THE IMPLEMENTATION OF CLIL FOR YOUNG LEARNERS: A PRISMA SYSTEMATIC REVIEW

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Abstract
The purpose of this study is to review the implementation of CLIL to young learners. The database Scopus was examined and 5 articles in all were examined for this purpose. The research methodology employed was a PRISMA systematic review. A content analysis technique was used to assess the articles. The study's findings revealed that the trend of CLIL (Content and Language Integrated Learning) research for young learners is in elementary level, aged 5-12 years. The results indicated that CLIL impacts students' motivation and language competence, particularly in vocabulary enrichment, the receptive aspect rather than the productive aspect.

Keywords: systematic review, PRISMA, CLIL, young learners

Introduction

Content and Language Integrated Learning (CLIL) is an approach to language education in which a second language is used as a medium for teaching academic content. In CLIL programs, students learn subjects such as math, science, history, or other disciplines in a language that is not their native tongue (Celis & Steele, 2016). The primary goal of CLIL is twofold: to teach both the subject matter and the language simultaneously. For example, a geography lesson might be conducted in English for students who are learning English as a second language. This method allows students to acquire proficiency in the language while also gaining knowledge in various subjects.

CLIL programs can take different forms. First, there is language-focused CLIL, which emphasizes language learning and uses subject content to teach the language. The focus might be on vocabulary, grammar, and language skills development. Second, there is content-focused CLIL, which emphasizes teaching the content or subject matter, with language learning occurring as a byproduct of studying the subject. CLIL requires a well-designed curriculum that integrates language learning goals with the subject matter and also requires teachers who are proficient in both the subject and the language being used for instruction. A well-designed syllabus plays an important role in teaching English (Saputra, 2020). CLIL is used in many educational systems worldwide to promote bilingualism or multilingualism, improve language proficiency, and enhance students' understanding of various subjects. It often fosters critical thinking skills, cultural awareness, and a deeper understanding of both the language and the subject being studied.

CLIL is known to significantly improve language proficiency. Implementing CLIL in a school setting allows learners to immerse themselves in the language by using it to explore various subjects. This immersion provides a contextual environment for language learning, which is often more effective than traditional language classes that focus solely on grammar and vocabulary. By learning a subject in a different language, students encounter new words, phrases, and structures in context. This exposure helps them naturally absorb and understand the language, leading to improved proficiency. CLIL offers more exposure to the language as it is used in different contexts and situations. Students get ample practice in using the language in real-life scenarios related to the subject matter, which enhances their language skills. Learning subjects that interest students in a language they are acquiring boosts motivation and engagement. When learners are engaged and interested in the content, they tend to be more motivated to communicate and understand, thereby improving their language skills. CLIL often involves critical thinking, problem-solving, and analysis of complex subject matter in a second language. Engaging in such cognitive processes in a different language can lead to a deeper understanding and, consequently, improved language proficiency.

However, the effectiveness of CLIL depends on various factors, such as the quality of teaching, the integration of language and content, the support available for language development, and the learners' motivation and effort. Overall, CLIL has proven to be an effective method for improving language proficiency while simultaneously mastering other academic subjects.

The effectiveness of CLIL in young learners has become an interesting topic. In the realm of language acquisition, the 'age of onset' refers to the age at which an individual starts learning or being exposed to a new language. This age is considered significant because it can affect the way a person learns and acquires language skills. There is a widely discussed theory called the Critical Period Hypothesis, which suggests that there might be an optimal period in a person's life, usually in early childhood, during which they are most adept at acquiring language naturally and achieving native-like proficiency in a second language. The general idea behind this hypothesis is that as individuals grow older, there might be a decrease in the brain's neural plasticity, which is the brain's ability to adapt and learn new things easily. This decrease in neural plasticity as one ages might impact the ease and speed with which a person can acquire a new language.

Research indicates that individuals who start learning a new language at a younger age often have an advantage in achieving a native-like accent, fluency, and overall proficiency in that language compared to those who start learning later in life. However, it is essential to note that while the Critical Period Hypothesis suggests an advantage for younger learners, it is not a strict rule. Individuals of various ages can still become highly proficient in a new language through dedicated learning, practice, immersion, and exposure, even if they might not achieve native-like fluency. Factors such as motivation, learning environment, teaching methods, and individual differences also significantly impact language acquisition, regardless of the age of onset.

CLIL is a method for bilingual immersion that is suitable in resource-poor areas (Hemmi & Banegas, 2021). Early childhood is an ideal age for effective language acquisition. However, the topic of young learners learning two languages from an early age remains contentious, with some parties not recommending multilingual education under certain conditions, focusing on students' first language before second language. This literature review aims to examine the outcomes of intensive English language teaching from an

early age, considering both its advantages and disadvantages. Therefore, the research formulation is to explore the following aspects:

1. What are the trend language skill concerns in the investigation of CLIL methods to young learners?
2. What are the main findings of implementing CLIL methods to young learners?

Method

This study adopted such an approach of a systematic review. PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses), was used to conduct this systematic review. Numerous crucial responsibilities are served by systematic reviews. They can address problems that individual studies could not otherwise solve, identify problems in primary research that need to be fixed in follow-up studies, they can develop or evaluate theories explaining how or why phenomena occur, and provide synthesizes of the state of knowledge in a field from which future research priorities can be determined (Page et al., 2021). Based on the PRISMA statement, the flow diagram depicts the entire process.

The data collection was carried out between 2019 and 2023 in the databases of Scopus. This database was chosen because it has obscure, reputable, and accessible linked studies. CLIL to young learners, implementation of CLIL, young learners were among the search phrases utilized. Only research studies were considered from the findings returned. Inclusion criteria consisted of empirical papers; Journal articles and proceedings that included selected search terms in the title, abstract, and/or keywords.

To analyze the data, some illegible studies were coded and analyzed using the content analysis method, which applies a systematic and repeatable analysis of communication symbols that have been given numerical values in accordance with acceptable standards of measurement, the statistical analysis of relationships involving those values, and the description of the communication to characterize it, deduce its meaning from it, or extrapolate from it to its context, both of production and consumption (Lacy et al., 2015).

Table 1. Sub Categories of Research Questions

Research Questions	Sub Categories
What are the trend language skill concerns in the investigation of CLIL methods to young learners?	Young learners' education level
What are the main findings of implementing CLIL methods to young learners?	English language aspects

A flow diagram of the procedure for choosing the data for each phase is shown in Figure 1. In the initial phase, 32 records were found in the databases, then 3 duplicate articles were eliminated, leaving 29 original publications for analysis. In the second phase, 21 records were eliminated based on the titles, keywords, and abstract analysis in relation to CLIL and young learners, prompting 5 papers were later determined to be eligible for a thorough study after eliminating 16 articles based on accessibility, full-text, and article-type analysis. Finally, the total number of full-text papers after this procedure was 5.

Result and Discussion

In order to respond to RQ1, the authors examined 2 (two) subcategories, including language skills targeted, and young learners' education level. Assessing the data based on PRISMA protocols and SLR method.

The search process is carried out to obtain relevant data according to the topic being studied to answer research questions. The search process is carried out using search engine Scopus. The author determines which sources are eligible as sources in this SLR. The fulfilling following criteria are required to selected as data sources:

1. Data used in the frame 2019–2023.
2. Data obtained through publish and perish search Scopus journals.
3. Data related to the implementation of CLIL to young learners.

From each paper, was given a value answer below for each criterion above; Y (Yes) and N (No).

Data obtained through search data base, Scopus site. The 32 articles are still sort based on the keywords on the title, the tittle with CLIL to young learners, the process will be displayed in PRISMA flow chart. The articles are been through quality assessment with three questions. After duplicate removal. 16 articles are included. Results of search process shown in figure 1.
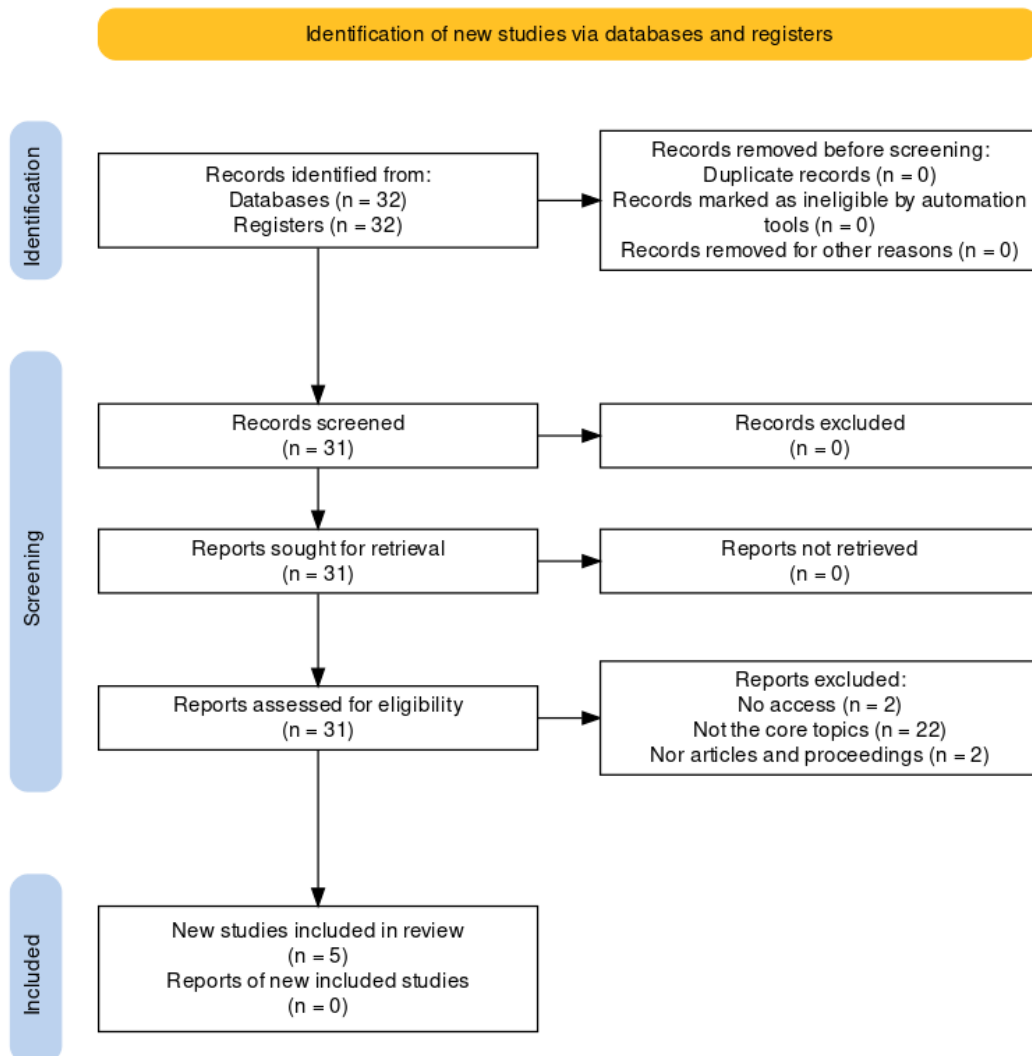
Picture 1. Flow diagram of the study selection process

In this study, 5 articles had been analyzed through content analysis. The aims of the study are to find out what are the trends and the main findings in implementing CLIL to young learners.

Table 2. Included Articles

No.	Author	Tittle	Year
1.	Zeltia Blanco Suárez	The Primary Education Learners' English Corpus (PELEC): Design and compilation	2020
2.	A. Vraciu	Content-specific vocabulary in CLIL: Exploring L2 learning outcomes in a primary education programme in Catalonia	2023
3.	S.E. Pfenninger	About the INTER and the INTRA in age-related research: Evidence from a longitudinal CLIL study with dense time serial measurements	2021

4.	F. Gallardo-del-Puerto	Target language proficiency and reported use of compensatory strategies by young CLIL learners	2020
5.	R.W. Setyaningrum	Core Features of Content and Language Integrated Learning (CLIL): An Exploratory Study in Indonesian Primary Schools	2022

Trend Language Skill Concerns in The Investigation of CLIL Methods to Young Learners

In total, there are 5 article journals sorted through search process. After the data is selected based on inclusion and exclusion criteria using keywords "CLIL and Young Learners". From the results of Quality Assessment (QA), there are 16 relevant journal articles to selected to answer the research questions. The answer of RQ1 is shown in table 3. It shows the implementation of CLIL to young learners, as follows:

Table 3. Trend Language Skill Concerns in The Investigation of CLIL Methods to Young Learners

No.	Articles Identity	Young learners' education level
1.	The Primary Education Learners' English Corpus (PELEC): Design and compilation	Primary education aged 9-12.
2.	Content-specific vocabulary in CLIL: Exploring L2 learning outcomes in a primary education programme in Catalonia	Primary education aged 10-11.
3.	About the INTER and the INTRA in age-related research: Evidence from a longitudinal CLIL study with dense time serial measurements	Primary education aged 5-9
4.	Target language proficiency and reported use of compensatory strategies by young CLIL learners	Primary education aged 10-11.
5.	Core Features of Content and Language Integrated Learning (CLIL): An Exploratory Study in Indonesian Primary Schools	Primary Education

From the data of 5 schools that have implemented CLIL to young learners, it was found that this implementation occurs in primary schools for students aged 5-12.

The implementation of Content and Language Integrated Learning (CLIL) among young learners in five schools has yielded interesting and beneficial results. This study was conducted in primary schools, encompassing students aged 5 to 12 years. In this age range, children are at a stage of cognitive development that is highly receptive to second language learning. The application of CLIL in primary schools provides an opportunity for children to learn English alongside subject content, thereby enhancing their language competence through contextual and meaningful use. Children aged 5 to 12 years experience rapid development in terms of accuracy, syntax, lexical knowledge, and

language fluency. Through CLIL instruction, students can improve their syntactic abilities by using complex sentence structures in real learning contexts. Emphasizing language use across various disciplines helps students develop more comprehensive and diverse language skills.

The Main Findings of Implementing CLIL Methods to Young Learners Previous Finding

From the results of Quality Assessment (QA), there are 5 relevant journal articles to answer the RQ2. There are several factors triggers the emergence of language learning strategy of learners. The results are shown as follows:

Table 4. The Main Findings of Implementing CLIL Methods to Young Learners Previous Finding

No.	Articles Identity	Findings
1.	The Primary Education Learners' English Corpus (PELEC): Design and compilation	CLIL and Non-CLIL students were rather similar with high levels of extrinsic motivation. Encouragement by their parents or families to learn English is the source of their motivation. Effect of gender no differences.
2.	Content-specific vocabulary in CLIL: Exploring L2 learning outcomes in a primary education programme in Catalonia	The development of English L2 in terms of content specific vocabulary knowledge, improvement in lexical diversity and sophistication not density. It is more receptive then productive. CLIL learners, who increased their FL motivation over time by adding CLIL to their language experience.
3.	About the INTER and the INTRA in age-related research: Evidence from a longitudinal CLIL study with dense time serial measurements	the age factor behaves like a dynamic entity that changes over time and affects L2 literacy development differentially at different times. Furthermore, while an early age of first bilingual language exposure has no effect on the L2 development for the children in the minimal CLIL program, early-AO bilinguals in the partial CLIL program (age of first exposure 5) outperform the older-AO bilingual group (age of first exposure 7 and 9) in terms of accuracy and (syntactic and morphological) complexity but not in terms of lexical richness and fluency.
4.	Target language proficiency and reported use of compensatory strategies by young CLIL learners	CLIL in attempt to increase exposure to the FL to promote motivation and positive language attitude. CLIL subject was found to be relevant only in the relation to the L2 learning experience of motivation. FL motivation is promoted and maintained over by adding CLIL to the language experience of young learners.
5.	Core Features of Content and Language Integrated Learning (CLIL): An	CLIL provides an opportunity for students to be engaged in the content and successfully enrich the students' vocabulary sizes.

Exploratory Study in
Indonesian Primary Schools

The result shows that CLIL impacts student motivation from the school that implements both CLIL and Non-CLIL. They exhibit similar levels of intrinsic motivation, which typically originates from their parents, with no observed differences based on gender. There is an increase in intrinsic motivation to master English among students in CLIL programs. Age influences students' language development regarding accuracy, syntax, lexical knowledge, and fluency. In terms of lexical, students show improvement in specific content vocabulary enrichment.

Content and Language Integrated Learning (CLIL) has been observed to significantly impact student motivation in educational settings. Pladevall (2018) states that CLIL promotes motivation and positive language attitude of students to learn English. In a study comparing schools that implement CLIL with those that do not, it was found that students from both types of schools exhibit similar levels of intrinsic motivation. This intrinsic motivation, which is a crucial element for effective learning, typically stems from parental influence, suggesting that the home environment plays a pivotal role in fostering students' eagerness to learn. Interestingly, the study found no significant differences in motivation levels based on gender, indicating that intrinsic motivation is consistent across male and female students when parental support is strong.

Despite the general similarity in intrinsic motivation levels, there is a notable increase in the motivation to master English among students enrolled in CLIL programs. CLIL, which integrates language learning with subject content, appears to provide a more engaging and relevant context for language acquisition. This context-driven approach helps students see the practical application of English, thereby boosting their desire to learn the language. The authentic use of English in various subjects makes the learning experience more meaningful and enjoyable, which in turn enhances motivation.

Age is another crucial factor influencing language development among students in CLIL programs. Younger learners often show rapid progress in acquiring new languages due to their cognitive flexibility and natural aptitude for language learning. As students age, their development in language accuracy, syntax, lexical knowledge, and fluency becomes more pronounced. This suggests that sustained exposure to a CLIL environment over the years can lead to significant improvements in language proficiency. Thus, age-related factors should be considered when designing and implementing CLIL programs to maximize their effectiveness. Different finding shows by Age Dee semet, et.al (2018), they found that primary school pupils report stronger emotions thus the effects of CLIL and English are much larger at secondary level.

One of the most noticeable improvements among CLIL students is in their lexical knowledge, particularly regarding content-specific vocabulary. By learning subjects like science, mathematics, and history in English, students are exposed to a wide range of specialized terms and phrases that they might not encounter in a traditional language classroom. This enrichment of specific content vocabulary not only enhances their understanding of the subject matter but also broadens their overall linguistic repertoire. Such vocabulary enrichment is a distinct advantage of CLIL, providing students with the tools to excel in both academic and real-world settings. Dalton 2008 states different perspectives that the areas of foreign language competence are most likely to profit from CLIL instruction (listening, vocabulary) and which seem to do so less (writing,

syntax). Further research with bigger subjects is suggested for more detailed results, bias reduction, and providing a solid evidence-based.

Conclusion

Based on the results of the research that has been done, several conclusions can be drawn as follows: the implementation of CLIL to young learners conducted in level of primary education from aged 5-12. It promotes vocabulary enrichment, positive motivation and language attitude of the students. The implementation of CLIL has a profound impact on student motivation and language development. While intrinsic motivation remains high across both CLIL and non-CLIL schools due to parental influence, CLIL programs uniquely enhance students' motivation to learn English. Age plays a significant role in the progression of language skills, and the specific content vocabulary enrichment observed in CLIL students highlights the program's effectiveness. These findings underscore the importance of integrating language learning with content instruction to create a more engaging and productive educational experience.

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