

**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

**ACADEMIC ACHIEVEMENT OF BILINGUALS AND
MONOLINGUALS IN SEKOTA**

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Acronyms

L1- First language

L2- Second language

CALP- Cognitive academic language proficiency

IQ- Intelligence Quotient

Abstract

The major objective of the study was to compare the academic achievement of bilingual and monolingual groups. In the study many works have been collected regarding the effects of bilingualism on students' academic achievement and cognitive development that had been taken place in western immigrant students. This study was held in Ethiopia in one ethnic group students of Agaws found in Sekota. Accordingly, samples of 58 bilinguals (41 female and 17 male) and 113 monolinguals (62 female and 51 male) were taken from lieutenant General Hailu Kebede junior elementary school that was selected purposefully. A screening test was administered for the inclusion of students in the bilingual and monolingual groups. Attitudes of pupils and teachers were assessed using questionnaires. In addition, the language students' use with either friends or families was assessed. The result obtained in this study is consistent with previous research works and bilinguals were found to be better than their monolingual counter parts after a t-test comparison was made. The ANOVA result also revealed that a bilingual group with high competency in the two languages scored significantly a higher mean as compared with the rest bilingual groups. Moreover, in the sample subjects bilinguals achieve better than monolingual groups on the dependent variable academic achievement. The attitude of students was found to be positive but teachers had a negative attitude towards Himtagna language used as medium of instruction. Depending on the result, responsible bodies should encourage Himtagna mother tongue children to follow education in their first language. In addition, attaining a second language without any cost of the first language has higher significance for the students' cognitive and academic growth.

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

The world we live today is composed of small linguistic communities in its different continents and most of them are bi or multilingual. Scholars argue that a bilingual education system is desirable to those small linguistic communities. Moreover, most of them define bilingual education as the implementation of two languages and the study of independent cultures. Bilingual education program is advisable in conditions where; some foreign language of broader communicative are used; or a local national language has been used as medium of instruction for all pupils with inconsiderable emphasis of their mother tongue; or in a country, where immigrant children from different background are forced to join a monolingual classroom (Tucker & Cziko, 1985; Hamp, 1985; Heath, 1985; Liem, 1987 & Akinnaso, 1993).

Ethiopia is a country of diversified ethnic groups, with different cultural and linguistic backgrounds. One among the ethnic groups are Wag-Himra zone Himtangna speaking Agaws. Nevertheless, this does not mean all of them communicate using their ethnic language unanimously. Rather there are, for example, many Amharized Agaw peoples, who have little or no knowledge of the Himtangna language. There are also Tigrigna speaking sections. Accordingly, the people of Wag-Himra are one of the following; Himtagna-Tigrigna bilinguals, Himtagna-Amharic bilinguals, Tigrigna-Amharic-Himtagna trilingual, Amharic monolinguals or Himtangna monolinguals (Pankurst, 1982; Tadesse, 1988 and Schaefer, 1989).

Owing to difference in the language use of the Wag-Himra zone people, the zone had started the education program both in Himtangna and Amharic as medium of instruction, in respect to children's preference mother tongue in their early schooling. On the other hand, Amharic comes to be conjointly used as medium of instruction for the two groups when they join grade five. This new phase of training led children's of Himtangna to get educated bilingually with the instruction delivered in Amharic. This fact led students, who use Amharic as their mother

tongues, to continue as monolinguals and the rest as Himtagna- Amharic bilinguals. As indicated in the above works bilingual education is desirable for those students who came from different linguistic back ground (Akinnaso, 1993; Hamp, 1985; Heath, 1985; Liem, 1987; & Tucker and Cziko, 1985).

However, whether bilingualism creates an academic advantage or not was a controversial issue in the past and present findings. To notice a study conducted by Darcy (1953) and Lepage(1964) cited in Lambert (1985) confirmed that bilingualism by it self leads to mental confusion, causes problems of second language acquisition, hinders proficiency in both languages and lowers their academic subject competency. Furthermore, Amselle (2000) reviewed that teaching bilingual students using the majority language hinders their academic competency and there was a change on the students over all personal identity development.

On the other hand, opponents often cite researches that indicate bilingual education as less effective as monolingual education. They argue that bilingual education holds back from learning majority language effectively, will hurt their prospective academic success and inter and intra personal skills (Porter and Thompson, 2000).

Besides, Porter (1955) reported that “bilingual education is classic example of an experiment that was begun with the best of humanitarian intentions but has turned out to be terribly wrong-headed” (quoted in Amselle, 2000). This implies that, bilingual education did not have an academic advantage for children’s except for the maintenance of the basic human right to learn in his /her preference mother tongue. In support to this idea, Weinriech (1953) as cited in Benzeev (1977) pointed out that exposing a child to two-language environment simultaneously used and it causes them for linguistic interference between the two languages and leads to lessen cognitive development.

The above works indicate that bilingualism by itself causes to lower students’ academic achievement and cognitive flexibility. It leads to cultural confusion and suspend learners to variable personality.

To the very anti-thesis of the above findings, a comprehensive number of studies suggest that bilingualism can accelerate aspects of cognitive growth. A research conducted in French-English bilingual children in Montreal scored had shown that, bilingual children scored high while compared with their carefully matched monolingual groups in both context of verbal and non-verbal intelligence measures of WISC (Wechsler intelligent scale children's version). Moreover, the pattern of the test result suggested that bilinguals had a more diversified structure of intelligence, as measured, and they are more flexible in thought (Lambert, Tucker and d'Anglejan, 1973).

Furthermore, Song and Ginsburg (1988) conducted quite a different research, on numeric bilinguals of Korea and monolinguals of USA. The result shows Korean bilinguals surpasses USA monolinguals in counting. Additionally, if other factors like teaching style and parental involvement are kept constant, the numeric bilinguals will achieve greater in Mathematics. In support of Song's and Ginsburg's ideas, Icon-Worrall (1972) as noted in Lambert (1985) found out that,

The focus of the study were Children's of Afrikaans-English bilingual in Pretoria, South Africa and it leads equally a strong support for some what different form of cognitive flexibility, an advantage over monolingual controls in separating word meaning from word sound. The conclusion drawn was that the bilinguals were between two and three years advance in this feature of cognitive development (p.117).

Besides, Benzeev (1977) investigated a study on Hebrew-English bilingual children's in New York and Israel. His finding supports that bilinguals have greater cognitive advantage in grasping verbal materials and have high advancement in Piaget's operational thinking.

Additionally, if a child is exposed early and regularly to two languages he/she can easily acquire both of them equally. Evidences show cognitive advantages to bilinguals: in terms of language proficiency, concept formation, problem solving skill, and subject matter competency. Moreover, bilingual education facilitates students' language skill, ethnic identity development; which is

linked to student's academic achievement, interpersonal relationship and most importantly self-esteem (Cummins, 1994; Santrock, 1997 & Trolinger, 2004).

The aforementioned results indicate that bilingualism may have either negative or positive effects on students academic and cognitive development. Most research results that indicate the negative effects of becoming a bilingual, however, were done before the inauguration of the bilingual act in the 1960's, in America (Lessow-Hurley, 2005). But some current researches shows becoming a bilingual may also cause to lessen cognitive and academic competence of a child.

To the contrary, a bulk of research findings tried to show that becoming a bilingual has an affirmative consequence on children's academic subject competence; cognitive development, second language acquisitions and personal identity development (Cummins, 1985). All these research results supported the issue dates back after the bilingual act of America. As noted in Diaz (1985), most of the past research results are criticized as they have not methodological flow such as, lack of controlling intervening variables i.e., socio economic status, language proficiency attained, school environment and attitudinal consequences

The next issue treated in the current work was proficiency of the bilingual child attained in the two languages. Regarding, bilingual proficiency, Cummins (1976, 1979 and 1994), and Clarkson & Galbraith (1992) noted in their studies the attainment of minimum threshold levels of competence in the two languages helps a bilingual child to become academically competent. The threshold hypothesis concluded that students below the predetermined threshold levels in both languages are faced with academic retardation and those above the threshold levels are to be academically competent. The threshold hypothesis is supported by many research findings to note some (Edelsky, 1982&Christian, 1996). Under the current investigation, the level of thresholds a bilingual child attains in Amharic and Himtangna, with in the bilingual group either have a contribution to his/her academic subject competence or not was examined.

Concerning issues like gender influence, age and the interaction of language, gender and age on the academic achievement and cognitive development of a bilingual child's were less researched.

To illustrate one research findings, Kittell (1963) found a result that depicts sex as not being a deferential variable on the academic achievement of the bilingual and monolingual groups; and the interaction of sex and age tends to be not statistically significant on the measured variable of verbal intelligence among fifth and third grade sample subjects. The influence of age of learners may be exhibited primarily due to a linkage with social, psychological, educational, and other factors that can affect second language proficiency, but not on the age of the learner (Cummins, 1985).

Further more, Maminova-Todd, Marshall and Snow (2000) noted that the common mistake that led to the wide spread belief on the cognitive development of bilingual learners is that placing an enormous emphasis on ineffective older age second language (L2) learners excluding the older, who achieve native like ability.

As it is described above, numerous researches were under taken among the western society focusing on the influence of bilingualism on cognitive and academic achievement. However, in our country, few but appealing researches were so far carried out with the issues under discussion. These include; the study conducted on the attitude of teachers and students towards mother tongue instruction (Mitiku, 2005 & Muluneh, 2000); a study on the attitude of the community towards mother tongue (Melaku, 2004) and a study on administrative problems on the implementation of mother tongue instruction (Mamo, 2001& Mulualem, 2006).

1.2. Statement of the Problem

As it was noted earlier, numerous researches were so far undertaken to investigate whether there was an effect on academic achievement being a bilingual or not. Many of the researches were undertaken in the western community and reported that being a bilingual was found to be beneficial on the cognitive and academic competence of the bilingual students. Of course, it does not mean that there were not research findings that indicate an adverse effect of bilingualism on academic competence of bilinguals.

In our country, few researches were conducted focusing on the issue. Nevertheless, these researches were overwhelmingly focusing on the attitude and administrative issues regarding mother tongue instruction. But unfortunately, there were no attempts to investigate the academic

achievement of bilinguals and monolinguals. Hence, it is imperative to investigate the effect of bilingualism on academic achievement of bilinguals comparing visa-a-visa their monolingual counter parts. To this end, the following research questions were raised:

1. Is there a statistically significant difference in the over all academic achievement between bilinguals and monolinguals?
2. Is there a gender disparity with in a bilingual and monolingual groups in their over all academic achievement?
3. Is there a statistically significant difference on the academic achievement of bilinguals and monolinguals across their grade level?
4. Is there an interaction effect between sex and language on academic achievement?
5. Does degree of bilingualism have a relationship with students over all academic achievement within the bilingual group?

1.3. Objective of the Study

- ♥. To compare the over all academic achievements of bilinguals with their monolingual counter parts.

1.4. Significance of the Study

The study has the following practical significance for different stakeholders.

- ♣. Provide feedback, to zonal educational administrators regarding the advisability of continuing the program from year to year, depending on the result.
- ♣. To give a hint for responsible principals, teachers and parents about the results obtained on the on going bilingual educational program
- ♣. Give an insight to curriculum experts, regarding the consequences of the new mother tongue instruction.
- ♣. Based upon the findings of the study interested researchers can utilized the findings to conduct a study in socially different ethnic groups.

1.5. Delimitation of the Study

The study was held with the following delimitations.

1. The study was conducted only in one school which is found in Sekota Wereda
2. This paper examines the impact of Amharic-Himtangna bilingualism on students' academic achievement and the rest bilingual groups were not treated. Besides, these bilinguals were initially learnt most of the school subjects in Himtangna and Amharic as one subject in the same school.
3. The study was taken place only under grade five and six students', the rest bilingual and monolingual groups were not included in the study.

1.6. Limitations of the study

This study is supposed to have the following limitations;

1. Even if, the results obtained from the study are compared with researches so far under taken abroad, it was difficult to compare with study in our country because of the absent of similar studies.
2. Although the instruments used in this study have high reliability, because of lack of standardized tests the result may be influenced in measuring the proficiency.

1.7. Operational Definitions

Bilinguals: - Students who have an ability of two languages, Himtagna in early schooling and Amharic in later schooling.

Monolinguals: - Students who have an ability of one language that is, Amharic in their early and later schooling.

Bilingual proficiency: - The levels of students' ability in Amharic and Himtagna as measured with an average of their grade four-class mark of the two languages, score on the subjective self-rating scale and the result on the translation test.

Academic achievement: - refers to the first semester average class mark in all subjects.

Himtangna: - A language used by some people who live in wag-Himra administrative zone.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. Definitions of Bilingualism

Bilingualism defies easy definition because of manifold reasons raised from scholars in the field. Bloomfield (1933) cited in Lessow- Hurley (2005) and Paulson (1978) contended that bilingualism should be functional only to those people, who possess “native-like” capability in both languages while dealing with the term. In lined with this, Grosjean (1982) as cited in Hurley (2005) argued that bilingual students are those, who use two languages regularly. He further described that bilingualism is not the focus on fluency in two languages rather it is the use of two languages. In an attempt to reduce biasness while defining bilingualism, Weinreich (1956) tend to level bilingualism as it should be characterized by minimal rather than maximal experience of some one in the two languages (cited in Ben-zeev, 1977). In one or another way, most of the definitions imply that if some one is to be designated as a bilingual he/she must use two languages not only regularly but also alternatively

The difficulty of defining bilingualism was described by Cusainer, Mccelland and Safford (200); it is a complicated matter to label just who is and who is not bilingual. According to this author, while someone may be able to speak in two languages, the use of one of those languages may be restricted to a particular setting. For instance, one’s native language may be used only at home or among other speakers of that language. Where as one’s second language may be utilized at school or work. Hence, no definite cut-off points can be identified that can distinguish a monolingual from a bilingual.

The study was carried in Sokota area which is predominantly settled by Himtangna speakers. The people who live around Sokota are divided as people, who speak mostly Himtangna and reside around the northern half of the zone (Wag Himra zone) and, the rest are largely Himtangna speaking people. One of the distinctive features of the area is, there are people speaking Himtangna and the two major Ethiopian languages; Amharic and Tigrigna. Hence, this research

was undertaken highlighting the aforementioned definitions, i.e., some people speak of the two languages either minimally or maximally.

The respondents are found to be from family language background of any of the three languages as their own mother tongue. Moreover, some students have an opportunity to speak one or more languages with the exclusion of their mother tongue.

2.2. Academic and Cognitive Consequences of Bilingualism

Although researchers were not able to arrive at a firm consensus, the impact of bilingualism up on an individual's cognitive functioning has been the focus of investigation for many years. Even if the issue is not still resolved properly, there is a tendency to adhere to the maximum which accept that being a bilingual puts a person on the verge of advantages.

Rubinstein (1979) deduced an opinion on the dangerous effects of bilingualism on students' academic and cognitive development when bilingualism is acquired in a stressful environment. In lined with this, Cummins (1976) described investigations on the association between bilingualism and cognition, which was conducted by Peal and Lambert in 1962 to indicate that bilinguals performed at a lower level than unilingual on measures of verbal intelligence. Furthermore, Lambert (1985) cited the study carried out by Darcy (1953) and Lepage (1965), to show that bilingualism by it self leads to mental confusion, causes problems of second language attainment, hinders proficiency in both languages and lowers the academic subject competency. Amselle (2000) in his part mentioned that the instruction of bilingual students using the majority language hinders their academic achievement and creates suspended personality on the side of bilingual children. Yet others, who support the view that bilingualism affects the cognitive functioning of the individual, often quote researches that indicate bilingual education is not effective as monolingual curriculum. According to Porter and Thompson (2000), these groups argue that bilingual education is holding back learners from learning majority language effectively, it will hurt their prospective academic success and inter and intra personal skills. Thompson (1952) indicated that bilingualism can influence students in lowering their academic competency.

Hakuta, (1987) however, asserts that most of the researches uncovered the negative results of bilingualism because they were entirely based on the debate of 1960's between hereditarianism and environmental interpretation of the low IQ performance of immigrant children. Hakuta further noted that most studies conducted in USA and Canada among immigrant students of Hebrew-English, French-English and Hispanic bilinguals. Accordingly, earlier studies on those minority children focus on a result that leads to bilingual children are lower in their academic achievement, mental development and "Piaget's operational thinking".

Besides, all those past researches were conducted before the inauguration of the law in America. The bilingual act was designed in the mid year of the 1960's aiming at creating access to those language minorities to attain at least their early schooling in their own mother tongue (Lessow-Hurley, 2005). However, even if the law allows those minorities to learn bilingually, educators had debated on the idea. For example, Cummins (1976) cited Tucker and Angelejan(1971) to point out that it was widely understood that children, who have been instructed bilingually from an early age would suffer linguistic, intellectual and academic retardation while compared with their unilingual instructed counter parts.

With regard to the debate, Diaz (1985) reviewed a bulky of literature on the issues and concluded that bilingualism has both negative and positive effects on students' academic achievement; based on proficiency a bilingual child attains in his/her two languages.

On the other hand, there has been a considerable shift both in attitudes towards the benefits of bilingual education and in research evidence regarding the influence of bilingualism and academic achievement. Despite earlier beliefs on the negative effects of bilingual education, Lessow-Hurley (2005) noted that in recent years there had been an eagerness to make education in two languages much more widely available and to regard it as educationally desirable. Most studies were conducted to evaluate many North American bilingual educational programs tend to conclude an optimistic view (Cummins, 1994). In general, programs designed to teach a second language to English speaking children have proved successful (Christian, Howard and Loeb, 2000). To this end Christian et.al., (2000) noted a study of immersion program to language majority children had shown to enable these students to develop advanced levels of second

language proficiency (in French, Spanish, and other languages) without any cost of their academic achievement or first language development

Besides, as Krashen (1999) pointed out language is learned best by all students when it is the medium of instruction rather than the exclusive focus of instruction. This is because students learn language as they learn the academic content through that language and they will have a real need to communicate. The integration of native English speakers and language minority students facilitates second language acquisitions because it promotes authentic and meaningful interaction among speakers of the two languages. The day today contact of the minority students with native English speakers can accelerate the cognitive functioning and academic competency of the minority language speakers (cited in Christian et al, 2000).

Dating back to the study of Lambert et al.(1973), he conducted an evaluation of the best known Canadian bilingual education programs and suggested the possibility that bilingual education may even have a positive effect on some cognitive processes. He found Children in the well-documented St. Lambert bilingual program located in Montreal have shown no academic disadvantages in relation to the controls throughout the elementary school period and at the same grade levels bilinguals have performed at a significantly higher level than the controls on measures of divergent thinking.

Investigations of the relationship between bilingualism and cognition conducted prior to the Peal and Lambert (1962) study generally found that bilinguals performed at a lower level than unilingual on measures of verbal intelligence and academic competency (Cummins, 1978). Diaz (1985) has criticized these early works on the grounds that many of them failed to control confounding variables such as socio economic status, sex and the learner knowledge of his/her two languages. The result of Cummins's (1976) study and other investigations indicate that under certain learning conditions access to two languages can positively influence the development of some cognitive processes (Janco-Worrall, 1972; Landry, 1974; Benzeev, 1977; Cummins, 1978; Lambert, 1985; Song and Ginsburg, 1988; Snow, 1992; Christian, 1996; Santrock, 1997; Collier and Thomas (1996) cited in Cushner et al, 2000; Gonzalez and Padilla, 2001;).

Collier and Thomas (1996) cited in Cushner et.al. (2000) reported that , When bilingually educated students are tested in English, they typically reach and surpass native English speakers' and perform across all subject areas after 4-7 years in a quality bilingual program. Because they haven't fallen behind in cognitive and academic growth during the 4-7 years that it takes to build academic proficiency in English. Bilingually schooled students typically sustain this level of academic achievement and out perform monolingual-schooled students in the upper grades. Gonzalez and Padilla (2001) conducted a study to see the effect of bilingual educational program and the result indicates that college students, who received some English as a second language in bilingual education program reported higher grades than students, who had not received any second language instruction.

Besides, in lined with Collier's and Thomas's findings Benzeev (1977) have investigated on Hebrew-English bilingual children's in New York and Israel. The finding highly indicates that, bilinguals have greater cognitive advantage in grasping verbal materials and have high advancement in Piaget's operational thinking. Icon-Worall (1972) indicated that Afrikaana-English bilingual children's exceeds their carefully matched monolinguals by two or three years advance in grasping verbal materials.

Song and Ginsburg (1988) conducted a quite different research, on numeric bilinguals of Korea and monolinguals of USA. The result shows Korean bilinguals surpasses USA monolinguals in counting. Additionally, if other factors like teaching style and parental involvement are constant the numeric bilinguals will achieve greater in Mathematics.

Similarly, in several studies an association has been reported between second language learning, divergent thinking and academic achievement (Palmer, 1972; Carlinger, 1974;Albert and Obler, 1978; Scott, 1973 and Torrance,1973 cited in Lambert 1985; Cummins, 1994; Rumberger and Larson, 1998; Trollinger, 2004; Feldman and Shen cited in Stockwell, 2002and Lessen-Hurley, 2005). Since these findings are relevant to the present study they will be briefly summarized.

Torrance (1973) as cited in Lambert (1985) reported that grade six children attending schools in a French language elementary schooling program (FLES) were effective, scored notably higher

than unilingual control group on both the verbal and figural parts of the Torrance Tests of Creative Thinking. Difference between FLES schools at grade one and grade four levels were non-significant. Carringer (1974) has also reported a positive association between bilingualism and divergent thinking; however, his findings should be treated with caution since neither IQ nor socio economic status appears to have been adequately controlled. Besides, Rumberger and Larson (1998) reported that bilingual students who were fluent in English proficiency had better grades and a higher rate of educational stability and were more likely to complete a quarter of their high school credits by the end of ninth grade than students who were limited in English proficiency or from English-only backgrounds.

To strengthen the above findings, psycholinguistic studies reviewed on Cummins (1994) indicated that people, who have an ability of more than one language, are verbally more skillful than monolinguals, and they mature earlier with respect to linguistically constructed skills. For example, bilinguals have better auditory memory than monolinguals. Trollinger (2004) also found that bilinguals participating in an immersion program in identifying the Musical notes and pitch- matching accuracy are better than their monolingual counter parts. Besides, Feldman and Shen (1971) cited in Stockwell (2002) discovered that low income bilingual children were better at learning new levels than low income monolinguals.

Similarly, neuron-linguistic research is beginning to suggest that people, who know more than one language, make use of their brain more than monolinguals does.. Albert and Obler (1978) reviewed a series of post-mortem studies on polyglot brains –brains of people who spoke from 3 to 26 languages-and found that certain parts of the brain were especially well developed.

A persuasive research was conducted by Scott (1973) cited in Lambert (1985,p.118) on French-English bilinguals in Montreal using a comparison of younger children, some of whom were given the chance to become bilingual over a period of years while others were not given the chance. Scot worked with data collected over a seven years' of period from two groups of English-Canadian children; one group had become functionally bilingual in French during the time period because they had attended experimental classes, where most of the instruction had been conducted in French, While the other group had followed a regular English-language

education program. At the first grade level, the two groups had been matched for measured intelligence, socioeconomic status, and parental attitude towards French people. After they passed those processes Scott reported that the French speaking skills of the experimental children at the grade six levels were significantly predicted by earlier (grade three) divergent thinking abilities. Scores on Raven's Progressive Matrices (a non verbal measure did not significantly predict French speaking skills). Scott also analyzes data which suggest that divergent thinking may have been positively affected by the immersion program and concludes that higher levels of divergent thinking may be either an effect or a causal element in the attainment of functional bilingualism.

In summary, while these studies provide clear evidence of an association between divergent thinking and bilingualism they do not unambiguously indicate whether the relationship is positive or negative or one of cause the other as an insignificant factor.

The different bilingual learning situations were sampled in recognition of the fact that in each bilingual learning situation the level of bilingual skill attained will be influenced by the combination of cognitive, attitudinal, social and educational factors. These factors are discussed in the subsequence sections.

2.3. Proficiency in Bilinguals, Age, Sex, Sociolinguistic, Attitude and School Climate as Factors Affecting Academic Achievement

2.3.1. Proficiency in Bilinguals

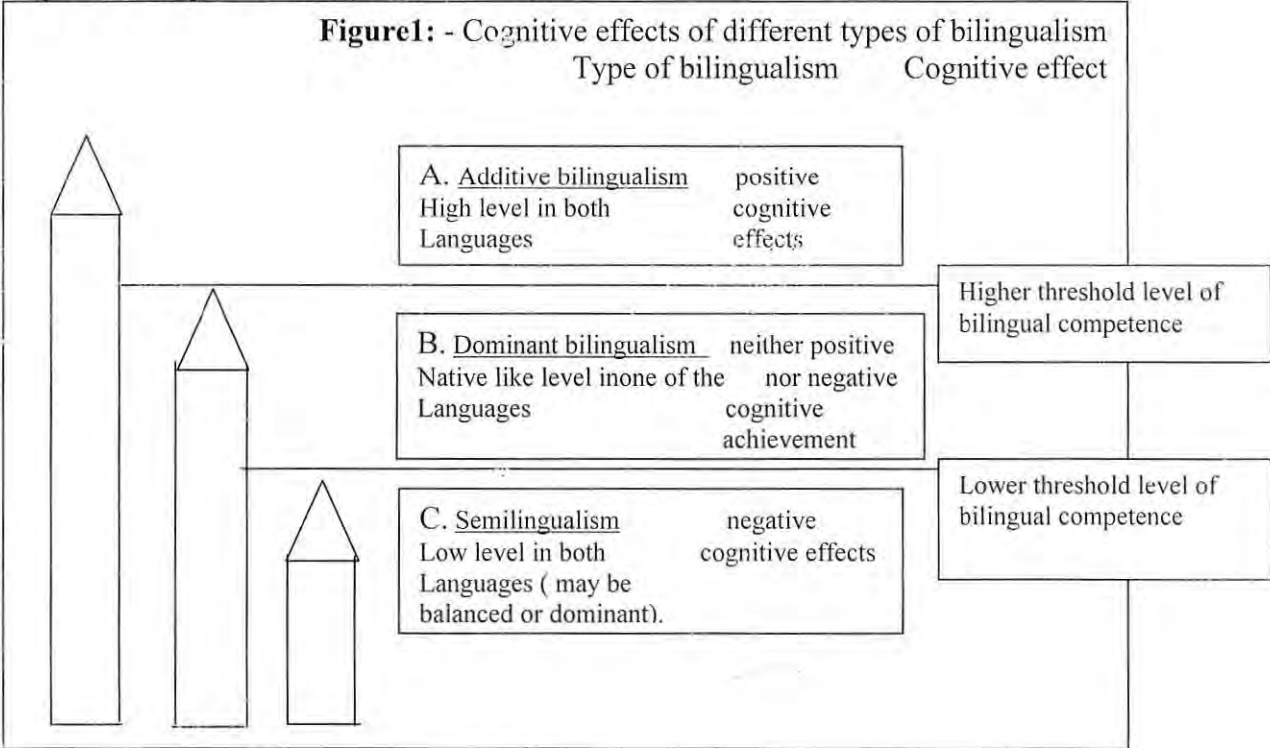
Cummins (1976,1979, 1985 and 1994) argued that, lack of concern for positive developmental inter relationship between language and thoughts in the bilingual child is one of the major reasons why evaluations and researches have provided so little data on the dynamics of the bilingual child's interaction with his educational development. Cummins further noted that a directly determinant quality of this interaction is the level of first language (L1) and second language (L2) competence which the bilingual child develops in the course time during his/her school career.

In order to provide a theoretical frame work for researches in the developmental interactions between language and thought in bilingual child, two hypotheses have been developed. These hypotheses were the threshold and developmental interdependence hypothesis (Ibid, 1979).

According to Cummins (1994 and 1985), the threshold hypothesis was evolved as an attempt to resolve the apparent inconsistencies in the results of early and more recent studies of the relationship between bilingualism and cognition.

The threshold hypothesis comprises different levels with in it. The attachment of a lower threshold level of bilingual competence would be sufficient to avoid any negative cognitive effects, but the attachment of a second higher level of bilingual competence might be necessary to lead to accelerated cognitive growth (Cummins 1979). The pattern of threshold hypothesis is presented below.

Figure 1: Adopted from Cummins (1979).



It is discussed that, the lower threshold level of bilingual competence proposes bilingual children competence in a language may be sufficiently weak as to impair the quality of their interaction with their educational environment through that language (Ibid).

However, Cummins stressed that the threshold cannot be defined in absolute terms; rather it is likely to vary according to the children's stage of cognitive development and the academic demands of different stages of schooling.

Because of the wide spread academic failure of minority language children and the fact that many of them clearly have less than native-like competence in both languages, the existence of a lower threshold level of bilingual competence is probably less continuous than the existence of higher threshold. According to Ibid (1985), however, direct evidence for the concept of a higher threshold level of bilingual competence is provided in several of the studies, which suggest that an additive form of bilingualism can positively influence cognitive functioning. Clarkson and Galbraith (1992) as well, launched a research on the degree of bilingualism on Mathematics achievement. The result supported the levels of competency in L1 and L2 have a direct relationship with students' achievement in mathematics in Papua New Guinea. Consequently, Cummins's threshold hypothesis was confirmed to be true in Math's.

To sum up, the above descriptions suggest that the threshold can provide a frame work with which to predict the academic and cognitive effects of different forms of bilinguals.

However, it tells little about how L1 and L2 skills are related to one another or about what types of school programmers are likely to promote additive and subtractive forms of bilingualism under different bilingual conditions.

Cummins (1979) came up with the developmental interdependence hypothesis that addresses the functional interdependence between the development of L1 and L2 skills.

The hypothesis proposes that the level of L2 competence which bilingual child attains is particularly the function of the type of competence the child has developed at the time, when intensive exposure to L2 begins. This means that, when the usage of certain function of language and the development of L1 vocabulary and concepts are strongly promoted by the child's linguistic environment out side of school, then intensive exposure to L2 is likely to result in high

level of L2 competence at no lesser to L1 competence. In short the hypothesis proposes that there is an interaction between the language of instruction and the type of competence the child has developed in the L1 prior school (Cummins, 1979, 1985, 1994 and Clarkson and Galbriaz, 1992).

Bulky research evidence related to the hypothesis was well treated by numerous researchers. For instance, (Cummins, 1984; Hakuta, 1987; Skutnabb-Kagas, 1981; Stockwell, 2002 and Tucker, 1975) found that L1 and L2 reading scores are highly correlated.

Skutnabb-Kagas (1981) and Hakuta (1987) provided a data from minority language learning situations, which is consistent with the developmental interdependence hypothesis. The purposes of the investigations were to determine the linguistic level and development in both their mother tongue and second language's. Attention was paid to the interdependence between skills in the mother tongue and Second language, i.e., the hypothesis tested that those, who have best preserved their mother tongue, are also best in second language.

In a similar study, Ramirez and Politzer(1976) cited in Cummins (1985) reported that the use of Spanish at home resulted in higher level of Spanish skills at no cost to English achievements; while the use of English at home resulted in a deterioration of Spanish but no improvement in English. This helps for the attainment of bilingual academic competency with out the cost of L1

2.3.2. Age

It has been hypothesized that age is one of the influential factors in determining success in learning a second language and academic achievement for a bilingual child. According to Penfield and Roberts (1959), who coined the term critical period : a period of time when learning a language is relatively easy and typically meets with a high degree of success, it is argued that language acquisition is most effective before age of 9, when the human brain becomes stiff and rigid (cited in Maminova-Todd et.al. 2000). After, criticizing critical period that it was over stated. Lamendella (1977) introduced sensitive period emphasizing that language acquisition might be more efficient during early childhood but was not impossible at later age (Ibid, 2000).

Attempts were made to support critical period with sufficient evidence that it exist for second language acquisition. For instance, Johnson and Newport (1989) cited in Kim etal, conducted a study based on the speculation that, ones children master general problem solving, their ability to acquire new languages diminished. Johnson and Newport studied native speakers of Chinese and Korean, who had first been exposed to English either before puberty (when they some what boldly placed **at** 15 years) or after puberty (17 years or older). The subjects, who completed a grammatical judgment test that assessed knowledge of various English grammatical rules shows a decline with age in correctness of the judgment.

Besides, Kim, Relkin, Lee and Hirsch (1997) carried out a research that looked at the localization of languages learned at different ages, though it did not report data on the L2 proficiency of the bilingual subjects. To expound the idea, the researchers' subjects were adults with first exposure to L2 at infancy, adults with first exposure at adulthood. The major findings of the researchers were that two separate areas are found in the brain for production of L1 and L2. The authors' interpretation of these results in support for critical period was positive.

However, their findings were criticized for the fact that early learners were too young and this implies that younger learners have better L2 pronunciation due to the brain differences (Manhova-Tadd etal, 2000). Perhaps the most common error that has led to the wide spread belief in a critical period in L2 learning is that of placing an enormous emphasis on unsuccessful adult L2 learners and ignoring the older, who achieve native like ability. Receiving numerous researches on over emphasis of unsuccessful adult L2 learners, Manhova-Tadd etal, 2000, came to conclude that researchers and non specialists alike have mistakenly assumed that this some how implies that all adults are incapable of mastering on L2. Manhova-Todd etal further argues that adults are not a homogeneous group of linguistically incompetent creatures and the type of grammatical anomaly was related to the parameters of age change.

The researches reviewed above are generally criticized for misconception, misattribution and miss emphasis. Hence, age may influence language learning and academic competency, but primarily because it is associated with social, psychological, educational, and other factors that can affect L2 proficiency, critical period that limits the possibility of language learning by adults.

To the contrary, the interdependence hypothesis, presents a different perspective on the issue. According to Cummins (1978), the interdependence hypothesis proposes that the development of competence in L2 is partially a function of the type of competence already developed in L1 at the time when intensive exposure to L2 begins. Accordingly, it would be possible to predict that older L2 learners, who's L1 cognitive academic language proficiency(CALP) is better developed, will acquire the academic L2 skills more rapidly than younger learners. Cummins had reviewed numerous researches findings on the age issue to confirm this prediction.

According to Lesson-Hurley (2005), the critical question that has to be raised is whether Younger or older children are better at developing the kind of second language proficiency they need for school. Though, the answer to that question seems to be complex. Collier (1987) points out, "it depends on the learner's cognitive style, socioeconomic background, formal schooling in first language, and many other factors" (cited in Lesson-Hurley 2005:5).

Lighting over the immersion and the optimal age issue Tucker (1976) too argued that the type of treatment that immersion provides may be more effective for younger than older learners. Toker goes to state that this must remain an interesting speculation until attempts are made to study systematically age or maturity differences in second language learning under different conditions of schooling.

2.3.3. Sex

In the foregoing discussion, age has been viewed as a factor in line with bilingualism. However, besides age and other factors, sex should also be addressed whether it could be related with bilingualism vs monolinguals achievement.

Kittel (1963) carried out a research on intelligence- test performance of children from bilingual environment. Kittel collected data from 66 children, who attended the third and later the fifth grade of the same elementary school in Berkley, California.

One of Kittlel's research questions was to see whether sex made differences in language intelligence scores and non-language intelligence scores between children from a bilingual environment differ from a unilingual environment differ at the third grade level from the scores made at the fifth-grade level.

Accordingly sex was analyzed for possible relationship to the shift in relative performance. Analysis of variance revealed no statistically significant differences in the mean reading ages and the mean language mental ages of the sub grouping by sex of the two lingual-environment groups at the third-grade level. Neither the third nor the fifth-grade level were sex differences in mean reading ages or language mental ages found to be statistically significant with in the linguistic grouping.

In attempting to study the episodic and semantic memory in bilingual and monolingual children, Kormi-Nouri, Moniri and Nilsson (2003) compared 60 bilingual and 60 monolingual children on episodic memory and semantic memory tasks.

In their study sex was considered to see its effect on episodic and semantic memory and they found no interaction between sex and language (bilingual vs monolingual). That is, the data pattern with respect to sex difference was the same for bilingual and monolingual children. Of course, the pattern was different for episodic and semantic memory. That is, a sex difference can be observed for episodic memory and not for semantic memory. According to the researcher this was the same with the findings of Nilson and Backman (1997) as cited in Stockwell (2002), in which female adults out performed male adults on the episodic memory test, but not on semantic memory tasks.

To sum up, the findings on the sex influence on language (bilingualisms vs monolinguals) revealed that it is least interacting factor.

2.3.4. Sociolinguistic

Lambert (1975) and Cummins (1994 and 1979) points out that, there are four possible ways in which minority language children can work out their identity in relation to their participation in two cultures and languages:

1. Harmonious identification with both L1 and L2 cultures
2. Identification with L2 culture, rejection of L1 culture.
3. Identification with L1 culture, rejection of L2 culture
4. Failure to identify with either culture.

The following figure depicts Lambert's description;

Figure2: L1 and L2 Identification

Harmonious Identification of L1 and L2	Identification with L2 rejection with L1
Identification with L1 rejection with L2	Failure to identify with either culture

According to Cummins (1979) these pattern of identification are intently tied up with the learning of L1 and L2. For example, a child, who identified closely with both cultures, is more likely to achieve high level of competence in both languages than a child, who is identified with neither of them. Similarly, a child, who is identified only with the L2 group, is likely to actively promote the replacement of L1 by L2 while a child who rejects the L2 culture will be resistant to the learning of L2. The above issue is addressed through additive and subtractive bilingualism. According to Cummins (1981), an additive bilingual has learned a second language in addition to the first, where as, a subtractive bilingual has gradually lost one language while acquiring the second. From a pedagogical viewpoint, the distinction is significant because research indicates that children with high level of proficiency in two languages show "positive cognitive effect" (cited in lesson-Hurley, 2005).

2.3.5. Attitude

The effective implementation of a change in curriculum as well as a change in LOI highly depends on the entire community ranging from the top government bodies down to the pupil. Thus, before designing and implementing an innovation such as MT, there are some important variables to be taken in to account carefully. These includes need assessment, designing vision and objectives, capacity to implement and others related to this (Edn Bureau,1992 in Amharic: 6-17). Hence attitude is one of the crucial problems in the implementation of mother tongue as LOI (Language of instruction).

One of the most important variables that could be taken in to account while dealing with bilingual education is a parental attitude towards it. Rubin (1985) did a small survey of parental attitude towards bilingual education program with Spanish. The study was conducted on 18 schools in the department of Paraguay and questioners were administered to 193 parents, whose children had attended schools for at least three years. Besides asking parents what scholastic goals they have or their children acquired after completing three years of schooling and what skills their children did have, they were asked about parental attitudes towards bilingual education.

Rubins investigation indicates that learning Spanish was a major goal of these parents and more than half of the parents were willing to consider bilingual education. Their reasons were generally found to be related with socio-economic, pedagogic, identity, identification of Spanish with schooling and psychological factors. Besides parental attitudes, pupils' attitudes towards bilingual education are of crucial factor. Toker and Cziko(1985) discussed that attitudes of pupils towards bilingual education itself reflects the attractiveness of the program and may be considered as positive measures of the ability of the program to motivate the children and sustain their interest in education. According to Gardner and Lambret (1972) attitudes towards the language being used as a medium of instruction and speakers of the language have been identified to be related to proficiency in the language (Cited in Tucker and Cziko, 1985). In addition, since, bilingual education may incorporate educational innovations not having to do with language, attitudes towards traditional values and beliefs, religion etc may also be of interest (Toker and Ciziko 1985). They further noted that an assessment of the attitudinal conferences of

bilingual education programs is recommended that attitude should have been included in program evaluation.

These literatures imply that the effectiveness of bilingual education strongly depends not only on parental attitudes but also pupils attitudes towards the program. Understanding attitudes towards language contributes significantly for bilingual education. Saville-Troike (1985) discussed that conflicting attitudes towards languages diversity create one of the greatest problems in cross-cultural communication between teachers and students (or their parents), and misunderstandings often occur for this reason. When the differences are understood, they may be used as an educational base; if not, they create a formidable barrier to learning.

2.3.6. School climate as a factor

In the foregoing sections it has been attempted to describe the possible factors that could influence bilingual education. In this sub topic, school climate as a factor is addressed. Dulay and Burt (1985) contended that, school resources must be duly considered before attempting to install new programs. And before the program is implemented, teachers must be trained, curriculum should be designed and necessary materials need to be procured. Otherwise its full benefits may not be realized and critical innovations may be scrapped before they can be implemented properly. Schools can be instrumental in supporting minority languages (Lesson-Hurley, 2005).

Finocchiaro (1985) further elucidated that school as factors should consider and must help learners maintain their ethnic values, cultural identities, and native language since they do not come as a tabular. Furthermore, Finocchiaro stated many responsibilities that teachers and schools are expected to fulfill in bilingual education. These include;

- ✓ Ensure that learners come to school without fear. Fear that they will be segregated.
- ✓ They must be sure that learners understand the language of requests and direction, the reading, the listening, comprehension exercises, or any other classroom activity.
- ✓ Ensure that learners are helped to enjoy many languages learning and other related experiences.

- ✓ Learners must be helped to feel loved through praise and a warm accepting attitude even though it may seem to take them an inordinate amount of time to learn a language item.
- ✓ Learners should be made to feel that they belong to the total class group because every effort is made to involve them in meaningful class, group or paired activities leading to communicative competence.

Teachers and school personnel should help students to sense that they are making daily progress and achieving the goals which the teacher has clarified (in their native language; if necessary) and which are considered worthwhile to them now and in their later life. (P.274-275)

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Description of the Study Area

Since the primary objective of the study was to investigate the influence of bilingualism on the academic achievements of students in Sekota, this sub topic remarkably described the language and geographical location of the study area.

The Wag-Himra Agaws are inhabitants of north Ethiopia; they were inscribed by the Amharic and Tigrigna speaking people. Most of the Himra-Agaws are bilinguals or trilingual and some are Monolinguals of either Amharic or Himtangna languages (Pankurst, 1982; Tadesse,1988 and Schaefer, 1989).

Geographically, Himtagna is widely spoken in Sekota Woreda and other surrounding vicinities as a first language. Both Sekota Woreda and the town of Sekota (in which the study was under taken), although large portion of the population has the knowledge of Himtagna, Amharic is widely spoken in places of Himtangna. The sample school is found in Sekota and the only school in which instruction is held in Amharic and Himtagna in children's elementary years of schooling. It is with this situation that the study was carried out to see whether bilingualism is related with academic achievement or not.

3.2. Curriculum of the Study Area

The curriculum for the bilingual and the monolingual groups was put into practice with the decision made by the zonal administrative principals. The texts for the two groups are the same in content. That is, the Himtangna texts are directly translated from the Amharic texts.

The following table indicates curricula for bilingual and monolingual students of grade 1-4 and their approximate schedule time in hour's per-week are provided.

Table 1: Academic subjects and time break down in hours

Academic subject	Grade 1-4	
	Bilingual Groups	Monolingual Groups
Himtangna	12	8
Amharic	8	12
English	16	16
Mathematics	16	16
Environmental Science	16	16
Art	12	12

From Table1, one can see that, the monolingual groups were instructed the whole academic subjects in Amharic except Himtagna as one subject. However, the bilingual groups were taught in a reversal pattern. That is the whole subjects were instructed in Himtangna except Amharic. In the subsequent classes, the two groups are joining in a similar program and both follow Amharic as the only medium of instruction in their schooling.

3.3. The Research Methodology

The main purpose of this study was comparing the academic achievement of bilinguals and monolinguals. Also, pupils' and teachers' attitude towards an instruction held in Himtangna and the language students' use has been assessed, as the researcher's second objective.

To attain this purpose, the researcher has taken a sample of bilingual and monolingual students, who follow their instruction in Leutinant General Hailu Kebede junior- elementary school. And the researcher used two naturally assembled groups. The first group follows their instruction in Himtagna and the second in Amharic in their elementary schooling from the sample school. The sample school was selected in order to control some extraneous variables like school environment

3.4. Source of Data

Both primary and secondary data were used for the study. Primary data was gathered from students and teachers using questionnaire.

Secondary data was obtained from a documentary analysis of the school's record. The documents were used to know the average academic achievement of students at the end of first semester class currently, their academic achievement score at the end year average of the two local language subjects of grade four and helped to identify students who follow their previous instruction in the sample school.

3.5. Sample Population and Sampling Methods

Out of sixty four elementary and junior elementary schools, found in Sekota Woreda, there are thirty eight schools in which instruction is held in Himtagna, and twenty six schools use Amharic only as their media of instruction in children's early schooling. There is one exceptional school, which is located in the central town of Sekota. Where instructions were taking place in either Amharic or Himtangna starting from grade 1 up to 4 depending on children's preference languages.

Due to the very nature of the research, this school was selected as a sample school purposefully and helps to minimize some intervening variables related to school environment. In regarding this, Diaz (1985) pointed out that, researchers, who involved in comparisons of bilingual and monolingual groups should have balanced the samples in any extraneous variable like; school environment, years of schooling and socio economic status. Due to this fact, the investigator conducted the comparison of students in one school setting and those who have similar years of schooling.

All students of grade five and six with a total number of 264 were taken as a sample subjects. These students were following their previous class instruction in the same school consecutively, including the current grade they engaged, depending on their own preference language (Amharic

or Himtagna). The two school grades were also selected purposefully because the sample grades are more preferable to see whether the influence of being a bilingual contributes to students' academic competency or not. The rest class students starting from grade 7 up to 12 are joining another instructional language that is English, and it was difficult to observe the influence of becoming a bilingual and a monolingual in the local languages. Besides, at lower grades, it was difficult to level students as bilingual since they have not sufficient time to develop competence in Amharic.

Finally, 171 students were taken as samples after a screening was made. 95 students were taken from grade five and 76 from grade six. From the samples, 58 were bilinguals and 113 monolinguals. In terms of sex, 68 were males and 103 females. Under the section procedure details of the samples drawn are discussed briefly.

In addition, 20 teachers were drawn from 44 school teachers to fill the attitude scale by using simple random sampling during the tea break time in both shifts. Simple random sampling was used because most of the teachers had a long stay with the program and they have assumed to have similar knowledge to the new Himtagna mother tongue instruction. Again, 25 students were taken to fill the attitude scale randomly from the bilingual group.

3.6. Data Gathering Tools

The instrument designed for this study consisted of the following tools: the screening test and biographic questionnaire, the language use and subjective self-rating proficiency scales and Attitude questionnaires. The instruments are briefly described below.

A. The Screening Test and Biographic Questionnaire

This tool was the major instrument in this research, it comprises of two parts and administered to the whole students, who follow their elementary schooling only in the sample school.

Part I

This part of a tool contains nine items to gather students; demographic information, mother tongue, ability of any other additional language other than their mother tongue, language of instruction in the previous four grades and the school they attend. This part helps to categorize students in the bilingual or monolingual group, or to exclude some students who are not fulfilling the working definitions of the research bilingual and monolingual groups together with the second part.

Part II

Under this part, 12 statements were written in Amharic and Himtangna languages. Students were expected to translate items from the given language to any other second language they know. The statements were made very simple and familiar, to the students' day today school activities. Moreover, this part helps either to decide students for the inclusion in the bilingual and monolingual sample or to exclude them. In addition, the score on the translation statements used as one measure of students' proficiency in the two languages together with subjective self-rating score and grade fours final year average academic achievement of students both in Amharic and Himtangna.

B. Language Use and Subjective Self-Rating Scales

The language use scale, consisted of items gathered and modified from existing instruments (Martin, Sabogal, Otero-Sabogal and Stable, 1987 and Bosher, 1993). The items assessed three dimensions of language use of students with their friends, communities and home. The five point scale ranging from one (only Himtagna) to five (only Amharic). The items were asked to students about what language they use with their friends, at home and with persons living around their surrounding. The five options were presented in a five alternative multiple choice items.

Besides, subjective self-rating scales were included under part two of the instrument. Students were asked to rate their ability to speak, read, write and listen, in Amharic, and Himtangna on a four point scale ranging from "low" to "very high". Four points were given for a very high

response and one point for a low response. The maximum result for each language was 16. Moreover, it was used as a measure of bilingual proficiency. The two scales administered only for students of bilingual, after a screening test result had been determined.

C. Attitude Questionnaires

Two questionnaires were adapted and modified from Melaku (2004) ,Mitiku (2005) and Francis (1998) for the students and teachers. The attitude questionnaires for teachers and student comprised 20 and 17 items respectively. The questionnaires were aimed to know teachers and students attitude, towards Himtangna language when used as medium of instruction in elementary schools.

3.7. Reliability and Validity of Instruments

Instruments were developed, adapted and modified by the researcher together with two additional measurement and evaluation experts, in collaboration with the advisor. The investigator developed the first instrument termed as a screening test. The tool comprised of items related to biographic and students' language ability. After, the three psychologists' made a considerable modification and content validity was guaranteed. Next, to know the reliability of the instrument test re test reliability and raters agreement was used. The time gap between the tests administered have ten days time interval. Two raters calculated the reliability of the second part; this is due to the scoring of translation test statements were subjective. The 12 statements were developed by two diploma holders and have an accumulated experience of teaching in Himtangna language. This was done because of lack of available experts in the language {Himtangna}. Nevertheless, the two language experts were believed as competent by the school administrator evaluation and working during text translation of academic subjects from Amharic to Himtangna for the elementary school curriculum. Besides, the statements have equal difficulty level. Items were prepared with similar concepts of Francis's (1998), Language Awareness Test.

The reliability of each parts of the instrument was computed one by one. For the first part of the instrument the translation test, test-retest reliability was calculated and its reliability is 0 .97. For

the 12 statements, raters' agreement was computed and the result from Pearson moment correlation 0.95 was obtained. Moreover, to see the correlation coefficient of students result on the scores of both Amharic and Himtagna result was obtained to be 0.75.

The language use scale was adopted and modified from Marin et.al. (1987) and Boshier (1993). Some items were modified and rejected from the pool of items after a considerable modification were held. The two psychologists under test and measurement were modifying and eliminating some items. Finally, the advisor gave comments and pools of 14 items taken as the final items of the scale. The scale has three subscales regarding language used at home, language use with friends and language used to the nearby communities. The reliability of the whole scale was calculated using cronbach alpha. Reliability of 0.86 was obtained for this scale, it was more or less similar with the alpha value 0.92 obtained by Martin, et.al.,(1987) and 0.78 by Boshier (1993).

Moreover, to make items of language use scale easy, they were presented in the form of five multiple choice items. Because students are more familiar with a five options multiple choice items during their class exams

The second part of the instrument was subjective self-rating scales, which focuses on the ability of pupil for both Amharic and Himtangna regarding the four basic language skills. These scales were adopted from Cummins, (1978), Gonzalez and Padilla, (2001). The reliability of the scales was calculated by alpha method and reliabilities were found to be 0.69 and 0.72 for Amharic and Himtangna respectively.

Regarding the attitude questionnaire prepared for the students initially a pool of 19 items were adopted and modified from Melaku (2004), Mitiku (2005) and Francis (1998). Following the same procedures as indicated above to guarantee its face validity the scale was administered to 20 students who were selected randomly. The final instrument comprises of 17 items and two items were excluded due to their vagueness.

The final scale developed for teachers was also adopted and modified from Melaku (2004), Mitiku (2005) and Francis (1998). The initial pool of items were given to the psychologists and a considerable modification was made and a final 22 items were administered for an item try out to 5 teachers and two vague items were excluded from the final scale.

3.8. Procedure

All students were tested in-group during the final class period. The investigator administered the test together with bilingual teachers. All grade five and six students were given a questionnaire, on the bases of the questionnaire students were identified for the inclusion under the bilingual and monolingual groups. This questionnaire was administered after the students were identified by the school record report. The record was used to know whether students have followed their previous four years in the same school or not. If they followed previous classes in the sample school, they were included in the sample. If not, they were excluded from the sample. Again, students were asked a question initially either they followed their previous schooling in the sample school or not. Those students who followed their schooling in the sample school were only permitted to seat for the screening test. Moreover, the bilingual teacher explained the purpose of the research, and the directions in the two languages alternatively. To know the reliability of this form of questionnaire, the same form was administered twice after a delay of 10 days for the same students.

The third technique for screening was included under the second part of the questionnaire. In addition, this part composes equal number of translation statements in Amharic and Himtangna. The subjects were asked to translate the statements from the given language to any other language they know. All the statements were familiar to their day today school activities and short in nature. Two teachers, who currently engaged in the school had long years of experience in Himtangna instruction, developed the items of the translation statements and the scoring criteria together with the researcher.

To know the difficulty levels of the items, a fully Amharic version of the statements were given to high school Amharic and English teachers. For some of the teachers Himtangna is their

mother tongue and the statements in Himtangna were given to them. After the teachers made considerable modifications from an initial pool of 16 statements, the best 12 items were made ready for the final instrument.

Finally, the form was administered for an item try out to 15 students, together with the other sub sections. The specified two teachers made scoring independently. The independent scoring should be guaranteed. After the first teacher puts a result in a pencil, the researcher eliminates the results that were given by the first teacher, and then transferred to the second teacher. The result given by both teachers were correlated to know raters agreement. At last, the final forms were made ready for administration.

The test was ready after passing these processes. Accordingly, the final administration was made during the third period session of the school. This time is preferred, because to use an additional 15 minute time for those students who have a lower pace to finish the translation statements. Bilingual teachers test the complete 11 classes, and the researcher had a role to guide the testing session.

After the testes were collected, the forms were given to the teachers in the following fashion together with the scoring criteria. The highly experienced Himtangna teacher, who already involve in the item development and try out scoring, took the form of those students initially following their instruction in Himtangna. The rest were given to other Himtagna teachers found in the school. The scorings criteria were made with the help of the two teachers together with the investigator and the criterias are indicated below:

1. A student who have an inclination to try one of the word in the statement should get a half mark
2. A student who show a tendency to answer half of the concepts of the original statement should get one full mark(around two words)
3. A student who shows an inclination to translate the statement in any language by missing one or two words should get two marks.
4. A student who translates the statements perfectly should get a full three mark.

These criteria were given to the whole teachers participating in the scoring process. The investigator together with the two teachers, categorized the students into bilingual and monolingual groups. If a monolingual subject showed understanding of any word or part of the sentence in the second language or if he knows another language, he/she was excluded from the sample. Bilingual samples who were able to translate more than one sentence in any other additional third language were also excluded.

Table 2: Number of samples from the bilingual, monolingual and excluded groups after a score of the translation test.

Groups	Grade five	Grade six	Remark
Monolinguals	65	48	No tendency, in translating sentences to any second Language and included in the monolingual sample.
Bilinguals	30	28	Translating sentences, and have not any third language influence and included in the bilingual sample.
Excluded group of monolinguals and bilinguals	21	28	Show a tendency of translating one and more sentence, alternating from one language to the other. Students initially, their mother tongues were Himtangna, but following their early grades in Amharic (Cummins's Subtractive bilinguals.)
Excluded by knowing a third Language	4	5	Those students who has an ability of another third indigenous language Like "Tigrigna" or "Geez" either in their own vernacular or as a second language. And those who have different mother tongue, for example one student was excluded as he was reported Welayta is his mother tongue.

NB. Some students who need special support and others who are absent during the testing session were not included in the table.

After a score of the translation test was determined, students were leveled in the above categories and the final samples were obtained (N=171).

The second language use scale and subjective self-rating was administered after the final bilingual samples were determined. The language use scale was initially administered for 20 students for the purpose of an item try out and cronbach alpha was calculated. However, in subjective self-rating scale the investigator faced a challenge, in the first phase of the item try out and most students were rated their ability in the range of very high to high.

To know the reliability of this instrument the investigator made another item try out, in collaboration with the bilingual teacher and sufficient examples were given to the students in both languages. In this second phase of an item try out, the students' accomplish successfully. Students include in this item try out were followed their elementary schooling in Himtagna out of the sample school, because taking bilingual students who had followed their elementary schooling in the sample school for an item try out purpose is reducing their number for the final analysis.

After an item try out was held, this form was ready for the final administration. Only the bilingual samples would take this scale. The obtained result of the subjective self-rating scale together with a score of the translation test and grade four academic years average Amharic and Himtangna mark found in the school record averaged to determine bilingual proficiency. Since, there were not standard measures of language proficiency in both Amharic and Himtagna, the average score on the results obtained from the three measures, the students' score on both Amharic and Himtangna grade four classroom average end year academic achievements, the result obtained from a translation test, and values obtained from the subjective self-rating scales.

The average scores on the three instruments classified to determine the top third of the group, and these students were designated a high competent group. The bottom third were designated a low competent groups. After this, the average score of the students were obtained, cutoff scores are determined, and three groups: competent in the languages (high/high), a mixed group, and a group of students having difficulty (low/low). Students who were selected with high competence

in both languages were assumed to be above Cummins's top threshold and categorized as high/high. Students who were selected with low competence in both languages were assumed those below Cummins's lower threshold and categorized as low/low. Remaining students who had been designated with high competence in either language were grouped into a third category called one dominant but in this study, they were included in mixed groups together with the other combinations. Thus, the independent variables language had three categories. This categorization by a method of determining the top third as a cut of point score were not consistent with Cummins threshold.

To this limitation of categorization of students in this study by taking the top third, Cummins (1979, 1985) and Galbraith and Clarkson (1992) focused that the threshold can not be defined in absolute terms; rather it is likely to vary according to the children's stage of cognitive development and the academic demands of different stages of schooling.

Based on the above works, in this study, students' proficiency in the two languages was determined by three scores. The average scores of the translation test, the subjective self-rating scale, and record office grade four-end year academic achievement result of Amharic and Himtangna. Based on the cut of points three groups of students were determined who have high levels of competence in both languages, low level in both languages and those out of the two categories.(the rest combinations of, low ,high and medium levels of competence in both languages.

3.9. Method of data analysis

In this study different statistical techniques were employed for various sources of in formations obtained from teachers and students. For each data the techniques employed were discussed below one by one. All the results were analyzed by using SPSS.

To compare the academic achievement of bilingual and monolinguals independent sample t-test was calculated at $P < .05$. To determine degree of bilingualism attained, the investigator average the result obtained from, the school end year grade four average academic achievement of

Amharic and Himtangna subjects, result found from the subjective self rating scales for the two subjects and the score a bilingual child attained on the translation test. After the scores were obtained the score of students were categorized as the top one third, the bottom one third and the middle. After the three categories were identified ANOVA was computed to know whether there is a statistically significant difference across the three groups than Tukey/Kramer post hoc comparisons were commenced.

Additionally univariate analysis of variance was employed to know the interaction and main effects of gender, grade level and language on the dependent variable achievement. Moreover, for the language use and attitude scales a one sample t-test was held. The expected mean of the two scales was obtained by averaging the maximum and the minimum scores. For the two attitude scales the scoring of negative items was reversed.

3.9.1. Variables

3.9.1. 1. Independent Variables

Sex: - Naturally classified as male and female, 1= male and 0= female

Grade: - Classified as grade five and six in the current academic year; 4= grade five and 5= Grade six

Language: - classified as monolinguals and bilinguals, coded 2= monolinguals and 3= bilinguals

Bilingual proficiency: - classified as those students' who have high levels of competence in both languages, low level in both languages and those out of the two categories (The combination of low, high and medium levels of competence in both languages).

3.9.1.2. Dependent Variable

Academic achievement: - The first semester average class mark of students in all academic subjects.

CHAPTER FOUR

RESULTS

This sections of the study presents the results of statistical analysis undertaken that aimed to answer the major research questions raised in the first chapter. To make clear the presentations of the data were under taken in the following order.

4.1. Descriptive Statistics of the Variables Treated in the Study

The variables treated in the study were discussed below. The means, standard deviations, minimum and maximum scores were presented.

Table 3: Means, standard deviations, maximum and minimum scores of the variables treated in the study (N= 171)

variables	Statistics			
	Mean	SD	Minimum	Maximum
Language	2.339	0.475	2.00	3.00
Grade	4.444	0.498	4.00	5.00
Gender	.3977	0.4909	.00	1.00
Academic achievement	58.3871	8.17308	40.60	89.50

NB: sex coded as, 0=female, 1= male; grade; 4= fifth, 5= sixth; language; 2= monolingual, 3= bilingual

4.2. Correlation Analysis of the Variables in the Study

Table 4: Inter correlation among the variables treated in the study

Variables	Sex	Language	Achievement	Grade
Sex	1.00	-	-	-
Language	-.153*	1.00	-	-
Achievement	.039	.271**	1.00	-
Grade	-.029	.055	-.039	1.00

*. Correlation is significant at the 0.05 level

** . Correlation is significant at the 0.01 level

As made known from Table4, there was not statistically significant relation ship between language and grade ($r=0.055$); grade and academic achievement ($r= -0.039$); sex and academic achievement ($r= 0.039$); grade and language (0.055). But language and achievement was found to have statistically significant positive relationship ($r= 0.271$ at $P= 0.001$). Likewise, language and sex had statistically significant negative association ($r=-0.153$ at $P= 0.05$).

4.3. Comparison on the Academic Achievement of Bilingual and Monolingual Groups

In this analysis part of the study, the major findings obtained from comparison on academic achievement of bilinguals with monolinguals in general and across their respective grade levels in particular were analyzed. For the purpose of presenting the findings in a manner that depict academic achievement of the two groups; means, standard derivations, as well as t –test values are included in each tables below.

Furthermore, the t – value results whether significant or not at $P < 0.05$ were also computed in each table and its relevant interpretations were also given.

Table 5: t-test comparison on academic achievement of bilingual and monolingual students across their grade levels (N=171)

Variable	Grade five					Grade six			
	Group	η	X	SD	t-ob	η	X	SD	t-ob
A.A	Bilingual	30	61.871	7.927	3.092	28	61.016	9.788	2.201
	Monolingual	65	57.189	6.298		48	56.274	8.680	

As it can be seen from Table 5, the results of both monolinguals and Bilinguals in each grade levels (Grade five and six). In the first category of the table, comparison of grade five bilinguals and monolinguals was addressed. From this category it is evident that there was a statistically significant difference in the academic achievement of the two comparable groups ($t_{ob}=3.092$, $df=93$ at $P < 0.05$). This illustrates that bilingual students were found to be in a position to achieve higher than that of their monolingual counter parts in academic achievement.

The second part of the table, demonstrates the comparison of academic achievement between monolinguals and bilinguals of grade six students. As the table indicates bilinguals were in a better position in their academic achievement than monolinguals. To expound the idea, a statistically significant difference was obtained on academic achievement of the two groups ($t_{ob}=2.201$, $df=74$ at $P < 0.05$). From the result one can reveal that there is a statistical significant difference between the academic achievement of bilinguals and monolinguals in favor of the bilinguals. Besides, the result supports the premise indicated above which state bilinguals were in better positions in their academic achievement. To know the over all influence of becoming a bilingual on the academic achievement scores of the two grades are merged together. This was done because the variable grade had not a statistically significant relation ship with the independent variables sex and language, as well with the dependent variable academic achievement.

To sum up, the table above clearly depicted that in both grade levels bilinguals were found to be better achievers than monolinguals. Since, there were statistically significant differences at the predetermined p-value, the table below shows a comparison of bilingual and monolingual groups.

Table 6: Number of Observations, Means, standard deviation and t-obtained of bilingual and monolingual students, on their academic achievement scores.

Group	<i>H</i>	<i>X</i>	SD	t-ob
Bilingual	58	61.468	8.805	3.658
Monolingual	113	56.806	7.382	

The overall comparison was computed for the purpose of addressing whether there was a statistical significant difference between bilinguals and monolinguals in their over all academic achievement. From Table 6 it is possible to see that there is a statically significant difference between the two groups ($t_{ob}=3.658$, $df= 169$ at $P <0.05$). This indicates that bilinguals are better than monolinguals in their academic achievement. This table further strengthens the relationship earlier found in each grades.

4.4. Comparisons of Bilinguals and Monolinguals on Academic achievement Based on Sex

One of the research questions of the study was to see whether bilinguals or monolinguals of either sex have a difference in academic achievement. To see whether there is gender disparity across monolingual and bilinguals were compared based on their sex characteristics and the computed values along the side with the outcomes are elucidated in the following tables. (Table 7 and 8)

Table 7: t-test comparison on the academic achievement of monolingual male and female students across their grade level

variable	Grade five					Grade six			
	Group	n	X	SD	t-ob	H	X	SD	t-ob
A.A	Male	29	57.242	6.923	0.006	22	57.945	10.591	1.187
	Female	36	57.163	5.849		26	54.861	6.549	

The Table7 above solely shows the result obtained from t-test for monolinguals in accordance with their gender characteristics .As it can be observed from the table, grade five students don't differ in their academic achievement. The t-test revealed that there was not statistically significant difference in gender on the dependent variable academic achievement on monolingual grade five students ($t_{ob}=0.006$, $df= 63$ at $P <0.05$). This illustrates that both sexes show no difference in academic achievement during the study.

The table further revealed result of grade six and t-test was computed to see if there was a statistically significant difference in academic achievement. The computed t- value result shows that there was not statistically significant difference in the academic achievement of monolingual male and female ($t_{ob}=1.187$, $df= 46$ at $P <0.05$). This means the two groups were not in a different position on their academic achievement.

Generally, Table 7 reveals that in both grades there were not statistical significant gender differences observed on the academic achievement of monolinguals.

Table 8: t- test comparison on the academic achievement of male and female bilingual students across their grade level

Variable	Grade five					Grade six			
	Group	η	X	SD	t-ob	η	X	SD	t-ob
A.A	Male	10	60.193	7.8550	-0.815	7	65.703	11.101	1.489
	Female	20	62.710	8.02944		21	59.481	9.067	

To see whether bilinguals differ in their academic achievement in each grades based on their sex, a comparison was made using two sample t- tests. The out come of the computation is indicated in the above table 8. From the table it can be observed that grade five and six are set independently on the score of academic achievement. In grade five the obtained t-test result shows that there was no statistically significant difference between the two sexes on their academic achievement ($t_{ob}=.815$, $df= 28$ at $P <0.05$).

For grade six the same result was obtained like that of grade five bilinguals. That is the t-value result indicates that there was not statistically significant difference ($t_{ob}= 1.489$ $df= 26$ at $P <0.05$). Therefore, statistical differences between the two sexes in both grades were not obtained on their academic achievement across the two grade levels.

4.5. Interaction Effect of Language and Sex on Academic Achievement

One of the research questions of the study was to examine whether there exist an interaction effect among sex and language in each grade levels. Whether an interaction or main effect exists in the two independent variables on the dependent variable academic achievement is discussed below in the two consecutive tables.

Table 9: Number, means and standard deviations of samples under each characteristic for grade five students (N= 95)

		Bilingual	Monolinguals	Total
Male	N	10	29	39
	X	60.1930	57.2421	57.9987
	SD	7.8550	6.9217	7.18419
Female	N	20	36	56
	X	62.7100	57.1631	59.1441
	SD	8.0294	5.8486	7.1577
Total	N	30	65	95
	X	61.871	57.1983	56.6739
	SD	7.9283	6.2983	7.15274

As shown in Table 9, bilingual females scored higher mean score as compared with their male bilingual counter parts. In addition, their mean scores were better than the rest monolingual male and female groups. Higher variability was also observed on the scores of bilingual females.

Table 10: Two-way ANOVA summary table for academic achievement scores (grade five students).

Source	SS	<i>df</i>	MS	F
Corrected model	490.508	3	163.503	3.445
Intercept	265311.428	1	265311.428	5590.426
Sex	28.002	1	28.002	.590
Language	340.213	1	340.213	7.169*
Sex*language	31.750	1	31.750	.669
Error	4318.694	91	47.458	
Total	331858.665	95		
Corrected total	4809.202	94		

As indicated in table 10 only the language main effect shows a statistically significant difference ($F(1, 91) = 7.169$). However, the sex main effect and language by sex interaction effect on the dependent variable academic achievement were not statistically significant at the predetermined P-value.

Table 11: Number, means and standard deviations of respondents under each characteristic for grade six students (N= 76)

		Bilingual	Monolinguals	Total
Male	N	7	22	29
	X	65.7029	57.9446	57.2421
	SD	11.1006	10.5913	6.9217
Female	N	21	26	47
	X	59.4810	54.8604	56.9249
	SD	9.0665	6.5493	8.0276
Total	N	28	48	76
	X	61.0364	56.2740	58.0286
	SD	9.7877	8.6304	9.3303

As shown from the above table, the mean of bilingual males are higher than bilingual females. Besides, the lowest mean was also observed on monolingual females. A higher variation was obtained from the monolingual female groups. To see whether the variation is due to gender or language or the two interactions ANOVA was computed.

Table 12: Two-way ANOVA summary table for academic achievement scores (grade six students).

Source	SS	<i>df</i>	MS	F
Corrected model	717.688	3	239.229	2.964
Intercept	206414.850	1	206414.850	2557.368
Sex	315.617	1	315.617	3.910
Language	558.458	1	558.458	6.919*
Sex*language	35.861	1	35.861	.445
Error	5811.392	72	80.714	
Total	262444.862	76		
Corrected total	6529.080	75		

Table 13 above, indicates that the language main effect is statistically significant and the sex main effects were not statistically significant at F (1,72). From the result one can say that from the two independent variables, the language variable takes a higher portion of variance to students' academic achievement. To the contrary the sex main effect and the Language by sex interaction effects have a minimum contribution to students academic achievement.

4.6. Degree of Bilingualism and Academic achievement

This section deals with the research question whether the ability of students in the two languages has a contribution to their academic achievement. The consecutive tables attempts to answer the above question

To this end, one way ANOVA was computed on academic achievement scores of bilinguals to see a difference on bilingual proficiency attained in the two languages for each grades.

Table 13: Number of observation on degree of bilingualism attained, means and standard deviations for grade five bilingual students academic achievement.

Variable	Group	N	Statistics	
			Mean	SD
Academic achievement	High/High	10	67.5730	7.4860
	Mixed	10	61.2760	6.6637
	Low/Low	10	56.7640	6.0440

As it can be seen from table15, bilingual students whose average score are high in the two languages had given away higher mean achievement score. However, students who attained low average score on the two languages had shown lower mean achievement score.

Table 14: Summary of ANOVA for the three bilingual groups (grade five)

Source of variation	Sum of squares	<i>df</i>	Mean Squires	F
Between groups	589.483	2	294.741	6.455
With in groups	1232.773	27	45.658	
Total	1822.250	29		

Accordingly, the result of one way ANOVA there is a statistically significant difference in academic achievement with in the three bilingual groups ($F(2, 27) = 6.455, P < 0.05$). From the ANOVA result one can conclude that the three group means are not equal. The groups with the extreme means, high/high and low/low, are different, but one can not know how much the other combination of two means differ. To see the difference one needs a post hoc test (Hinkle et.al, 1994). The post hoc test for this analysis is Tukey-HSD test and the out put is given in the table below.

Table 15: Multiple comparisons of means for students' academic achievement on their degree of bilingualism (grade five).

Degree of bilingualism		Mean difference	Std.error
I	J	I- J	
High/high	Mixed	6.2970*	3.02186
	Low/low	10.8090*	3.02186
Mixed	Low/low	4.5120**	3.02186
	High/high	-6.2970*	3.02186
Low/low	High/high	-10.8090*	3.02186
	Mixed	-6.2970*	3.02186

NB. * The mean difference is significant at the 0. 01

** The mean difference is not significant at the 0.05

Depending on the result, Tukey was done and it indicates that a statistically significant difference was observed between the high/high group with that of the low/low and mixed groups. But there was not a statistically significant difference between the low/low and mixed groups. Therefore, the result suggest that bilinguals who attain high levels of competency in the two languages were more likely to show the higher mean score on their academic achievement while comparing with the rest bilingual groups.

Table 16: Number of observation on degree of bilingualism attained, Means and standard deviations for grade six bilingual students academic achievement.

Variable	Group	N	Statistics	
			Mean	SD
Academic achievement	High/High	9	70.8611	6.83164
	Mixed	9	60.2533	7.72906
	Low/Low	10	52.8990	4.70093

The above table contains the mean and standard deviation for grade six based on language category. From the table one can observe that means 70.8611, 60.2533, and 52.8990 for high/high, mixed and low/ low groups respectively. Besides, the table shows a higher mean range between the high/high and low/low bilingual groups. To see whether there is a statistical significant difference on the dependent variable academic achievement across the three bilingual groups; ANOVA was computed and indicated the table below.

Table 17: Summary of ANOVA for the three bilingual groups (grade six)

Source of variation	Sum of squares	df	Mean Squires	F
Between groups	1536.416	2	768.208	18.288
With in groups	1050.167	25	42.007	
Total	2586.583	27		

As it is indicated in the above table, the obtained result depict there was statistically significant difference on the academic achievement of the three grade six bilingual groups. To compare the homogenous group mean difference of the bilingual groups based on the degree of competency they attained in the two languages Tukey-HSD was done and the computer out put is displayed below.

Table 18: Multiple comparisons of means for students' academic achievement on their degree of bilingualism (grade six).

Degree of bilingualism		Mean difference	Std.error
I	J	I- J	
High/high	Mixed	10.60778*	3.05529
	Low/low	17.96211*	2.97793
Mixed	Low/low	7.35433*	2.97793
	High/high	-10.60778*	3.05529
Low/low	High/high	-17.96211*	2.97793
	Mixed	-7.35433*	2.97793

- The mean difference is significant at the 0.05

Table 18 shows statistically significant difference present between the paired means of the three groups in their mean academic achievement score. The maximum range on mean achievement score was observed between bilingual students who have a higher level of competency in the two languages and those who have lower levels of competency in both languages. The minimum range was between the mixed and the low/ low groups. This implies that a student who is competent in the two languages have a higher academic achievement score as compared to the rest bilingual groups.

Finally the investigator puts the correlation matrix obtained from the scores of Amharic and Himtagna grade four end year average academic achievement result, a result on the translation test and subjective-self rating proficiency scales was attached in the appendix.

4.7. Pupils' Language Used at Home, with Friends and the Community

This part contains 14 items that ask students language usage. The scale was analyzed under three parts. This is due to the items included under this scale were to assess the language students' use at their home, with their friends and people around the surrounding community. The scale was presented in the same way as five multiple choices and the students' are familiar with these types

of items. The values of each alternative are indicated below for the purpose of analysis. These are;

1= only Himtangna, **2=** Mostly Himtangna and some times Amharic, **3=** both of them equally, **4=** mostly Amharic and sometimes Himtangna and **5=** only Amharic

Having the values above, the scale was analyzed as follows below in three tables by using one sample t-test at $P < .05$ with $df = 55$. This scale was administered only to the bilingual samples. The two bilingual students were excluded from the samples for this analysis because they carelessly responded the items.

Table 19: students' language use at home with their families.

N	X	μ	SD	Se	tob	Do
56	9.163	15	6.780	0.9060	-6.443	55

The table above shows that the expected mean is greater than the obtained mean. The t-value revealed that there was a statistically significant difference between the expected mean and the obtained mean and it implies that the students use the language mostly Himtangna and sometimes Amharic in their home. The next subsequent tables are also analyzed by the same statistical method (see appendix III form item number 1 up to 5).

Table 20: Students language use with their friends.

N	\bar{X}	μ	SD	Se	tob	df
56	13.25	12	8.894	1.051	1.6727	55

Under this part there are four items with five options (See item number 5-8 in appendix II). The result on the table shows that there was not statistically significant difference between the

expected mean and the obtained mean. This is so because the t_{ob} was not a statistically difference between the expected mean and the obtained mean ($t_{ob} = 1.051$ $df = 55$ at $P < .05$). From the result it is safe to reveal that the bilingual students use the languages Himtangna and Amharic equally with their peers.

Table 21: the language used with the community

N	\bar{X}	μ	SD	Se	t_{ob}	df
56	13.769	15	6.573	0.878	-1.402	55

From the table the result of five items were compiled (see appendix III from item number 10 up to 14). One can reveal from the table that there was not statistically significant difference between the expected and the obtained means. This shows that students have equal access to use both Amharic and Himtagna languages with the community members.

4.8. Attitude of Pupils and Teachers towards Himtamgna used as Medium of Instruction

In this paper attitude of teachers and students were assessed. For this end questionnaires were administered. Respondents for the questionnaire of students are only bilingual groups who followed schooling in Himtagna. To present this part precisely, the tables below are discussed for both teachers and students.

The Primary intention of this paper is not to know the attitude of pupils and teachers' towards Himtagna language used as medium of instruction in elementary schooling respondents for the questionnaire of the students are only bilingual groups who already following their previous schooling in Himitangna. To present this part precisely the tables below are discussed for both teachers and students.

The result of the attitude scale for the students are rated as 3= agree, 2= do not know, and 1= disagree. The mean, SD, Se, and t_{ob} are calculated based on the above values (see appendix IV)

Table 22: Attitude of bilingual pupils towards elementary school instruction in Himintangna (N= 25)

N	\bar{X}	μ	SD	Se	t-ob	df
25	41.326	34	16.259	3.252	2.253	24

From the above table one can see that the attitude of pupils towards Hintangna as medium of instruction in children's early schooling is positive. This is due to the obtained mean is greater than the expected mean and there was a statistically significant difference between the expected and the obtained means.

Table 23: Attitude of teachers for Himintangna mother tongue instruction (N= 20).

N	\bar{X}	μ	SD	Se	t-ob	df
20	76.387	60	12.812	2.865	5.72	19

From the above table one can revealed that there was a statistically significant difference between the expected mean and the obtained means ($t= 5.72, df=19$ at $P=.05$). The result indicated that teachers had a negative attitude towards Himtagna used as medium of instruction in the first cycle

CHAPTER FIVE

DISCUSSIONS

The study was conducted to compare the academic achievement of bilinguals and monolinguals in General Hailu Kebede Junior Elementary school. To this end different instrument were employed to achieve the intended objective of the study i.e., to compare which language groups was at the verge of benefit. Hence, the major findings procured from the study are discussed with previous research findings. The discussion was done based on the comparison obtained through methods employed to see the difference in academic achievement of monolinguals versus bilinguals across their sex and proficiency with in the bilingual group.

5.1. Academic achievement of bilinguals as compared to monolinguals

One of the main concerns of the study was to investigate whether bilinguals and monolinguals could differ in their academic achievements. In this regard, the study revealed that there was a statistically significant difference in the academic achievement of bilinguals and monolinguals. The bilinguals were found better than monolinguals in their academic achievements. This finding was consistent with the findings obtained by numerous researchers (Feldman and Shen 1971 cited in Stockwell 2002, ; Landry, 1974; Rumberger and Larson 1998; Christian etal, 2000; Gonzalez and Padilla 2001; Collier and Thomas 1996 cited in Cushmaner, et.al., 2000; Cummins and Gulvstan, 1974; Scott 1973 cited in Lambert, 1985).

Landry (1974) for instance found that bilinguals scored significantly higher than unilingual control groups on both verbal and figural parts of the Torrance test of creative thinking.

Even in low income bilinguals and monolinguals, researchers found that low income bilingual children were better at learning new labels than low income monolingual (Feldman and Shen, 1971 cited in Stockwell, 2002).

Particularly, in a study that was undertaken to compare students of Mexican-American language minority, Rumberger and Larson (1998) reported that bilingual students who were fluent English proficient had better grades and a higher rate of educational stability and were more likely to complete a quarter of their high school credits by the end of ninth grade than were students who were with limited English proficient or from English-only backgrounds.

In a more recent study carried by Gonzalez and Padilla (2001) to see the effect of bilingual education on college students, it was found that college students who received some English as a second language bilingual education reported higher grades than students who had not received any second language instruction.

Citing the work of Collier and Thomas (1996) Cushner et.al. (2000) further strengthened the aforementioned findings which were found to be relevant with the present study. That is, Cushner demonstrated that when bilingually educated students are tested in English, they typically reach and surpass native English speakers' and perform across all subject areas after 4-7 years in a quality bilingual program. In line with the necessity of bilingual education, Lesson-Hurley (2005) reviewed numerous researches that reveal the advantage of bilingualism and noted that in recent years there had been an eagerness to make education in two languages much more widely available and to regard it as educationally desirable. A quite different study that the musical ability of bilinguals and monolinguals, Trollinger (2004) found that bilinguals were better in participating in an immersion program in identifying the Musical notes and pitch- matching accuracy.

Thus the research findings demonstrated above reveal that bilinguals were in the verge of advantage than monolinguals in their academic achievement and this strongly supports the findings obtained from the present study.

Of course, it would be crucial to note in here that, there were research findings that contradict with the current research Darcy (1953) and Lepage, (1965) cited in Lambert (1985); Porter and Thompson, (2000) and Amselle, 2000). Porter and Thompson (2000) argue that bilingual

education is holding back minority language students from learning majority language effectively, it hurts their prospective academic success and inter and intra personal skills.

Amselle (2000) in his part mentioned that the instruction of bilingual students with the majority language hinders their academic achievement and creates suspended personality on the side of bilingual children. Those, who support the view that bilingualism affects the cognitive functioning of the individual, often quote researches that indicate bilingual education is not effective as monolingual curriculum.

Darcy (1953) and Lepage(1965), conduct a research to show that bilingualism it self leads to mental misunderstanding, causes problems of second language attainment, hinders proficiency in both languages and lowers the academic subject competency (cited in Lambert, 1985).

However, the difference in findings could be because of manifold reasons. First, the methodology employed in an attempt to see the relation ship between bilinguals and monolinguals with less emphasis of competency of a bilingual child attains. Second, the ecology of the bilinguals and monolinguals may also intervene to the result. And at last the philosophy adhered by the researchers might have its own influence (Diaz 1985; Cummins, `1994; and Hakuta 1987). But of the reviewed literatures and research findings many of the studies tends to be consistent with the present findings.

The other finding of this study was that bilinguals did not differ in academic achievement across their grade levels. That is, there was no difference in their mean when it is computed across grade levels ($\bar{X} = 61.871$ for grade five and $\bar{X} = 61.0364$ for grade six). From the computation of t-test, a statistically significant difference was not obtained. The correlation result supports the result of t-test in that the association between grades and academic achievement was negatively correlated($r = -0.039$). Besides, there was not a statistically significant difference on the monolingual groups across their grade level.

The findings that indicate a statistically significant difference in academic achievement of bilinguals across grades should be viewed in lined with their age. That is whether there could be a

change in academic achievement with a change in age. Lamendella (1977) stated that language acquisition might be more efficient during early childhood but was not impossible at latter age (Cited in Maminov, 2000). This shows that the difference that could be attributed to age might be minimal.

Needless to mention that, questions might be raised whether younger or older children are better at developing the kind of second language proficiency they develop for school by age. This is because; it depends on the learner's cognitive style, socio-economic background, formal schooling in first language and many other factors (Collier, 1987 as cited in Lesson –Hurly, 2005). However, in this study as it is elucidated earlier statistical difference was not obtained between grade level and academic achievement of bilinguals.

5.2. Interactions and main effects of the variables

It was earlier noted that bilinguals were in a better position in their academic achievement as compared to their counter parts. The same result was also observed based the computation of ANOVA. The result indicated that the language main effect was statistically significant for both grades but the main effect of sex as an independent variable was not statistically significant.

These findings illustrate that bilinguals did not differ in their academic achievement as a result of gender.

The interaction of sex and language was not discussed so far. To see the interaction of sex by language on dependent variable academic achievement, ANOVA was employed for both grades. The results revealed that there were no an interaction effect between sex and language. This was found to be similar with the findings of previous researches (Kittel, 1963 and Kormi-Noury et.al., 2003)

Kittel (1963) for instance found that there was no statistically significant difference in the mean of ages and the mean language mental ages of the subgroups by sex and grades. In the study it

predetermined levels of $p < 0.05$. This finding is found to be consistent with the idea of bilingual proficiency measurements (Cummins, 1994, 1979 & 1985).

5.4. Language use

As it was indicated earlier, the bilinguals were found to be in a better position in their academic achievement than their monolingual counter parts. Other things being equal, one of the reasons that are assumed to contribute for their academic achievement is their access to the two languages. Moreover, the students are additive bilinguals instead of subtractive bilinguals. Lambert (1975), confirms that additive bilinguals had an advantage to their academic achievement. To this end, students' harmonious identification of L1 and L2 languages has accelerated the subject matter competency of the bilingual child.

According to Cummins (1979), an additive bilingual has learned a second language without any cost of his first language, whereas, a subtractive bilingual has gradually lost one language while acquiring the second. From a pedagogical viewpoint, the distinction is significant because research indicates that children with equal access to two languages show positive cognitive effect.

In a similar study, Ramirez and Politzer (1976) cited in Cummins (1985) reported that the use of Spanish at home resulted in higher level of Spanish skills at no cost to English achievements; while the use of English at home resulted in a deterioration of Spanish but no improvement in English. This helps for the attainment of bilingual academic competency without the cost of L1. A similar finding was obtained in the current research. This is because, the bilingual students have an access to use their L1 at home and have an access to use L2 with their friends and the near by community.

5.5. Attitude of teachers and students

For the purpose of investigating the attitude of teachers and students on Himtagna used as medium of instruction, a questionnaire has been designed and distributed to both the teachers and student in the study area. The t-test computed to see whether there was a statistically significant

difference on their attitude towards Himtagna as medium of instruction. As a result it was found that teachers had a negative attitude towards application of mother tongue instruction. To the contrary, however, it was obtained that students had a positive attitude on Himtagna mother tongue instruction.

According to Tucker and Cziko(1985) attitudes of pupils towards bilingual education itself reflects the attractiveness of the program and may be considered as positive measures of the ability of the program to motivate the children and sustain their interest in education. As well, Gardner and Lambret (1972) noted attitudes towards the language being used as a medium of instruction and speakers of the language have been identified to be related to proficiency in the language and academic achievement (Cited in Tucker & Cziko 1985). In addition, since, bilingual education may incorporate educational innovations not having to do with language, attitudes towards traditional values and beliefs, religion etc may also be of interest (Tucker & Ciziro 1985). They further noted that an assessment of the attitudinal consequence of bilingual education programs is recommended that attitude should have been included in program evaluation.

These literatures imply that the effectiveness of bilingual education strongly depends not only on parental attitudes but also pupils attitudes towards the program. Understanding attitudes towards language contributes significantly for the effectiveness of a bilingual education. Saville-Troike (1985) discussed that conflicting attitudes towards languages diversity create one of the greatest problems in cross-cultural communication between teachers and students (or their parents), and misunderstandings often occur for this reason. When the differences are understood, they may be used as an educational base; if not, they create a formidable barrier to learning. A study conducted by Rubin (1985) on attitude of learning in Spanish for Spanish mother tongue students in America and found that attitude of pupils; teachers and parents towards the program were considered to be a crucial factor to the success of a bilingual program

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1. Summary and conclusion

The main objective of this paper was to compare the academic achievement of bilingual and monolingual students across their grade level and sex. The other objective of the investigation was to assess the language use of students in their home, community and with their peers. The attitude of pupils and teachers towards Hlimtagna mother tongue education that is held in lieutenant General Hailu Kebede Junior elementary school, which is found in Wag-Himra administrative zone in central town Sokota.

A total of 171 students (103 female and 68 male) were selected from fifth and sixth grades of General Hailu Kebede junior elementary school. Moreover, from the total samples 58 were bilinguals (17 male and 41 female) and 113 were monolinguals (62 females and 51 males). The sample of students was determined, after a screening test was administered for all students following their elementary schooling in the purposefully selected sample school.

The instruments used in this study were translation test, language use scale and attitude questionnaires. The translation test was used to assess the ability of students in any other second language they know other than their mother tongue. Under the first part of it, items that help to assess the mother tongue of students, mother tongue of their father and mother were comprised. The second part of this questioner comprises 6 statements in Amharic and 6 statements in Himtagna and the students were expected to translate from one language to any other second languages they know. The reliability of this instrument is determined, by raters agreement using Pearson moment correlation during the pilot study (N=15).

The language use scale was adopted and modified from previous works, after a considerable modification was held; this scale was made ready for the final administration. The second scale was included as a second part together with the language use scale. This instrument includes the subjective self rating scale that was aimed at knowing the ability of students on the basic

language skills of Amharic and Himtagna. To know the reliability of the scales, an item tryout was held (N=20) students and Cronbach alpha was computed. The attitude questionnaires were developed and modified from the existing instruments. Since then reliability and validity of instruments were also checked.

For the analysis purpose different statistical methods were employed. Accordingly, two sample t-tests were employed to compare students' academic achievement of bilinguals and monolinguals. The t-test result indicated that there were statistically significant differences on the academic achievement of bilinguals and monolinguals in each grade levels favoring bilinguals.

Besides, the t-test results were also used to know whether there was a statistically significant difference across sex on the bilingual and monolingual groups with in the sample grades. The t-test results show that there was not statistically significant difference on the academic achievement of the bilingual and monolingual groups on the independent variable sex.

The result of ANOVA's portrayed that the language main effect was statistically significant on the dependent variable academic achievement and the sex main effect was not statistically significant. The sex by language interaction effect was not statistically significant on both grades.

Moreover, to compare the bilingual groups based on their degree of bilingualism attained ANOVA was employed for each grade. Before hand, the bilinguals were leveled in to three groups in accordance with their competency on the two languages. To classify the bilinguals in three groups an average score of three instruments were taken; the score on the translation tests, the scores on the subjective-self rating scales and the average academic achievement of grade four result on the two language subjects. The result revealed that there was statistically significant difference among the three bilingual groups on their academic achievement. After a pair wise comparison was made, it was found that the high/high bilingual groups score significantly higher means for both grades as compared with low/low and mixed groups. However, for grade five low/low and mixed bilingual groups score was not significantly differ in their mean.

Finally the language use scale and the attitude questionnaires were analyzed by using one sample t-test. The result of the attitude questionnaires were analyzed in a single table, here the research use reverse scoring. The results of the questionnaire reveal that teachers have a negative attitude towards Himtagna mother tongue instruction. Nevertheless, students have a positive attitude towards Himtagna as medium of instruction. The language use scale was analyzed by subsections on the three headings and the obtained result on the language use scale shows that, students used Himtagna in their home and Himtagna and Amharic in a similar fashion with their peers and people living around.

From the above findings one may deduce the following conclusions.

1. There was statistically significant difference observed between bilingual and monolingual students in their respective academic achievement across each grade level.
2. Statistically significant difference was observed in the over all academic achievement of bilingual and monolingual students in favor of bilinguals.
3. There was no statistically significant difference observed between male and female students on the dependent variable academic achievement with in the bilingual as well as the monolingual groups in each grade level.
4. There was no statistically significance difference observed between grade five and six students in their academic achievement with in the bilingual as well as monolingual groups.
5. There was not statistically significance difference observed on language by sex interaction effects on the dependent variable academic achievement but the language main effect had statistically significant difference.
6. Statistically significant difference was observed among language category groups, the mean of high/high groups was greater than the rest language category groups on both grades. In other word degree of bilingualism have a contribution to students academic achievement.
7. Pupils have a positive attitude towards Himtagna used as medium of instruction. However, teachers had a negative attitude towards Himtagna mother tongue instruction
8. The Himtagna-Amharic bilingual children use Himtagna language mostly in their home and Amharic and Himtagna equally with their friends and communities.

6.2. RECOMMENDATIONS

Based on the results of this study, the following recommendations could be forwarded

1. Bilinguals achieve a higher mean score than monolinguals and predict a significant difference in their academic achievement across each grade levels. Therefore, parents could encourage their children to maintain their mother tongue even with an access to any other language.
2. Educational expertise in the zone should work to create awareness on the side of parents that learning a second language at a cost of the first language causes children to lessen their academic competency and cognitive development. On the other hand, knowledge of a second language is an asset without losing of first language and can help students to better academic achievement.
3. Educational administrators, teachers, and school principals in the zone should know being a bilingual is an asset for the development of student's academic competence as it is indicated in the present study. Thus, responsible bodies can therefore encourage children to learn bilingually with out any cost of their first language.
4. In the present study it is found that teachers have a negative attitude towards Himitagna as medium of instruction. This problem has rooted from lack of knowledge on the importance of becoming a bilingual for the students over all academic and personality development. To escape from this negative attitude the zonal educational experts should work intensively on job training for teachers and school principals about the importance of becoming a bilingual has an academic advantage for students.
5. The schools should create a means of communicating in these two languages in the school mini-media, panel discussions and drams in both languages.
6. The regional educational experts should create an induction program by taking other countries experience that have a similar bilingual educational program to the teachers as well as parents to increase awareness on the effectiveness of the program up to their level best.
7. Teachers and school principals should exert an effort to Himtangna language learners educating in their ethnic language since it does not hinder their subsequent learning,

thereby create a deep understanding as being a bilingual has a multi-dimensional advantage to their life.

Furthermore, the researcher would like to give some recommendations for future researches.

Thus, interested researchers may conduct a research on one of the following issues:

- ♠. Academic achievement of bilinguals across each subject.
- ♠. Academic achievement of bilinguals in relation to parental occupation
- ♠. Age and academic achievement of bilinguals.
- ♠. First language maintenance and students self esteem.
- ♠. Attitude consequences and bilingual academic achievement.

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Appendices

Appendix I

Correlation matrixes for the three bilingual measurements (Grade four average score of Amharic and Himtagna, a score of the translation test for both Amharic and Himtagna and a score of the subjective self rating scale of Amharic and Himtagna)

A. Grade five (N= 28)

Variables	X1	X2	X3	X4	X5	X6
Grade four Amharic mark(X1)	1.00					
Grade four Himtagna mark(X2)	.851**	1.00				
Score of Amharic on the translation test(X3)	.862**	.799**	1.00			
Score of Himtagna on the translation test(X4)	.848**	.861**	.887**	1.00		
Amharic subjective-self rating score(X5)	.599**	.624**	.762**	.766**	1.00	
Himtagna subjective-self rating score(X6)	.552**	.523**	.600**	.667**	.779**	1.00

**The correlation is significant at the 0.01 level (2-tailed)

B. Grade Six (N=28)

Variables	X1	X2	X3	X4	X5	X6
Grade four Amharic mark(X1)	1.00					
Grade four Himtagna mark(X2)	.864**	1.00				
Score of Amharic on the translation test(X3)	.640**	.798**	1.00			
Score of Himtagna on the translation test(X4)	.730**	.871**	.882**	1.00		
Amharic subjective-self rating score(X5)	.450*	.596**	.744**	.745**	1.00	
Himtagna subjective-self rating score(X6)	.365	.482**	.552**	.767**	.767**	1.00

**The correlation is significant at the 0.01 level (2-tailed)

* The correlation is significant at the 0.05 level (2-tailed)

7. from the 1st – 4th grades the school you attended and the language you followed most of the school subjects

Grade	Name of the school	Language	Year
1 st	_____	_____	_____
2 nd	_____	_____	_____
3 rd	_____	_____	_____
4 th	_____	_____	_____

8. your mother (female guardian) mother tongue is

- A. Amharic B. Himtagna C. Tigrigna D. If any _____

9. Your father (male guardian) mother tongue is

- A. Amharic B. Himtagna C. Tigrigna D. If any _____

Part II: following are six sentences each in Amharic and Himtagna. Hence, translate from literary to any other language you know.

Instruction two

Translate the following sentences given in Amharic in to any other language.

The statements in English (Amharic origin)

- A. A clever student is punctual for the school time.
- B. I study hard in order to promote to the next class.
- C. the teacher did not show us the pervious exam result
- D. My parents encourage me to become clever in my schooling.
- E. I have a comfortable reading room in my house.
- F. I discuss with my classmates for the questions that are difficult for me.

Instruction three

G. Translate the following sentences given in Himtagna in to any other language

The statements in English (Himtagna origin)

- 1. Attending school seriously helps to reach in good position.
- 2. My family supports me in the necessary materials
- 3. I study hard to get a stood first.
- 4. Our teacher teaches us about AIDS.
- 5. I know disturbing in class is a bad practice.
- 6. I know learning attentively in school is as an important.

Appendix IV
Addis Ababa University
College of education
Department of Psychology

The objective of this questionnaire is to know the attitude of students towards the use of Himtagna as a medium of instruction for grade 1-4. you can choose any of the alternatives which best reflects feelings. Confidentiality of your responses is reserved. The questionnaire is prepared for research purpose only.

Thank you!

Instruction

Read the sentences below and encircle your choices based on the following values.

3= Agree, 2= Do not know, 1= Disagree

No	Statements	Alternarives		
		1	2	3
1	It is use full if education is given in Himtagna	1	2	3
2	Knowing both Amharic and Himtagna has enabled me to better achievement.	1	2	3
3	I will be happy if students at the first cycle are not taught in Himtagna.	1	2	3
4	Learning in Himtana has made me to better than those who learn in Amharic.	1	2	3
5	I believe it is better to improve my abilities of Amharic instead of Himtagna	1	2	3
6	I prefer to be taught in Amharic than Himtagna at elementary schooling.	1	2	3
7	I would like to do a work in Amharic than Himtagna	1	2	3
8	I feel happy to speak in Amharic with my parents than in Himtagna	1	2	3
9	I believe that Himtangna has more values than Amharic	1	2	3
10	I believe that it would be better to had people in my locality were Amharic speakers than Himtagna	1	2	3
11	Learning in Himtagna from grade 1 up to 4 has not any impact on me	1	2	3
12	I feel ashamed, when I utter Himtangna words, while speaking with Amharic speakers.	1	2	3
13	I prefer my teachers if they have equal knowledge of Himtagna and Amharic.	1	2	3
14	Himtangna had negatively affected my abilities in Knowing Amharic	1	2	3
15	The use of Himtagna as medium of instruction in the first cycle level had enabled me to have high performance in my study.	1	2	3
16	I prefer to read books written in Amharic than written in Himtagna.	1	2	3
17	Learning science subjects in Himtangnain the elementary schooling had helped me to have good performance.	1	2	3

Appendix III
Addis Ababa University
College of education
Department of Psychology

This questionnaire is prepared to students who follow their instruction in Himtagna from grade 1-4 and who continued procedure their learning in Amharic. Thus, its objective is to know the ability of students in Amharic and Himtagna and Usage of both languages. Accordingly the findings of the scales will be used for research purpose only.

Thanks in advance for your cooperation!

Name _____ Grade _____ Section _____ Sex _____

I. Instruction

Each of the following questions with five choices. The questions are on the usage of language and you are required to circle the best alternative in the box. Below are letters representing the alternatives

A= Only Himtagna, B= Mostly in Himtagna and sometimes in Amharic.

C= Both in Himtagna and Amharic equally, D= Mostly in Amharic and sometimes in Himtagna, E= only in Amharic

No	Question	Alternatives				
		A	B	C	D	E
1	Language used while communicating with people in your home	A	B	C	D	E
2	Language used while communicating with your father or male guardian	A	B	C	D	E
3	Language used with people who came to your house to visit your family	A	B	C	D	E
4	Language used while communicating with your mother or female guardian	A	B	C	D	E
5	Language used while communicating with other people who came to your house for social affairs	A	B	C	D	E
6	Language used while communicating with your friend during the school break time	A	B	C	D	E
7	Language used when you go from your school to home with your friend	A	B	C	D	E
8	Language used when you communicate with your friends in the surroundings of your home	A	B	C	D	E
9	The language speaker you prefer to go with when you want to go to some places in your locality	A	B	C	D	E
10	To what language speaker you spent your school break time in summer.	A	B	C	D	E
11	Language you communicate with your friend while going holy shines	A	B	C	D	E
12	The language used while communicating with your friends family, while you visiting their home	A	B	C	D	E
13	In times of your reading, which language speaking people do you face while seeking for clarity in times of difficulty in your readings	A	B	C	D	E
14	Among the common songs in your area, most of the lyrics that you know belongs to which language	A	B	C	D	E

II. Instruction

The following tables are designed to know your abilities in Amharic and Himtagna. Put a tick (✓) mark based on the values given bellow.

4= very high, 3= high, 2= medium and 1= low

A. Ability in Amharic

Ability	Very high (4)	High (3)	Medium (2)	Low (1)
Listening				
Speaking				
Writing				
Reading				

B. Ability in Himtagna

Ability	Very high (4)	High (3)	Medium (2)	Low (1)
Listening				
Speaking				
Writing				
Reading				

Appendix V
Addis Ababa University
College of education
Department of Psychology

The objective of the questionnaire is to know the attitude of teachers on the use of Himtagna as medium of instruction in the first cycle. Put a tick mark on the space provided. This questioner s designed for research purpose only, thus, confidentiality of your response is reserved.

Thank you in advance for your cooperation.

5= strongly agree, 4= Agree, 3= Not sure, 2= disagree and 1=Strongly-disagree

No	Statement	1	2	3	4	5
1	Learning in Himtagna at first cycle has negative impact on students' ability in Amharic.					
2	I believe that discussing in Amharic than in Himtagna helps students to acquire some thing better.					
3	The use of Himtagna as medium of instruction does not have an advantage.					
4	It is better for children's at schooling age t learn in Amharic than in Himtagna.					
5	If students learn in Himtagna at the first cycle it will help them to be more competent in the next cycle of schooling.					
6	Students with Himtagna as their mother tongue are disadvantageous if they learn in Himtagna at the first cycle.					
7	I think if students communicate in Amharic than Himtagna out side their school, it will help them in their performance.					
8	It will affect the language ability of students in Amharic and Himtagna, if they are made to know both Amharic and Himtagna.					
9	Students who have learned in Himtagna are with equal thinking ability with their counter parts who learned in Amharic.					
10	It is useful when education is given in the mother tongue of the students.					
11	It has disadvantages to use Himtagna as medium of instruction because it is with very few numbers of users when compared with Amharic.					
12	I believe that the use of Himtagna has a limited advantage of preventing the language from extinction vis-à-vis advantages to the students.					

13	I am happy for Himtagna is used as a medium of instruction.					
14	The delivery of first cycle education in Himtagna has advantages.					
15	The delivery of science subjects in Himtagna at first cycle has importance on the current performance of the learners.					
16	It will not have impact on the Amharic ability of students who learned their first cycle education in Himtagna.					
17	While attending in Himtagna will not have impact on the over all academic achievement of the students.					
18	I believe that the delivery of education in mother tongues doesn't have any importance.					
19	Since Himtagna is not many vocabularies it has difficulties in using it as a medium of instruction.					
20	I prefer Amharic than Himtagna to be as a medium of instruction in first cycle.					

መመሪያ ሁለት

ተክኑቁ ክምጣሻይዝ ገፍሽቁ ዊገ ፈወንጥድ ላዘ ሊሻትረይዝጎ ቋንቋ እርወአቆው ዊገ ፈወነ ቂይርጥን።

ተክዘነ፡- ከበደ ይሸተው ክንደተክምጣሻይዝ እንተይ ኒይሸተው ፈወነ ዊግድ ብልቃሻይዘጎ ለውጥኩ

“ ሰአቲሻር ክንድኛ ግንዚዝ ችኛሸነው ጉለሸትዙ ሞልክት የኛ። ”

ትምህርት ቤት በሰዓቱ መገኘት የጉብዝና ምልክት ካው።

1. ጭቅይ ክንደነው ቀሰው ደረጃይል ችካዘኩ።

2. ያቅል ደክንድኛዝ ተሚዘድቅ ዓብሻኩ።

3. ለወትረ ፈናንስ ቅናዝ ክንደኩን።

4. ኤድስ ውር አቅሻድ ይና ክንሰተድ ክንሰ።

5. ክፍል አቲል ክምዘነው ቅፃሰው አቅንድ አርቆኩን።

6. ተራው ይና ፍሒዝ ይና ክንድኛድ በርታቆን ክንድናን ቀሰው የኛ።

ክፍል ሦስት- ቀጥሎ በአማርኛና በክምጣኝ ስድስት ስድስት ዓ. ነገሮች ተለጥተዋል፤ እነዚህን ዓ. ነገሮች ወደምትችሏቸው ቋንቋዎች ተመጣጣኝ ወደሆኑ ዓ. ነገሮች ተይሯቸው።

መመሪያ አንድ

1. የሚከተሉት በአማርኛ የተጻፉ ዓ.ነገሮች ወደ ምትችሉት ሌላ ማንኛውም ቋንቋ ተመጣጣኝ ወደ ሆነ ዓ.ነገር ቀይሯቸው።

ለምሳሌ:- ከበደ የተባለው ተማሪ በአማርኛ

“የአካባቢያችን ነዋሪዎች ከፍተኛ የሆነ የጽዳት ስራ እየሰሩ ነው።” የሚለውን ዐ.ነገር ተመጣጣኝ ወደ ሆነ ክምጣኝ ዓ.ነገር እንደሚከተለው ቀይሮታል።

“ይናጅውነይዝ ፅበቁ እቅድ ካይሉ ዊር ሸነው ሰብ ሰራሽኝኝ የካ።” እናንተም በምሳሌው መሠረት የሚከተሉትን ዐ. ነገሮች ወደ ሌላ አንድና ከዚያ በላይ ወደሆኑ ቋንቋዎች በመቀየር የተሰጠው ክፍት ቦታ ላይ ጻፉ።

1. ጎበዝ ተማሪ የትምህርት ቤቱን የመግቢያ ሰዓት አክባሪ ነው።

2. ወደ ሚቀጥለው ክፍል ለማለፍ በርትቸ አጠናለሁ።

3. አስተማሪያችን የባለፈውን የፈተና ዉጤት አላሳዩንም።

4. ወላጆቼ በትምህርቴ እንድንጎበዝ ያበረታቱኛል።

5. ቤት ውስጥ ምቹ የሆነ የማጥኛ ክፍል አለኝ።

6. ከትምህርት ቤት ጓደኞቼ ጋር የከበደኝን ጥያቄዎች እንወያይባቸዋለን።

መመሪያ ሁለት

ቀጥሎ የተሰጡት ሁለት ሳጥኖች በክምጠኛ እና በአማርኛ ያላችሁን ችሎታ ለማወቅ ታስቦ የተዘጋጁ ናቸው። እናንተም ቀጥሎ በተሰጠው ዋጋ መሰረት ሳጥኑ ውስጥ ይመጥነኛል የምትሉት ቦታ ላይ የራይት (✓) ምልክት በማድረግ ችሎታ(ሽ)ን አሳይ

4= በጣም ከፍተኛ 3= ከፍተኛ 2= መካከለኛ 1= ዝቅተኛ

ሀ. በአማርኛ ቋንቋ ያለኝ ችሎታ

ችሎታ	በጣም ከፍተኛ /4/	ከፍተኛ/3/	መካከለኛ/2/	ዝቅተኛ/1/
ማዳመጥ				
መናገር				
መጻፍ				
ማንበብ				

ለ. በክምጠኛ ቋንቋ ያለኝ ችሎታ

ችሎታ	በጣም ከፍተኛ /4/	ከፍተኛ/3/	መካከለኛ/2/	ዝቅተኛ/1/
ማዳመጥ				
መናገር				
መጻፍ				
ማንበብ				

Declaration

I declare that this thesis is my original work. Those works used for the thesis are adequately acknowledged.

Name Belay Moges

Signature _____

Date _____

This thesis has been submitted for examination with my approval as a university advisor.

Name Tamiric Andualem

Signature  _____

Date _____