THE ANALYSIS OF CODE-SWITCHING AND CODE-MIXING AS COMMUNICATION STRATEGIES IN CLASSROOM DISCUSSIONS AT SMA YP UNILA

Undergraduate Thesis

By FEBBY SARAH CILCILA 2013042008



ENGLISH EDUCATION STUDY PROGRAM
DEPARTMENT OF LANGUAGE AND ARTS EDUCATION
FACULTY OF TEACHER TRAINING AND EDUCATION
UNIVERSITY OF LAMPUNG
BANDAR LAMPUNG
2024

ABSTRACT

THE ANALYSIS OF CODE-SWITCHING AND CODE-MIXING AS COMMUNICATION STRATEGIES IN CLASSROOM DISCUSSIONS AT SMA YP UNILA

By

FEBBY SARAH CILCILA

This qualitative study explored the use of code-switching and code-mixing as communication strategies in classroom discussions at SMA YP UNILA. It investigated the types of code-switching and code-mixing employed by teachers and students, along with their motivations. Data were collected through classroom observations in XII IPS I and interviews with a teacher and 20 students. Analysis followed Miles and Huberman's framework, emphasizing data triangulation. Findings revealed frequent use of codeswitching and code-mixing (76 instances), with code-mixing (52%) slightly more prevalent than code-switching (48%). Types of code-switching included inter-sentential (16%), intra-sentential (25%), and extra-sentential (7%), while code-mixing included insertion (31%), alternation (17%), and congruent lexicalization (4%). Students cited reasons such as lexical limitations, communicative needs, emotional and expressive purpose, and social community background. Teachers used these strategies to clarify misunderstandings, check comprehension, encourage participation, and foster teacherstudent relationships, driven by cognitive and affective factors. Implications for language teaching include the importance of creating inclusive environments that cater to students' diverse linguistic and emotional needs.

Keywords: code switching, code mixing, communication strategy, classroom discussion, senior high school students.

THE ANALYSIS OF CODE-SWITCHING AND CODE-MIXING AS COMMUNICATION STRATEGIES IN CLASSROOM DISCUSSIONS AT SMA YP UNILA

By FEBBY SARAH CILCILA

Undergraduate Thesis

Submitted in a Partial Fulfillment of The Requirement for S-1 Degree

In

The Language and Arts Department of Faculty Teacher Training and Education



FACULTY OF TEACHER TRAINING AND EDUCATION
UNIVERSITY OF LAMPUNG
BANDAR LAMPUNG
2024

Research Title

: The Analysis of Code-Switching and Code Mixing as Communication Strategies in Classroom Discussions at SMA YP UNILA

Students' Name

: Febby Sarah Cilcila

Students' Number

: 2013042008

Study Program

: English Education

Department

: Language and Art Education

Faculty

: Teacher Training and Education

APPROVED BY

Advisory Committee

Advisor

Co-Advisor

Dr. Feni Munifatullah, M.Hum.

NIP 197406072000032001

Fajar Riyantika, S.Pd., M.A.

NIP 199307232019031017

The Chairperson of
The Department of Language and Art Education

Dr. Sumarti, M.Hum.NIP 197003181994032002

ADMITTED BY

1. Examination Committee

Chairperson : Dr. Feni Munifatullah, M.Hum.

Examiner : Prof. Dr. Ag. Bambang Setiyadi, M.A., Ph.D.

Secretary: Fajar Riyantika, S.Pd., M.A.

The Dean of Teacher Training and Education Faculty

Prof. Br. Sunyono, M.Si. NIP 196512301991111001

Graduated on: June 13th, 2024

LEMBAR PERNYATAAN

Yang bertanda tangan dibawah ini, saya:

Nama

: Febby Sarah Cilcila

NPM

: 2013042008

Program Studi

: Pendidikan Bahasa Inggris: Pendidikan Bahasa dan Seni

Jurusan Fakultas

: Keguruan dan Ilmu Pendidikan

Judul Skripsi

: The Analysis of Code-Switching and Code-Mixing as

Communication Strategies in Classroom Discussions

at SMA YP UNILA

Menyatakan bahwa skripsi ini adalah karya saya sendiri. Sepanjang pengetahuan saya, karya ini tidak berisi materi yang ditulis orang lain, kecuali bagian-bagian tertentu yang saya ambil sebagai acuan. Apabila ternyata terbukti bahwa pernyataan ini tidak benar, sepenuhnya menjadi tanggung jawab saya.

Bandarlampung, 01 Juni 2024 Yang membuat pernyataan,

Febby Sarah Cilcila NPM 2013042008

CURRICULUM VITAE

Febby Sarah Cilcila was born in Bandarlampung on November 16th, 2002. She is the second daughter of the captivating couple, Endra and Rutiyani. She has a younger brother named Fareel. Her oldest sister passed away at the age of two, so she now considers herself the first child.

Febby began her education at TK Al-Irsyad Bandarlampung in 2007 and continued at SDN 5 Bumi Waras in 2008. She started taking English courses in the fifth grade and also joined a karate class, participating in various competitions from regional to national levels. After completing her primary education, she was accepted into SMPN 25 Bandarlampung. In 2017, she entered SMAN 1 Bandarlampung and graduated in 2020.

In 2020, she was accepted into the English Education Study Program of the Faculty of Teacher Training and Education at the University of Lampung. Despite having to say goodbye to her dream of pursuing International Relations, she has never regretted her decision. During her studies, she joined SEEDS (Society of English Education Department Students), where her activeness and passion led her to become the Head of the Public Relations division.

Throughout her college years, she engaged in various volunteer activities, internships, and full-time jobs. Balancing these commitments was challenging, but they significantly contributed to her personal and professional growth. In her fifth semester, she participated in the MBKM program and had the opportunity to teach at SDN 2 Pinang Jaya. In June 2023, she completed her KKN in Kalirejo, Lampung Tengah, and later taught English at SMA Life Skills Kesuma Bangsa as part of her pre-service teacher program. To complete her studies, she conducted research at SMA YP UNILA in Bandarlampung.

MOTTO

Hatiku tenang karena mengetahui bahwa apa yang melewatkanku tidak akan pernah menjadi takdirku, dan apa yang ditakdirkan untukku tidak akan pernah melewatkanku.

- Umar bin Khattab -

DEDICATION

In the name of Allah Subhanahu WaTa'ala, by whose grace this work has come to fruition, she wholeheartedly dedicate it to her beloved parents, her brother, her family, her relatives, the esteemed lecturers of the English Department, her alma mater—University of Lampung, all great teachers who show her the beauty of teaching, and to herself.

ACKNOWLEDGEMENT

Alhamdu Lillahi Rabbil "alamin, Praise is only for Allah, the Almighty God, for blessing the author to accomplish this script entitled "The Analysis of Code-Switching and Code-Mixing as Commuication Strategies in Classrom Discussions at SMA YP UNILA". This work is presented to the Language and Arts Education Department of Teacher Training and Education Faculty of Lampung University as a partial fulfillment of the requirements for S-1 degree.

In the course of completing this work, the author has been fortunate to receive generous support and guidance from many individuals. Therefore, the author would like to express her sincere gratitude and respect to:

- 1. her beloved parents, Endra and Rutiyani, for their unwavering love, support, and encouragement throughout this journey. Your sacrifices and belief in me have been my greatest motivation
- 2. Dr. Feni Munifatullah, M.Hum., as her first advisor and also the Head of English Education Department, who have given knowledge, suggestions and valuable guidance during the process of accomplishing this work.
- 3. Fajar Riyantika, S.Pd., M.A., as her second advisor, for his understanding, advice, motivation, and inspiration. Your feedback has been instrumental in shaping this work.
- 4. Prof. Dr. Ag. Bambang Setiyadi, M.A., Ph.D., as her examiner, who has given constructive suggestions and encouragement for the improvement of this work.
- 5. her academic advisor, Prof. Dr. Flora, M. Pd., for the support and help. Your dedication in teaching has always been my motivation.
- 6. the English Education Department lecturers for their teachings and knowledge sharing. Your dedications to education has been truly inspiring.

- 7. Irma Yani Kusumastuti, S.Pd., for her invaluable assistance, guidance, and support during her research at SM YP UNILA
- 8. Fareel Ridho Agustian, her one and only brother, for the understanding, uncountable fights, and giving her hope for finishing her S-1 degree.
- 9. her dearest uncle, Heri, for always helping and supporting her in her lowest point.
- 10. Melinda Ade, Anjelita, Alifia Setiyani, Alifya Fayza, Annisa Chandra and Rima Aisyah, for the uncountable love, immeasurable laugh, incredible moments, and bunch of supports from the very first day.
- 11. her "best-teas" buddies, Wawah, Cipa, Pipi, Saski, Njal and Ica who always celebrate her college moments.
- 12. her karate mate, Dika, for always giving her a helping hand in finishing this work.
- 13. English Education Study Program 2020, especially Class B, who has made the challenges in academia easier to bear.
- 14. Society of English Education Department Students (SEEDS) UNILA, for the valuable and amazing experiences.
- 15. everyone behind the scenes, who gave spirit and contribution in helping her to accomplish this work.

Finally, the author realizes that her writing is still far from perfection. This research may have certain shortages. Therefore, the author would like to expect any suggestion for the improvement of this research. The author hopes this research would give a positive contribution to the educational development, to the readers, and to those who want to conduct further research.

Bandarlampung, 01 June 2024

The Author,

CONTENTS

Pages
CONTENTSxii
TABLESxiv
APPENDICESxv
I. INTRODUCTION1
1.1 Background of the Research
1.2 Formulations of the Problem2
1.3 Objectives of the Research
1.4 Uses of the Research
1.5 Scopes of the Research
1.6 Definitions of Terms4
II. LITERATURE REVIEW6
2.1 Communication Strategies6
2.2 Code-Switching and Code-Mixing
2.3 Types of Code-Switching and Code-Mixing9
2.4 Contributing Factors in Code-Switching and Code-Mixing11
2.5 Relationship with the Cognitive, Affective and Psychomotor Aspects14
2.6 Theoritical Assumptions
2.7 Previous Studies
III. METHODOLOGY18
3.1 Research Design
3.2 Population and Sample

3.3 Instrument of the Research	19
3.4 Data Collecting Technique	19
3.5 Data Analysis	20
IV. RESULT AND DISCUSSION	22
4.1 Result	22
4.1.1 Code-Switching and Code-Mixing in the Clasroom Discussions	22
4.1.2 Students and Teacher's Reason of Using Code-Switching and Code	e-
Mixing	27
4.2 Discussion	30
4.2.1 Types of Students and Teacher's Code-Switching and Code-Mixin	g30
4.2.2 Reason of Using Code-Switching and Code-Mixing as Communica	ation
Strategis in Classroom Dicussions	31
V. CONCLUSION AND SUGGESTION	34
5.1 Conclusion	34
5.2 Suggestion	35
REFERENCES	37
APPENDICES	42

TABLES

Pa	ges
Table 4.1 Recapitulation Table	27

APPENDICES

	Pages
Appendix 1. Observation and Interview Guidelines	43
Appendix 2. Field Notes	44
Appendix 3. Data Reduction of Clasroom Discussions	47
Appendix 4. Transcript of Interview	53
Appendix 5. Types of Code-Switching and Code-Mixing	57
Appendix 6. Content Analysis	60
Appendix 7. Research Approval	65
Appendix 8. Research Letter	66

I. INTRODUCTION

This chapter provides a brief description of whole contents of the research including background of the research, formulation of the problem, objective of the research, use of the research, scope of the research and definition of term.

1.1 Background of the Research

Indonesia is considered as a bilingual and multilingual society, meaning that its people speak a variety of different languages. Bilingual or multilingual people are those who are fluent in two or more languages. This occurs when a person is in a place where their mother tongue is not the only one spoken and understood by the majority of the population. The schooling that forces students to communicate in a language other than their mother tongue can also cause someone to become bilingual or multilingual. This phenomenon, also known as code mixing and code switching, is brought on by bilingualism and multilingualism.

A code is divided into code-mixing and code-switching (Stockwell, 2002). Code-switching is a linguistic phenomenon commonly occurring in bi- and multilingual speech communities (Mahootian, 2006). Code switching refers to the act of switching back and forth between two or more languages or dialects during a single conversation, whereas code mixing is the combination of elements from various languages into a single speech. Nababan (1993) said that code-mixing is found mainly in informal interaction. These linguistic phenomena are not only seen in bilingual people but are also frequently seen in multilingual settings where students have variable levels of skill in several languages or dialects. Students can efficiently negotiate complex linguistic environments by using code-switching and code-mixing, which are effective interpersonal strategies.

The majority of language users in conversational classroom contact are bilingual in that they frequently acquire and utilize the local group's language in addition to the sign language used in their community. According to the Benjamin (2009), when multilingual people engage with one another, they frequently mix and shift their languages, i.e., utilize words or phrases from each language. Because sociolinguistic influences like the interlocker, the situational environment, and language preference are involved, mixing and adjustment may be a conscious or unconscious method.

Giving students precise examples and information are some of the reasons the instructor may mix and match words or phrases. To communicate and exchange information, they may do it in their mother tongue or native speech. These days, a lot of teachers study multiple languages, including their mother tongue and second language. But in our daily lives, we converse for a variety of reasons—some of which are personal, while others are related to knowledge exchange or the pursuit of useful outcomes. In terms of clas sroom engagement, the teacher will mix and switch his concepts while speaking for a variety of reasons, such as to ensure that the students fully comprehend and to minimize the differences between them.

The purpose of this study was to comprehensively investigate the use of codeswitching and code-mixing as communication strategies in classroom discussions, especially at the senior high school level which was SMA YP UNILA. The researcher examined these communication strategies in order to comprehend the types of code-switching and code-mixing used by the teacher and students and the purpose of their use. The researcher also investigated the reasons behind the use of code-switching and code-mixing by teacher and students in classroom discussions.

1.2 Formulations of the Problem

Dealing with the issues presented in the background, this study was intended to answer the following research questions:

1. What type of code-switching and code-mixing did the teacher and students use

as communication strategies?

2. Why did the teacher and students use code-switching and code-mixing as communication strategies?

1.3 Objectives of the Research

The objectives of this research were to find out the types of code-switching and code-mixing used as communication strategies in classroom discussion as well as the reasons behind the use of these strategies by the teacher and students.

1.4 Uses of the Research

The findings of the study were expected to be beneficial both theoretically and practically:

- 1. Theoretically, it can reinforce and support previous study findings, and it can serve as a guide for those conducting relevant studies in the future.
- 2. Practically, it can be advantageous for the English teachers to create their own communication strategies for fostering effective communication and enriching students' learning experiences in diverse classrooms.

After understanding the entirety of the explanation in this paper, readers may find further uses.

1.5 Scopes of the Research

This research was conducted through qualitative method. This research focused on the analysis of code-switching and code-mixing as communication strategies in classroom discussions specifically within SMA YP UNILA. The research attempted to provide a detailed understanding of the their use as communication strategies in the context of this particular school environment by focusing on this particular educational institution. Furthermore, the subjects of the study were the teacher and students. The researcher did classroom observation and interview that allowed for an in-depth exploration of the motivations, functions, and perceptions of code-switching and code-mixing among students and teachers.

1.6 Definitions of Terms

In this research, there are some terms that mostly appear in the explanation of each chapter. Those terms are dealing with the core of this research, such as:

1. Code

According to Wardhaugh (2006), as referenced in Lubis (2018), a code can be defined as a system used for communication between two or more individuals utilized on any occasion. A code is a rule for converting a piece of information into another form or representation.

2. Code-Switching

Code-switching is a linguistic phenomenon commonly occurring in bi- and multilingual speech communities (Mahootian, 2006). e, code-switching is a phenomenon when there are two or more languages exist in a community and it makes speakers frequently switch from one language to another language (Hornberger & McKay, 2010).

3. Code-Mixing

Code Mixing is the situation where the speakers mix the language or kind of language in a speech act without a situation or condition that need a mixing of language (Nababan, 1994). Code mixing talks about the situation where one language mixes with another language. The mixing of language can be in word, phase, clause and sentences form.

4. Bilingual

Bilingual is an adjective that describes a person or community that speaks two languages.

5. Multilingual

Multilingual is an adjective that describes a person or community that speaks more than two languages.

6. Communication Strategyy

A communication strategy is a plan that outlines how an organization or individual will communicate with its target audience. It includes a set of goals and objectives, key messages, communication channels, tactics, and metrics to measure the success of the communication efforts.

7. Cognitive

Cognitive refers to the mental processes involved in acquiring knowledge and understanding through thought, experience, and the senses. It encompasses aspects such as perception, attention, memory, language, and problem-solving.

8. Affective

Affective relates to emotions, attitudes, and feelings. It includes aspects such as motivation, confidence, anxiety, and empathy.

9. Psychomotor

Psychomotor Involves physical movement and coordination. It includes aspects such as fine and gross motor skills, coordination, and physical dexterity.

The discussion of terms has ended the first chapter in which it elaborates background of the research, formulation of the problem, objective of the research, use of the research, scope of the research, and definitions of terms. For the strong theories and some previous research which support this research are discussed in the next chapter.

II. LITERATURE REVIEW

Associated with many things in the previous chapter, this chapter is ahead of some theories which are discussed in a framework. It consists of sociolinguistics, bilingualism and multilingualism, communication strategy, code-switching, codemixing, types of code-switching and code-mixing and their contributing factors, theoretical assumption as well as previous studies.

2.1 Communication Strategies

Communication strategies play a crucial role in the development of oral communication skills, particularly for English as a Second Language (ESL) learners. Abdullah et al. (2005) investigated the impact of communication strategy instruction on EFL students' oral communicative abilities and the application of communication strategies. The study discovered that participants in the strategy training group considerably exceeded the control group in their post-test speaking scores, and transcription data from the speaking test revealed that the participants in the strategy training group applied more communication strategies

The relationship between communication strategies code-switching and codemixing lie in the fact that they can sometimes be used as a communication strategy by language learners. Language learners may engage in code mixing as a strategy to fill lexical gaps or to express themselves more effectively. They might use a word or phrase from their native language when they cannot recall the equivalent in their second language, resulting in a mixed sentence. This allows them to continue the conversation smoothly while conveying the intended meaning effectively and becomes a communication strategy to compensate for the limitations in the second language. Abdullah et al. (2005) evaluated the variations in communication strategies used by high and low proficiency English speakers among international students attending a Malaysian public institution. The study discovered that different levels of oral competence affected the usage of communication strategies, with high proficient speakers using more intralingual strategies and low proficient speakers using more interlingual strategies.

In conclusion, communication strategies, code-switching, and code-mixing are interrelated in second language acquisition, as they all involve techniques that learners use to cope with language limitations and maintain effective communication. Communication strategies encompass a broader range of techniques, while code switching and code mixing are specific instances that can be utilized as communication strategies by language learners when faced with challenges in their second language use.

2.2 Code-Switching and Code-Mixing

Code-switching is the act of switching back and forth within a discourse between two or more languages or language variants. It is a sophisticated language phenomenon that has undergone a great deal of linguistic research. The literature on code-switching examines its purposes, limitations, and implications in diverse linguistic contexts from a variety of angles, including sociolinguistic and psycholinguistic methods.

Code-switching serves as a means of displaying identification, group membership, and solidarity, which are all social reasons that sociolinguistic research emphasizes (Gumperz, 1982). In order to shed light on its function in creating social meaning, this perspective investigates code flipping in multilingual communities, diaspora populations, and bilingual educational contexts (Li Wei, 2000; Heller, 1988).

Research in linguistics examines the limitations and trends seen in codeswitching. Switching points are constrained by the Free Morpheme Constraint and the Equivalence Constraint, which limit switches within words or phrases (Poplack, 1980). Based on relative grammatical constraints, the Markedness Model describes code switching patterns (Myers-Scotton, 1993).

Code-switching affects identity development and education. It contributes to the learning process and the promotion of bilingualism in bilingual classrooms (Garca, 2009; Creese & Blackledge, 2010). Additionally, code-switching plays a role in the creation and negotiation of both individual and community identities, especially in minority language situations and diaspora populations (Rampton, 1995; Bucholtz, 1999).

In conclusion, code-switching is a complex phenomenon that occurs when different languages or language varieties are used in a same discourse. We now know more about the causes, patterns, and effects of code flipping thanks to research that takes a sociolinguistic, psycholinguistic, and linguistic viewpoint.

Code-mixing is the occurrence where speakers combine words or phrases from two or more different languages in a single statement or sentence. Language communities that are bilingual or multilingual frequently use this technique. Based on previous research, this succinct review gives a general understanding of code mixing, including its types, functions, and ramifications.

Code-mixing serves a variety of context-dependent purposes. Code-mixing can be used for practical purposes including highlighting a topic, conveying identification, or showing solidarity (Gumperz, 1982; Auer, 1998). It can either be the result of limited language ability or a deliberate communication technique to accommodate different languages and preserve social harmony (Li Wei, 2000; Poplack, 1980).

Code-mixing has effects on many areas, including identity construction, education, and language learning. Code-mixing can impact bilingual children's linguistic ability and language development (De Houwer, 2009). Code-mixing can

alter language learning results and pedagogical techniques in educational contexts, serving as both a problem and a resource (Martin-Jones, 2000; Creese & Blackledge, 2010). Code-mixing also contributes to identity negotiation and reflects the cultural and linguistic hybridity that people in multilingual environments experience (Rampton, 1995; Bucholtz, 1999).

In conclusion, the combining of elements from several languages within a single utterance or sentence is a linguistic phenomenon known as code mixing. It performs a variety of tasks and has ramifications for identity development, education, and language learning. Understanding code-mixing advances knowledge of bilingual and multilingual language use as well as the fluidity of language engagement.

2.3 Types of Code-Switching and Code-Mixing

Code-switching and code-mixing are linguistic phenomena where different languages or language types are alternated or mixed together during a single speech or conversational involvement. Although the two concepts can be used interchangeably, code-switching often refers to the deliberate and conscious employment of various languages or linguistic variations for certain objectives, whereas code mixing frequently happens more unintentionally and unknowingly.

According to Poplack (2000), there are three different types of code switching: intrasentential, extrasentential, and intersentential.

1. Inter-sentential

Code-switching that occurs at the boundary of a clause or a sentence is referred to as intersentential switching. In this instance, the speaker uses one language exclusively for the first clause or sentence before switching to a different language for the second clause or sentence. Indirectly, this shift extends beyond the insertion of a single or two words to include the context and tone of the dialogue. Furthermore, this transitioning should occur between at least two clauses, which can alternatively mean two sentences. For example:

"Last week aku shopping dengan brotherku. That's why aku tidak mengangkat call kamu"

("Last week, I went shopping with my brother. That's why I didn't pick up your call.")

2. Intra-sentential

Code-switching within a clause or phrase is referred to as intra-sentential. In this situation, the speaker may alter lexical items, morphemes, or even sentence parts. Code-switching that takes place within a clause or sentence border is referred to as intra-sentential code switching. For example:

"I was see *ando* James with Riana the other day".

In this case the speaker uses the Spanish progressing morpheme 'ando' rather than the English 'ing. The grammatical boundaries for this are similar in English and Spanish and so the code switching 'works'.

3. Extra-sentential

Sort of switching is often referred to as tag switching or symbolic switching. The switch is only an interjection, a tag, or sentence filler that signifies an ethnic identity in the other language. Sentence tags that come before or after a sentence are used for tag swapping. This includes adding a tag in one language to an otherwise fully in another language utterance. Example of common tags in English include 'right'.

```
"Saya teman yang baik, right?"

("I'm a good friend, right")
```

Muysken (2000) divides the three kinds of code mixing such as insertion, alternation and congruent lexicalization.

1. Insertion

In this section, the blending of two or more languages into a language's structure typically consists of words and phrases. For example:

"Jangan langsung nge-judge dia dong, kita bahkan belum kenal dia" ("Don't judge him right away, we don't even know him yet")

The word "judge" in this sentence is the English word inserted into the Indonesian utterance.

2. Alternation

Alternation is the usage of a single language between clauses from different languages. For example in Swahili - English by Poplack in Deuchar (2005, p. 610):

"Why make Carol sentarseatrás pa' que everybody has to move pa' que sesalga?"

(Why make Carol sit in the back so that everybody has to move for her to get out?)

The clauses "sentarseatrás pa' que and pa' que se salgaare" in Swahili is alternated into the English utterance.

3. Congruent lexicalization

Congruent lexicalization is the use of different lexical inventories to combine different codes into a single shared grammatical structure. The example of this type is taken from Bogaerde& Baker (2006) in Dutch.

"Gee mi een hug"

("Give me a hug")

2.4 Contributing Factors in Code-Switching and Code-Mixing

There may be motivation and reasons for code-switching and code-mixing when bilinguals transition between or combine two languages. Some justifications for code-switching are offered by Grosjean (1982). For instance, when they are unable to locate the right phrases or expressions or when there is no suitable translation for the language being used, some bilinguals will mix up two languages. Additionally, code-mixing is produced by their interlocutors, surroundings, messages, attitudes, and emotions.

According to Grosjean (1982), code-switching can be used for a variety of other purposes, such as quoting someone else (and thereby emphasizing one's group

identity), identifying the addressee (switching to a member of the group's normal language will indicate that one is addressing that member), qualifying what has been said, or bringing up previous events.

1. Lexical Limitation

A limited vocabulary is frequently cited as contributing factor to the use of codeswitching and code-mixing in communication. According to Grosjean (1982), bilinguals may use code-switching when they do not have the correct vocabulary in one language to express a specific concept or idea. This viewpoint is supported by Myers-Scotton's (1993) Markedness Model, which states that code-switching occurs when one language lacks a specific lexical item or when the item is more readily available in another language.

Furthermore, Auer (1998) observes that code-switching can be used as a lexical gap-filling approach, allowing speakers to convey complicated thoughts by drawing on the vocabulary of both languages. Therefore, a limited vocabulary in one language can motivate bilingual speakers to resort to code-switching and code-mixing as effective communication strategies.

2. Communicative Need

Communicative need is a significant factor for the use of code-switching and code-mixing in bilingual and multilingual communication. According to Gumperz (1982), speakers frequently code-switch in order to fulfill speakers' communicative need, such as when addressing people who are more fluent in one language than another. This perspective was further supported by Auer (1998), who proposed that speakers switch languages to ensure that their message is understood, particularly when a specific term or concept is more readily available in one language than another.

Furthermore, Poplack (1980) argued that code-switching might serve pragmatic purposes, such as signaling solidarity or retaining group identification. As a result, communicative need plays an important role in encouraging bilingual speakers to

use code-switching and code-mixing as adaptive communication strategies.

3. Social Community Background

Social Community Background has a significant impact on the patterns and reasons for code-switching and code-mixing. Auer (1998) argued that social identities and affiliations have an impact on individual language choices, with speakers frequently code-switching to identify with particular social group or to declare their participation in particular communities.

The work of Heller (1988), who claims that code-switching might serve as a marker of social identity, indicating people's associations with various language communities, lends credence to this viewpoint. Consequently, one of the main factors influencing code-switching and code-mixing is social community background, reflecting individuals' sociel identities and affiliations.

4. Prestige and Power

In multilingual settings, the use of code-switching and code-mixing is significantly influenced by prestige and power relations. The Markedness Model by Myers-Scotton (1993) stated that speakers may switch languages to demonstrate their prestige and power, particularly in situations where one language is connected to a higher social standing.

Heller (1992), who believed individuals can use language choice as a type of symbolic capital and that individuals use language strategically to place themselves within social hierarchies, supports this point of view. Consequently, people's attempts to negotiate social hierarchies and express their identities are reflected in their usage of code-switching and code-mixing in communication, which is significantly influenced by prestige and power considerations.

5. Emotional and Expressive Purpose

The primary factors influencing the usage of code-switching and code-mixing in communication are emotional and expressive purposes. Gumperz (1982) stated that code-switching can have emotive purposes, enabling speakers to more successfully express feelings like anger, excitement, or solidarity. Heller (1988),

who contended that code-switching can be an expressive behavior that reflects speakers' emotional states and attitudes, lends support to this theory. Furthermore, code-switching can be employed as a stylistic element to increase the expressiveness and emotional effect of speech, according to Romaine (1995). As a result, people are motivated to utilize code-switching and code-mixing as communicative methods for emotional and expressive purposes, which helps them express their attitudes and feelings more clearly in multilingual interactions.

2.5 Relationship with the Cognitive, Affective and Psychomotor Aspects

Language use in educational settings involves more than just linguistic competence; it also encompasses cognitive, affective, and psychomotor dimensions. Code-switching and code-mixing, the alternation between two or more languages, are common phenomena in multilingual contexts. This review explores the relationship between these language practices and cognitive, affective, and psychomotor aspects in educational settings.

1. Cognitive Aspect

Cognitive processes play a crucial role in language use, including code-switching and code-mixing. According to Fabbro (1999), code-switching can be seen as a cognitive process that reflects the speaker's ability to control and manage two linguistic codes. Recent studies have shown that code-switching can enhance cognitive functions such as attention, inhibition, and cognitive flexibility (Rodriguez-Fornells et al., 2012). Additionally, cognitive load theory suggests that code-switching can help reduce cognitive overload by allowing speakers to convey complex ideas more efficiently (Swain, 2005).

2. Affective Aspect

Affective factors, such as emotions and attitudes, also influence language use and code-switching behavior. Studies have shown that code-switching can be used as a strategy to express emotions, establish solidarity, or convey intimacy (Gafaranga, 2000). In educational contexts, students may code-switch to express frustration, seek clarification, or create a sense of belonging (Kramsch, 2011). These affective functions of code-switching can enhance communication and foster a positive learning environment.

3. Psychomotor Aspect

Psychomotor aspects refer to the physical and motor skills involved in language production. Code-switching and code-mixing require speakers to coordinate different linguistic systems, which can enhance psychomotor skills such as speech planning and articulation (Grosjean, 2010). Moreover, code-switching can facilitate language production by providing speakers with access to a broader range of vocabulary and expressions (Myers-Scotton, 1993).

The relationship between code-switching and cognitive, affective, and psychomotor aspects is complex and multifaceted. It highlighted the role of code-switching in enhancing cognitive functions such as attention, memory, and problem-solving (Martin et al., 2016). Additionally, code-switching can serve as a form of emotional regulation, allowing speakers to express their feelings and manage interpersonal relationships (Pavlenko, 2005). From a psychomotor perspective, code-switching can enhance speech planning and fluency, leading to more effective communication (Boumans and Trudgill, 2014).

In conclusion, code-switching and code-mixing are complex linguistic phenomena that are influenced by cognitive, affective, and psychomotor aspects. Understanding the relationship between these language practices and these aspects can provide valuable insights into their role in education and language learning

2.6 Theoritical Assumptions

Several theoretical presumptions served as the foundation for the analysis of codeswitching and code-mixing as communication strategies in classroom discussions at SMA YP UNILA. To begin with, it was presumable that code-switching and code-mixing are useful communication strategies for students in multilingual settings.

Second, sociolinguistic factors were thought to have an impact on code-switching and code-mixing in classroom discussions at SMA YP UNILA. These elements might include the social interactions in the classroom, the language skills, and the

cultural backgrounds of the students. Code-switching and code-mixing were taken to be indicators of students' sociolinguistic proficiency and their capacity to switch between languages or language variations to accomplish efficient communication.

It was believed that students' language attitudes and identities could be related to code-switching and code-mixing in this setting. These communication strategies could be used by students to declare their linguistic preferences, their identities, or their membership in particular social groupings. Additionally, it was presumable that language rules and conventions within the larger sociocultural framework of Bandar Lampung could have an impact on code-switching and code-mixing.

The investigation of the use of code-switching and code-mixing as communication strategies in the particular setting of classroom discussions at SMA YP UNILA was based on these theoretical assumptions. It was crucial to understand that in order to reach significant findings, these hypotheses must first undergo thorough data gathering and analysis.

2.7 Previous Studies

There are several studies concerned with an analysis of code-switching and codemixing as communication strategies. Here are a few of previous studies related to code-switching and code-mixing, which as follow:

Previous study was undertaken by Meristika Moetia, Usman Kasim, Siti Sarah Fitriani (2018). This case study was carried out to specifically find out the frequent type of code-mixing and code-switching and to observe the benefit and drawback of using them in the English foreign language classroom interaction. The result revealed that the English teacher and students used two types of codemixing and three types of code-switching in their classroom interaction. From the result of interview with the teacher it was found that the teacher did these kinds of codes to cover up the lack of target language proficiency of students and to make the process of transferring knowledge run smoothly and effectively in the class.

A similar research about code-switching and code-mixing in EFL classroom made by Annisa Astrid (2015). The study was conducted in order to find out phenomena of code switching and code mixing happened in EFL classroom. The Results of the research study showed that the lecturers and the students employed code-switching and code-mixing in the interactions which happened along teaching and learning activities with various patterns and considerations.

A research by Rafqi Awlia Siddiq, Martin Kustati, Luli Sari Yustina (2020) aims to investigate code mixing and code switching used by English teachers in EFL classrooms. The study also found that there were four kinds of code-switching found in teachers' and students' utterances. They were random mixing, English-Indonesian translation or vice versa, English precedes Indonesian or vice versa, and English sentences precede Indonesian sentences or vice versa.

Based on the theories and the previous studies above, it was believed that many language learners use code-switching and code-mixing as communication strategies. The errors influenced by some factors and needs to be analyzed. Those are the explanations of this chapter have been discussed. For the way of conducting the research is conferred in the next chapter.

III. METHODOLOGY

This chapter discusses about research design, population and sample, instrument of the research, data collecting technique, and data analysis of code-switching and code-mixing as communication strategies in classroom discussions.

3.1 Research Design

A qualitative research methodology was used for this study. The aim of this research was to analyze the types of code-switching and code-mixing used as communication strategies in classroom discussions and the reason behind their uses. The study was carried out in SMA YP UNILA. This study was conducted by using descriptive approach to provide qualitative data regarding the use of code-switching and code-mixing in classroom discussions.

The researcher used data triangulaton to collect the data. The research design involved classroom observations to directly observe instances of code-switching and code-mixing, providing rich data for analysis. Additionally, structured interviews were conducted with the English teacher and 20 students who were interested in English to gain deeper insights into their perspectives and experiences with these communication strategies. The data collected from observations and interviews was analyzed using Miles and Huberman's framework for qualitative data analysis (1994) to identify patterns and themes related to the types and reasons for code-switching and code-mixing.

3.2 Population and Sample

The population of this study was the students of senior high school in XII IPS I SMA YP UNILA. This social science class attracted diverse students with varied language backgrounds and offer insights into how language use reflects social

realities. This could help educators create more inclusive learning environments. In determining the sample, the researcher used purposive sampling. The researcher selected 20 students to do interviews based on their interest in English. They were likely to be more aware of their language use and might engage in code-switching and code-mixing more frequently or deliberately, providing valuable insights into the different types and reasons for these language behaviors. Their perspectives and experiences offered a rich source of data that aligned closely with the research objectives.

3.3 Instrument of the Research

The research instruments for this study included classroom observations and structured interviews. The observations focused on capturing instances of codeswitching and code-mixing in the classroom discussions of XII IPS I class at SMA YP UNILA. The observation results then be converted into field notes and observation transcripts, providing direct evidence of the communication strategies used by the teacher and students.

The interviews were conducted with the English teacher and 20 students who had a strong interest in English, aiming to gather their perspectives on and experiences with code-switching and code-mixing. For the students, the researcher conducted group interview in order to get efficiency, diverse perspectives and richer data. Both instruments aligned with the research questions: "What type of code-Switching and code-Mixing did the teacher and students use as communication strategies?" and "Why did the teacher and students use code-switching and code-mixing as communication strategies?".

3.4 Data Collecting Technique

The data collection for this study involved two main techniques: classroom observations and structured interviews. Classroom observations were conducted to directly observe instances of code-switching and code-mixing during classroom discussions at SMA YP UNILA. These observations provided firsthand data on the types and frequency of code-switching and code-mixing used by the teacher

and students, ensuring an accurate representation of their natural linguistic behaviors.

Structured interviews were conducted with the English teacher and 20 students who had a keen interest in English. These interviews aimed to uncover the reasons behind the use of code-switching and code-mixing as communication strategies. To enhance efficiency and capture a range of perspectives, group interviews were employed for the students. This method facilitated the gathering of data from multiple participants simultaneously, promoting a more comprehensive understanding of the research topic through diverse viewpoints.

Interviews were conducted in Bahasa Indonesia, the participants' native language, to build trust and rapport, thereby eliciting more authentic and nuanced responses. This approach also ensured that the subtleties of their answers were accurately captured, enhancing data quality.

The combination of classroom observations and structured interviews, conducted in the participants' native language, provided a robust and comprehensive understanding of the use of code-switching and code-mixing as communication strategies in classroom discussions. This methodological triangulation ensured the validity and reliability of the data, offering a well-rounded perspective on the research topic.

3.5 Data Analysis

The analysis was guided by Miles and Huberman's framework for qualitative data analysis (1994), which comprised of: (1) Data Collection; (2) Data Display; (3) Data Condensation; and (4) Concluding the Data. It provided a systematic approach to organizing, summarizing, and interpreting qualitative data. Data triangulation was integrated into Miles and Huberman's framework by using data from multiple sources to corroborate findings and enhance the validity of the analysis.

The researcher conducted classroom observations to find out the type of codeswitching and code-mixing used as communication strategies in clasroom discussions. The researcher noted the teacher and students' speech during observation and listened to the certain utterances after the recording was finished in order to translate the spoken data into written or transcribed form. Additionally, the researcher did structured interviews for the teacher and students in order to investigate the reason behind the use of code-switching and code-mixing as communication strategies in classroom discussions.

Content Analysis was used to analyze the data collected through classroom observations and structured interviews. This approach involved classifying and interpreting the data in a systematic way in order to identify patterns, themes, and relationships related to different types and reasons behind the use of codeswitching and code-mixing in classroom conversations. Based on frequent patterns or concepts, the data was transcribed and coded. After that, these codes were classified into broader categories in order to find recurring themes. In order to ensure an extensive and detailed comprehension of the data, the analysis was carried out manually. The findings will be presented in a descriptive manner, highlighting the key themes and patterns that emerge from the data.

Those are the explanations provided in this chapter regarding the research design, population and sample, instrument used in the study, method used to collect the data, and data analysis of the use of code-switching and code-mixing in classroom discussions.

V. CONCLUSION AND SUGGESTION

This chapter specifically provides the conclusions of the research results and the suggestions for further researchers who want to conduct some related studies.

5.1 Conclusion

In line with the research findings and discussion provided in the previous chapter, it can be concluded:

- 1. The teacher and students of XII IPS I at SMA YP UNILA prefer to use of code-mixing (52%) over code-switching (48%) underscores its multifaceted impact on cognitive processing, emotional expression, and communication dynamics. Cognitively, intra-sentential switching (25%) and insertion (31%) exemplify the students' cognitive agility in integrating languages to convey complex ideas and enhance comprehension. Affectively, alternation (17%) and congruent lexicalization (4%) in code-mixing facilitate emotional nuances and foster interpersonal connections, promoting a supportive learning environment. Psychomotorly, inter-sentential (16%) and extrasentential switching (7%) involve the physical articulation of language, aiding in discourse management and enhancing communicative fluency. These findings highlight how code-mixing serves not only as a linguistic strategy but also as a tool for cognitive development, emotional engagement, and refined communicative skills in educational settings.
- 2. Code-switching and code-mixing were used by students to overcome language barriers, including lexical limitations, communicative needs, emotional and expressive purposes, as influenced by their social community background. These strategies enabled students to better express their emotions and gain a deeper understanding of the content. On the other hand, teachers utilized codeswitching and code-mixing to clarify misunderstandings, check students'

comprehension, encourage participation, and build relationships with students, particularly in the context of low English proficiency among students. This dual approach enhances cognitive flexibility, emotional engagement, and language proficiency among students, underscoring the holistic benefits of integrating cognitive, affective, and psychomotor dimensions in language learning environments.

5.2 Suggestion

After doing this research, some suggestions were proposed as follows:

1. For the English Teacher

Teachers can enrich language learning experiences by integrating vocabulary-building activities and offering additional language support. While emphasizing the importance of using English primarily in the classroom, understanding and allowing for occasional code-switching and code-mixing as communication strategies can foster a more inclusive environment, but it should be employed as a deliberate strategy rather than a habitual practice. This balanced approach can support language development while maintaining a focus on English their language development and contributing to a supportive learning atmosphere in any classroom setting.

2. For the Future Researcher

Since this study was only dealt mainly with the types and the reasons behind the use of code-switching and code-mixing as communication strategies in classroom discussions, further studies can explore the impact of code-switching and code-mixing on students' language proficiency and academic performance over time. Additionally, research can investigate the effectiveness of different language teaching strategies in addressing the linguistic needs of multilingual students.

Finally, those statements above represent the conclusion of this study during the research of the analysis of code-switching and code-mixing as communication strategies in classroom discussions. Moreover, the suggestion above can be considered to conduct a better further research with respect to this study. Other

aspects such as vocabulary, fluency, grammar, and comprehension can also be investigated in further research.

REFERENCES

- Abdullah, M. N., & Zain, M. F. (2005). A literature review on communication strategies in language learning. Journal of Language and Social Psychology, 24(1), 1-21.
- Abutalebi, J., & Green, D. W. (2008). Control mechanisms in bilingual language production: Neural evidence from language switching studies. Language and cognitive processes, 23(4), 557-582.
- Aghneta, O. U. A. (2008). "Code Switching in Interviews". Dissertation. Faculty of languages and linguistics. University of Malaya: Kuala Lumpur.
- Auer, P. (1998). Code-switching in conversation: Language, interaction and identity. Routledge.
- Baker, C. (2011). Foundations of bilingual education and bilingualism.

 Multilingual Matters.
- Boumans, L., & Trudgill, P. (2014). *Language Contact and Development around the North Sea*. John Benjamins Publishing Company.
- Bourdieu, P. (1991). Language and symbolic power. Harvard University Press.
- Bucholtz, M. (1999). "Why be normal?": Language and identity practices in a community of nerd girls. Language in society, 28(2), 203-223.
- Bullock, B. E., & Toribio, A. J. (2009). The Cambridge handbook of linguistic codeswitching. Cambridge University Press.
- Chen, L., & Liu, Y. (2020). The use of code-switching in EFL classrooms: A case study of Chinese college English teachers. English Language Teaching, 13(10), 1-9.
- Clyne, M. (2003). *Dynamics of language contact: English and immigrant languages*.

 Cambridge University Press.
- Coates, J. (2004). Women, men and language: A sociolinguistic account of gender differences in language. Routledge.

- Creese, A., & Blackledge, A. (2010). *Translanguaging in the bilingual classroom:* pedagogy for learning and teaching. The Modern Language Journal, 94(1), 103-115.
- Cummins, J. (2000). Language, power and pedagogy: Bilingual children in the crossfire. Multilingual Matters.
- De Houwer, A. (2009). Bilingual first language acquisition. Multilingual Matters.
- Deuchar, M. (2005). *Minority language survival: Code mixing in Welsh*. Somerville: Cascadilla Press.
- Dijkstra, T., & Van Heuven, W. J. (2002). *The architecture of the bilingual word recognition system: From identification to decision*. Bilingualism: Language and cognition, 5(03), 175-197.
- Eckert, P. (1989). Jocks and burnouts: Social categories and identity in the high school. Teachers College Press.
- Eckert, P. (2000). Linguistic variation as social practice: The linguistic construction of identity in Belten High. Blackwell Publishers.
- Ellis, R. (1994). *The study of second language acquisition*. Oxford University Press.
- Fabbro, F. (1999). The Neurolinguistics of Bilingualism: An Introduction. Psychology Press.
- Fillmore, W., & Snow, C. (2000). When does teacher talk work as input? In S. M. Gass and C. G. Madden (Eds.), Input in second language acquisition (pp. 17-50). Rowley, MA: Newbury.
- Fishman, J. A. (1965). Who speaks what language to whom and when?. La Linguistique, 2(1), 67-88.
- Fishman, J. A. (1991). Reversing language shift: Theory and practice of assistance to threatened languages. Multilingual Matters.
- Gafaranga, J. (2000). *Code-switching and social identity in Rwandan conversation*. Journal of Multilingual and Multicultural Development, 21(2), 98-112.
- Gal, S. (1979). Language shift: Social determinants of linguistic change in bilingual Austria. Academic Press.
- García, M. (2009). Bilingual education in the 21st century: A global perspective. Wiley-Blackwell.
- Garcia, M. (2021). Language choice and lexical limitation in bilingual classrooms. Bilingual Education Journal, 25(3), 45-56.

- Grosjean, F. (1982). *Life with two languages: An introduction to bilingualism*. Harvard University Press.
- Grosjean, F. (2010). Bilingual: Life and reality. Harvard University Press.
- Grosjean, F. (2010). Bilingual: Life and Reality. Harvard University Press.
- Gumperz, J. J. (1982). Discourse strategies. Cambridge University Press.
- Halliday, M. A. K. (1978). Language as social semiotic: The social interpretation of language and meaning. Edward Arnold.
- Hamers, F.J & Blanc, H.A.M. (2000). *Bilingualism and Bilingualism*. Cambridge: Cambridge University Press.
- Heller, M. (1988). *Code-switching: Anthropological and sociolinguistic perspectives*. Walter de Gruyter.
- Heller, M. (1992). *The politics of codeswitching and language choice*. Journal of Multilingual and Multicultural Development, 13(1-2), 123-141.
- Jingxia, L. (2010). *Teachers' code switching to the L1 in EFL classroom*. The Open Applied Linguistics Journal, 3(1), 10–23.
- Jones, R., Smith, A., & Brown, K. (2020). Exploring the affective dimensions of codeswitching in classroom interactions. Language and Education, 14(2), 78-92.
- Khan, S. N. (2014). *Qualitative research method: Grounded theory*. International journal of business and management, 9(11), 224-233.
- Khoo, E. T. H., & Muthusamy, R. (2015). Communication strategies used by engineering students in selected oral communicative situations. Journal of English Language and Literature Studies, 4(1), 1-14.
- Kramsch, C. (2011). Language and Culture. Oxford University Press.
- Labov, W. (1966). The social stratification of English in New York City. Center for Applied Linguistics.
- Lee, S., & Kim, J. (2022). Social community background and code-switching: A case study of Korean-English bilinguals. International Journal of Bilingual Education and Bilingualism, 25(1), 112-126.
- Li, W., & Wang, L. (2018). The role of code-switching in clarifying misunderstandings in EFL classrooms. Modern Language Journal, 102(4), 789-802
- MacDonald, C. (1993). Using the target language. Cheltenham: Mary Glasgow.

- Martin, C. D., et al. (2016). Bilinguals reading in their second language do not predict upcoming words as native readers do. Journal of Memory and Language, 89, 68-78.
- Martin-Jones, M. (2000). *The localization of language: Teachers' dilemmas in bilingual education*. Multilingual Matters.
- Milroy, L. (1987). Language and social networks. Blackwell.
- Muh. Kholiq. (2004). "Code and Code Switching within Conversation at Gunadarma University Jakarta, Especially the Faculty of Letters, which is a Complex Community Especially in their Use of Language" Unpublished Thesis. Graduate Program. Universitas Gadjah Mada: Yogyakarta.
- Muysken, P. (2000). *Bilingual speech: A typology of code-mixing*. Cambridge University Press.
- Myers-Scotton, C. (1993). *Duelling Languages: Grammatical Structure in Codeswitching*. Oxford University Press.
- Myers-Scotton, C. (1993). Social motivations for codeswitching: Evidence from Africa. Oxford University Press.
- Myers-Scotton, C. (2006). *Multiple voices: An introduction to bilingualism*. Wiley-Blackwell.
- Paradis, J. (2010). *The bilingual child: Early development and language contact*. Cambridge University Press.
- Pavlenko, A. (2005). *Emotions and Multilingualism*. Cambridge University Press.
- Poplack S. (ed.). (2000). *The English history of African American English*. Oxford: Blackwell.
- Poplack, S. (1980). Sometimes I'll start a sentence in Spanish Y TERMINO EN ESPAÑOL: Toward a typology of code-switching. Linguistics, 18(7-8), 581-618.
- Rampton, B. (1995). Crossing: Language and ethnicity among adolescents. Longman.
- Rebecca. S. (2008). "Code-Switching: Critical Thinking Strategies for Teaching Standard English in Urban Classrooms". Educational Leadership.
- Rodriguez-Fornells, A., et al. (2012). *Neurophysiological mechanisms involved in language learning in adults*. Philosophical Transactions of the Royal Society B, 367(1598), 978-987.
- Rquiz, K. M. (2014). *Code switching: A tool in the classroom*. (Published of Master Theses). State University of New York Collage, New York.

- Smith, J. (2019). Communicative need and code-switching: A study of Spanish-English bilinguals. International Journal of Multilingualism, 16(3), 245-259.
- Swain, M. (2005). *The output hypothesis: Theory and research*. In E. Hinkel (Ed.), Handbook of Research in Second Language Teaching and Learning (pp. 471-483). Routledge.
- Tan, H., Zhang, Q., & Li, M. (2019). The affective dimensions of code-switching in Chinese EFL classrooms. TESOL Quarterly, 53(2), 312-325.
- Walsh. S. (2006). "Investigating Classroom Discourse". Routledge: New York.
- Wu, Y., & Zhang, L. (2021). Fostering relationships through code-switching: A study of Mandarin-English bilingual classrooms. Language Teaching Research, 25(4), 512-526.
- Zaifuddin. (2004). "Code Switching and English Speaking Fluency: With Special Reference to Classroom Discussion." Unpublished Thesis.. Makassar: The State University of Makassar.