Ethiopian Journal of Education Studies
https://journals.hu.edu.et/hu-journals/index.php/ejes/

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

English Major EFL Students' Code-switching Frequency in an EFL Classroom at Tertiary Level in Ethiopia: The Case of Mekelle University

Gebrewahid Tsige Gerezgiher (MA)[1] Corresponding Author & Hailom Banteyirga Amaha (PhD)[2]

[1]Lecturer in College of Social Sciences and Humanities, Adigrat University, Adigrat, Ethiopia
Email: gebrewahidtsige@yahoo.com

[2]Associate Professor in College of Social Sciences, Humanities, and Journalism and Communication, Addis Ababa University, Addis Ababa, Ethiopia
Email: hailombante@yahoo.com

Received: 14 August 2022 Revised: 14 Nov. 2023 Accepted: 28 Dec. 2023

Abstract

This research was conducted to investigate English major EFL students' code-switching frequency in an EFL classroom at tertiary level with particular reference to Mekelle University. To achieve this objective, data were gathered through classroom observation audio record and close-ended questionnaires. A total of 109 students, who were selected using available sampling, took part in the study. The data obtained was analyzed quantitatively. The techniques used to analyze the data were frequency, percentage, Kruskal Wallis H test, and ordinal logistic regression. The result obtained shows that first year students code-switched almost never while second year and third year students code-switched rarely and about half of the time respectively. It was again found that first year students use 8.9% Amharic to 91.1% English while second year and third year students use 20.6% Amharic to 79.4% English and 25.1% Amharic to 74.9% English respectively. Besides, a statistically significant difference in code-switching frequency was obtained among the three class years. First year students code-switch less frequently while third year students did more. Finally, a statistically significant relationship was found between students' code-switching and class year of the students, mother tongue of the students, the type of school they came from, their parents' educational status, their Amharic language speaking skill, and their perception towards code-switching. Based on the findings, it was concluded that English major second year and third year students are using Amharic excessively. However, the students' code-switching had to decrease as their grade level increased. They also had to consider their classmates who know little or no Amharic. The excessive use of Amharic will reduce their exposure to English language learning which is dangerous in language acquisition and learning that needs their teachers serious follow up.

Keywords: classroom, code-switching frequency, EFL students, English major, tertiary level

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

1. Introduction

In multi-ethnic and multi-cultural countries such as Ethiopia, Malaysia, Nigeria, and the Philippines code-switching (CS) in English as a Foreign Language (EFL) or in English as a Second Language (ESL) classes is a common practice (Cook, 2001; Sert, 2005) that arises due to lack of proficiency in the target language (Atkinson, 1987) or to enhance the learners' TL learning (May & Aziz 2020). Ethiopia's population for 2025 is forecasted to be 129.8 million. It comprises more than 80 ethnic groups who speak more than 80 languages and nine regional states. Among these languages, ten of them have more than one million speakers. These are Oromo (34.5%), Amhara (26.9%), Somali (6.2%), Tigray (6.1%), Sidama (4.0%), Guragie (2.5%), Welaita (2.3%), Hadiya (1.7%), Afar (1.6%), Gamo (1.5%), and others (12.7%) (Population Census Commission of Ethiopia, 2007) . Though the country is endowed with many languages, due to political reasons, Amharic is the country's federal working language. It is also used as a working language in four regional states that have different mother tongues (MT) and two city administrations of the country. It is spoken by 22 million people as an MT and 4 million people as a second language (Population Census Commission of Ethiopia, 2007). This indicates that Amharic is the second language used by more than 83% of the country's population.

As Ethiopia has never been colonized, the teaching and learning of English language as a subject started in 1908 and as medium of instruction after World War II (Getachew & Derib, 2006). English language is spoken only in high schools and universities. It has a place neither in the government offices nor in the community's day to day communications. Therefore, it is a foreign language. This leads students and teachers to have a poor performance of English language (Yinager & Boersma, 2018). As a result, CS in the EFL classes is a common phenomenon. The Education and Training Policy (MOE, 1994) and the Constitution of the country (HPR, 1995) declare students to learn using their MT up to grade eight. It adds Amharic to be taught as a subject beginning from grade three. Additionally, it states that English has to be taught as a subject beginning from grade one and as medium of instruction beginning from grade nine up to universities. Even

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

though all the government and non-government schools are required to function within the general framework of the national curriculum of the 1994, they do not go accordingly. In the non-government schools, the use of English as medium of instruction starts from grade one. While CS in the EFL classes of the government schools is a common practice, using MT in the school compounds or in any content subjects of the non-government schools leads both students and teachers for punishment (Gibson, 2011).

When students of the government and non-government schools completed their preparatory schools, they joined to the 45 universities which are governed by the federal government. The assignation of the students to the universities is done by the Ministry of Education. After the students join to the universities, some of them are assigned to the Department of English Language and Literature. These students felt in dilemma on whether to code-switch or not because they came from schools which follow different practices. As the universities are federal institutions and as Amharic is the federal government's working language, the use of Amharic in the EFL classes is common though there are students who know little or no Amharic since it is not a MT to majority of them. Sert (2005) states that CS in the EFL classes helps students to learn better if all students and their teacher share the same native language. How about if the students do not share the same native language? Since the students have different native languages and they came from different practices of CS, the researchers are inspired to study the CS frequency (from English to Amharic and vice versa) of these students and the factors that affect their CS behavior.

There have been a number of studies (Abiy & Mohamed, 2010; Jemal, 2012; Kibrom; 2016) regarding classroom CS at elementary and secondary levels of education in Ethiopia where the students and teachers share the same MT. However, there is no research conducted at the tertiary level of education where the students and teachers have different mother tongues. This is a gap that former researchers have not tried to fill in. Therefore, this study aims to explore the CS frequency of English major EFL students of tertiary level and the factors that affect their CS behavior that other researchers have not investigated yet. To achieve this

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

objective, the following research questions were prepared.

1. How often do English major EFL students of the different years of study employ code-switching?
2. What percentage of Amharic to English do English major EFL students of the different years of study employ?
3. Is there a statistically significant difference on the code-switching frequency among English major EFL students of the different years of study?
4. Is there a statistically significant relationship between demographic factors (class year. gender, age, perception, mother tongue, multilingual, place, school, parent education, parent economy, Amharic listening, and Amharic speaking) and English major EFL students' code-switching behavior?

2. Research methodology

2.1 Research Design

The research design chosen for this study was descriptive. According to Cohen (2000), a descriptive design is concerned with conditions or relationships that exists; practices that prevail; attitudes that are held; processes that are going on; effects that are being felt; or trends that are developing. So, as this study was intended to investigate the English major EFL students' CS frequency in an EFL classroom at tertiary level, the descriptive research design was found to be suitable to obtain the pertinent and valid information needed to achieve the specified objectives.

2.2 Research Site and Participants

This research was conducted at Mekelle University which is located in Tigray Region of Ethiopia. When this study was conducted, there were 109 students in all batches (40 first year or 36.70%, 32 second year or 29.36%, and 37 third year or 33.94%), and these all students were taken using available sampling. Though there is no fixed rule on how many participants to select, Singh (2007) says if the population is manageable, taking all participants yields better result. He adds that if the population is unmanageable, 10-20% is recommended. As the total population of this study were small in number and were manageable, all of them took part in the questionnaire.

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

Therefore, for the questionnaire, an available sampling was used. Besides, classroom observation was conducted with all sections.

2.3 Data Gathering Instruments

The instruments that had been used for this research were classroom observation and questionnaire.

2.3.1 Classroom Observation

Cohen (2000) stated that observation provides a live data from naturally occurring social situations. Due to this, observation was conducted by the presence of the researcher with a non-participatory role along with an audio-recording. A randomly selected six teachers, two teachers from each batch, were observed for a month. If the observation was conducted for a few days, teachers and students could hide their actual behavior of CS.

Every English course has three credits per week. One credit is 50 minutes. The programs were arranged in such a way that the two credits were taught consecutively – with no interruption between them and the other one credit on another day. The one credit hour period was observed and recorded during the pilot study. So, the two credit hour period was observed and recorded for this study. Therefore, four lessons (100 minutes per lesson) for each course of all batches, with a total of 24 lessons or 2400 minutes, were observed, recorded, and transcribed. This method of data gathering tool (the observation) was used since it provides the opportunity to identify the existence of the phenomenon and the proportion of Amharic to English.

2.3.2 Questionnaires

Questionnaire is one of the very commonly used methods of data gathering tools. There are two types of questionnaires: the open ended and the close ended (Muijs, 2004). In this case, the close ended questions were used because, in the open ended questions, participants are reluctant to respond them (Cohen, 2000). In this type of questionnaire, participants skip questions because they feel tired to write or they have no idea. Another drawback of this one is that participants' handwriting may not be readable and may alter the result (Dornyei, 2007; Singh 2007). Contrary to this, the close ended questionnaire allows respondents to respond them easily and allows the researcher to analyze them easily though they have their

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

own shortcomings. They also depict quantifiable and measurable result. Therefore, a close ended questions (5 point Likert scale which ranges from strongly disagree coded as "1" to strongly agree coded as "5") which were adapted from Mokgwathi (2011) were distributed to all students in the presence of the researcher so as to ask any question if they had. The questions were designed to gather data about the participants' background information, their perception towards CS, how often they employ CS, and the factors that predict CS. The questionnaires were written in English as they were assumed to be understood easily; and they were distributed to all students (N= 109).

2.4 Validity and Reliability

To assess the content validity of the questionnaires, they were given to three assistant professors of ELT who had an experience of teaching English language at universities for more than ten years, and their comments were incorporated. In addition, to estimate how reliable the instrument was, its internal consistency was computed using SPSS version 22. Accordingly, the finding displayed that the Cronbach Alpha of the questionnaire was found to be 0.84 (α=0.84, N=109). Using the 0.70 Cronbach Alpha's cut off point (Singh 2007), the questionaries' reliability was found to be very high.

2.5 Data Analysis Procedures and Techniques

First, classroom observations took place and then the questionnaire was administered. This procedure was used since the participants could hide their actual behavior if they were well informed of what the study was about. The researcher first transcribed the data obtained from the classroom observation in verbatim. Then, the researcher read the transcribed data and categorized them as English words, and Amharic words using a word as a counting unit. Next, frequency and percentage were made to each category so as to analyze it.

The data obtained from the questionnaire were displayed quantitatively and was run using SPSS version 22. In this case, a descriptive and inferential statistics were used. To investigate how often the students code-switch, frequencies and percentages were used. So as to explore if there was statistically significant difference in the frequent use of CS among students of the different years of study, Kruskal Wallis H

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

Test was used. This non-parametric inferential statistics was used since the dependent variable (how often the students code-switch) is an ordinal with five groups and the independent variable (students' class year) is an ordinal with three groups (1st year, 2nd year, and 3rd year coded as 1, 2, and 3 respectively). How often the participants' code-switch was an ordinal variable that ranges from "never" coded as 1 to "always" coded as 5. When the number of the participants is small in number, and if the dependent variable is ordinal and the independent variables are ordinal or nominal with more than two groups, the Kruskal Wallis H Test is an appropriate data analysis technique (Cronk, 2008). It was because of this reason that the analysis of the third objective employed Kruskal Wallis H test.

As far as the factors that predict students' CS is concerned, an ordinal logistic regression (OLR) was used. This advanced inferential statistics of regression was used since the dependent variable (the participants' CS frequency) is an ordinal while the independent variables were many with more than two groups each. As Cronk (2008) stated, an OLR is used when the dependent variable is ordinal and if the independent variables are more than two that has two or more categories each.

3. Findings and Discussion

3.1 The Participants' Background Information

The background information or the demographic factors of the participants is presented below.

Table 1: Background information of the participants

QN	Background Information		1st Year		2nd Year		3rd Year		TOTAL	
			N	%	N	%	N	%	N	%
1	Gender	Male	17	42.5	15	46.9	20	54.1	52	47.7
		Female	23	57.5	17	53.1	17	45.9	57	52.3
		Total	40	100	32	100	37	100	109	100
2	Age	18-20	22	55	11	34.4	10	27.1	43	39.4
		21-23	18	45	17	53.1	16	43.2	51	46.8
		>23	-	-	4	12.5	11	29.7	15	13.8
		Total	40	100	32	100	37	100	109	100
3	Place	Rural	31	77.5	22	68.8	24	64.9	77	70.6
		Urban	9	22.5	10	31.2	13	35.1	32	29.4
		Total	40	100	32	100	37	100	109	100
4	School	Gov't	34	85	29	90.6	32	86.5	95	87.2
		Non gov't	6	15	3	9.4	5	13.5	14	12.8
		Total	40	100	32	100	32	100	109	100
5	Parent Education	Both literate	24	60	8	25	14	37.8	46	42.2
		One literate	9	22.5	18	56.3	13	35.1	40	36.7
		Both illiterate	7	17.5	6	18.7	10	27.1	23	21.1
		Total	40	100	32	100	37	100	109	100
6	Parent Economy	Poor	20	50	9	28.1	11	29.7	40	36.7
		Medium	17	42.5	20	62.5	20	54.1	57	52.3
		Rich	3	7.5	3	9.4	6	16.2	12	11
		Total	40	100	32	100	37	100	109	100

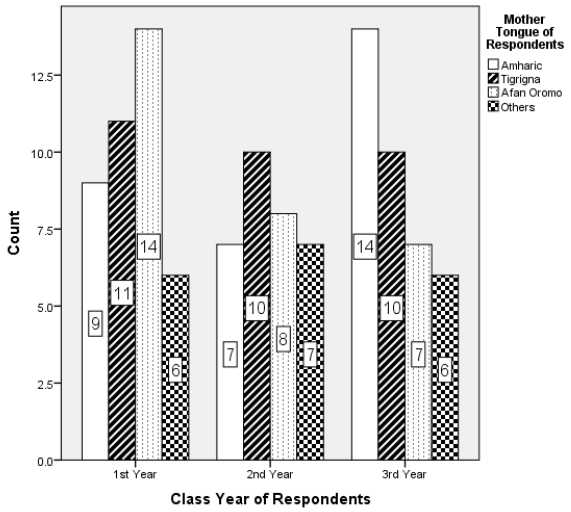
As one can see in table 1, the female participants (52.3%) were more than the male participants (47.3%) except in third year where the males outnumber than the females. As far as age is concerned, majority of the respondents (46.8%) lie in the age of 21 to 23 while a very few students (13.8%) were above 23 years old. The other feature

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

of the students is the place they came from. As it is vividly put in table 1, around one third (29.4%) of the participants only came from urban. One of the surprising characteristics of the students is the school they came from. Only 12.8% of the participant students who learned at non-government schools joined to the Department of English Language and Literature.

As far as the participants' parent is concerned, only 42.2% had an educated father and mother while the 21.1% of the students had an illiterate father and mother. With regard to the students' parent economy, only 11% of them had a rich family whereas 52.3% or around half of the students had middle income parents. Concerning to the students' mother tongue and their Amharic language competence, it is divulged in the next graph.

Figure 1: Students' mother tongue across the different class years



As it is seen in the graph 1, in first year, the students whose mother tongue was Afan Oromo exceeds than all other mother tongue students. With regard to second year, Tigrigna language as mother tongue speakers was the highest while the Afan Oromo mother tongue students and Amharic mother tongue students were the same. In third year, the Amharic language mother tongue students were more than the sum of that of the Afan Oromo language and other languages mother tongue students. Throughout the department, the sum of the Tigrigna mother tongue students was the highest (28.4%) whereas the other languages mother tongue students were the smallest (17.4%). As the students of these language speakers were small in number, the students' mother tongue is labeled as others. These

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

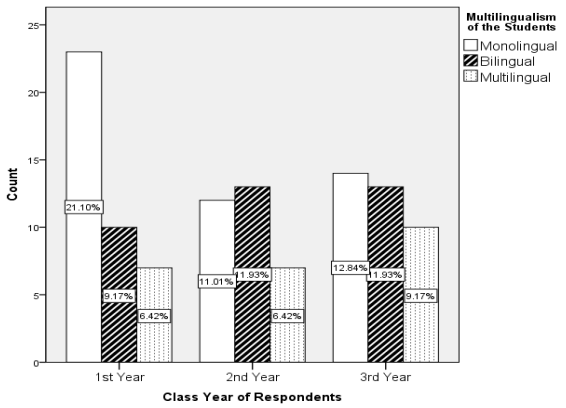
languages were the different languages which are spoken in all regions of the Federal Democratic Republic of Ethiopia. The students' Amharic language listening and speaking skill is presented in the next table.

Table 2: Students' Amharic language listening and speaking skills

QN	Background Information		1st Year N	1st Year %	2nd Year N	2nd Year %	3rd Year N	3rd Year %	TOTAL N	TOTAL %
7	Amharic Languag e	Very Poor	8	20	2	6.3	-	-	10	9.2
		Poor	13	32.5	5	15.6	3	8.1	21	19.3
	Listenin g skill	Good	7	17.5	14	43.8	16	43.2	37	33.9
		Very Good	12	30	11	34.3	18	48.7	41	37.6
		Total	40	100	32	100	37	100	109	100
8	Amharic Languag e	Very Poor	11	27.5	5	15.6	2	5.5	18	16.6
		Poor	14	35	9	28.1	6	16.2	29	26.6
	Speakin g skill	Good	5	12.5	8	25	12	32.4	25	22.9
		Very Good	10	25	10	31.3	17	45.9	37	33.9
		Total	40	100	32	100	37	100	109	100

As it can be seen from table 2, many of the students were better in listening than in speaking. Besides, the students' Amharic language listening and speaking skills increased as their grade level increased. Comparatively, first year students had difficulty of listening and speaking skills of Amharic language than the other class year students. The classroom observation witnessed that some students of first year keep silent when asked a question to respond by their teacher while others were responding in their mother tongue which was other than Amharic. The other demographic factor is the students' multilingual. The detail of the students' multilingual is presented in the following graph.

Figure 2: Multilingualism status of the students

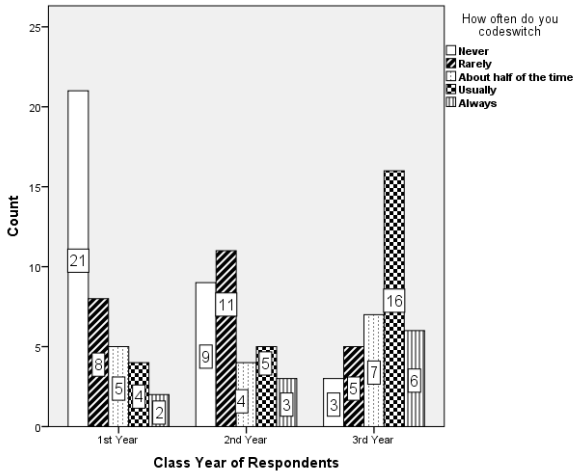


It is clearly shown in the above graph that the sum of monolinguals in all class years is the highest (45%) while the sum of multi-linguals is the smallest (22%). First year monolinguals were by far higher than the other class year monolinguals while third year multi-linguals were higher than the other class year multi-linguals which is equal to the first years' bilinguals. Besides, first year and third year had an equal amount of multi-linguals.

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

3.2 **Students' Code-switching Frequency**

Figure 3: Students self-report on their own CS frequency



As it can be seen in the above graph (see figure 3 above), majority of first year students never code-switch in to Amharic in the EFL classes while majority of the second year students do it rarely. As far as third year students is concerned, majority of them code-switch (use Amharic) in their English class time usually. Besides, it was found that first year students code-switch less frequently than second year and third year students. In other words, third year student's code-switch more frequently than the student's of first year and second year. This implies that the students' code-switching frequency increased as their grade level increased.

A classroom observation was made to reveal the exact amount of English and Amharic words utilized by the students in the EFL classes, and the finding is presented as follows.

Table 3: The proportion of Amharic and English language words uttered in the class across the different grade levels of students

Class Year	Courses	Lessons	English Words		Amharic Words		Total Words	
			#	%	#	%	#	%
1st Year	Course 1	Lesson 1	978	92.9	75	7.1	1053	100
		Lesson 2	879	89.6	102	10.4	981	100
		Lesson 3	1086	94.6	63	5.5	1149	100
		Lesson 4	1156	87.7	162	12.3	1318	100
	Course 2	Lesson 1	1062	93.7	71	6.3	1133	100
		Lesson 2	973	90.8	99	9.2	1072	100
		Lesson 3	1064	89	132	11	1196	100
		Lesson 4	1166	91.2	112	8.8	1278	100
		Total	**8,364**	**91.1**	**816**	**8.9**	**9,180**	**100**
2nd Year	Course 1	Lesson 1	1193	81.3	275	18.7	1468	100
		Lesson 2	793	77.1	236	22.9	1029	100
		Lesson 3	1601	83.4	319	16.6	1920	100
		Lesson 4	794	78.8	214	21.2	1008	100
	Course 2	Lesson 1	1008	82.6	212	17.4	1220	100
		Lesson 2	1516	76.5	466	23.5	1982	100
		Lesson 3	1071	75.9	340	24.1	1411	100
		Lesson 4	1436	79.2	377	20.8	1813	100
		Total	**9,412**	**79.4**	**2,439**	**20.6**	**11,851**	**100**
3rd Year	Course 1	Lesson 1	996	78.3	276	21.7	1272	100
		Lesson 2	855	71.4	342	28.6	1197	100
		Lesson 3	1079	77.1	320	22.9	1399	100
		Lesson 4	743	74.5	254	25.5	997	100
	Course 2	Lesson 1	1151	75.6	372	24.4	1523	100
		Lesson 2	822	76.9	247	23.1	1069	100
		Lesson 3	1297	72.8	484	27.2	1781	100
		Lesson 4	911	73.2	334	26.8	1245	100
		Total	**7,854**	**74.9**	**2,629**	**25.1**	**10,483**	**100**

The above table presents the six courses (24 lessons or 2400 minutes) classroom observation audio record of the three class year students. As it is seen in the above

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

table, the students' words were categorized as English words and Amharic words.

With regard to first year students, they uttered a total of 9180 words. From these words, the 8364 (91.1%) were English while the remaining 816 (8.9%) were Amharic. When we come to second year students, 11851 words were spoken which were 9412 (79.4%) English and 2439 (20.6%) Amharic. As far as third year students is concerned, a total of 10483 words were uttered. From this total, 7854 (74.9%) were English, and the rest 2629 (25.1%) were Amharic.

This indicates that a consistent result was found from the questionnaire and the classroom observations. The classroom observation witnessed that first year students code-switched (8.9%) fewer than second year (20.6%) and third year (25.1%) students. To says it differently third year student's code-switch more frequently than first year and second year students.

Almost all of the students in the interview, participants of all grade levels, also reported the use of Amharic in the English lesson to be less than ten percent.

Example:

"*As to me, Amharic has not to cover more than ten percent of the whole period*." Year 1; Student B

"*I prefer less than ten percent*." Year 3; Student F

The amount of Amharic language used at the three different grade levels was found to be excessive. Kibrom (2016) found the students of grade 9, 10, 11, and 12 students using 3%, 0.29%, 0.25%, and 0.22% of L1 respectively. Jemal (2012) also displayed that 11-15%, 6-10%, and less than 5% of L1 out of the L2 class time to be used by 1st year, 2nd year, and 3rd year students of college respectively. Besides, Abiy & Mohamed (2010) displayed that 22.3% of the class time was covered by Amharic which they said it too much. Kayaoglu (2012) recommends below 10% of L1 to be used at university level.

From this, it is concluded that the amount of Amharic which was used by second year and third year students is too much which is above the findings of all the researches which are conducted till now at national and international levels. As this indicates excessive usage, it could hinder the students' target language learning which

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

Krashen (1985) calls 'it reduces students' exposure to the target language'. Therefore, there was a gap on how they perceive and how they practice.

3.3 Code-switching Frequency Difference among the Groups

The other objective of this study was investigating if there was a statistically significant difference in the CS frequency of the students across the different class years. In order to do so, Kruskal Wallis H Test was carried out, and the Kruskal Wallis H Test for the frequency of the three groups' CS is presented in the following table.

Table 4: Kruskal Wallis H Test result of the three groups' CS frequency

Ranks

	Class Year of Respondents	N	Mean Rank
How often do you code-switch	1st Year	40	22.40
	2nd Year	32	38.76
	3rd Year	37	58.56
	Total	109	

Test Statistics

	How often do you code-switch
Chi-Square	37.727
df	2
Asymp. Sig.	0.000

The Kruskal Wallis H test indicates that there was a statistically significant difference in CS frequency among the different class years (χ^2= 37.727, df=2, N=109, p = 0.000) with a mean rank frequency score of 22.40 for 1st year, 38.76 for 2nd year, and 58.56 for 3rd year students.

Once a significant difference between the three groups was obtained, Kruskal Wallis pairwise comparison (Post Hock) was run to make multiple comparisons and to see where the difference lies. As it can be seen in table 5 below, a statistically significant difference between all pairs of the groups was found. The difference was more high in the pairs of first year and third year (p=0.000) with a mean rank of 22.40 for first year and 56.56 for third year. The CS frequency difference was again high for the pair of second year and third year (p=0.003) with a mean rank of 38.76 for second year and 56.56 for third year. This implies that there was a huge difference on the CS frequency among the different class years. From this, we can conclude that there was an excessive use of Amharic in second year and third year students which could hinder their EFL learning. Because, though it is expected to

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

diminish the students' CS as their grade level increased, it was found an opposite.

Table 5: A pairwise comparison of the students' class year CS frequency

Each node shows the sample average rank of Class Year of Respondents

Sample1_Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig
1st Year_2nd Year	-16.360	6.284	-2.603	0.009	**0.028**
1st Year_3rd Year	-36.162	5.931	-6.098	0.000	**0.000**
2nd Year_3rd ear	-19.802	5.931	-3.339	0.001	**0.003**

Each row tests the null hypothesis that the Sample 1 and Sample 2 distribution are the same.

3.4 Factors that Affect Students' Code-switching

This study found that there were a lot of factors that affect students' CS. The factors that affect the participants' CS were obtained through the ordinal logistic regression. Before OLR was run, the assumptions of OLR were tested. Their detail is presented in the following sub-heading.

3.4.1Testing the Assumptions of Ordinal Logistic Regression (OLR)

OLR has four assumptions. So, before this model is run, these four assumptions have to be tested. The first assumption states that the dependent variable has to be ordinal. In our case, as the dependent variable is about the frequency of CS, it has five ranked groups named as never, rarely, about half of the time, usually, and always though no one responded for usually and always. As these categories are ordered, the dependent variable is ordinal. This indicates that the first assumption for running OLR is met. The second assumption is that the independent variables have to be continuous, ordinal, or nominal. In this case, the independent variables are both nominal and ordinal. Their detail is presented below.

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

Table 6: List of the independent variables for students

SN	Independent Variable	Groups	Label	SN	Independent Variable	Groups	Label
1	Gender	1=Male	Nominal	8	Parent Education	1=Both Illiterate	Ordinal
		2= Female				2=One Literate	
2	Age	1=18-20	Ordinal			3=Both Literate	
		2=21-23		9	Parent Economy	1=Poor	Ordinal
		3= Above 23				2=Medium	
3	Class Year	1=1st Year	Ordinal			3=Rich	
		2=2nd Year		10	Amharic Listening	1=Very Poor	Ordinal
		3=3rd Year				2=Poor	
4	Mother Tongue	1=Amharic	Nominal			3=Good	
		2=Tigrigna				4=Very Good	
		3=Afan Oromo		11	Amharic Speaking	1=Very Poor	Ordinal
		4=Others				2=Poor	
5	Multilingual	1=Monolingual	Ordinal			3=Good	
		2=Bilingual				4=Very Good	
		3=Multilingual		12	Perception	1=Negative	Nominal
6	Place	1=Rural	Nominal			2=Positive	
		2=Urban					
7	School	1=Government	Nominal				
		2=Non-gov't					

As it is seen in the above table, the independent variables are nominal and ordinal. Therefore, the second assumption, as well, is met.

The third assumption states that there should not be multicollinearity. This assumption revealed that there should not be any correlation among any of the independent variables. To attest this, the variance inflation factor (VIF) was run through the SPSS version 22, and the result is presented in the following table.

Table 7: Variance Inflation Factor (VIF) of the independent variables

Model		Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics	
		B	Std. Error	Beta	Tolerance	VIF
1	(Constant)	-0.405	0.563			
	Students' Gender	-0.082	0.154	-0.049	0.746	1.340
	Students' Age	-0.035	0.097	-0.033	0.766	1.305
	Students' Class Year	0.537	0.088	0.596	0.651	1.535
	Students' Mother Tongue	0.075	0.094	0.099	0.403	2.482
	Students' Multilingualism	0.008	0.085	0.008	0.796	1.257
	Place that Students Come from	-0.085	0.154	-0.053	0.680	1.470
	School that Students Come from	-0.024	0.235	-0.010	0.717	1.394
	Parents' Educational Status	0.149	0.091	0.154	0.710	1.408
	Parents' Economic Status	0.290	0.131	0.195	0.802	1.247
	Amharic Lang. Listening Skill	0.200	0.092	0.269	0.412	2.425
	Amharic Lang. Speaking Skill	-0.006	0.094	-0.008	0.314	3.189
	CS Perception of Students	0.025	.0130	0.017	0.854	1.172

As it is shown in the above table, the minimum VIF was found 1.172 which was for perception of students towards CS while the maximum was 3.189 which was for Amharic language speaking skill of the respondents. Pallant (2007) states that if the VIF of any independent variable is above 10, there is multicollinearity; otherwise,

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

there is no collinearity. He adds that if the VIF is above 10, the ordinal regression's assumption is not met. In such case, we do not use ordinal logistic regression. But in our case, the VIF value of all independent variables is below 10. Therefore, the third assumption is met. This means we can use OLR.

The last assumption is that there should be proportional odds. This states that the coefficient of the groups of all dependent variables has to be the same. The result of this assumption is found in the "Test of Parallel Lines" table. In this case, if the p-value is above 0.05, we accept the null hypothesis. This is to mean that the relationship between each pair of outcome groups is the same. When this happens, we said the assumption is met. The detail is presented below.

Table 8: Testing the proportional odds assumption for students' CS

Test of Parallel Lines[a]

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	110.428			
General	80.564	29.864	23	0.153

a. Link function: Logit.

As it is shown in table 10 above, the p-value (sig) is 0.153 which is above 0.05. This indicates that the last assumption is met. Once the four assumptions of the OLR were checked and met, an OLR was run using the SPSS version 22 so as to determine the factors that affect students' CS.

3.4.2 Running the Ordinal Logistic Regression (OLR) Analysis

This study displayed different factors that affect students' CS. Twelve factors were tested through OLR. Before looking at the contribution of each factor, the overall test of the null hypothesis which states there is no factor that significantly affect students' CS was attested. Due to this, the model fit shown below which was run through SPSS version 22 shows that all factors affect students' CS well (p=0.000). Goodness of fit was again run to look at if the actual (observed) and the predicted (latent) outcomes were consistent. The null hypothesis of this idea states that both the actual and the predicted outcomes have to be consistent. If this idea is to be accepted, the p-value has to be above 0.05. The goodness of fit which testes this hypothesis showed that the null hypothesis is accepted. As it is

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

shown in the table below, both the Pearson and deviance p-value is above 0.05. The strength of all the factors for affecting the outcome variable was also tested through pseudo R square. So, as it is clearly seen in the table below, the Nagelkerke R square result was found to be 79.3%. This indicates that 79.3% of the variation in the dependent variable was explained by the factors in the model while the remaining 20.7% was accounted for other variables which are not considered in this study.

Table 9: Model fit, goodness fit, and pseudo R square of independent variables for students

Model Fitting Information					Goodness-of-Fit				Pseudo R-Square	
Model	-2 Log Likelihood	Chi-Square	df	Sig.		Chi-Square	df	Sig.	Cox and Snell	.700
Intercept Only	174.489				Pearson	153.399	131	.088	Nagelkerke	.793
Final	75.745	98.744	23	.000	Deviance	74.358	131	1.000	McFadden	.561

After checking the above models, the next table displays the factors that affect students' CS.

Table 10: Factors that affect students' CS

Parameter Estimates								
		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[StudCodSwitchFreq = 1]	-17.218	3.800	20.529	1	0.000	-24.666	-9.770
	[StudCodSwitchFreq = 2]	-11.786	3.175	13.782	1	0.000	-18.008	-5.563
Location	[StudGender=1]	1.350	0.934	2.088	1	0.148	-0.481	3.181
	[StudGender=2]	0[a]	.	.	0	.	.	.
	[StudAge=1]	-2.122	1.272	2.782	1	0.095	-4.616	0.372
	[StudAge=2]	-3.937	1.237	10.136	1	0.061	-6.360	-1.513
	[StudAge=3]	0[a]	.	.	0	.	.	.
	[StudClassYear=1]	-5.714	1.354	17.816	1	0.000	-8.368	-3.061
	[StudClassYear=2]	-2.529	1.010	6.268	1	0.012	-4.508	-0.549
	[StudClassYear=3]	0[a]	.	.	0	.	.	.
	[StudMotherTongue=1]	2.658	3.218	0.682	1	0.006	-3.649	8.965
	[StudMotherTongue=2]	1.739	6.382	0.074	1	0.019	0.785	-10.770
	[StudMotherTongue=3]	0.954	1.909	0.250	1	0.047	-2.788	4.695
	[StudMotherTongue=4]	0[a]	.	.	0	.	.	.
	[StudOtheLanguages=1]	-0.533	1.048	0.258	1	0.611	-2.588	1.522
	[StudOtheLanguages=2]	-2.619	1.250	4.392	1	0.066	-5.068	-0.170
	[StudOtheLanguages=3]	0[a]	.	.	0	.	.	.
	[StudPlace=1]	1.177	0.879	1.796	1	0.180	-0.545	2.900
	[StudPlace=2]	0[a]	.	.	0	.	.	.
	[StudSchool=1]	2.783	2.314	1.446	1	0.000	-1.753	7.319
	[StudSchool=2]	0[a]	.	.	0	.	.	.
	[StudParentEducation=1]	-2.540	1.123	5.115	1	0.024	-4.741	-0.339
	[StudParentEducation=2]	-1.533	1.008	2.313	1	0.128	-3.509	0.443
	[StudParentEducation=3]	0[a]	.	.	0	.	.	.
	[StudParentEconomy=1]	-3.062	1.519	4.062	1	0.054	-6.040	-0.084
	[StudParentEconomy=2]	-2.174	1.346	2.610	1	0.106	-4.812	0.464
	[StudParentEconomy=3]	0[a]	.	.	0	.	.	.
	[StudAmharicListening=1]	-3.844	2.223	2.989	1	0.084	-8.202	0.514
	[StudAmharicListening=2]	-4.277	2.363	3.276	1	0.070	-8.909	0.354
	[StudAmharicListening=3]	-2.784	1.568	3.154	1	0.076	-5.857	0.289
	[StudAmharicListening=4]	0[a]	.	.	0	.	.	.
	[StudAmharicSpeaking=1]	-4.124	2.013	4.198	1	0.040	-8.068	-0.179
	[StudAmharicSpeaking=2]	-3.945	1.754	5.059	1	0.024	-7.383	-0.507
	[StudAmharicSpeaking=3]	-3.694	1.506	6.022	1	0.014	-6.645	-0.744
	[StudAmharicSpeaking=4]	0[a]	.	.	0	.	.	.
	[Stud_percep_CP=1]	-1.910	0.897	4.531	1	0.033	-3.668	-0.151
	[Stud_percep_CP=2]	0[a]	.	.	0	.	.	.
Link function: Logit.								

As it is clearly shown in the above table, among the twelve factors that affect students' CS, six of them were found to be significant. These were class year of the students, mother tongue of the students, the type of school they came from, their parents'

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

educational status, their Amharic language speaking skill, and their perception towards CS.

The second column of the above table shows that among the six significant factors, the coefficient of the variables for students' class year, students' mother tongue, their parents' educational status, and their perception towards CS is negative. This implies that these factors affect students' CS negatively. The students' Amharic language speaking skill and the type of school they came from, however, affect the students' CS positively as the coefficient of these two factors was found positive.

We got significant and negative coefficient for students of all class years. These negative coefficients tell us that lower scores are more likely in the compared group than the reference group. This means, first year students code-switched less frequently than third year students ($p = 0.000$, $\beta = -5.714$). In other words, the odds[1] of first year students CS frequency was $exp(-5.714) = 0.003$ times the odds of third year students. Similarly, second year students code-switched less frequently than third years students. Conversely, third year students code-switched more frequent than first year and second year students.

Jemal (2012), Kibrom (2016), and Cook (2001) reported that the students' grade level is one factor that affects students' CS. However, they found the students' CS to decrease as their grade level increased which is an opposite finding with this one.

Table 10 shows that the coefficients (β) for the students' mother tongues are positive and the p value is below 0.05. This means students' mother tongue influences their CS frequency. By taking the exponent of these coefficients, we obtain an odds ratio (OR)[2] which indicates the odds of CS frequency. So, it is concluded that there was a strong

[1] Odds express the likelihood of an event occurring relative to the likelihood of an event not occurring.

[2] Odds ratio is the exponent of the logit or the coefficient (β), and it is calculated using Windows Excel. It expresses the likelihood of an event occurring for two groups. Odds Ratios from 0 to below 1 indicate the event is *less likely* to happen in the comparison than in the base group, odds ratios of 1 indicate the event is *exactly as likely* to occur in the two groups, while odds ratios of above 1 indicate the event is *more likely* to happen in the comparator than in the base group.

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

association between students' mother tongue and CS frequency. If the OR is less than one, the comparison group code-switched less frequently than the reference group. If the OR is above one, however, the comparison group code-switched more frequently than the reference group (Strand, 2012). In our case, the other mother tongue students were our reference group. For example, the odds of Amharic mother tongue students CS frequency is $exp(2.658) = 14.267$ times of the odds for other mother tongue students. Besides, the Tigrigna and Afan Oromo mother tongue students code-switched $exp(1.739) = 5.691$ and $exp(0.954) = 2.596$ times of the odds for the other mother tongue students respectively. To say it differently, other mother tongue students code-switched less frequently than the Amharic, Tigrigna, and Afan Oromo mother tongue students.

Contrary to this, Yinager & Boersma (2018) found no relationship between CS and students' mother tongue. Their participants, however, had good command of speaking and listening Amharic though it was not their mother tongue. In Yinager & Boersma (2018) study, 80% of the students were Amharic mother tongue while the remaining 20% were other languages mother tongue. This indicates that there was a huge difference between the number of participants whose mother tongue was Amharic and those whose mother tongue was other than Amharic. This difference may have led to the difference between this study and the former one.

The type of school that the students came from was another factor that affects students' CS. It was found that the odds for students who came from government schools code-switched $exp(2.783) = 16.167$ times of the odds for the students who came from the non-government schools. This shows that students who came from non-government schools code-switched less frequently than that of the other groups.

In the non-government schools, students are not allowed to use Amharic at any time. Due to this, the students who came from such schools are not expected to code-switch as they adapted such practices in their primary or secondary schools. It is because of this reason that the type of school that students came from affects students' CS.

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

The parents' educational status was found to affect students CS frequency negatively as $p = 0.024$ and $\beta = -2.540$. For example, the odds for both parents' illiterate students was $exp(-2.540) = 0.079$ times of the odds for both parents' literate students. This indicates that students who had illiterate parents code-switched less frequently than those who had literate parents. We reach at this conclusion because β is negative and OR is less than one (see table 10).

The finding of this study is in line to Nation (2003), Nazary (2008); and Blackman (2014). As they reported, literate peoples code-switch at home and in their work place. Due to this, their children may adapt such kind of speaking at their home and apply it in their school.

The students' Amharic language speaking skill was found to affect the students CS frequency negatively since β is negative and $p < 0.05$. To elaborate this, the odds for students who had a very poor Amharic language speaking skill was $exp(-4.124) = 0.016$ times of the odds for students who had a very good Amharic language speaking skill. This means, those who had a very poor Amharic language speaking skill code-switched less frequently than those who had a very good Amharic language speaking skill. Moreover, the odds for students who had poor Amharic language speaking skill was $exp(-3.945) = 0.019$ times of the odds for students who had very good Amharic language speaking skill. And the odds for students who had good Amharic language speaking skill was $exp(-3.694) = 0.025$ times of the odds for students who had very good Amharic language speaking skill. This is to mean that the students who had very good speaking skill of Amharic language code-switched more frequently than the other groups.

Similar to this finding, Cook (2001) and Sert (2005) stated that the use of CS in the EFL classes depends on whether the students share the same language or not. They added that such practices occur in Nigeria and South Africa where the students couldn't speak and listen the different working languages of the country.

4. Conclusion and Recommendations

The findings of the study showed that first year student's almost never code-switched while third year students did more. As

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

literatures on CS show, the students CS frequency had to decrease as their grade level increases. The study divulged that the EFL classroom was covered by Amharic with 8.9%, 20.6%, and 25.1% for first year, second year, and third year students respectively. This amount of CS is too much at tertiary level especially for English major students. This indicates that the learners' English language performance is declining as their grade level increased. The CS frequency of the learners of all class years was found significant where the third year students' CS was found about one-fourth of the class time. These students are going to be English language teachers after a few months, but it is really questionable how they are going to teach English. The findings also show that there was a statistically significant relationship between the students' CS behavior and demographic factors like class year of the students, mother tongue of the students, the type of school they came from, their parents' educational status, their Amharic language speaking skill, and their perception towards code-switching. So, EFL teachers and Education Quality Heads of the University have to give due attention to what is happening.

The communicative language teaching (CLT) that is in practice nowadays allows both students and teachers to use CS in FL teaching and learning cautiously since it facilitates target language learning and teaching if it is used and handled properly. It, however, warns both interlocutors to avoid an over use of it as it reduces the students' exposure to the target language because it is only the classroom that exposes the students to the FL in countries such as Ethiopia where English is taught as a foreign language. This implies that use students' L1 (CS) in FL learning and teaching limitedly and reasonably.

CS is practiced by both the students and the teachers. This study investigates only students' CS frequency. However, teachers' CS frequency as well has to be investigated as teachers have a lion's share in the teaching and learning process. Further research has to be conducted if there is a difference on the frequent use of CS between students and teachers. Besides, since English is used as medium of

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

instruction in the tertiary level educations of Ethiopia, the content subject (non-English major) students' CS frequency needs also to be investigated. Moreover, the number of students who participated in this study is small. This might have an impact on the conclusion arrived. So, another research has to be conducted with large number of participants to bolster the literature on CS. These are some of the limitations of this study which needs further research.

References

Abiy Yigzaw and Mohamed Beshir (2010). Frequency, Purpose and Application of Using Amharic in Teaching English in Bahir Dar General Elementary Schools. *Ethiopian Journal of Education and Science*, 6(2): 1-19.

Atkinson, D. (1987). The Mother Tongue in the Classroom: A Neglected Resource? *ELT Journal*, 41(4): 241-247.

Blackman, N. (2014). EFL Teachers' Perceptions on the Use of L1 in a Primary and Secondary Classroom in Belarus. British Council: Edindurgh

Cohen, L. (2000). Research Methods in Education (5th Ed.). Routledge Falmer: New York

Cook, V. (2001). Using the First Language in the Classroom. *The Canadian Modern Language Review*, 57(3): 402-423.

Cronk, B.C. (2008). How to Use SPSS: A Step by Step Guide to Analysis and Interpretation (5th Ed.). Pyrczak Publishing: London

Dornyei, Z. (2007). Research Methods in Applied Linguistics. Oxford University Press: Oxford

Getachew Anteneh and Derib Ado (2006). Language Policy in Ethiopia: History and Current Trends. *Ethiopian Journal of Education and Science*, 2(1): 37-62.

Gibson, L. (2011). Gibson Schools System Handbook. Gibson Schools Publishing: Addis Ababa.

HPR (1995). Constitution of the Federal Democratic Republic of Ethiopia: Number 1/1995. HPR: Addis Ababa.

HPR (2009). The Higher Education Proclamation: Number 64/2009. HPR: Addis Ababa.

Jemal Abdulkadir (2012). Exploring the Use of First Language in 'English Focus' in EFL Classrooms: Focus on Jimma Teachers College. MA, Jimma University, Ethiopia.

Kayaoglu, M.N. (2012). The Use of Mother Tongue in Foreign Language Teaching from Teachers' Practice and Perspective. *Journal of Education*, 32(2): 25-35.

Kibrom Mesfin (2016). Examining Relationships among Students' Grade Level, Attitude, and Use of First Language in English Classroom. *International Journal of Science and Research*, 5(10): 1614-1618.

Krashen, S. (1985). The Input Hypothesis: Issues and Implications. Longman: London

May, L.M. and Aziz, A. A. (2020). Teachers' Use of Code-switching in ESL Classrooms at a Chinese Vernacular Primary School. *International Journal of English Language and Literature Studies*, 9(1): 41-55.

MOE (1994). Federal Democratic Republic Government of Ethiopia: Education and Training Policy. St. George Printing Press: Addis Ababa.

Mokgwathi, T.S. (2011) Role of Code-switching in Teaching and Learning in Selected Senior Secondary Schools in Botswana. PhD, University of Pretoria, South Africa.

Muijs, D. (2004). Doing Quantitative Research in Education. Sage Publications: London.

ISSN(online): 27892875
Volume I, Issue I (2022)
Research Original Article

Nation, P. (2003). The Role of the First Language in Foreign Language Learning. *Asian EFL Journal*, 5(2): 1-8.

Nazary, M. (2008). The Role of L1 in L2 Acquisition: Attitudes of Iranian University Students. *Journal of Novitas-Royal*, 2(2): 138-153.

Pallant, J. (2007). SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows. Oxford University Press: Oxford.

Population Census Commission of Ethiopia (2008). Summary and Statistical Report of the 2007 Population and Housing Census: Population Size by Age and Sex. UNFPA: Addis Ababa.

Sert, O. (2005). The Functions of Code Switching in ELT Classrooms. *The Internet TESL Journal*, 11(8): 1-6.

Singh, Y. K. (2007). Research Methodology. APH Publishing Corporation: New Delhi.

Strand, S. (2012). The White British- Black Caribbean Achievement Gap: Tests, Tiers, and Teacher Expectations. *British Educational Research*, 38(1): 75-101.

Yinager Tekleselassie and Boersma, E. (2018). Attitudes Towards Code-switching in an English Medium Content Classroom. *PASAA*, 55(2): 57-77.