Implementing the CLIL Approach through Online Games in EFL Education

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Abstract

The purpose of this study was to implement the Content and Language Integrated Learning (CLIL) approach employing online games for English as a Foreign Language (EFL) teaching and learning. The participants were 53 EFL Ecuadorian university students, 17 males and 36 females, who were enrolled in an English Major and a TEFL Master program. Their proficiency level corresponded to B2 according to the Common European Framework of Reference. The study followed a mixed-method approach, which involved the administration of a diagnostic survey, an online perceptions questionnaire, an interview, and an observation checklist. Games designed in Quizizz, Kahoot, Genially, and Socrative were implemented for 8 weeks so that the participants could access them to practice the content of each lesson. The findings revealed that the CLIL approach through games improves language learning and communication. Moreover, they foster students' confidence, knowledge retention, and comprehension of the subject matter, enhancing reasoning, problem-solving, critical thinking, and cultural awareness.

Keywords: *CLIL, Online Games, EFL Teaching and Learning*

Introduction

The importance of teaching and learning EFL has dramatically increased in the digital age (Sherif, 2023). English has firmly established its position as the language of the world, serving to connect people across cultural and geographical boundaries (Joo et al., 2020). Today, the Internet and digital resources are widely available, making EFL teaching and learning chances more abundant than ever (Umamah & Cahyono, 2022). Mudra (2020) as well as Yousefi and Nassaji (2024) assert that the incorporation of technology not only improves language learning but also develops essential digital literacy abilities, which are vital in today's globalized society. In this context, the incorporation of technology into CLIL is an innovative way of instruction that allows students to acquire digital linguistic skills that can help them succeed in an increasingly

demanding world (Zhao et al., 2021).

Certainly, technology and CLIL integration through games could ensure that EFL instruction provides learners with a variety of benefits, offering access to gamified-learning experiences in the teaching and learning process. This connection might guarantee that EFL instruction is dynamic, flexible, and in line with the demands of the rapidly changing digital era. Games are acknowledged as viable paradigms in the field of instructional and pedagogical methodologies that can be used in both formal and informal learning environments (Koutromanos & Avraamidou 2014). Since games are considered significant stimulants in language learning, they have long been used in language instruction as useful instruments to increase motivation and follow good pedagogical practices (Knight et al., 2019). Furthermore, games are now legitimate and essential parts of teaching in diverse learning environments, allowing learners to use the target language and become linguistically competent through active participation, which allows them to achieve learning outcomes (Hidayah et al., 2024; Yang et al., 2020).

Having been utilized in a variety of subjects, games have been implemented for educational purposes by employing different technological tools such as Kahoot, Quizizz, Genially, and Socrative, among others. Kahoot, used in language learning and teaching, has clearly shown positive effects. Several academic evaluations have confirmed its effectiveness in supporting language acquisition. The listed benefits include prompt feedback delivery, increased student engagement, and improved retention of essential course material (Mustangin, 2019). Similarly, Quizizz is an interactive online learning environment that can increase student engagement and motivation, fostering an exciting learning environment (Dhamayanti, 2021; Zhao, 2019). Moreover, research by Cabrera-Solano (2022) and Castillo-Cuesta (2022) supports the value of Genially games in strengthening students' abilities to improve their reading and writing proficiencies as well as their learning of using new lexical and grammatical constructions in the context of the English language. Socrative supports and encourages language assessment, and it stands out for its unique structural arrangement that conveys a more formalized, test-oriented atmosphere (Alharbi & Meccawy, 2020; Rofiah & Waluyo, 2020).

Several studies have explored the integration of the CLIL approach and gamification. Yaguara et al. (2021) emphasized CLIL's efficacy in improving English language acquisition within virtual environments during the COVID-19 pandemic. Waloyo et al. (2021) found teachers' positive attitudes toward CLIL in Indonesia and highlighted the substantial impact of web-based CLIL materials, which address both content and language learning. Çelik and Ersanli (2022) incorporated augmented reality into a gamified CLIL lesson, resulting in enhanced student performance and positive perceptions. Collectively, these studies underscore the potential of the use of CLIL and online games for enhancing language education; therefore, this study will provide insights into the following research questions:

RQ1: What are the EFL students' attitudes towards the implementation of the CLIL approach through online games in EFL teaching and learning?

RQ2: What are the students' perceptions about the impact of the CLIL approach through online games in EFL teaching and learning?

Literature Review

EFL Teaching and Learning

EFL teaching and learning play a significant role in higher education (Khalitova & Gimaletdinova, 2016). According to Salih and Omar (2021), nowadays, English has become the universal language of communication, transcending linguistic barriers and facilitating cross-cultural interaction. In this context, Castillo et al. (2022) claim that integrating EFL teaching and learning into higher education is the key to equipping learners with essential language skills for academic success, thus facilitating their access to a vast repository of knowledge and scholarly resources. Certainly, to help students achieve a high proficiency level, EFL instructors should make use of a diverse range of communicative language approaches (Alakrash, 2021). One of the most significant communicative methods is CLIL, which creates a dynamic learning environment where students can develop their language proficiency and understanding of various academic issues (Rafi & Morgan, 2023).

Content and Language Integrated Learning (CLIL) Approach

The CLIL approach refers to the integration of language and content, asserting that the acquisition of knowledge and foreign language proficiency are interconnected with one another, as two inseparable dimensions of equal importance (Ying, 2022). According to Marsh (2002), CLIL seeks to combine language learning and subject contents within the same educational setting. Thus, EFL learners can enhance their proficiency more efficiently and productively, which is possible by providing learners with real and meaningful contexts (Ying, 2022). One way of implementing the CLIL approach in EFL instruction is through the integration of technology, which can facilitate the learning process (Waloyo et al., 2021). Besides, the Information and Communication Technology (ICT) provides teachers with the opportunity to implement CLIL strategies both within and beyond the classroom setting, by customizing and adapting different types of digital resources (Ludovico & Zambelli, 2017).

Technology in EFL Education

The use of technology in education has risen to its significance, particularly in foreign languages. Recent technological advancements are leading to higher-quality interactions among students, teachers, and computers in language studies (Kannan & Munday, 2018). Moreover, Al-Awidi and Aldhafeeri (2017) suggest that there is a favorable influence associated with technology-driven lessons. Classes are becoming more prevalent among EFL instructors who appear receptive to modifying their traditional teaching approaches. As a result, students profit from their teachers' usage of technology in the classroom.

Additionally, Farjon et al. (2019) asserted that the integration of technology extends beyond its mere incorporation into teaching practices. To achieve successful integration, educators need to possess adeptness and thorough preparation in terms of their technical expertise, pedagogical understanding, and content skills. Furthermore, the willingness of teachers is identified as a pivotal element in incorporating technology within educational environments (Taghizadeh & Hasani, 2020). Regarding the significance of attitude within the realm of EFL instruction, Liu et al. (2017) highlight that maintaining a positive view

plays a fundamental role in utilizing technology across various learning situations.

All in all, it is undeniable that the use of technology enhances teaching and learning, as it is a valuable tool for students' success (Hidayat et al., 2018). Likewise, Nariyati et al. (2020) believe that technologies help educators make the learning process a more time-efficient and fruitful experience.

Online Games

In the context of EFL teaching, the use of technology has opened exciting possibilities for educators and learners (Carstens et al., 2021). Incorporating technology into EFL lessons can boost students' language learning, motivate them to improve their skills, and inspire their passion and creativity (Azmi, 2017). Certainly, technological tools offer possibilities for teamwork, the development of virtual learning environments, and learner autonomy (Arnó-Macià, 2012). Technology has become essential in language learning because it enhances teaching by incorporating multiple intelligences and catering to diverse student interests, making it more flexible and student-centered (Hol & Aydin, 2020). Moreover, it has vast educational potential, both inside and outside the classroom, as it enables learners to easily access a wide range of instructional materials through educational platforms (Bećirović et al., 2021). In this regard, online platforms and applications offer interactive learning activities; for instance, gamification can be implemented through these platforms and hence, they can be used to improve learners' language skills (Castillo-Cuesta, 2020).

Certainly, online games are effective as they provide an interactive and motivating context where learners can share information; thus, students can engage in learning activities by competing and cooperating in an enjoyable environment (Ashraf et al., 2014). As Gozcu and Caganaga (2016) assert, online games have become valuable activities that can be included in EFL language learning and have proven to be effective and entertaining. Furthermore, games can be considered learner-centered activities that offer opportunities for active participation (Mekler et al., 2016). Gamification has a positive effect on language acquisition by reducing students' anxiety, providing fun, and offering novel approaches to language learning that are not typically found in traditional lessons (Ali, 2020). In this regard, Cabrera-Solano (2022) affirms that engaging students in game-based activities not only activates their previous knowledge but also instills in them the value of being prepared to overcome various challenges, particularly when online games are coupled with encouraging feedback and explicit guidance.

Previous Studies

Adipat (2021) examined the potential of technology-enhanced content and language-integrated learning (T-CLIL) instruction in enhancing the Technological Pedagogical Content Knowledge (TPACK) of preservice English teachers in Thailand. The study involved four subjective tests administered at predetermined intervals throughout an experimental program. Each test consisted of a single item in which the participants were required to design a three-hour lesson plan. The aim was to assess their ability to incorporate suitable teaching approaches, techniques, and technologies to teach English content effectively. The obtained quantitative data underwent analysis employing

descriptive and inferential statistics. The results revealed that the T-CLIL approach offers clear benefits for preservice English teachers. Thus, the implementation of content-focused CLIL facilitated participants in utilizing diverse vocabulary and sentence structures during task performance. Moreover, the integration of technology within the CLIL approach was found to have a significant impact on the overall learning-teaching process.

Yaguara et al. (2021) conducted a study to examine how CLIL was implemented in a virtual learning environment and its implications for EFL learning during the COVID-19 pandemic in Colombia. The implementation involved CLIL workshops for eight weeks. Data from teachers and students were gathered through interviews, observations, reflective journals, classroom artifacts, and a questionnaire. The research outcomes demonstrate that the implementation of the CLIL methodology plays a crucial role in facilitating English language acquisition. The findings indicate that keywords and content vocabulary, contextualized lessons, assignments, and virtual games significantly contribute to the enhancement of students' listening skills, oral production, motivation, critical thinking, and cultural awareness. These results highlight the benefits of integrating virtual tools within the CLIL framework, particularly in virtual learning environments.

Koç et al. (2021) investigated technology acceptance and use among English language teachers who adopt the CLIL approach in Turkey, while also identifying the challenges encountered during the integration of technology into their teaching practice. Employing an explanatory research design, the study utilized a Likert-type questionnaire consisting of 27 items and was administered to 61 teachers from both private and public schools. The results revealed a significant difference in teachers' intention to integrate technology and their actual usage behavior. They mostly use technology for teacher-centered purposes. Qualitative data analysis indicated that CLIL teachers faced difficulties related to creating learning environments, obtaining managerial support, and enhancing their own technological competencies. Therefore, it was evident that these CLIL teachers required in-service training in technological expertise as well as pedagogical and content knowledge.

Waloyo et al. (2021) carried out a study to explore schoolteachers' perceptions of CLIL and ICT-based media implementation in Indonesia. Twelve homeroom and content teachers participated in the study. A questionnaire was applied as an instrument to survey teachers. To gather additional information on CLIL integrated into the web-based media, a Focused Group Discussion (FGD) was carried out to know more in-depth about the teachers' perspectives. Quantitative analysis was performed on the data gathered from the questionnaires. Results indicate that teachers generally had a positive attitude towards implementing CLIL, but their confidence in applying it was limited by their English language skills, including vocabulary, and speaking abilities. Teachers also agreed that using web-based teaching materials for CLIL had a significant impact on students, as it focused on both content and language learning. Despite the teachers' challenges, such as insufficient English proficiency, lack of suitable teaching materials, and limited access to technology, the comprehensive benefits of this approach were acknowledged.

The study of Çelik and Ersanli (2022) aimed to determine the effect of using

augmented reality in a gamified CLIL lesson on students' achievements at a private Turkish high school. A quasi-experimental research design was employed. A total of 76 learners participated, 38 students in an experimental group had treatment through AR material, and 38 learners in the control group were given traditional instruction. An achievement test (used as both a pre-and post-test) and a scale was used to collect data. The Augmented Reality Applications Attitude Scale (ARAAS) was employed as another data collection tool. The researchers modified the experimental group's lesson by incorporating scavenger hunt elements to gamify the AR encounters within the CLIL lesson. They created 10 AR experiences using the Metaverse Studio, aligning with the lesson's objectives. In contrast, the control group received a conventional CLIL lesson without AR integration or deliberate gamification. The results indicate that incorporating AR into a gamified CLIL lesson led to improved academic performance among EFL students. Learners exhibited favorable perceptions of AR usage, finding it enjoyable and captivating. Additionally, they displayed an eagerness to continue learning through AR in upcoming educational experiences.

Another study by Zhao (2021) was part of a longitudinal research project aiming at enhancing Chinese bilingual business students' CLIL learning in higher education. This research was conducted during a Business English course in China. The participants were 102 year-one students in four intact classes. Data sources included oral presentations, group report writing, subject knowledge tests, the analytical toolkit for the Knowledge Forum, and online discussion notes. The outcomes from assessments of subject knowledge tests, spoken presentations, and written reports confirm that the structure of project-based learning in Technology-Enhanced CLIL, combined with real classroom data, substantiates the proposition that employing technology in CLIL instruction facilitates the advancement of the target language competence concerning the subject matter. This is especially notable for improving productive skills such as writing, as well as in the comprehension of subject-related concepts. In addition, the study is valuable for CLIL researchers and educators looking to integrate technology in authentic classrooms for the improvement of bilingual learners' language skills and understanding of concepts.

Method

Setting and Participants

This study was conducted at a private university in Ecuador. The participants were 53 distance and on-site EFL students (17 male and 36 female) enrolled in different courses of an English Major and a master's program in TEFL. The courses included Theory for Teaching Grammar, Semantics and Pragmatics, Discourse Analysis, and Teaching Practice. The students' proficiency level was B2 according to the Common European Framework of Reference (CEFR) (Council of Europe, 2001).

Instruments

To assess students' previous experience with the CLIL approach in EFL teaching and learning, the research used a mixed-method approach. Firstly, an online diagnostic questionnaire consisting of fifteen multiple-choice, yes/no, and open-ended items was used to assess their baseline knowledge. This first stage was to ascertain the pupils'

overall level of familiarity with the CLIL methodology.

Subsequently, a parallel online perceptions questionnaire was distributed to determine learners' views on the use of CLIL in EFL teaching and learning. This questionnaire, consisting of 18 multiple-choice, yes/no, and open-ended questions, delved into the subjective experiences and perspectives of students regarding CLIL. The diverse question formats ensured a nuanced understanding of their perceptions.

To validate and delve deeper into students' perceptions, interviews were conducted, utilizing an instrument consisting of eight open-ended questions. This qualitative method allowed for a more in-depth exploration of the students' perspectives on the CLIL methodology. The open-ended nature of the questions provided the participants with the space to express their thoughts and experiences freely.

Furthermore, the study incorporated an observation checklist to capture students' attitudes during the implementation of the CLIL approach through online games. This checklist, organized with yes/no items, served as a systematic tool to record the observable impact of CLIL on students' behavior. By aligning with observable indicators, this approach aimed to complement the self-reported data from the questionnaires and interviews, providing a more comprehensive evaluation of students' responses to CLIL methodology in real-time scenarios.

Procedure

The present study followed a mixed-method approach in which data were qualitatively and quantitatively analyzed. This method is effective in exploring a research problem in depth (Creswell & Creswell, 2017). Firstly, a diagnostic survey was applied using Google Forms to gather data about learners' previous knowledge of the implementation of CLIL and their technology skills. After analyzing the findings of the diagnostic questionnaire, an intervention was conducted by combining the CLIL approach and online games. During this stage, a total of 8 games were designed in each course. To design the games, the ICT tools used were Quizizz, Kahoot, Genially, and Socrative. The games were available for 8 weeks so that students could access them to practice the content of each lesson. During this process, the participants' attitudes were registered using an observation checklist. At the end of the implementation process, the perceptions questionnaire was administered as well as an interview to gather the students' views on the use of online games and the CLIL approach. Lastly, it is important to highlight that all the instruments underwent a pilot test and validation process before their final implementation. To ensure their reliability, Cronbach's alpha was employed to assess the internal consistency of the items, resulting in a favorable coefficient value of 0.68.

Figure 1
Research Process
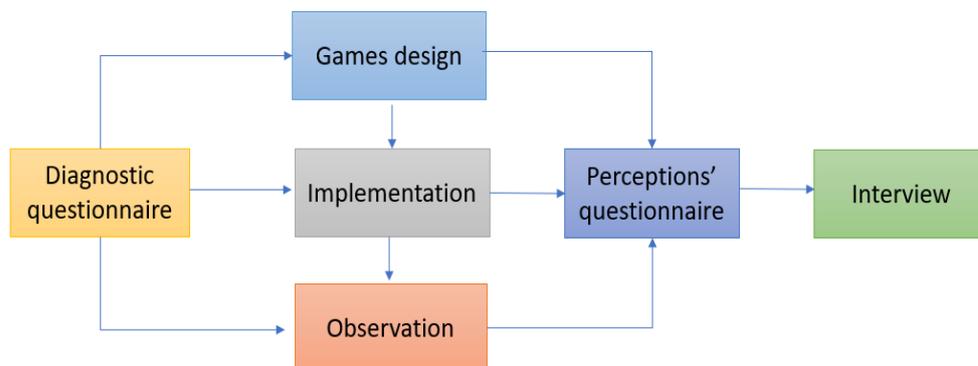
Results and Discussion

The results were diverse based on the students' perceptions in the diagnostic phase. As for the learners' technological skills, data varied from excellent (38.8%) to good (59.7%). This suggests that students had a positive opinion of their ability to use technology, indicating that they are inclined to use online games for learning purposes. In addition, most of the participants agreed that they had used their laptops (98.5%) and smartphones (92.4%) in their academic activities. It is worth mentioning that a great number of learners acknowledged that their teachers had used the CLIL methodology in previous courses (79.1%), and therefore they were acquainted with this approach (89.4%). Moreover, students claimed that this methodology had encouraged them to participate in different activities planned by their teachers, so they perceived CLIL as a motivating and effective approach for managing EFL lessons and improving language skills. Consequently, the main results to respond to the research questions are described below.

What are the EFL Students' Attitudes towards the CLIL Approach through Online Games in EFL Teaching and Learning?

In most of the observed teaching sessions, 66.67% of students were found to be actively engaged while the teaching materials were presented. Such results indicate an increased level of student appreciation for their instructor's pedagogical performance during these sessions. Based on empirical data collected through classroom observations, in a significant proportion of the teaching sessions (60%), students demonstrated marked levels of motivation in the activities involving the use of ICT tools, as arranged by their educators. These results support the idea that students demonstrate favorable attitudes toward instructional methods used in classroom settings. These findings are aligned with Alakrash's (2021) study, which evidenced that both male and female students were highly motivated to use ICT to learn the English language.

Table 1

Results of the Observation

Statements and components of the CLIL approach	Very much	Somewhat	Neutral	Very little	Not at all
Content					
Students are enthusiastic when the content of the class is presented.	66.67%	26.67%	6.66%	0.00%	0.00%
Students were motivated when playing games through ICT tools.	40.00%	60.00%	0.00%	0.00%	0.00%
Students worked collaboratively to analyze the content before playing online games.	93.33%	6.67%	0.00%	0.00%	0.00%
Cognition					
Higher reasoning skills were evident because of the students' experience when playing games.	33.33%	66.67%	0.00%	0.00%	0.00%
Students are actively engaged in the problem-solving tasks when playing online games.	66.67%	33.34%	0.00%	0.00%	0.00%
Students can apply previous knowledge when playing games.	73.33%	26.67%	0.00%	0.00%	0.00%
Communication					
Students use the target language to communicate when playing online games.	100%	0.00%	0.00%	0.00%	0.00%
Students respect each other's opinions when doing activities and playing online games.	93.33%	6.66%	0.00%	0.00%	0.00%
Students could convey their thoughts and opinions in group discussions to establish agreements when playing online games.	66.66%	33.33%	0.00%	0.00%	0.00%
Culture					
Students could effectively identify cultural aspects when playing online games.	46.67%	20.00%	33.33%	0.00%	0.00%
Students were engaged in critical thinking regarding cultural differences and similarities while they participated in games.	26.67%	40.00%	33.33%	0.00%	0.00%
Students actively participated in games in which they had to discuss aspects of their own culture and the culture of others.	60.00%	26.67%	33.33%	0.00%	0.00%

In a significant amount of the full data set that includes classroom observations, 93.33% of students were actively engaged in collaborative efforts during the implementation period including content analysis before starting online gaming

activities. Such results demonstrate a clear tendency for students to engage in these collaborative learning modes when faced with online gaming tasks in educational contexts. In this regard, Quy (2019) manifests that in addition to providing real-world language practice, games also hold the power to instill in pupils a sense of tolerance and teamwork as they cooperate among themselves and lend support to one another's groups.

Regarding cognition, observations evidenced that higher reasoning skills were evident, to a certain extent (66.67%), because of the students' experience when playing games. As for problem-solving tasks, in most of the classes, 66.67% of the students were actively engaged in problem-solving challenges when playing online games. What is even more noticeable is that in most lessons (73.33%), students demonstrated their ability to apply their prior knowledge effectively during game-based activities. These results are aligned with those found by Chen and Wu (2023), in which it was evident that digital role-playing games led to a significant enhancement in students' critical thinking. Certainly, the use of games as an instructional approach promotes creativity in cross-disciplinary teamwork (Tan, 2017).

It was notorious that students in all lessons used the target language to communicate when playing online games. In fact, using interactive and engaging activities such as online games can be an effective way to encourage language learning and language use in the classroom. In this regard, Tai and Chen (2023) also noted that online games exhibited increased levels of involvement and a greater inclination for communication among EFL learners.

In 93.33% of the lessons, it was evident that students consistently demonstrated respect for each other's opinions during activities and online game sessions. In only 6.66% of the classes, there were occasional interruptions or distractions among some learners while engaged in gaming. In this context, as observed in Alawadhi and Ayyash's (2021) research, the use of online games also reduced students' boredom while playing games, enhanced classroom enjoyment, and minimized disruptions.

It was observed that in 66.66% of the classes, students freely expressed their thoughts and opinions during group discussions, successfully reaching agreements when playing online games. In the remaining 33.33% of lessons, some learners displayed a moderate level of proficiency in this aspect. These findings are consistent with the research conducted by Ho et al. (2020), which revealed that the incorporation of games enhances students' capacity to articulate their viewpoints on various aspects within the EFL classroom.

Regarding the cultural component, it is significant to highlight that in 66.67% of the classroom sessions that were observed, students had a strong capacity to recognize and differentiate cultural aspects while actively participating in online gaming. There was a noticeable improvement in the students' cultural understanding when gaming was incorporated into the EFL classroom as a teaching technique. This result is aligned with Soyoof's (2018) study, in which the gaming experience promoted students' cultural learning, making them equipped to endure the target language's cultural disparities.

In addition, it was evident that in 40% of the classes, most of the students were engaged in critical thinking regarding cultural differences and similarities while they participated in games. In this respect, Shliakhovchuk (2018) acknowledges that students

who have a regular interest in online gaming and dedicate a significant amount of their free time to it may find great enjoyment in learning about important social and cultural issues through this engaging activity.

In 60% of the observed classes, students exhibited active participation in games that required them to engage in discussions about cultural aspects. In 26.67% of the lessons, it was noted that some students took part in such activities to varying degrees, while a smaller percentage of classes had limited student involvement in these cultural discussions. In this context, Rodríguez (2016) asserts that games, when integrated into the CLIL approach, not only serve as sources of entertainment but also as powerful educational tools that aid students in acquiring insights into the culture of a society. As for the students' perceptions about the implementation, the results are displayed in the next section.

What are the Students' Perceptions about the İmpact of the CLIL Approach through Online Games in EFL Teaching and Learning?

In reference to the outcomes derived from the content component of the CLIL approach, it is significant to note that a substantial majority of the research subjects (66%) had a positive attitude regarding the teaching strategies that their instructors used to convey the material. Furthermore, a relatively smaller percentage of the students (24.50%) expressed they liked their teachers' content presentation to a more moderate extent. On the other hand, a small percentage of respondents (9.50%) assumed a position of neutrality about this specific feature. These findings collectively point to the appropriateness of the instructional delivery by showing that the students generally responded favorably to the pedagogical approaches that their teachers used. These outcomes are in line with the findings of Boukhechba and Bouhania (2019) who found that delivering content with instructional design principles in mind produces classrooms where students actively engage throughout the whole session.

It is important to highlight that a significant portion of the participants (58.50%) expressed a clear conviction that the use of educational games enabled by ICT tools was crucial in improving their understanding of the material. Conversely, a relatively smaller portion of the learners (39.60%) indicated a more measured level of preference for the use of educational games to assimilate the content within the EFL classroom setting. These results support the claim that students generally viewed instructors' pedagogical integration of games through ICT tools as beneficial because it significantly facilitated their grasp of the subject matter. These findings are related to Almusharraf's (2023) study, in which learners showed positive attitudes toward the use of games, indicating that educational competitions in the classroom foster understanding of the content.

It was found that 69.80% of the participants conveyed a strong affinity for the utilization of online games by instructors to initiate the introduction of subject matter. While a somewhat smaller fraction of the student cohort (28.30%) expressed a more moderate level of preference for the inclusion of games to start the presentation of the class material. These facts imply that students were receptive to having games as an integral component of pedagogical strategies employed by the instructors to introduce a new class topic, which according to Zakaria (2021)

also helps learners to understand and recall a lesson, improve their self-confidence, and motivate them to learn the target language.

Table 2

Students' Perceptions

Statements and components of the CLIL approach	Not at all	Very little	Neutral	Somewhat	Very much
Content					
I like the way my teachers present the content of the class.	0.00%	0.00%	9.50%	24.50%	66.00%
The use of games through ICT tools helps me understand the contents of the subject.	0.00%	0.00%	1.90%	39.60%	58.50%
I like the online games used by my teacher when introducing the contents of the lesson.	0.00%	0.00%	1.90%	28.30%	69.80%
Cognition					
The use of online games helps me develop my critical thinking skills.	0.00%	0.00%	0.00%	37.70%	62.30%
Playing online games after group discussions enhanced my critical thinking skills.	0.00%	0.00%	4.20%	14.70%	81.10%
Individual reflections and pair work after playing games were useful in fostering my reasoning skills.	0.00%	0.00%	1.90%	33.90%	64.20%
Communication					
The use of game-based learning activities helped me develop my EFL communication skills.	0.00%	1.90%	1.90%	42.40%	53.80%
I think that the use of ICT tools used by my teacher to design online games helped enhance my communication skills in the subject.	0.00%	0.00%	3.80%	35.80%	60.40%
Group work and discussions after playing online games were effective in developing my communication skills.	0.00%	0.00%	5.70%	9.40%	84.90%
Culture					
The integration of culture in the EFL lesson is very important for me.	0.00%	0.00%	5.70%	32.00%	62.30%
The use of online games promoted cultural awareness.	0.00%	0.00%	0.00%	5.70%	94.30%
I think online games encouraged me to reflect on my own culture and the culture of other people.	0.00%	0.00%	0.00%	3.80%	96.20%

Regarding the cognition stage of CLIL, most of the participants (62.30%) considered that the use of online games helped them develop their critical thinking skills, and 37.70% admitted experiencing some degree of development. A significant amount (81.10%) reported that playing online games after group discussions also promoted their critical thinking skills. Moreover, 14.70% indicated a level of enhancement in this area, while 4.20% remained neutral on the subject. Concerning reasoning skills, 64.20% of the participants acknowledged the usefulness of individual reflections and pair work after

playing games in enhancing these abilities. Additionally, 33.90% observed this improvement to a certain extent, while 1.90% expressed a neutral response. These results reveal a substantial positive impact of using online games on participants' cognitive development. In fact, integrating online games with group discussions was particularly effective in improving their critical thinking abilities. In this respect, McDonald (2017) asserts that educators can use games as problem-solving tools to enhance their students' learning outcomes in developing critical thinking. In addition, the benefits of post-game individual reflections and pair work for fostering students' reasoning skills indicate the potential of this approach for educational improvement. These findings are aligned with a study carried out by Gee and Kim (2015), which illustrated how online games significantly heightened students' motivation and improved their critical thinking skills.

As for the communication component of CLIL, the results indicate that the majority of the respondents (53.80%) found game-based learning activities to be highly effective in aiding the development of their communication skills in the target language. An additional 42.40% reported experiencing some degree of improvement, which reinforces the positive impact of these activities. It is important to mention that only a very small percentage of participants (1.90%) reported minimal benefits, expressing a neutral stance. Overall, the findings evidence the significant potential of game-based learning in enhancing EFL communication abilities, which is supported by Fithriani (2018), who also found that games enhance learners' linguistic skills.

The results also suggest that most of the respondents (60.40%) found the use of technological tools by their teachers for designing online games to be highly effective in enhancing their communication skills. Additionally, 35.80% of the participants indicated experiencing some degree of improvement. These results imply that there was a favorable perception of the use of ICT tools for online-game design, underlining the potential benefits of integrating technology into EFL education. In this regard, Cabrera (2022) and Castillo (2020) assert that the use of ICT gives EFL teachers the possibility to use effective online games that raise students' competency levels and can be adapted to any kind of content, leading to improved language proficiency.

The implementation of collaborative tasks such as group work and discussions after playing online game sessions has proven to be highly effective in fostering the development of communication skills among students. In this regard, most of the participants (84.90%) reported a positive impact concerning the effectiveness of this approach. Additionally, 9.40% of learners acknowledged some degree of improvement. However, it is worth noting that a small percentage (5.70%) expressed a neutral perception. Despite this, the overwhelmingly positive views emphasize the value of implementing post-game interactive and collaborative activities in the learning process, which according to Bilgin et al. (2015) can produce better learning outcomes.

With respect to the cultural phase of CLIL, as part of the instructional design of an EFL lesson, it is seen as crucial for students because most of them (62.30%) expressed a preference for its use within the classroom setting. Conversely, 32% of the participants conveyed a more moderate level of liking in this regard, and only a small proportion (5.70%) of the learners showed a neutral position in this aspect. These outcomes imply that cultural matters are an important component of EFL instruction to be integrated into

the classroom. Regarding online games and cultural awareness, a vast majority of students (94.30%) affirmed that the use of these games effectively fostered cultural consciousness. Only a small fraction of the participants (5.70%) held a somewhat weaker perception in this respect. This indicates the potential of incorporating online games as an educational tool to bridge cultural understanding.

Finally, the results show the significant impact of online games in encouraging students, since 96.20% of them indicated that they had a positive effect on fostering their reflection about both their own culture and the cultures of others. Only a very small percentage (3.80%) consider that the impact of games on learning about cultural aspects has been moderate. These results might mean that online games are valuable tools for promoting cross-cultural understanding within an educational context, which is confirmed by Griva and Kasvikis (2014), who also found that games are crucial to fostering cultural awareness within the CLIL approach.

Figure 2

Results of the Students' Interview

Overall, it was found that the CLIL approach was positively perceived in the students' interview, which means that all the stages were effective in consolidating their teaching and learning competencies, as displayed in Graph 2. In this respect, Castillo-Cuesta (2022) asserts that online games are motivating and helpful because they effectively enhance EFL learners' linguistic skills.

Figure 3

Students' Perceptions of Online Games

As for the participants' perceptions concerning the effectiveness of online games, it is noticeable that most of them felt motivated since games were not difficult to use; they were entertaining, interesting, and interactive. These features allow learners to enhance their language proficiency and promote a positive learning experience, as shown in Graph 3. These results are in line with Sari's study (2023), in which it was found that the incorporation of CLIL has a positive effect on EFL students' motivation.

Conclusion

The CLIL approach enhanced students' confidence, knowledge retention, and comprehension of the subject matter. Students were actively engaged, indicating a heightened level of appreciation for their instructors' pedagogical performance during sessions, reflecting a positive learning environment. Moreover, students displayed marked levels of motivation, suggesting favorable attitudes toward instructional methods incorporating games. Furthermore, students embrace collaborative learning modes in the context of educational gaming, viewing gamification as beneficial for grasping content. Consequently, data demonstrates that students are actively engaged and responsive to various pedagogical strategies, including the use of ICT tools and educational games.

The implementation of the CLIL approach grants substantial improvement in higher reasoning skills, active involvement in problem-solving, and the effective application of prior knowledge. Moreover, online games can effectively enhance learners' critical thinking skills, particularly when integrated with group discussions, post-game individual reflections, and pair work. Certainly, this approach holds significant potential not only for motivating students but also for supporting advanced cognition. Thus, the integration of online games emerges as a valuable strategy to strengthen language acquisition and cognitive development.

The integration of CLIL using online games has demonstrated a clear positive impact on language learning and communication in the English as a Foreign Language field. This approach not only enhances students' enjoyment and reduces feelings of boredom but also provides a platform for learners to confidently express their thoughts and opinions,

fostering consensus during group discussions. When combined, the use of online games in the classroom offers an effective way to improve students' language learning and communication abilities.

This research highlights the significant influence that online gaming has on raising students' cultural understanding. Certainly, the implementation of CLIL helped learners become skillful in recognizing and differentiating cultural characteristics during games, leading to a noticeable development in their cultural knowledge and understanding. Additionally, students were actively engaged in critical conversations concerning cultural differences, illustrating the potential of online gaming as a means of fostering cultural awareness.

The findings of this study, limited by a small sample size, should not be generalized. Additionally, future research could explore the integration of CLIL and online games through experimental methods, providing a more comprehensive and in-depth analysis of their potential impact. It is suggested that the implementation of innovative teaching methods supported by games might create a positive and effective learning environment.

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