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ENHANCING ENGLISH SKILLS THROUGH CLIL METHODOLOGY IN HIGHER EDUCATION: A REVIEW ARTICLE

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Abstract
CLIL (Content and Language Integrated Learning) methodology has revealed its effectiveness and impact on English skills enhancement in university settings and is considered a paradigmatic pedagogical approach in higher education. This paper aimed to perform an exhaustive scientific literature review about the CLIL methodology's effect on university students' English Skills (Listening, Speaking, Reading, and Writing) enhancement, among different academic disciplines. Therefore, a narrative bibliographic review article has been carefully performed out of a vast source of scientific work analysis and compilation, published in the last six years, which has been extracted from a well-known academic database such as Scopus, Scielo, Google Scholar, Web of Science, Eric, Semantic Scholar, among others. Results showed that the CLIL methodology highlights its relevance when implemented in higher education due to its effectiveness and impact on English skills. Therefore, it has become an essential tool for boosting meaningful learning and promoting contextualized content learning with better alignment with university students' academic needs enabling them to face the globalized labor market. Consequently, this study has revealed CLIL benefits such as students' English skills improvement and content knowledge; and challenges to overcome such as limited instructors' preparation on the language, the content, and even the CLIL methodology.

Keywords: communicative competence, contextualized learning, CLIL methodology, English skills, higher education

Introduction
English skills development as a foreign language has already been considered an indispensable educational requirement in higher education, as the following acquisition and learning process initiated in basic education. Nonetheless, university students still lack sufficient proficiency in language stagnating its use.

In Nicaragua, first-year bilingual education university students' English skills reached the A1 proficiency level, a Basic user according to the CEFR (Common European Framework of Reference for Languages). They showed major limitations in listening, writing, and speaking (Rocha, 2022). A similar situation is reflected in Peru, where the necessity and purpose of English implementation as a subject in the

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higher education curricula, established by the government are not clear yet. (Congreso de la República del Perú, 2014; Ministerio de Educación del Perú (MINEDU), 2015). Thus, taking action on the topic urges finding highly pertinent a methodology that aligns with university students' professional and educational needs.

Regarding such necessity, a relatively new educational methodology called CLIL (Content and Language Integrated Learning) stands out. This methodology emerged in North America, was widely popularized in Europe, and then slowly introduced in Asia (Oliva, 2018). CLIL is based on the content of a certain discipline and a foreign language acquisition and learning simultaneously, making it an innovative methodology in higher education.

This methodology promotes English skills development in a contextualized manner linked to different discipline contents highlighting its notorious relevance in university settings (Anaya & Atuesta, 2023; Barberán & Reza, 2021; Satayev et al., 2022). Given the future professionals' needs and interests in getting better preparation and knowledge especially that related to their field of study, CLIL implementation takes great relevance in higher education (Huilcapi et al., 2021) since it can help them face and overcome future challenges in the labor market.

Recently, outstanding scientific works have shown the CLIL methodology achievements in students' English skills enhancement in a variety of contexts such as: Egypt (Abdullah, 2024), Thailand (Khamkhien & Kanoksilapatham, 2023; Prapunta, 2024), and Indonesia (Guntur et al., 2023) in Asia; Spain (Manchado et al., 2023; Nogales et al., 2023) in Europe; and Colombia (Anaya & Atuesta, 2023), and Peru (Bautista, 2023) in Latin America. Applications that make the content and language integrating process visibly favorable for the higher education learning process.

In general, the scientific literature about CLIL has shed light on achievements and limitations leading to the necessity of a better and wider treatment of its outcomes raising more meaningful data about greater forms of implementation and successful applicability (Navarro et al., 2021). This helped to visualize the methodology perspectives, state a main conclusion, and set off important recommendations for future works.

The aim of the study of this narrative bibliographic review article has been to search and compile exhaustively a vast source of scientific literature about the CLIL methodology effect on university students' English skills (Listening, Speaking, Reading, and Writing) enhancement among different academic disciplines.

Method

The search process and selection of reliable scientific sources to produce this manuscript were performed using a well-known academic database such as Scopus, Scielo, Web of Science, Google Scholar, Semantic Scholar, Eric, Redalyc, RedinEd, ResearchGate, and Academia, gathered and stored into the bibliographic database Zotero.

The specific keywords related to the aim of the study used strategically while searching for information were "AICLE/CLIL", "English skills", "listening", "speaking", "reading", "writing", "university settings" and "higher education". These terms were combined with Boolean operators (AND, OR, NOT) to optimize results assuring an important data compilation relevant to the review. Furthermore,

the search process was limited to the last six years of papers publications aiming to guarantee an updated search and review of recent scientific work performed and related to higher education and its current context.

A filtering process was also applied throughout the results search compilation and gathering to identify quality and relevance criteria to this review. The inclusion criteria were: (1) studies showing the effect of the CLIL methodology on university students' English skills, (2) peer-reviewed and indexed scientific journal publications, (3) research work performed in higher education mainly and only some in general education, (4) latest scientific works published in the last six years. The exclusion criteria were: (1) non-CLIL-based works neither its impact on university students, (2) scientific work without the English skills integration in a general or specific way (at least one English skill), (3) works unlinked to higher education, (4) manuscripts with unclear results or lack of solid framework.

Concepts and definitions

The term CLIL (Content and Language Integrated Learning) was first coined by David Marsh. It is a dual approach when integrating precisely a foreign language with curricular content equally, following the 4Cs principles: Content, communication, cognition, and culture (Fajardo et al., 2020). It also possesses a paradigmatic approach with an epistemological framework in the communication process using an additional language as a vehicular tool (Alegre, 2021). This methodology has widely been developed in the European Union where it is considered a pedagogical approach that integrates a foreign language and content acquisition and learning simultaneously aiming to foster bilingual communication among learners related to their different disciplines (Huilcapi et al., 2021; Serrano-Aroca et al., 2019).

The core English skills are divided into two: Receptive and productive skills. The first group refers to listening and reading, which are acknowledged to be firstly understood by students through phonemes and sounds enabling them to identify afterwards terms used in reading comprehension. The second group refers to writing and speaking, which make transmission of information available once it gets produced building their learning process (Anaya & Atuesta, 2023).

Findings and Discussion

Findings

Applications and results

In a recent study in Egypt, engineering university students improved their 'functional' (contextualized terminology linked to the field of study) writing skills and critical thinking with CLIL-based instruction (Abdullah, 2024). In the Education major, students improved their receptive skills, listening and reading, demonstrating the effectiveness of the methodology application (Diab, 2020).

In Thailand, most students were satisfied with the CLIL methodology due to their writing improvement and academic terminology management in writing and reading skills (Khamkhien & Kanoksilapatham, 2023). In Kazakhstan, future language teachers taking biology classes at university improved content and language acquisition and learning meaningfully, highlighting the methodology application and its crucial role in science at the university (Satayev et al., 2022).

In Indonesia, CLIL enhanced students' speaking and critical thinking skills becoming a positive alternative to be used by instructors, mainly when it is claimed that as part of the English language acquisition and proficiency, the speaking skill must be achieved with excellence (Guntur et al., 2023). In another study, CLIL improved reading skills, probably because it is taken as a methodology designed to 'learn by doing' as some experts have already announced (Guntur et al., 2021).

In Japan, students' productive English skills improved significantly, especially in writing and only a little in speaking, even though it did not happen with vocabulary, or critical thinking (Sato & Hemmi, 2022). Meanwhile, beginner students preparing to become English teachers improved their interactive speaking skills and critical thinking notably with CLIL implementation and problem-solving-based projects (Onoda, 2019). In China, its effectiveness reflected students' motivation, interest, and enhancement in content and language acquisition, even though it was quite challenging for some (Lyu, 2022).

In Spain, when integrating grammar and specific lexis gradually in an online course while promoting speaking in oral discussions, students got motivated and reached good scores with the methodology application. However, it might improve even more when exposing students less frequently to new terminology to avoid possible distraction and losing track of the topic (Nogales et al., 2023). Additionally, CLIL implementation in the Psychology major showed a high level of motivation and meaningful assimilation of content, even with those whose proficiency level was limited (Navarro et al., 2021).

In Colombia, students demonstrated a noticeable improvement in their comprehension of English skills even through virtuality, during the 2020 pandemic, showing CLIL impact and efficiency (Anaya & Atuesta, 2023). In Ecuador, CLIL implementation in the Medicine major helped students use technical terms enhancing their acquisition and their capability of interaction in professional contexts (Huilcapi et al., 2021). In another context, students enhanced the four English skills integrally and acquired value-added content, other than the linguistic one, which helped them understand and produce academic work (Barberán & Reza, 2021).

In Peru, undergraduate students in a private university improved their English reading skills, lexis, and grammatical structure (Bautista, 2023).

Benefits and opportunities

The CLIL methodology in university settings brings about several benefits. Firstly; university students of Tourism, and International Business and Trade improved their knowledge and theoretical and practical skills in professional contexts; developing especially their communicative competence. Their capability of interaction with people from different countries and cultures enables them to solve problems professionally in an intercultural context increasing their language proficiency and boosting their confidence in language use (Goncharova et al., 2021; Prapunta, 2024).

In other contexts, CLIL received satisfactory students' acceptability because of their proficiency in language improvement when taking advantage of high-quality programs taught by well-trained instructors and updated material in a manageable and meaningful international learning context (Tran et al., 2023). The CLIL methodology's effectiveness can also be reinforced by implementing ICT

(Information and Communication Technologies) and teamwork (Yélamos & Moreno, 2022).

Beyond that, a favorable trend of bilingual teaching professionals' intervention in university settings has been gradually increasing, which recognizes their usefulness and even necessity to foster students' English skills, covering the linguistic and methodological aspects at a theoretical and practical level (Manchado et al., 2023).

Challenges and ethics

Despite the benefits of the CLIL methodology's implementation results, certain limitations and unexplored areas for optimal performance and effective applicability by future bilingual education professionals remain (Navarro et al., 2021). At Spanish universities, future bilingual programs teachers lacked consistent knowledge about the CLIL methodology. There were evident differences between undergraduate and postgraduate students where the last ones were better informed about CLIL, which revealed that those with better English skills competence are also more capable of integrating the CLIL principles (Gutiérrez & Custodio, 2021).

Furthermore, the implementation of CLIL with WebQuest in an interdisciplinary university setting in the scientific field raised the students' interest in such an innovative way of learning, however, the limitations when helping them with the performance of their assignments due to their low language proficiency level came out (Serrano-Aroca et al., 2019). This situation reveals the difficulty of the methodology design in educational settings, especially when intending to consider the learners' heterogeneity (Mesas, 2023). Besides that, content teaching in an additional language is still a great challenge (Lyu, 2022), so active methodologies and scaffolding strategies are needed to contribute to students' knowledge-building process of language and content (Mesas, 2023).

Future perspectives

The future of the CLIL methodology is promising, particularly in university settings where it is being considered relatively new, however, it has already been taken as one of the best methodologies among others. This methodology implementation raises the importance of content and linguistic integration in diverse educational settings highlighting its usefulness for language learning and flexibility of use (Guntur et al., 2021). In addition to that, a group of students claimed that the CLIL implementation results, in university settings where the learning process does not account for technology or proper equipment as in developed rich countries, would be the first outcomes reached as wider research about their perspectives (Tran et al., 2023).

The CLIL methodology must become part of the curricula design and planning to be implemented in bilingual teaching courses such as ESP (English for Specific Purposes) and EMI (English as a Medium of Instruction), targeted to university students in engineering, international business and trade (Abdullah, 2024; Prapunta, 2024), among other disciplines. Therefore, it is crucial to understand the CLIL implementation aspects in advance such as its training, educational material preparation, and the content and language integration process in university settings (Khamkhien & Kanoksilapatham, 2023).

Discussion

The CLIL methodology in higher education fosters university students' English skills enhancement, in a specific or integral manner, integrating knowledge through content linked to different fields of study almost simultaneously (Anaya & Atuesta, 2023; Barberán & Reza, 2021; Bautista, 2023; Huilcapi et al., 2021; Navarro et al., 2021; Satayev et al., 2022). Those optimal results show the methodology's success in varied university settings with meaningful and contextualized learning over other bilingual teaching alternatives in higher education.

Concerning students' English skills as part of their competencies, mainly the communicative (Andrade et al., 2023), a wide source of scientific work with CLIL implementation in different countries around the globe has demonstrated higher levels of language learning and development at different university settings. However, integral English skills development is still limited due to the variability of the language instruction and treatment, which involves grammatical and vocabulary aspects (Nogales et al., 2023), only one English skill focus (Abdullah, 2024; Guntur et al., 2021; Onoda, 2019) and the receptive or productive English skills development (Diab, 2020; Sato & Hemmi, 2022). Additionally, these skills were also treated from different perspectives, the receptive skills were considered an initial phase while the productive skills were basically for transmission (Anaya & Atuesta, 2023). This view almost omits the interaction, an inherent feature of production skills. So then, it is necessary to focus more on English skills (listening, reading, writing, and speaking) in an integral manner to get a wider frame of students' language enhancement.

Regarding receptive English skills, CLIL has fostered university students' reading despite different English proficiency levels. Thus, discursive linguistic resources such as vocabulary and grammar were used gradually to develop students' speaking skills. (Nogales et al., 2023). In addition, methodology experts claim that the CLIL methodology encourages students to 'learn by doing', in higher education and the whole educational system (Guntur et al., 2021). Moreover, CLIL has also improved students' listening and reading skills in another university setting showing its outstanding effectiveness (Diab, 2020).

Regarding productive English skills, CLIL has enhanced students' writing skills since they could produce texts using academic terminology, and vocabulary that also helped them when reading academic texts (Khamkhien & Kanoksilapatham, 2023). Furthermore, the CLIL methodology has played an important role in other university settings by developing students' 'functional' (including specialized lexis) and general writing, speaking, and critical thinking skills. Additional techniques such as Problem-Solving Projects were also implemented together with CLIL, reflecting its implementation flexibility and dynamism in higher education (Abdullah, 2024; Guntur et al., 2023; Onoda, 2019).

CLIL brings out multiple benefits to enhance students' English skills becoming a suitable methodological alternative for instructors and their educational contexts. Further than reaching language learning objectives or positive results, the communicative competence development and academic knowledge acquisition increase, CLIL allowed students to take good advantage of quality programs getting into interculturality by using an additional language (Goncharova et al., 2021; Tran et al., 2023). CLIL features and trends also allowed bilingual education

professionals to intervene in the higher education labor market, which is growing in demand. This leads to the need to set clear goals to acquire language efficiently and get proper methodology preparation and training to deal with any challenges in the different university settings. (Manchado et al., 2023).

CLIL has also shown its limitations. Future bilingual education teachers still lack proper preparation and training about the CLIL methodology and the additional language proficiency, content integration, and instruction (Gutiérrez & Custodio, 2021; Navarro et al., 2021). The isolated management of content or language only is not enough in CLIL contexts. A well-implemented CLIL and a technological resource project integrated a group of professors with the highest academic qualifications in their disciplines different from the additional language academic background. Hence, the results revealed that the students' English skills did not improve significantly although they showed motivation and interest in the innovative project (Serrano-Aroca et al., 2019). On the other hand, content learning in an additional language is still a great challenge. Besides, unless vocabulary acquisition is sufficiently emphasized, students' enhancement might be low or even null (Lyu, 2022; Sato & Hemmi, 2022).

Regarding the CLIL perspectives towards the future, its educational innovative feature is considered one of the best methodologies among other bilingual teaching alternatives, especially in higher education. It offers a versatile implementation and applicability to diverse students' backgrounds due to its dual approach integrating language and content learning simultaneously, necessary to enhance students' English skills in higher education (Guntur et al., 2021). CLIL integration in the curricula and language course design and planning such as ESP in engineering is of great necessity (Abdullah, 2024), as in any other discipline or higher education program seeking to foster students' English skills enhancement. However, the CLIL methodology's effectiveness will require a good understanding of its adequate implementation process highlighting instructors' sufficient preparation and training (Khamkhien & Kanoksilapatham, 2023; Lopez, 2019). The growing demand for English as a second language and its acquisition and learning in higher education for the globalized labor market gives CLIL a positive prospect for more research and major outcomes. (Vega & Moscoso, 2019).

Conclusion

The aim of this narrative bibliographic review article has been achieved due to a select and exhaustive search, compilation, and gathering processes of scientific literature about the effect of the CLIL methodology on university students' English skills enhancement among different academic disciplines. This relevant source of information has revealed important and meaningful findings about the topic contributing to an overall view. Identifying CLIL features and trends brings a closer look into its opportunities and challenges, especially its implementation. Henceforth, the critical analysis and evaluation process of outstanding works and outcomes brought consistency to this manuscript and clearer comprehension for performing further research and scientific work in the future.

Despite the beneficial findings, several limitations were also visible. The search parameters for scientific works compilation included publications issued in the last six years aiming to enclose the most updated sources. However, such a

criterion might have omitted interesting or important information about the topic from previous works or contributions.

Although this review has been based on university settings and higher education, there are still varied contexts geographically and culturally heterogenous where the CLIL methodology has been implemented and applied. As a result, it is not possible to generalize its implementation process nor its results to be obtained as a general guide for all university settings. Therefore, the interpretation and conclusions of the results might be affected in certain contexts.

Based on the review results, taking action on different aspects of the methodology in future research and works is strongly recommended. Firstly, quasi-experimental or experimental research would greatly benefit the CLIL methodology's effectiveness in university students' English skills integral enhancement among different disciplines in higher education to obtain meaningful evidence of the results. In addition, the four skills language tests according to the CFER testing processes should be implemented and applied as research tools to obtain a better frame of results. Finally, the CLIL instructor profile for higher education ought to be determined before and for the methodology implementation according to the curricula and program design and planning, looking for CLIL effectiveness towards students' content and language optimal acquisition and learning process.

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