

**CONTENT AND LANGUAGE INTEGRATED LEARNING IN  
MATHEMATICS AT SD MARANATHA PALEMBANG:  
IMPLEMENTATION, PROBLEMS AND SOLUTIONS**

Thesis

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Faculty of Teacher Training and Education

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Sriwijaya University

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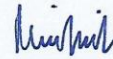
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Certify that data thesis entitled “Content and Language Integrated Learning in Mathematics at SD Maranatha Palembang” is my own work and I did not do any plagiarism or inappropriate quotation against the ethic and rules commended by the Ministry of Education Republic Indonesia Number 17, 2010 regarding plagiarism in higher education. Therefore, I deserve to face the court if I am found to have plagiarized this work.

Palembang, December 2023

The Undersigned,



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## **DEDICATION**

*This thesis is sincerely dedicated to:*

Half of my soul, my parents, who always give endless support to me.

## **MOTTOS**

*SUCCESS COMES FROM EFFORT AND PRAYER*

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Palembang, December 2023  
The Writer,



Yosia Ismail

**CONTENT AND LANGUAGE INTEGRATED LEARNING IN  
MATHEMATICS AT SD MARANATHA PALEMBANG**

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**ABSTRACT**

English has become a worldwide language as a result of globalization, with over a billion people speaking it as their first or second language. Content Language Integrated Learning (CLIL) is utilized to teach subjects in English in Indonesia. While CLIL offers advantages, it confronts obstacles due to the shortage of qualified teachers. To overcome these issues, teacher education is critical. Furthermore, the author aims to determine CLIL deployments, issues, and solutions. The author used qualitative study as the method and class interaction observation, interviews and document reviews as the data collection. The results find that the CLIL approach in these math classes seems to be effectively implemented, encompassing content, communication, cognition, and culture perspectives. The active engagement of teachers and students, along with a focus on cultural aspects, contributes to a comprehensive and enriching learning experience, but the lack of teachers' preparation, the diverse abilities in a class, and the time constraints are still the problems. To overcome it, teachers prepare the topic a day before, use online resources, sometimes use first language, involve parents and provide extra support for struggling students. Content and Language Integrated Learning (CLIL) combines subject matter and language education. Challenges in CLIL implementation include a lack of proficient English-speaking teachers. Research at SD Maranatha Palembang indicates successful outcomes in mathematics, demonstrating improved student comprehension and performance through English-based instruction.

Keywords: CLIL, Implementation, Problems, Solutions, Mathematics

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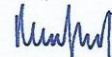
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# CHAPTER I

## INTRODUCTION

This chapter discusses the background, the problems, the objectives, and the significance of the study

### 1.1 Background of the Study

Nowadays, English has become an international language due to globalization happening across the world. More than one billion people speak English as their first or second language (Eberhand, Simons & Fennig, 2019). It impacts various human aspects in many countries, including economics, society, politics, and education, forcing us to use English to keep up with other nations. In Indonesia, people have started using the English language over the past decades in their education. Learners begin learning English in primary school. Many people believe that children learn the language more effectively when immersed in a real context (Ellison, 2019). This belief prompts people to consider more effective ways for students to learn the subject in school and acquire English simultaneously. Some schools in Indonesia recognized the growing importance of English and started using English more frequently, leading to the term Content Language Integrated Learning (CLIL).

Content Language Integrated Learning is the learning approach that combines content and language in teaching and learning (Smet, et al., 2019). Before the term CLIL was coined, there was a natural need to establish language- and content-integrated programs due to various regional, demographic, and economic considerations. The term "language and content integrated program" initially described teaching subjects to students in a foreign language. Marsh coined the term CLIL in 1994, influenced by Canadian immersion and British LAC programs. In 2005, Marsh expanded the term to

refer to various techniques leading to dual-focused education, where attention is directed to both the topic and language of instruction.

CLIL has been extensively used in primary and secondary schools in Europe (Huang, 2020). Huang also noted that English is primarily used in CLIL to teach subject content. The purpose of using CLIL is to teach school subject content through the use of an additional language (Ellison, 2019). The implementation of CLIL in education encompasses content, communication, cognition, and culture (the 4Cs). In content, the focus should include the main idea, knowledge, and abilities in the subject field. The language used in teaching and learning situations is determined by the content. In communication, language is used for learning and expressing thoughts. Coyle (2002) states that communication used in CLIL can be termed as language of, for, through learning. In cognition, an essential role is played in CLIL. Teachers need to give learners opportunities to use both low and high-thinking skills about the content to achieve a deeper understanding, preferably shared with others in different languages, in this case, English. The last aspect is culture, where learners can unconsciously learn about the target language culture.

The implementation of CLIL brings about some problems. Teachers using CLIL find themselves using English more to deliver the material in the class. One of the challenges in implementing CLIL is the lack of qualified teachers proficient in English. Therefore, schools implementing CLIL must have capable teachers. Classes with a mix of learners' abilities present challenges for teachers since they need to pay attention to learners and ensure they understand the target language to interact with their peers (Hashmi, 2019). Hashmi also stated that the lack of time is a problem in implementing CLIL, as the 4Cs require considerable time and effort to anticipate problems, develop lesson plans, and employ strategies in CLIL.

Several solutions can address the problems of implementing CLIL. Teachers using CLIL should undergo proper teacher training, considering the context of learning, educational background, prior experiences, and learners' background and needs. Collaboration between EFL teachers and content teachers can be valuable, with

teamwork helping content teachers arrange and use the most suitable language tasks in the classroom (Hashmi, 2019). EFL teachers can assist content teachers in improving their English since they need to use English in the classroom to deliver material to learners.

For learners, CLIL offers a double benefit, allowing them to acquire subject content and improve their English competence. This enhances the meaningfulness of the learning process (Smet, et al., 2019) and boosts learner motivation. Studies show that CLIL-exposed learners are more favorable than non-CLIL learners, perceiving English as easier and more attractive (Pablo, 2017). However, some learners face challenges with subjects they find difficult, such as math, which they need to learn in English. Limited English vocabulary poses a challenge for these learners, requiring additional effort to understand the subject. In such situations, the role of teachers is crucial in helping learners comprehend the subject. The use of the native tongue in the classroom cannot be disputed. For instance, students might initiate a debate in their mother tongue before translating it into a foreign tongue during a brainstorming session on a new topic (Muhamedjanova, 2022).

From the implementation, the problems that arise, and the solutions proposed, questions arise about how other schools implement CLIL, what problems teachers face while implementing CLIL in their classes, and how they solve these problems. There is a gap in all studies that explain the implementation, problems, and solutions in CLIL because not every school has the same implementation, problems, and solutions due to various factors influencing them, such as the environment, the readiness of the school, or the teacher.

From previous related studies, it is mentioned by Akbarov, et al, (2018) that math is a difficult lesson, so if the students find difficulties not only in learning math but also in English, it can most likely become very difficult for students in using CLIL, because students need to understand both English and math in the same time. Therefore, Martinez (2018) mentions teachers frequently lower expectations, water down the mathematical curriculum, or pull students out of mathematics classes in other contexts where language

minority students learn mathematics in the dominant language of the community. Hopefully, Wossala, et al. (2013) mention future instructors will thus have the opportunity to observe lessons in a foreign language and learn about the benefits and drawbacks of every strategy.

This research chooses CLIL in mathematics because teaching mathematics with CLIL will improve students' knowledge and viewpoints because there are some symbols in mathematics that have different meanings in some countries (Tejkalova, 2013). This research will be conducted on SD Maranatha Palembang because the researcher currently works at SD Maranatha, so it becomes more efficient and flexible to conduct the research. The participants of this research is the math teacher of first, second, and third grade in SD Maranatha who teaches them math in the English language. The writer chooses the participants because that teachers are experienced enough in using English to teach math.

## **1.2 Problems of the Study**

1. How is the implementation of CLIL in SD Maranatha Palembang?
2. What are the problems that arise in using CLIL?
3. What are the solutions to that problem?

## **1.3 Objectives of the Study**

The aim of this study was to investigate the implementation, problem, and solutions of CLIL in SD Maranatha Palembang.

## **1.4 Significance of the Study**

The importance of this study is for the researcher because the researcher is able to find out how to use CLIL in the classroom context, what possible problems that might be happening, and how to handle them. It is important for learners because they can improve their English while learning other subjects. It is important for the institution



because the institution is able to create an effective learning situation where learners get double benefits at one time.

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