three most revealing dimensions of the students' general attitude toward Kiswahili, out of the seven dimensions considered, were a desire to learn the language, perceived parental influence, and degree of motivation.

In Kenya, however, this level of mobilization and careful planning was absent (Okombo 1996). The policy environment was not managed, and as a result, the 1976 catchment-area policy is being de facto replaced by a policy formulated by the Ominde Commission of 1964. English is increasingly becoming the LoI throughout the education system; Kiswahili has consolidated its status as a compulsory subject; and mother tongues have lost ground as LoI (Bamgbose 1991). Although Kiswahili is supposed to be the LoI for training primary-school teachers, most of the materials used at the teachers' colleges are in English (Msanjila 1990). More serious still is the problem that the trainers of the primary-school teachers (that is, the tutors in the teachers' colleges) are trained in English at the University of Dar es Salaam, although they are supposed to train the teacher trainees to teach in Kiswahili (Roy-Campbell 1992).

Differences in students' attitudes were associated with school type and ethnic group. Students in private commercial schools consistently exhibited more positive attitudes toward Kiswahili, followed by those in public schools and those in private schools for the elite. Although all students exhibited positive attitudes toward Kiswahili, those whose
home languages were in the Bantu language group invariably showed more positive attitudes than the others. The study also determined that making Kiswahili compulsory not only heightened the motivation for learning it but also enhanced its general status.

According to Rubagumya (1993), primary-school students admit that they understand their teachers better when teaching is carried out in Kiswahili, but the majority of these students still think that English should be maintained as the LoI. Roy-Campbell (1992) also noted that many students resist the change of LoI from English to Kiswahili because they assume that English is the best medium for science and technology, even though Kiswahili is the de facto medium of instruction in many schools. Such an anomaly, argued Roy-Campbell, can be seen as an indication of where the locus of power is perceived to be in society. The cognitive and academic performance of the students in the project schools was better than that of their counterparts in the mainstream schools. Pupils educated in Yoruba (the mother tongue) throughout the 6 years of primary education were no less proficient in English than pupils educated in English during the last 3 years. The gains that children reportedly made when instructed in their mother tongue fell into various categories-cultural, affective, cognitive, socio psychological, pedagogic, etc. (Akinnaso 1993).

It is, however, necessary to note Akinnaso's (1993) remarks regarding these results. The following words put the cautionary message most clearly: the results of the project were compounded by a combination of several non-linguistic factors, including curricular changes; the use of new course materials; the use of experienced teachers for whom additional training was also provided; changes in classroom practices; and greater attention than usual (especially in English Education) to experimental classes.

The studies by Krashen and Biber (1987), Rosenthal (1996) and Spurlin (1995) support the results by Cummins (1981) and state that students who have not developed their CALP could be at a disadvantage in studying academic subjects and science in particular because this course requires an in-depth understanding of concepts acquired by reading textbooks, participating in dialogue and debate, and responding to questions in tests.
Once again, stressing the difference between CALP and BICS, educational and linguistic theorists (Cummins, 1981; Krashen, 1982 and Krashen, Long & Scarcella, 1979) explain that foreign language students may become quite proficient in the grammar, vocabulary and sentence structure of the English language, but may lack the necessary cognitive academic language proficiency to learn the subject matter in science courses.

A study by Johnstone and Selepeng (2001) backs up the claims by Cummins (1981, 1982; Spurlin, 1995; Krashen, 1982). Johnstone and Selepeng (2001) states that, students struggling to learn science in a second language lose at least 20 percent of their capacity to reason and understand in the process. This study has implications for countries which teach their students through the medium of a foreign language rather than in native language. Short and Spanos (1989) claim that basic proficiency is not adequate to perform the more demanding tasks required in academic courses since students do not have exposure to, or lack an understanding of the vocabulary and context-specific language.

The schools were chosen to represent the actual LoI practices in Kenyan schools, based on the policy outlined in mother tongue. As the researchers explained (Cleghorn et al., 1989), the three schools in which this study was carried out provide models of Kenya's varied language conditions: one [school 1] was an urban school where instruction was in English from the start; the second [school 2] was a peri-urban school where English and Kiswahili—two second languages for most pupils — were used as the initial media of instruction; the third school [school 3] was located in a rural district where Dholuo [Luo], the local vernacular, was the third initial medium of instruction. In the first two schools most instruction in the upper primary level [grades 4–8] was in English, but in the third school, Luo was used quite freely for giving explanations and the like well past standard 4 [fourth grade].

The effects of bilingual education on academic subjects and its implications have also been investigated. Research on bilingual education programs and academic achievement has shown that bilingual program students made dramatic gains compared to the success
of students schooled in second language only. The study by Collier showed that after 4-5 years of instruction, bilingual program students achieved dramatically whereas the English-only group dropped significantly below their grade level (1989, p. 522). Several studies have also shown that bilingualism may be positively associated with cognitive and academic performance (Duncan and De Avila, 1979; Kessler and Quinn, 1980; Bain and Yu, 1980; Swain and Lapkin, 1981).

Studies by Pollnick and Rutherford, (1993) reveal that learning academic courses through the medium of English poses problems for students whose mother tongue is not English. The explanations given for these problems are linguistic and psychological. Studies exploring the underlying psychological problems indicate that second language learners are frustrated by failure to see meaning in texts and start to have a tendency toward rote-learning. Therefore, not much is stored in memory since what is learned by rote is easily forgotten. Linguistic effects are a result of one's lack of knowledge of grammar, rules of syntax, as well as meanings of words used in different contexts. Poor knowledge of these rules puts second-language learners at a disadvantage, being less able to see meaning in texts, when compared with first language counterparts who have been exposed to inherent and informal methods of learning their language at an early stage (Johnstone and Selepeng, 2001).

The results of the study investigating the effect of language on performance of second language students in science examinations by Bird and Welford (1995) also showed the effect was significant. There were significant differences in performance of modified forms of the questions between British school pupils and pupils for whom English was the second language. The study gave a clear indication that the wording of questions in science examinations was a real influence on the performance of second language students.

In the light of these studies, in this study, the effect of a foreign language, English, as a medium for instruction, on conceptual understanding of "The Energy Unit" in a science course was investigated. The reason why it was chosen is because this unit is related to
everyday experiences and also covers abstract concepts. As explained by Pfundt and Duit (2000), how to teach the topic of 'energy' is investigated in many studies because of its nature, containing abstract concepts. The Ministry of Education and several universities have stated that no research related to the effect of foreign languages on conceptual understanding has yet been conducted in Turkey and the results of these types of studies are needed to inform and identify government policies and education targets. This study is of particular importance because several changes in schools following the immersion program are being planned in the Turkish educational system (Ministry of Education, 1990; 1996).

2.3.1 Bilingualism and Academic Achievement

There has been concern that bilingualism will obstruct the development of languages as compared to monolingualism. Research by MacNamara (1966) concluded the inferiority of bilinguals' language ability as compared to monolinguals could be attributed to interference, cultural differences, and the concurrent learning of two languages. However, according to McLaughlin (1984), much of this early research was biased along the lines of socioeconomic status and actual proficiency in the two languages. In fact, there were instances where bilingual children were found to be in a higher grade at school than the monolingual children of the same age, and also to achieve better results in their schoolwork than the monolingual children in the same grade.

Cummins (1981) mentions studies that reported positive effects of bilingualism, among children whose proficiency in both languages has continued to develop, in their ability to analyze and become aware of language, and their overall academic language skills. He stresses that in gaining control over two language systems, the bilingual child has had to decipher much more language input than the unilingual or monolingual child, who has been exposed to only one language system. Thus, the bilingual child has had more practice in analyzing meanings than the unilingual child.

However, Cummins (1981) also points out that the effects of bilingualism on children's educational and intellectual growth depend very much on the type of bilingualism that is
developed. Where children develop low levels of proficiency in both languages, educational and intellectual progress will be slowed down. However, where children's abilities in both languages are relatively well developed, but not necessarily equal, then there is evidence that bilingualism can enhance intellectual functioning. Where children do not develop high age-appropriate level of proficiency in one of their languages and relatively low level of proficiency in the other language, positive nor negative effects would be expected. Results of studies that examined classroom performance of children also indicate that proficient bilinguals are superior to their monolingual counterparts in the areas of cognitive development and academic achievement (Gonzalez & Maez, 1995; Lewelling, 1991).

Bilingualism and high academic achievements are often seen as incompatible, especially among limited English proficiency (LEP) students. Conventional wisdom has it that maintaining the first language while learning English impedes learning among LEP children. As Lindholm and Aclan (1991) cited in Gonzalez and Maez (1995) acknowledged, research linking bilingualism and academic achievement had provided conflicting results.

Cummins and Swain (1986) found that there was a strong relationship between a student's language proficiency and his academic achievement. Lindholm and Aclan (1991) cited in Gonzalez and Maez (1995) examined reading and math achievement in both English and Spanish. The results showed that high proficiency bilinguals outscored medium proficiency bilinguals, who in turn performed better than low proficiency bilinguals. Some math knowledge and skills learned in Spanish transferred to English, suggesting that class time spent on developing the first language was time well spent. It was determined that a certain level of proficiency was needed for transfer to occur, and that this level would vary by content area. In addition, a study conducted by Ratna (1998) on factors that were related to the degree of Malay and English proficiencies among students in the district of Hulu Perak, Malaysia, found that there was a significant relationship between the students' Malay and English language performance grades in the Ujian Penilaian Sekolah Rendah (UPSR) examination and their bilingual ability.
The acquisition of English writing among LEP students is also an area of research that has begun to attract the attention it deserves. Seda and Abramson (1990) cited Gonzalez and Maez, (1995) examined the emergence of English writing in a kindergarten classroom where the majority of children enrolled were LEP and spoke a variety of languages (Spanish, Hmong, Laotian, Cambodian). Of special interest were the levels of English writing development displayed by children learning English as a second language, but as a first written language. Comparison was made of the writing development of these children to that of native speakers. Early results showed similar stages of writing development between the two groups. Interactive journal writing in small, heterogeneous groups appeared to be effective in promoting literacy development. However, the most important finding was that learners need not be proficient in English to benefit from oral and written transactions in English.

In continuation, Chamot and O’Malley in (1987) suggested that, before LEP students are confronted with achieving in the regular classroom, they should be able to use English as a tool for learning the subject matter. Often, LEP students become proficient in communication skills within a short time after their arrival in the United States. Sometimes, as a result of their communicative competence, these students were too quickly mainstreamed into the regular classroom where they encountered difficulties understanding and completing schoolwork in the more cognitively-demanding language needed for successful performance in academic subjects. Second language acquisition research has also shown that the level of proficiency in the first language has a direct influence on the development of proficiency in the second language. The lack of continuing first language development has been found, in some cases, to inhibit the levels of second language proficiency and cognitive academic growth. In this respect, Saville-Troike (1984) cited in Lewelling (1991) reported that in almost all cases, a bilingual instructor's judgements of students' relative competence in native language studies coincided with the same students' relative achievement in English.
2.4 Classification of Different Mother Tongues in Relation to English Language

2.4.1 Mother Tongue

Mother tongue sometimes referred to as native tongue, can also be called kinagisnang wika in Tagalog. A child’s mother tongue is the language that they hear and learn from their parents and immediate family. For example, if your parents were born and raised in Manila and you were born in Manila, your mother tongue would be Tagalog because this is what you’ll hear and use in your day-to-day dealings with your parents and others. But if your parents are from Cebu and they only migrated to Manila for work, then there’s a big chance that your mother tongue would be Cebuano because this is the language that you’ll pick up from your parents. But of course, you’ll still learn how to speak Tagalog because you have to communicate with those who can not speak Cebuano. Saville-Troike (1984)

Mother tongue programs are very important in countries that have a lot of languages and cultures. One of them is Singapore which consists of three major races: the Malays who speak Melayu; the Indians who have Tamil; and the Chinese who use Mandarin. In Singapore’s educational system, the medium of instruction is English and they use it for Language, Math, Science, Political Education and others. What is different is that they have a special subject called mother tongue where each student is given the opportunity to study their own native language.

Singapore is just one of the many countries that are integrating mother tongue programs in their national curricula. Scandinavian countries led by Sweden are also implementing it. In addition, more and more international schools are providing various foreign language lessons as a way of acknowledging the students’ right to have mother tongue lessons.
2.4.2 The Importance of Mother Tongue

It is important that all children get exposed to their mother tongue because it is a crucial step in recognizing one’s own cultural background and personality. We should value each language and every culture and we need to send the message to our youth that they must not forget their native language and the cultural heritage of their parents and ancestors. We cannot set aside languages from the provinces that do not speak Tagalog. We must instead take pride of the fact that our country has many dialects. If you are fluent in other languages such as Cebuano, Ilocano, Ilonggo, Bicolano, Waray, Pampango, Pangasinse, or any other dialect, you have to use it and be proud of it. Even if it means that your narrow-minded friends in Manila will call you “probinsyano” (a hick). Truth be told, who among us here can actually prove that their families were the true natives of Manila? Most if not all of our families started out as migrants from the provinces. So please don’t feel as though Tagalog is more superior to the other languages of the provinces that are outside the Tagalog region.

Often, when a person does not take pride in having a mother tongue, that person also tends to disconnect from his cultural and traditional background. Saville-Troike (1984). In other words, when a man from Visayas is embarrassed to speak in his own dialect to his parents in front of his Manila friends, then this means that he is also ashamed to show that he is from that province. So whenever there is a feast in his hometown, he is no longer interested to join his family because he doesn’t feel a positive connection with the culture. The situation is the same for the Filipino migrants in the United States whose children can no longer speak in their mother tongue, whether it is Tagalog or another dialect. So when the children come to the Philippines for a visit, they no longer feel connected to the Filipino culture. The mother tongue, the vital link to the culture, is gone.

2.4.3 Lingua Franca

Lingua franca is the language that connects two or more people or groups of people who have their own native languages. The world’s lingua franca today is English. This means that when a German would like to communicate with a Filipino, he doesn’t expect the Filipino to speak Deutsch and neither does the Filipino expect the German to speak
Tagalog. Crystal (2005). But they both expect the other party to speak English. In our country, the government imposed the national language Filipino as our lingua franca. President Aquino signed Executive Order 335 on the 25th of August 1988 and from then on, Filipino became the official language in all offices of the government and in all schools. I can still remember my surprise (or shock) when I first saw the words 'spageti' (spaghetti) and 'tsokoleyt' (chocolate) in my Grade 5 textbook in my Filipino subject. In fact, one of the provisions in the law was to have an information campaign on the importance and necessity of Filipino as an effective instrument for national unity and progress. If a language is truly important and necessary, it will naturally follow that people will learn it and use it and it will automatically become the lingua franca of our country.

One of the major findings of Krashen (1982) was that, English, mathematics, science and Swahili examination results show that school 1 students achieved higher scores than school 2 or school 3 students, but school 3 students achieved higher scores than school 2 students in all subjects except Swahili. Although this study seems to cast doubt on the role of the mother-tongue LoI (Local Language) in cognitive development, what it actually does is point to a possible combination of non-linguistic factors that may explain the differences in results obtained by the three schools. These factors may include curricular changes, new course materials, trained, experienced teachers and new methodologies. It should also be noted that English is a mother tongue for many urban Kenyan children.

Baker (1972) argues that English, French and Creole have become associated with knowledge, culture and egalitarianism respectively, while the Oriental languages which include Bhojpuri, Hindi, Urdu, Tamil, Telegu, Marathi and Mandarin, are largely identified with what may be termed 'ancestral heritage'. In the above censuses, it is significant to note that the instructions relating to 'mother tongue' which accompanied the census forms read as follows: 'Mother tongue' - The language spoken in your home during your early childhood. You may not necessarily have spoken or speak the language at present'. It is thus clear that the term 'mother tongue means something quite different from the definition 'one's native language' and it is this writer's experience that many
Mauritians of Asiatic origin understand ‘mother tongue’ to mean a language spoken by one’s ancestors at the time of their arrival in Mauritius. It is therefore safe to assume that the oriental languages are, in fact, ‘ancestral’ languages and are by no means primary or first languages for Mauritians. According to Baker (1972), egalitarianism is generally a more important matter than ‘culture’, ‘knowledge’ or ‘ancestral heritage’, which explains why, in practice, Creole, has been adopted as the language of everyday use by almost all Mauritians.

The vast majority of Mauritian learners are taught English in what has been called an ‘acquisition poor environment’ (Tickoo 1993) and, as a result, the language does not become a usable means of communication. When Mauritians speak of receiving their education through the English medium, it is a different scenario from the type of education that people in India, Anglophone Africa and Caribbean countries receive. These areas can be referred to as LES (Least English Spoken) countries, i.e. where English plays the role of a genuinely second language, where it plays a ‘social’ role in the community and functions as a recognised means of communication among members who speak some other language as their mother tongue. The peculiar sociolinguistic situation of Mauritius, marked by a multiplicity of languages, affects the motivation to learn English in the classroom.

In South Africa, a study was made in 1990 of a transitional bilingual program, the Threshold Project. In this project, the LoI shifted from the mother tongue to English at the third grade. The objective of the study was to test the cognitive development of the children in that program. According to Luckett (1994, p. 5), "pupils could not explain in English what they already knew in their first languages; nor could they transfer into their first languages the new knowledge that they had learnt through English." The main conclusion of the study was that bilingual programs that shift the LoI from the mother tongue to a second language before children reach a certain age or level of cognition-what Cummins (1979) called cognitive academic language proficiency-will result in failure (Luckett 1994).
So far, no research has been done in Tanzania to show whether, at the primary-school level, the cognitive development of children whose LoI is Kiswahili is better or worse than that of children whose LoI is English. However, research in Tanzania has clearly shown that, at the primary-school level, teaching in Kiswahili has a cognitive-development advantage over teaching in English (Mlama & Materu 1978). It was shown, for instance, that when students are asked a question in English, the answer is often incoherent and irrelevant, showing lack of understanding of the question or an inability to answer in English. When the same question is asked in Kiswahili, students give a relevant and articulate answer. One may conclude that this is also the case at the primary-school level, perhaps to a greater extent, as pupils at this level have had even less exposure to English. Standards of primary-school education in Tanzania have been said to be falling, but this has not been demonstrated as being a result of using Kiswahili as the LoI. Mvungi (1974) stated that the falling standards were due to other factors, including poorly trained teachers, inadequate facilities, and lack of motivation among teachers because of poor pay.

2.4.4 What is Academic Language?

Academic language is the language used in textbooks, in classrooms, and on tests. It is different in structure and vocabulary from the everyday spoken English of social interactions. Many students who speak English well have trouble comprehending the academic language used in high school and college classrooms. Low academic language skills have been shown to be associated with low academic performance in a variety of educational settings. (Fillmore & Valadez ; 1986).

The main barrier to student comprehension of texts and lessons is low academic vocabulary knowledge. Academic vocabulary is sub-technical vocabulary. In other words, it is not the technical vocabulary of a particular academic discipline. Academic vocabulary is used across all academic disciplines to teach about the content of the discipline. For example, before taking chemistry, no students know the technical words used in chemistry. But the under prepared students also do not know the vocabulary used
to teach the chemistry concepts. Under prepared students are unfamiliar with words like evaluation, theory, hypothesis, assumption, capacity, validate. Professors assume students comprehend such academic vocabulary, but such vocabulary is not often used in the everyday spoken English of many students. Academic vocabulary is based on more Latin and Greek roots than is everyday spoken English vocabulary. In addition, academic lessons and texts tend to use longer, more complex sentences than are used in spoken English.

2.4.5 Multilingual Education

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 children to operate successfully in their native, state and national languages. MLE provides a strong foundation in the first language (mother tongue), adding second (e.g. national) and third languages (e.g. English) enabling the appropriate use of both/all languages for life-long learning (Malone 2005). Multilingual education is also multicultural, with learning beginning in the child’s known environment and bridging to the wider world. The bridging process allows children to maintain local language and culture while providing state and/or national language acquisition and instruction. This process provides learners with the opportunity to contribute to national society without forcing them to sacrifice their linguistic and cultural heritage.

Until the late 1970s the use of mother tongue in education was only found outside the formal system. Programmes were developed to help adults achieve a basic level of literacy in mother tongue (MT) using a primer-based approach. The use of MT as the language of instruction in the 1980s focused mostly on out of school children; those with no access to school, or those in pre-primary outside the formal system.

Even though as far back as UNESCO (1953) suggested that children should be given the opportunity to learn in their mother tongue, it was only in the early 1990s that Multilingual Education programmes such as those described above have been incorporated into both the formal and non-formal systems in some countries. By 2003,
UNESCO published a position paper which stated that: “UNESCO supports mother tongue instruction as a means of improving educational quality by building upon the knowledge and experience of the learners and teachers.”

“UNESCO supports bilingual and/or multilingual education at all levels of education as a means of promoting both social and gender equality and as a key element of linguistically diverse societies.”

United Nations Literacy Decade; Education for All, international plan action- Resolution A/56/116, state that; 1) Literacy for all will be achieved only when it is planned and implemented in local contexts of language and culture. 2) Literacy policies must recognize the significance of mother tongues in acquiring literacy and provide for literacy in multiple languages wherever necessary. (p.4)

Because many minority language communities live in remote and inaccessible regions of the world, it is often the case that schooling in any form is unavailable. The “right to education” is in practice still denied them. Where they do have access it is usually only to “non-indigenous” forms of education. Within these programmes tribal or indigenous culture may be misunderstood or ignored, or even depicted in negative terms. The language and culture of the classroom is unfamiliar; curriculum materials, classroom interaction and instruction are all in a foreign language and teaching methods are unrelated to cultural learning styles.

As the World Bank (2004) points out: Fifty percent of the world’s out of school children live in communities where the language of the schooling is rarely, if ever, used at home. This underscores the biggest challenge to achieving Education for All (EFA): a legacy of non-productive practices that lead to low levels of learning and high levels of dropout and repetition. An education system which does not take into account local culture and language is characterised by low intake, high repetition and high drop out rates. The dropout rates are high because education has little perceived relevance; achievement levels are low because concepts and competencies are difficult - or impossible - to learn in an unfamiliar language.
The following graph shows the retention rates and yearly dropout rates for scheduled tribes in Orissa: 27% of children drop out before class 2 and 42% drop out before class 6. Only 21% are remaining in school by 7th grade.

Bailey (2007) (figures from Government of Orissa)

The picture presented of a primary school in Chhindwara, Madhya Pradesh, India reveals the problem of non-comprehension for tribal children in the classroom:
The children seemed totally disinterested in the teacher’s monologue. They stared vacantly at the teacher and sometimes at the blackboard where some alphabets had been written. Clearly aware that the children could not understand what he was saying, the teacher proceeded to provide an even more detailed explanation in a much louder voice. Later, tired of speaking and realizing that the young children were completely lost, he asked them to start copying the alphabets from the blackboard. “My children are very good at copying from the black board. By the time they reach grade 5, they can copy all the answers and memorise them. But only two of the grade 5 students can actually speak Hindi”, said the teacher. Jhingran, (2005 p.1)

Jhingran’s study of a selection of schools in one Block in four different States showed that

- Children have no comprehension of teacher’s language even after about 6 months in Grade I.
- Grade I children showed no recognition of alphabets, except when arranged in sequence (showing that they can only “learn” by rote and memorisation).
- Teaching emphasised passive participation, and copying alphabets and numbers from blackboards or text books.
- There was very little conversation or oral work in children’s L2, the medium of instruction.
- The situation was a little better when there was a tribal teacher speaking children’s language. While the medium of instruction was still in an unknown language the tribal teacher could help them out.

The academic performance of tribal children in Grade V reflects the difficulties:
- The children read with a lot of effort, mostly word by word
- Their oral skills in the second language were poor
  - They could not frame sentences correctly and had a very limited vocabulary
  - They were more comfortable speaking in their mother tongue

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• While they could partially comprehend text (of grade 2/3 level), they were unable to formulate an answer to simple questions in the standard language.

• In most schools, the tribal language speaking children could not score a single mark in the reading comprehension test (Jhingran 2005, p.50)

Schooling in a second language so limits children's progress in the acquisition of knowledge and skills that few are able to proceed to higher studies or find employment. These children are thus set up for rejection and its consequence in low self esteem, a system failure that translates into experienced personal failure. There is also a gender discrimination issue in that girls are more likely than boys to be monolingual and therefore more disadvantaged (Benson, UNESCO 2005)

For those who do manage to complete high school it is difficult to fit back into their own culture and society; schooling can alienate the children from their communities. One parent of a school child in Papua New Guinea expressed this graphically: “When our children go to school they go to an alien place. They leave their parents, they leave their gardens, they leave everything that is their way of life. They sit in a classroom and they learn things that have nothing to do with their own place. Later, because they have learned only other things, they reject their own.”(Dekpit & Kemmelfield 1985, 19-20)

Further results of non-indigenous education include the loss of the heritage language and culture; loss of linguistic and cultural diversity and indigenous knowledge: Every language reflects a unique world view and culture mirroring the manner in which a speech community has resolved its problems in dealing with the world, and has formulated its thinking, its system of philosophy and understanding of the world around it. With the death of the language, an irreplaceable unit of our knowledge and understanding of human thought and world view has been lost forever. (Wurm 1991, 17) poverty and demoralisation: For many ethno linguistic minority groups, promises of incentives such as economic and social mobility are doled out as poor compensation for cultural subordination and language shift. In the process, paradoxically, the linguistic minority groups are driven to further poverty -- culturally and economically -- because their languages, as resource for educational achievement and, through it, for equal access
to economic and other benefits in a competitive society, are rendered powerless. (Mohanty 1990, 54) and a weakened and divided nation:

Our greatest national resource is the diversity of cultures in our country. Diversity means more viewpoints to clarify, more ways of solving problems, more creative ideas, a greater ability to deal with change... Where diversity is crushed...the nation becomes weak and divided. (Waiko 1997)

If mother tongue (MT) is not utilised children tend to remain illiterate in both (or all) languages. If MT is not developed sufficiently for them to become fluent readers and writers, their understanding of the vocabulary and syntax of their own language will be limited. This gap in their understanding of the structure of their first language limits their ability to learn the second language (L2). A strong foundation in MT is required for learning L2, as Cummins (2000) points out:

• "The level of development of children's mother tongue is a strong predictor of their second language development...
• Children...with a solid foundation in their mother tongue develop stronger literacy abilities in the school language.

Thomas and Collier would agree that it is a fallacy to think that children who are immersed in L2 from the beginning learn L2 better. They do not. This is what they found happens when children learn in L2 only: "English (L2) language learners immersed in the English (L2) mainstream ... showed large decreases in reading and math achievement by grade 5 when compared to students who received bilingual/ESL services. The largest number of dropouts came from this group." Thomas and Collier, (2002).

Benson (2002 p314) corroborates this finding: Submersion in L2 is at least highly inefficient, if not wasteful and discriminatory, since such school systems are characterised by low intake, high repetition and dropout, and low completion rates. The costs to the individual, who sacrifices productive agricultural and family work time to go to school, only to experience failure and rejection, are high.
Children’s understanding of concepts is limited or confused if learning only in L2, but the knowledge and skills they acquire in their first language “transfer across languages from the mother tongue...to the school language”. (Cummins 2000). Jhingran (2005) sums up: The exclusion of mother tongues from early education has serious consequences for tribal children.

2.5 The Prevalence of the Problem of Language Barriers

Language barrier is a term used to imply all the problems faced by an individual as he tries to communicate with a group of people who speak a tongue other than his own. It is prevalent in settings which involve the conglomeration of people from different cultures, speaking different languages. It is also used as a blanket term for all the difficulties associated with the learning of a foreign language (Wikipedia, 2006). Over the years, there have been various steps taken by administrators in both, academic and business worlds, to facilitate this transition into an English speaking environment by providing courses, workshops and training. Yet, this problem is still persistent, if not widespread, in schools and universities across the nation. With thorough understanding on the situation, we hope to find a solution that would overcome the lack of available scholarship on this issue, and at the same time work best to help international students find resources to be proficient in oral English.

In schools, it is a common phenomenon that big groups of international students are brought together in classrooms. Even though these schools have the lowest out-of-state population (Walter & Brody 2005), there is a vast number of those students who face the problem of language barrier. On top of the numerous other issues that a student has to face, this is considered one of the primary reasons for the lack of motivation in both academic and social life.
2.5.1 Causes of Language Barriers in General

**Difference in accent;** Very often, the problem of language barriers is due to the fact that students are not familiar with the American English accent; this result is not surprising at all. This is because most of the international students usually learn British English, which is a little different from the American English in terms of stress, intonations and pronunciations. Hence, familiarizing with various American English accents could be extremely challenging for international students. Wang (2002)

**Phrases and Idiom;** American English relies heavily on the use of phrases and idioms. Oftentimes, the meaning of phrases and idioms are not obvious and sometimes could be deviated totally from its root words. Also, some phrases and idioms are used commonly in spoken English only, not in writing. As a result, students with little exposure to these phrases and idioms would find them particularly difficult to comprehend. "An international student is likely to be misled by 'Give me a ring,' for example, especially if 'Call me' is more accurate and appropriate" (Wang, 2002).

**Structure of English;** Many languages in the world have structures different from English. For example, in Japanese, sentences are constructed in a subject-object-verb structure; a pattern very different from subject verb-object sentence structure in English. In some languages, there are suffixes which cannot always be converted into English. This has made communication in English very difficult for international students.

**Culture;** "Language reflects culture and tends to control or influence processes used to think and to perceive." (Wang, 2002) Thus, sometimes, the barriers are not due to the use of words in the language, but the ways the speakers go about saying it or the ways the listeners go about perceiving it. In addition, cultures also shape the way students communicate with others. For example, Asian international students are particularly sensitive to the issue of "save face". In an attempt to provide assistance or instruction to an Asian student and asks if the student understands, the student would likely respond that he/she does understand, even if he/she does not. Such an attitude would generate a barrier in communication. (Wang, 2002) "Slang refers to a small set of new and usually
short-lived words in the vocabulary of a dialect or language.” (Walters, 2005, p. 279) Many of these words are not defined in the dictionary and their usages are limited to small regions. Thus, it is very likely that international students are not exposed to these words. As a result, the students have to struggle to comprehend the context and meaning of these words.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Chapter Overview
This chapter entails the research design, research population, sample and sampling, research instruments, research procedure, validity and reliability of data, data analysis and ethical considerations.

3.2 Research Design
The study used a combination of both qualitative and quantitative research designs for the purpose of making valid conclusions. Quantitative design which is classified in two broad categories, that is; experimental and non experimental examined how English language influenced the students’ performance in science subjects in primary schools as an independent variable where as qualitative design involved the use of questions to obtain views from the respondents.

3.3 Research Population
The study population comprised of head teachers, administrators, teachers, stakeholders and students of primary schools in Funyula division and assessed how English language influenced the students’ performance in science subjects in primary schools.

3.4 Sample and Sampling Procedures
The respondents were randomly selected and categorized. They comprised of both sexes but of different marital statuses and age groups and the study used 80 respondents. These intend to get a variety of views and unbiased response which made the study a reality. Also this sample size was selected since, Sutton and David, (2004), states that a sample size should not be less than 30. Beyond basic description it would be difficult for the researcher to undertake more complex statistical analysis, as most of these analyses require a minimum sample of 30. The study used both random sampling and purposive sampling procedures. Purposive was used to select different activities in the area of investigation in order to get the required data and information. Random sampling was used because respondents have equal chances of being selected.
3.5 Research Procedure
Before going to the field the researcher obtained an introduction letter from Office of the Director Postgraduate Studies. This introduced the researcher as a student attempting to carry out an academic research. Then, the researcher sought permission from the concerned authorities from the Division to be introduced to schools within. To ensure promptness and accuracy some of the questionnaires were administered by the researcher and others, were left to the head teachers and administrators, who then administered them to the respondents. The researcher made appointments with respondents on when to meet them. The interviews were conducted in staff rooms and in compounds of the schools.

3.6 Research Instruments
Data was collected from both primary and primary sources. Primary data was got by extracting information regarding how English language influences the students’ performance in science subjects in primary schools, by reading newspapers, journals, and text books plus the already existing work on internet and magazines. Primary data was got from the field by use of the following methods;

3.6.1 Interviews
This involved face to face interaction between the researcher and the participant through discussion. The interviews were in two ways, namely: Structured interview in which the responses by the participants were brief and specific.
Unstructured interviews, where the responses were long, elaborated and not specific, the interviews were conducted in groups and at individual level where the researcher received spontaneous feedback from the respondents.

3.6.2 Observation
This involved the use of personal intuition based on different body senses, for example seeing (eye) hearing (ear). Observation can be used in three main ways, namely;
Naturalistic observation. Here, the presence of the researcher is not known. Passive observation. The presence of the researcher was known but his role in the activity was hidden. The researcher did not participate at all.
An active observation. The presence of the researcher was known to the participants. The observer played a leading role to bring out information.

3.6.3 Questionnaires
This is the discussion in written form whereby the responses of the participants are put on paper provided by the researcher, the questionnaires were in two forms, namely:
Open-ended questionnaire in which the responses by the participants are free according to their understanding and the close-ended questionnaires in which responses are provided by the researcher and the participants respond to them accordingly.

3.7 Reliability and Validity
The reliability of any questionnaire is the consistency with which the same results are achieved. This always depends on the questionnaire and the person answering. Then the validity of a questionnaire relies on its reliability. If a questionnaire cannot be shown to be reliable, then there is no element of validity to be discussed. However validity and reliability are related in such a manner that a valid instrument is reliable but not vice versa. This was scrutinized by expert judges including the supervisors.
Content Validity Index (CVI) of a questionnaire focused on the extent to which the instrument corresponds to the theoretical content as designed to measure. Content validity refers to the degree to which the text actually measures the traits for which it was designed. The split half reliability or sub divided test was calculated to further ascertain the coefficient of internal consistency. The test scores were split into two subsets, placing odd numbered items in one sub set and the even items in the other sub set. The scores will then be computed for each individually using the Pearson product moment formula.

3.8 Data Analysis
The data filled in the questionnaires was copied and analyzed by tallying it and tabling it in frequency tables identifying how often certain responses occurred and later evaluation was done. The information was later recorded in terms of percentages. The recorded data was edited and interpreted which ensured uniformity, legibility and consistence. Also, interview results were coded on frequency tables and be calculated in terms of percentages and presented in this study.
3.9 Limitations of the Study
In the process of carrying out this study, a number of constraints were encountered. These constraints may have hindered the validity of the study. These included;

(i) There was mounting pressure from the administration for students to complete the research on schedule which might have affected the quality of research.

(ii) Inadequate record keeping by the concerned school authorities about English Language towards students' performance in science subjects

(iii) The study reflected an exploratory study and much still remained to be done before the research is in position to generalize the findings concretely about Impact of languages towards student's performance in science subjects.
4.0 Overview

The collection of data was conducted through a simple two-questionnaire survey with open ended and closed ended questions. The first questionnaire was meant for teachers and the second questionnaire was for students which all questioned them along the objectives of the students and the research findings are presented as below. For purposes of data analysis, percentages and frequency distribution tables and bar graphs were used whereby data was presented in line with the research questions set which was constructed in line with research questions. The percentages were reached at by the formula;

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\text{Percentage} = \frac{\text{Frequency}}{\text{Total number}} \times 100
\]

A total of 60 questionnaires were given out and were received back. This was because the respondents filled the questionnaires as the researcher collected them. Analysis was based on these questionnaires which the researcher received. Findings were presented in line with the research questions and these are visited below.

4.1 Language used for Communication

This was intended to find out the most communicated language in classes by of the teachers and students in primary schools of Funyula Division. The table, pie chart and bar graph give a generalization about the language of the teachers and students in Funyula Division.

Table 1: Languages used for Communication in Class

<table>
<thead>
<tr>
<th>Serial No (Question Number)</th>
<th>Language</th>
<th>No of Respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>English</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>French</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td>Latin</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>02</td>
<td>Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lkenya</td>
<td>35</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Luo</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td>Luuyah</td>
<td>05</td>
<td>08</td>
</tr>
</tbody>
</table>

Source: Fieldwork
Table 1 presented frequencies and percentages of the respondents' language used for communication in class. The analysis of the data revealed that 100% of the respondents used English as a language of communication in class (see Figure 1) and for the other language which came in as alternative L Kenya scored 58% implying that the study was carried out in the B Kenya region where the language was most spoken in and around the school premises. However the percentage scores did not sum up to 100% implying there are other minor languages spoken which were not specified in the research questionnaire.

**Figure 1: Showing the Percentage score of language used in class**

![Percentage score of language used in class](image)

English Language is used as a medium of instruction in the Funyula Division schools, the local language was used together with English as the medium of instruction. In Kenya, the language policy states that English should be used as a medium of instruction from Primary upwards. The use of English is important because most Kenyan textbooks are in the English Language and English is the official language in Kenya. All tests and examinations are conducted in English therefore a working knowledge of the language is necessary. The use of the local language by the teachers create a deficiency in the pupils which made them unable to understand the textbooks they needed to use and this ultimately resulted in the low academic performance of the students.
4.2 ENGLISH AS A MODE OF INSTRUCTION

This was intended to establish the effectiveness towards helping students understand the taught lessons, how fluent are they, the performance of English language among the students in the National Examinations been in the last five years and a relationship with the way they appreciate English language both in class and outside class activities. This was analyzed using frequencies and percentages.

Table 2: Students Understanding using English as a Mode of Instruction

<table>
<thead>
<tr>
<th>Serial No (Question Number)</th>
<th>Effectiveness</th>
<th>No of Respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>03</td>
<td>Very Ineffective</td>
<td>00</td>
<td>00.0</td>
</tr>
<tr>
<td></td>
<td>Ineffective</td>
<td>15</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>Effective</td>
<td>37</td>
<td>61.7</td>
</tr>
<tr>
<td></td>
<td>Very Effective</td>
<td>08</td>
<td>13.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fluency</th>
<th>No of Respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very fluent</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>Fluent</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>Not Fluent</td>
<td>36</td>
</tr>
<tr>
<td>4</td>
<td>Not at all</td>
<td>00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance</th>
<th>No of Respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>06</td>
<td>Very poor</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td>Poor</td>
<td>01</td>
</tr>
<tr>
<td></td>
<td>Fair</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Very good</td>
<td>08</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relationship</th>
<th>No of Respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>07</td>
<td>Strongly disagree</td>
<td>03</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>02</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Strongly agree</td>
<td>21</td>
</tr>
</tbody>
</table>

Source: Field work

The researcher argues upon the behaviours that often mean your message has been lost. This implies that the students having not understood, they will not be fluent.
(See figure 2), Then the researcher views this upon the following behaviours that the message is misunderstood; First, if the Students ask no questions, it is safe to assume you have not been understood. This will make sense if you remember times in your own experience when you did not ask questions, not because you understood, but because you knew so little about the subject you could not formulate a question.

Figure 2: Shows Fluency of Students in English Language relating to how they understood the Material Taught in class.

Secondly, if the Students is perpetually nodding and smiling -- like I do in complete befuddlement whenever I visit my tax accountant -- you are probably in trouble. The student is no doubt struggling to understand while appearing positive and pleasant. A third sign that you may not be understood happens when you ask the question, "Do you
understand?" If the students reply with something tentative like, "Yes, I think I do," or, "I'm pretty sure I got it," you best assume your message has been lost.

One reason these behaviours appear so often is that many students place high value on sparing people embarrassment and are reluctant to state directly that they do not understand, for fear it will reflect badly on your ability to explain yourself. They might also be reluctant to ask you for what they see as the favour of repeating what you have said, especially if you are an authority figure.

Schooling using a second language limits students' progress in the acquisition of knowledge and skills that few are able to proceed to higher studies and find employment. It is conceivable that the average performance and the performance gap between students across schools. Schools with different demographic composition, resources, and curricular and instructional programs theoretically could achieve different levels of excellence and equity (see figure 3) from Table 2. Relevant to policymaking, gauging such school-level variation is crucial for further assessing institutional role in achieving educational equity. Understanding the school-level variation in performance gaps and school features relating to such variation can help school improve equity. In this preliminary analysis I only examine the school-level variance in English achievement gap relating to the generation of students and language backgrounds.
These students are thus set up for rejection and its consequence in low self esteem, a system failure that translates into experienced personal failure. There is also a gender discrimination issue in that girls are more likely than boys to be monolingual and therefore more disadvantaged (Benson, UNESCO 2005). For those who do manage to complete high school it is difficult to fit back into their own culture and society; schooling can alienate the children from their communities.

According to Wurm (1991, 17) reflects that, further results of non-indigenous education include the loss of the heritage language and culture; loss of linguistic and cultural diversity and indigenous knowledge: Every language reflects a unique world view and culture mirroring the manner in which a speech community has resolved its problems in dealing with the world, and has formulated its thinking, its system of philosophy and understanding of the world around it. With the death of the language, an irreplaceable unit of our knowledge and understanding of human thought and world view has been lost forever.

In relation to Figure 1, Cummins (2000) points out that, if mother tongue (MT) is not utilized children tend to remain illiterate in both (or all) languages. If MT is not developed sufficiently for them to become fluent readers and writers, their understanding of the vocabulary and syntax of their own language will be limited. This gap in their understanding of the structure of their first language limits their ability to learn the second language (L2). A strong foundation in MT is required for learning L2, as:

- "The level of development of children's mother tongue is a strong predictor of their second language development…
- Children…with a solid foundation in their mother tongue develop stronger literacy abilities in the school language.
And also in relation to the research findings Cummins (2000) points out that Children’s understanding of concepts is limited or confused if learning only in L2, but the knowledge and skills they acquire in their first language “transfer across languages from the mother tongue...to the school language”.

The research findings agree with the following scholars, Thomas and Collier (2002) who says that it is a fallacy to think that children who are immersed in L2 from the beginning learn L2 better. They do not. This is what they found happens when children learn in L2 only: "English (L2) language learners immersed in the English (L2) mainstream ... showed large decreases in reading and science achievement by primary 5 when compared to students who received bilingual services. The largest number of dropouts came from this group.”

Benson (2002) corroborates with these research findings, that Submersion in L2 is at least highly inefficient, if not wasteful and discriminatory, since such school systems are characterized by low intake, high repetition and dropout, and low completion rates. The costs to the individual, who sacrifices productive agricultural and family work time to go to school, only to experience failure and rejection, are high.

4.3 The Relation between Academic Performance and the Local language used

This was intended to establish the relationship between the local language used in and outside class and also to find out whether these languages can act as barrier towards the performance of students in Academics as shown in table 3. This was analyzed using frequencies and percentages.
Table 3: Academic Performance and the Local Language

<table>
<thead>
<tr>
<th>Serial No (Question Number)</th>
<th>Relationship</th>
<th>No of Respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>09</td>
<td>Strongly disagree</td>
<td>07</td>
<td>11.6</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>10</td>
<td>16.7</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>24</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td>Strongly agree</td>
<td>19</td>
<td>31.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12</th>
<th>Percentage</th>
<th>No of Respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10%</td>
<td>03</td>
<td>5.0</td>
</tr>
<tr>
<td>2</td>
<td>20%</td>
<td>04</td>
<td>6.6</td>
</tr>
<tr>
<td>3</td>
<td>30%</td>
<td>06</td>
<td>10.0</td>
</tr>
<tr>
<td>4</td>
<td>40%</td>
<td>07</td>
<td>11.7</td>
</tr>
<tr>
<td>5</td>
<td>50%</td>
<td>40</td>
<td>66.7</td>
</tr>
</tbody>
</table>

Source: Field work

Table 3 reveals that the study showed that teachers in the Funyula Divisions schools showed less concern about the students’ understanding of the lessons. Understanding of the lesson is linked with output and outcome. The greater the understanding of the lesson, the higher the output of the students from exercises, assignments and tests. Since teachers in the Funyula division schools showed less concern about students’ understanding of the lessons, the outcome was that their output in terms of academic performance was low (see figure 4). As Aggarwal (1994) pointed out, “best learning takes place when the teacher is successful in arousing the interest of the students. The guidance of the teacher is mainly a matter of giving the right kind of stimulus to help them to learn” (p. 191)
With the combination of growing multiculturalism and increased overseas outsourcing, there is a greater demand on communication skills than ever before. Not only do you need to be able to explain yourself and understand others, but you need to do this regardless of their native tongue. In fact, all of us in one form or another come across situations that require some kind of cross cultural communication and understanding. One such situation is when communicating with foreigners. We all encounter people at work, on holiday or elsewhere who do not share the same language as us. Although we consider language the main means of communicating, language only represents 7% of what we communicate. There are many ways of overcoming the language barrier to allow for some cross cultural communication. When faced with a situation in which there is no common language Cuevas (1984) suggested points that may help you to get your message across:

Figure 4: Shows the Percentage scores relating the Poor academic Performance with Language barrier among Students
**Keep it Simple;** Simple vocabulary means more people can understand what is being talked about. This goes both ways – when talking to someone who is weaker in the language you speak, or when they are speaking to you. Big words do not make you look smart. Being quickly and clearly understood does.

**Use written Communication when Possible;** Written communication removes accents that might be difficult to understand and it gives the author and reader the ability to re-read the text to gain a better understanding of what is trying to be communicated.

**Remain Focused;** You should be attentive and patient when communicating with anyone, but when there is a substantial language barrier, it is even more important. Look them in the eyes and pay close attention to the words that they say. Try to piece what you can together, and repeat what you think they have said back to them so they can approve or try again.

**Try;** Many people are not even willing to try and communicate, as they do not see it is worth the effort, or they believe that someone else will do it for them. The harder you try at something the more likely it is that you will succeed. Show that you are making an effort to understand, and chances are the person you are trying to communicate with will put more effort in to communicating with you.

**Teach;** Find language courses that are offered in your area, and send your staff that could benefit from the teaching. A bit of professional help could go a long way. Just do not forget to reinforce the importance of simplicity.

**Try out words;** Sometimes we share common words and we do not know it. Additionally people from different cultures will have a passive knowledge of English gained through the media. Try saying the word slowly or with a different pronunciation.

**Draw it;** If you really cannot explain "milk" to the Greek shop owner draw the cow, the udders and the milk. Pictures speak louder than words. Most cultures will be able to spot what you are getting at straight away.
Ask for help; If there are others around you do not be shy to ask for their assistance. It is often possible to find a willing translator.

Confirm Meanings; If you are unsure whether the message has been understood confirm meanings. When doing so do not ask, "Do you understand?" as the answer will often be "yes" even if it is "no". Try re-phrasing what you have agreed or discussed.

Be Patient; The key to overcoming the language barrier is to exercise patience. It is not your fault or the other persons' that you cannot speak each other's language.
CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary
From the study findings and observation, English was the language used for communication in class for instruction, this was found that students’ understood to a percentage of 61.7% effective but the students were not fluent with a percentage of 60%. The researcher also found out that there was 56.7% agreeing attitude that there is a relationship of poor academic performance with the way students appreciate English Language both in class and outside class activities. These findings agreed with those of Cummins (2000) that if mother tongue (MT) is not utilized children tend to remain illiterate in both (or all) languages. If MT is not developed sufficiently for them to become fluent readers and writers, their understanding of the vocabulary and syntax of their own language will be limited. This gap in their understanding of the structure of their first language limits their ability to learn the second language (L2). A strong foundation in MT is required for learning L2, as: “The level of development of children’s mother tongue is a strong predictor of their second language development...,
Children...with a solid foundation in their mother tongue develop stronger literacy abilities in the school language.
And also in relation to the research findings Cummins (2000) points out that Children’s understanding of concepts is limited or confused if learning only in L2, but the knowledge and skills they acquire in their first language “transfer across languages from the mother tongue...to the school language”.

5.2 Conclusion
Based on the research findings and observations with teachers and students from schools in the Division, it is conclusive that a strong foundation in MT is a good predictor of success in learning in a second language; providing a good L1 foundation will support the learning in the second language. Learning language and learning about language encourages a child’s metalinguistic conceptual understanding giving a basis on which to build other languages.
A good bridging process requires the gradual growth of learning in the second language first through increasing the oral ability in the new language, moving on to written forms and then gaining fluency in all literacy skills (listening, speaking, reading and writing). This will take a short period to develop basic communication skills, and to acquire sufficient competency in the second language to use it for academic purposes. Students need to acquire this competency before using as the second language as the medium of instruction. In other words, they need to learn the new language before learning in the new language thus emotional stability and sense of security are essential foundations for learning. Developing self esteem, a sense of personal worth and value, cultural identity and ensuring a place in the community will reduce alienation and the results there of. Alienation results in social dysfunction and political instability.

5.3 Recommendations
The researcher argues that student should continue to be open-minded and willing to make modifications in their classrooms to better suit those who have problems with language barriers. Students who have problems understanding the material clearly, should make sure to take the time and better prepare for classes, by reading the required material beforehand, asking questions when feeling lost or something is unclear, or making an effort to attend the teaching assistant’s office hours when needed.

The researchers’ suggestion requires every student, both international and native speaking, to attend a mandatory presentation on language barriers and their effects. Although we did find that for the most part students and school work together outside of the school’s guidance, a mandatory presentation would bring greater understanding to the issue. In the end, the benefits that can be gained through student interactions far outweigh the consequences that might result. The main goal of this institution should be to try to limit the negative effects that language barriers have here at the school without losing any national presence.

In this study, the researcher discussed the crucial role of English language in the teaching and learning to students. Students after completion of their Primary school cycle in local
languages, using English as the main medium of instruction in Primary schools. During
the first year in primary the students should be placed in an intensive program of English
and also take other subjects as well.

Because of the language deficiency, these students face severe problems mostly related to
language while taking other subjects as well. Consequently, the researcher felt the need to
develop a teaching approach for these subjects, which address the language problem. In
order to achieve this objective, a translation of all the key terms of the entire subject from
English to local language is prepared in the form of a handout and delivered to the
students for quick reference.

Consequently, this enables them to connect their previous knowledge with the current
one, and also let them attempt the relevant text problems. In addition, the researcher
imagines an increase of class interactivity in this approach.

Based on the findings of the study, the researcher recommends that the teaching strategy
should be devised in the lessons taught in these schools and be adopted, with suitable
modification, for bilingual students who are acquiring English as a new language of
instruction. Nevertheless, the researcher stresses that the issue of a sudden language
switch needs a deeper and longitudinal study to assess the implications of sudden change
of the language of instruction on student understanding and their achievement
academically. Consequently, a comprehensive teaching approach can be developed to
cater for the difficulties of these students, especially during the transition period.

5.4 Suggestions for Future Research

In future studies, co varying relationships should be explored between teacher
characteristics and years of teaching experience.

Real and Potential Benefits of Bilingual Programmes in Education
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APPENDIX A

Questionnaire forms for Teachers

I am a student of Kampala International University by the names of Ngira pursuing a Bachelor's degree of Education. The purpose of this research is purely academic as partial fulfilments for the award of a Bachelor's degree of Education feel free to supply relevant information since it will be considered confidential. Your cooperation for the same shall be highly appreciated.

Please tick appropriately

1. In which language do you communicate with your students in class?
   (A) English ( )
   (B) French ( )
   (C) Latin ( )

2. What other local languages do you use as a medium of instruction?
   (A) Lkenya
   (B) Luo
   (C) Lunyankole
   (D) Others (specify) .................................................................

3. How effective are the above mentioned languages towards helping students understand the taught lessons.
   (A) Very ineffective
   (B) Ineffective
   (C) Effective
   (D) Very effective

4. Do your students understand English language? If yes, how fluent are they?
   (A) Very fluent
   (B) Fluent
   (C) Not fluent
   (D) Not at all
   (E) Others (specify) .................................................................
5. To what extent does understanding English language lead to better academic performance?
   (A) Bigger extent
   (B) Big extent
   (C) Smaller extent
   (D) Small extent

6. How has been the performance of English language among your students in the National Examinations been in the last five years?
   (A) Very poor
   (B) Poor
   (C) Fair
   (D) Good
   (E) Very good

7. Does a student’s poor academic performance have a relationship with the way they appreciate English language both in class and outside class activities?
   (A) Strongly disagree
   (B) Disagree
   (C) Agree
   (D) Strongly agree

8. Are there any local languages (mother tongues) that you use in class and outside class activities? Yes, ( )
    No ( ).
    If yes, how do they facilitate student’s performance.
9. In your view, is there a direct relationship between their academic performance and the local language used?
   (A) Strongly disagree
   (B) Disagree
   (C) Agree
   (D) Strongly agree

10. Are there programmes in place by the ministry of education and sports to introduce learners to their mother tongues in learning environments?
    Yes ( )
    No ( ).
If yes, mention some of them

11. Are there some language barriers that hinder the academic performance of students in your school?
    Yes ( )
    No ( ).
If yes, mention some of them
12. Do you relate poor academic performance with language barrier among students?

   Yes ( )
   No ( ).

If yes, by what percentage

   (a) 10%
   (b) 20%
   (c) 30%
   (d) 40%
   (e) 50%
   (f) Others. Please clarify..............................................................

..............................................................
..............................................................
..............................................................

13. What recommendations would you bring forward so as to counteract the problem of language in students overall academic performance?

........................................................................................................
........................................................................................................
........................................................................................................
........................................................................................................
........................................................................................................
........................................................................................................
........................................................................................................
........................................................................................................
........................................................................................................

Thank you for your time
APPENDIX B
Questionnaire forms for Students

I am a student of Kampala International University in the names of Ngira pursuing a Bachelor’s degree of Education. The purpose of this research is purely academic as partial fulfilments for the award of a Bachelor’s degree of Education feel free to supply relevant information since it will be considered confidential. Your cooperation for the same shall be highly appreciated. Please tick appropriately

13. In which language do your teachers communicate with you both in class and outside class activities?
   (A) English
   (B) French
   (C) Latin others (specify)

14. What other local languages do you use as students together with your teachers in class?
   (A) Lkenya
   (B) Luo
   (C) Lunyankole
   (D) Others (specify)

15. How do the above mentioned languages help you as students to understand the taught lessons?

16. How do you measure the accuracy of your teachers in speaking and instructing using English as Medium of communication?
   (A) Very accurate
   (B) Accurate
   (C) Somehow accurate
   (D) Not at all accurate

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17. To what extent does understanding English language influence your performance in class?
   (A) To a bigger extent
   (B) To a big extent
   (C) To a less extent
   (D) To a lesser extent

18. How has your school been performing in English language in the National Examinations in the last five years?
   (A) Very poorly
   (B) Poorly
   (C) Well
   (D) Very well

19. Would you relate poor performance in a given subject to lack of a deeper understanding of the English language used in teaching and setting the examinations?
   Yes, ( )
   No ( )
   If yes, explain how and why

20. Are there any local languages (mother tongues) that you use in class and outside class activities?
   Yes, ( )
   No ( ).
   If yes, how do they help in your learning?
21. In your view, would there be an improvement in your academic performance if your mother tongue was used both in class and outside class activities?
   Yes, ( )
   No ( ).
   If yes, explain how .................................................................
   .............................................................................................

22. Are there programmes in place by the ministry of education and sports to introduce to you learning activities that makes use of your mother tongue?
   Yes, ( )
   No ( ).
   If yes, mention some of them .....................................................
   .............................................................................................

23. Are there some language barriers that hinder your academic performance in class and outside class activities?
   Yes, ( )
   No ( ).
   If yes, mention some of them .....................................................
   .............................................................................................

12. What recommendations would you bring forward so as to counteract the problem of language barrier towards your better academic performance?...........................................

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Thank you for your time