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The Effect of Content and Language Integrated Learning (CLIL) on Developing English Majors' Linguistic Competence and Critical Cultural Awareness

Dr. Amr Fathy Abdelwahab*

Abstract

The present study aimed to find out whether instruction using content and language integrated learning (CLIL) enhances English majors' linguistic competence and critical cultural awareness (CCA). Eighty-six sophomore EFL learners majoring in English were randomly chosen as the study participants and equally assigned to either an experimental group or a control one. Four units based on CLIL were designed and taught for the treatment group, whereas the control one received regular instruction without CLIL. To obtain data, a pre/post linguistic competence test and a pre/post CCA scale were designed to measure students' linguistic competence and CCA. Interviews were conducted after the treatment to collect qualitative data. Results indicated that the intervention helped experimental group students improve their linguistic competence and CCA.

Keywords: CLIL, linguistic competence, critical cultural awareness, English Majors

I. Introduction

Enhancing linguistic competence is a key constituent in the acquisition of English language and is critical for EFL learners in order to help them process information and, therefore, get prepared for this era of globalization (Wang, 2011, p. 127). Consequently, EFL learners need to reach an adequate level of linguistic competence to be able to understand spoken and written materials. To Bachman and Palmer (1996, p. 67), linguistic competence is necessary for the interpretation and catering of discourse in language use. Matthews (2006, p. 211) added that without this linguistic knowledge, language users would not be able to accomplish specific acts, in the course of events, nor perform casual roles in producing the sort of behaviours conducted during exercises of competence.

In spite of the importance of linguistic competence, Jurkovič (2010, p. 450) revealed that teachers frequently report low levels in students' linguistic competence. Students seem to hardly master and use the language effectively despite the adequate exposure to the English language. This may be due to the lack of opportunities to use the language meaningfully.

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during regular instruction which takes the form of merely listening to lectures and taking notes. To Galajda (2017, p. 104), EFL learners, particularly those with low level English proficiency, exhibit limited knowledge of linguistic competence, which causes breakdowns in constructing well-formed sentences and in their engagement in communicative situations. Additionally, Nerlicki (2011) reported that two factors caused anxiety among university students during communication, namely immediate correction made by the teacher and lack of linguistic competence, which impedes their ability to use and communicate in the foreign language.

In addition to linguistic competence, EFL students are required to effectively observe and make connections between their course material and real-world experiences. In this respect, students are encouraged to interact appropriately while engaging in intercultural relationships. This can occur through emphasizing the role of critical culture awareness (CCA) as a key aspect to help learners get prepared for various intercultural interactions (Nugent & Catalano, 2015). Thus, educators should provide more opportunities for their students to analyse and interpret the perspectives, practices and products of the target culture. This can be achieved through providing students with certain words and expressions to avoid conflicts that may occur in intercultural interactions; examining the implications and origins of various attitudes, beliefs, and values; analysing the construction of knowledge, relationships and identities; and making connections between local and global contexts.

According to Byram and Guilhelme (2000), EFL teachers should not take a dominant role during the learning process; rather they should provide more opportunities for inquiry so that students can reach judgements and decisions independently. Houghton (2013) argued that CCA plays a key role in facilitating interaction across cultural barriers, as well as deconstructing prejudice and stereotypes among learners. As a result, students should identify their preconceived judgements and ideas toward individuals of other cultures.

Ideally, EFL learners not only need to speak a language, particularly for their academic and professional success, but also need to apply rules and norms established in a language and be aware of its structures and semantics. Hence, it is necessary for teachers to adopt new methods that will enhance students' linguistic competence and CCA. One possible way is to utilize different CLIL strategies and activities. CLIL classrooms can provide opportunities to increase the amount of the target language input in meaningful contexts, as well as provide ample opportunities of language interaction through initiating students' responses and receiving feedback (Marsh & Frigols Martín, 2012). This is in line with the interaction approach, which suggests that language is best acquired when participants receive sufficient amount of the comprehensible input and increase opportunities to interact with the language (Gass & Mackey, 2014). Additionally, in CLIL classrooms, the focus is on meaning rather than on form, and subject contents are introduced at a high authenticity level, allowing students to voluntary use the target language (Surmont, Craen, Struys & Somers, 2014). This is consistent with the natural approach which suggests that a foreign language is best taught when its acquisition resembles that of the mother tongue and, therefore, serves as a means of communication (Achard & Niemeier, 2008). Taking into account these views, it can be
inferred that students' linguistic abilities, particularly those related to phonological and syntactic aspects, and their CCA may profit from CLIL.

**Context of the problem**

To make sure of the problem, a pilot study was conducted among 97 EFL sophomore students at the Faculty of Specific Education, Zagazig University during the academic year (2019-2020). An EFL linguistic competence test and a CCA scale were administered to the students to assess their linguistic competence and CCA. Results indicated that 79% of the students obtained very low scores on the linguistic competence test. They could not manipulate and recognize the elements of the spoken language, identify word parts, recognize the relationships among words and phrases in sentences, or add complexity to their written material. Additionally, 89% of the students were not able to recognize the importance of their cultural identity, accept cultural differences, understand the notion of diversity, or make connections between the real world and subject material.

Studying the factors affecting 77 freshmen students' test scores, Jurkovič (2010) found that students exhibited low levels when measuring their preexisting linguistic competence. Additionally, teachers reported that students' linguistic competence level is not at the expected level. The difficulties encountered by the students involved inappropriate use of written language and difficulties with word order and sentence structure. Similarly, del Castillo (2016) added that such problems result from misconceptions about the nature of competence and language, inappropriate mental elaborations, insufficient vocabulary knowledge and lack of syntactic knowledge. In his investigation of the CCA in higher education, Parks (2020) noted that most EFL learners were not able to take part in intercultural relationships and could not observe the different relationships between subject material and real world issues. It was recommended that educators are required to implement programs that foster criticality and intercultural competence. Based on the above, there was an urgent need to enhance English majors' linguistic competence and CCA.

**Statement of the problem**

The problem of the current study could be stated in the low level of sophomore English majors in linguistic competence and CCA. The current study, therefore, attempted to answer the following questions:

1. What is the effect of using CLIL on developing sophomore English majors' linguistic competence?
2. What is the effect of using CLIL on developing sophomore English majors' critical cultural awareness?

**Hypotheses**

The following hypotheses were formulated:

1. There is a statistically significant difference between the experimental group students' mean scores and those of their control peers in the post results of the linguistic competence test in favour of the experimental group students.
2. There is a statistically significant difference between the mean scores of the experimental group students in the pre- and post-results of the linguistic competence test in favour of the post-results.

3. There is a statistically significant difference between the experimental group students' mean scores and those of their control peers in the post results of the critical cultural awareness scale in favour of the experimental group students.

4. There is a statistically significant difference between the mean scores of the experimental group students in the pre- and post-results of the critical cultural awareness scale in favour of the post-results.

Significance of the study

The current study is expected to assist curriculum designers to utilize different activities based on CLIL instruction that promote interaction and communication among students, as well as incorporate activities and practices that enhance students' CCA. It may provide EFL instructors with insights into stressing students' linguistic abilities (i.e., phonological, morphological, orthographic, syntactic and semantic) when learning content subjects. Besides, it may help EFL instructors in assisting their students to realize the cultural context and interactional relationships within the content. This will help students develop their intercultural awareness and be confident when communicating with people from different cultures. Course designers, curriculum developers and EFL instructors may also benefit from this study as it provides a linguistic competence test and a CCA scale, which may provide insights into how to assess students' linguistic knowledge and their CCA.

Definitions of terms

Content and language integrated learning

According to Coyle, Hood and Marsh (2010, p.1), CLIL is a dual focused approach in which students learn a foreign language and a subject content at the same time. CLIL is used in the present study to refer to an approach in which students learn the content of different reading topics and the English language at the same time through engaging in various content-based and language-integrated activities.

Linguistic competence

Linguistic competence is defined as knowledge of the grammatical system of a language, how the language is produced according to universal principles and variation, and making judgements about the language (Lust, 2006, p. 124). For the present study purpose, linguistic competence refers to sophomore students' actual use of phonological, morphological, orthographic, syntactic and semantic knowledge. Such knowledge is measured by the EFL linguistic competence test.
Critical cultural awareness

CCA refers to the learners’ ability to critically evaluate different practices, products and perspectives in their own culture and other countries (Byram, 1997, p.53). For the current study purpose, CCA refers to sophomore students’ ability to explore, analyze and evaluate the intercultural interactions within their real lives and the ability to connect real world issues and content material effectively to help them get prepared to engage in intercultural relationships.

II. Review of Literature

Linguists and theorists consider the broader communicative competence as comprising three key constituents: linguistic (Knowledge of the language), sociolinguistic (knowledge of social interaction rules), and pragmatic (understanding functional features) (Council of Europe, 2001). More specifically, the term linguistic competence involves phonological, morphological, orthographic, syntactic and semantic competence. Phonological competence involves identifying and manipulating individual sounds, as well as units of oral language such as syllables, words, onsets and rhymes. This component of linguistic competence is necessary for successful communication (Fraser, 2000). However, phonological competence can be considered as one of the complex aspects to be developed. Little attention is paid to pronunciation due to lack of effective and practical teaching and learning methods and lack of motivation (Gutierrez-Sigut, Payne & MacSweeney, 2005). Morphological competence includes recognizing and manipulating the morphemic structures of various words. When learners are able to construct words, they become able to recognize other unfamiliar words and understand different complex words (Apel, 2014). Orthographic competence refers to recognizing the written forms of words and abbreviations, as well as identifying conventions of punctuation, hyphenation and capitalization (McNeill, 2018). Syntactic competence refers to identifying the grammatical structures of phrases, clauses and sentences. It also involves how words are arranged and combined to form meaningful utterances (Nuraeni, 2020). Semantic competence involves understanding meaning and appropriate use of various words, phrases, causes and sentences (Speaks, 2017).

According to (Cejudo, Salido-López & Rodrigo-Ruiz, 2017), linguistic competence includes the accessibility and cognitive organization of knowledge, as well as the ability to utilize this knowledge to construct well-formed and semantically clear utterances in meaningful contexts. Language, therefore, is viewed as a system comprising a number of dimensions independently from the sociolinguistic and pragmatic competence.

According to Matthews (2006, p. 214), the type of knowledge attributed in linguistic competence falls into either knowledge-that or knowledge-how. Knowledge-that is basically propositional and cognitive; whereas knowledge how refers to skills, abilities and capacities. Sometimes knowledge-how may include knowledge-that; for instance, a learner can effectively perform a certain activity and at the same time can give a detailed description of that activity. On the other hand, other types of knowledge may be mere knowledge-how not involving knowledge-that: this includes the type of knowledge which learners can simply acquire when performing a certain activity (Devitt, 2011, pp. 314-315).
Competent language users, therefore, do not merely know how to speak and use the language. Rather, they go beyond practical language use as in speaking. Hence, they should maintain an adequate level in language knowledge that is distinct from just knowing how to speak the language (Matthews, 2006, p. 200). This knowledge entails learners' linguistic competence and involves what learners gain during the processes involved in acquiring the language and what they use to produce and understand the language (Dykstra, 2003). As linguists held the fact that such knowledge is propositional, it has become commonplace to suggest that competent speakers possess such propositional knowledge of their own language and that knowledge constitutes their linguistic competence (Matthews 2006: 200). However, some linguists argue, on purely epistemological grounds, that linguistic competence comprises intentional states and, therefore, it involves processing particular intentional states (Knowles, 2000, pp. 338–339; Weiss, 2004, pp. 78–79). Such claim, the intentionalist view of linguistic competence, only requires speakers to obtain intentional states that are constitutive of their own linguistic competence and that such states are not necessarily states of propositional knowledge (Matthews 2007, p. 201). Other critics challenged the intentionalist claim, arguing that such states are not constitutive of linguistic competence and that intentional attribution has no role in cognitive science (Chomsky, 2000, p.23). Chomsky again adds that such states are not genuinely representational as they do not indicate something represented (p.159).

Research shows that the enhancement of students' linguistic competence has a positive impact on their language learning progress. For instance, Jurkovič (2010) examined the impact of 77 EFL college students’ preexisting linguistic competence and language learning strategy use on their performance on achievement tests. Instruments involved a strategy inventory for language learning and a linguistic competence test. Findings indicated that the level of students' linguistic competence is a predictor of their scores in achievement tests, which indicates that students with higher linguistic competence had significant advantages compared to those with lower linguistic competence. Additionally, Cejudo, Salido-López and Rodrigo-Ruiz (2017) studied the effect of a linguistic competence enhancement programme on 204 secondary education students' verbal aptitude, academic performance, inductive reasoning, linguistic intelligence self-efficacy and linguistic communicative competence. Findings indicated that the programme showed significant improvements in overall dependent variables with significant improvements in the verbal aptitude, overall academic performance, and linguistic communicative competence. Alrajhi (2020) investigated the role of accumulative gaming experiences on 101 undergraduate English majors' linguistic competence. A survey questionnaire and semi-structured interviews were conducted to collected data. Quantitative results revealed that the intervention enhanced students' learning outcomes and fostered their English language skills. Qualitative results showed that the students enhanced their learning experiences and activated their learning mode.

As a response to the continuing change of global and local communities, it becomes necessary for learners to be effectively prepared to participate in intercultural learning activities and conversations (Alghasab & Alvarez-Ayure, 2021; Kohn & Hoffstaedter, 2017; MacPherson, 2010). In his Model of Intercultural Communicative Competence (ICC), Byram
Byram (2012) added that CCA allows students to gain more skills necessary to participate in various communities, be more connected to the study material, and enhance their experience of critical thinking skills. CCA is also a necessary element of critical thinking and is essential to build relationships in this globalized world (Abdelwahab, 2020a; Breeze, 2017). Furthermore, CCA is also characterized by an interest in ideology. Yulita (2013, p. 205) asserted that one of the aims of CCA is to evaluate and criticize ideological concepts that can result in intercultural conflicts. This requires tasks promoting higher-order thinking skills.

To encourage students to participate in intercultural interactions, educators are required to design material and activities that encourage learners to reflect on the practices and perspectives of the target culture (Byram, 2012; McGee, 2011; Smith, 2013). The ideal type of such intercultural interaction involves cooperative investigation in which students work together to examine their beliefs, engage in tasks promoting rational and thoughtful evaluation of various perspectives, and manage and control their learning. Students are then required to defend, with thoughtful reasoning and proof, their beliefs and views about the target culture. As students better understand the target culture, their beliefs will consequently change and evolve (Kearney, 2010).

Kramsch (2004, pp. 43-44) added that teachers can provide opportunities for analysing similar occurrences in learners’ culture through focusing on the ever-changing and dynamic culture of a foreign culture. Nugent and Catalano (2015, p. 6) posited that teachers can also guide students to recognize the effect of cultural and language variations in smaller communities in a certain country. Moreover, students can determine how the language and culture of a certain group transform those of newcomers.

The concept of CCA comprises two main dimensions: social and psychological (Byram, 2012). The social dimension requires students to analyze and reflect on different social aspects of culture and language (Osborn, 2006). For instance, EFL students can compare the language variations that occur in certain social situations in different cultures (e.g., England, USA, Canada, and Australia). Hence, students can notice that foreign languages can function differently depending on language users and context. This helps them visualize how cultural aspects play a crucial role in determining the interactions in various societies, though the same language patterns are used. Hence, students can observe the connections between their daily lives and their foreign language learning.

The psychological dimension, on the other hand, requires students to recognize the connection between foreign language and identity (Byram, 2012). It is vital for students
The Effect of Content and Language Integrated Learning (CLIL) on Developing English Majors' Linguistic Competence and Critical Cultural Awareness

learning a foreign language to consider how the target language can affect learners' social and personal identity (Byram, 2012; Kramsch, 2004). Hence, foreign language learners can explore how they perceive themselves and how others view them when they use the target language.

Although educators and scholars have stressed the importance of CCA, no study -to the researchers' best knowledge- investigated how CCA can be enhanced through CLIL while working to enhance linguistic knowledge. Besides, researchers and experts in the field of English language learning stated that there is a need for further research to incorporate CCA in English language curricula (Byram, 2012; Guilherme & Sawyer, 2021; Parks; 2020).

Atai, Babaii and Bazargani (2017) attempted to develop a scale to assess EFL teachers' CCA. For this purpose, two instruments were designed to gather data among 370 EFL teachers: semi-structured interviews and a questionnaire to collect data on CCA. A 37-item scale involving three components (i.e., CCA in ELT programs, CCA in ELT materials and CCA in general terms) was developed. Results indicated that EFL teachers who are able to critically evaluate different programs and materials, as well as have different perspectives regarding other cultures, are expected to obtain CCA. Krulatz, Steen-Olsen and Torgersen (2018) developed a school-based curriculum project based on identity texts that aimed to support teachers to foster their students' CCA. Two rural schools offering education in grades 1-10 were selected to conduct the project. Data were collected through surveys for teachers, samples of students' work and lesson planning materials. Results indicated that the project enhanced students’ CCA. It also helped teachers to reflect on their educational practices and implement plans that create culturally responsive environments.

According to CLIL, the learning process features a dual purpose focusing on promoting both foreign language learning and content (Marsh & Frigols Martín, 2012). The term CLIL has been used to embrace integrating both content and foreign language in various educational settings. Hence, students can develop their academic knowledge while acquiring and improving their English language proficiency (Carrió-Pastor, 2021, p.14).

In CLIL classrooms, integration occurs through focusing on form (i.e., language) and meaning (i.e., the content of words), which enables students to acquire language rules and content knowledge simultaneously (Carrió-Pastor, 2021, p. 77). Language, therefore, serves as a mediator for exchanging expertise and constructing knowledge. For Davison (2005), the combination of foreign language acquisition and subject content empower students gain knowledge and become competent members in society.

Similarly, Dalton-Puffer, Nikula and Smit (2010) argued that CLIL is intimately situated within ESL/EFL classrooms and contributes to language learners' communicative development. Heine (2010) pointed out that CLIL instruction enhances EFL students' processing of semantic knowledge due to exposure to conceptual differences related to language. Such differences can promote understanding of the interrelationships between concepts and, therefore, deepen understanding of content knowledge.
Nikula and Mård-Miettinen (2014) suggested that CLIL can be beneficial to English language learners as it expands vocabulary through mastering sets of lexicon in various subject areas. It also assists EFL learners to overcome problems concerning syntactic complexities and text structure. Dalton-Puffer, Nikula and Smit (2010) stressed the importance of CLIL instruction as students have opportunities to explore content knowledge and examine different linguistic and interactional features. Similarly, Nikula (2005) argued that CLIL allows EFL learners to gain more space to interact with each other while elaborating on the content. It also enables students to initiate class talk through various questions addressed to their peers or the teacher.

In addition to the dual role of language and content, knowledge construction and genre-based thinking should be considered when designing CLIL material. Hence, students should master the lexical features, the notion of genre, academic subject language and using appropriate registers (Abdelwahab, 2020b; Lorenzo, 2013)

CLIL has been largely investigated over the past few years and is still gaining interest due to its potential values in second/foreign language learning (Carrió-Pastor, 2021, p. 1). For instance, Sanad and Ahmed (2017) examined the impact of CLIL on EFL college students' reading skills, vocabulary knowledge and retention. Participants comprised 10 English majors at Majmaah University, KSA. Instruments involved a pre-post reading skills test and a pre-post vocabulary test. Quantitative analysis revealed that CLIL has a positive impact on students' reading skills and their vocabulary knowledge. It was also recommended that CLIL should be applied to EFL and ESP learners. In a longitudinal study spanning a whole year, Merino and Lasagabaster (2018) investigated the effect of CLIL programs' intensity on English language proficiency. Participants involved 393 secondary school students. To measure the English language proficiency, the standardized Key English Test was used to assess students' level. Findings revealed a positive impact of CLIL programs' intensity on students' English language proficiency. It was also noted that the implementation of CLIL was useful in enhancing the four language skills, i.e. listening, speaking, reading and writing.

Accordingly, previous research has stressed the positive effects of using CLIL in foreign language skills and content subject (Carrió-Pastor, 2019; Carrió-Pastor, 2021; Navés & Victori, 2010). Nevertheless, the effect of CLIL on students' linguistic competence and CCA remains unclear. The current study, therefore, sought to examine the effect of CLIL on the development of linguistic competence and CCA.

III. Methodology

Participants

The study was conducted at the Faculty of Specific Education, Zagazig University. The participants involved 86 sophomore English majors aged 19 and 20 years old. All participants are taught the basic courses during their first year of college, and they can be thought of high beginner level learners. The reason for choosing this year is that students at this stage are supposed to have acquired the basic linguistic knowledge and conventions during their first
year of college study. Additionally, the participants reported a seemingly-low linguistic level, compared to their expected level of expertise as they are supposed to read and understand complex authentic texts during their academic study. To make sure that the results would reveal a genuine difference owing to CLIL instruction and ensure the homogeneity of the two groups, the linguistic competence and CCA of both groups were pre-tested as shown in tables 1 and 2.

Table 1. Comparing pre- results of the experimental group and the control one in the linguistic competence test

<table>
<thead>
<tr>
<th>Group</th>
<th>No.</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp.</td>
<td>43</td>
<td>5.581</td>
<td>2.683</td>
<td>1.161</td>
<td>0.248</td>
</tr>
<tr>
<td>Cont.</td>
<td>43</td>
<td>6.116</td>
<td>1.383</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

t-value is not significant at (0.01) level

Table 2. Comparing pre- results of the experimental group and the control one in the critical cultural awareness scale

<table>
<thead>
<tr>
<th>Group</th>
<th>No.</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp.</td>
<td>43</td>
<td>17.000</td>
<td>3.518</td>
<td>1.626</td>
<td>0.107</td>
</tr>
<tr>
<td>Cont.</td>
<td>43</td>
<td>15.488</td>
<td>4.977</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

t-value is not significant at (0.01) level

According to tables 1 and 2, there were no significant differences between the two groups at the beginning of the experiment. This means that they were homogeneous.

Study design

Both quantitative and qualitative data were analyzed. Hence, the current study adopted a mixed-method research design in which 86 EFL sophomore students were randomly assigned into either a control group (n=43) or an experimental (n=43). The experiment was conducted during the first semester of the academic year (2020-2021). An academic course (English Readings) was assigned and taught through CLIL to the experimental group over a six-week period, while the control one received instruction without CLIL. Therefore, students in the control group helped in determining whether this intervention brought about the desired development in experimental group students’ linguistic competence. Eight participants were chosen to participate in the qualitative part. All participants were informed that their data would be confidential and their participation in the study was voluntary. After the intervention, the students' level of linguistic competence and CCA were post-tested to find out any significant differences. t-test was used to analyse quantitative data. On the other hand, qualitative data were collected and analysed thematically.
Instruments

For quantitative data collection, a pre/post linguistic competence test (See Appendix B) and a CCA scale (See Appendix C) were designed by the researcher and submitted to a jury of specialists in the field of TEFL to determine their validity. To determine reliability, the test-retest method was used to find out the internal consistency of the test (0.83) and the scale (0.86). The test comprised five sections. Each section was devoted to measure a certain linguistic aspect (e.g., phonological, morphological, orthographic, syntactic and semantic). On the other hand, the scale comprised 24 statements aiming at gathering information about students' ability to evaluate various perspectives in different cultures, as well as their ability to engage in intercultural relationships. The same version of the test and the scale were used to assess both groups' level before and after experimentation. Finally, semi-structured interviews were conducted to collect qualitative data. Each interview lasted for about 30 minutes and focused on the usefulness of implementing the intervention.

Material

The intervention involved four units based on CLIL and lasted for six weeks (one session per week) during the first semester of the academic year (2020/2021). The intervention aimed at helping students better access complex academic texts by providing learner-centered activities, tasks and practices focusing on studying both the content and language skills (i.e., listening, speaking, reading and writing). It also sought to enhance students' linguistic competence and, therefore, supports them to comprehend content-dense texts with relatively complex lexical items and long elaborate sentences. In each session, students were introduced to different academic texts. Thus, they had the opportunity to tackle new and relevant subject-related concepts and topics. Balance was made between subject content and language and, at certain times, there was a shift between learning the academic content and its linguistic manifestation.

At the beginning of each session, the instructor told the students that they were going to listen to and read a certain text. As a warm-up activity, students worked in groups to brainstorm the ideas of the topic and the instructor elicited basic information. Utilizing different information in the text (e.g., illustrations, titles, headings, and diagrams) and previous knowledge, students were asked to make predictions and envision the upcoming content of the text. Based on their predictions, students were asked to map the content and organize the text ideas in information sets using ideational frameworks (e.g., grids, flow charts, and tree diagrams). Such diagrammatic representations helped students generate new ideas and formed the basis for taking notes. Then, students listened to the first part of the text to check their predictions. They were asked to find out whether their predictions were confirmed or rejected compared to what they heard. Having completed this task, students were guided to enhance their linguistic knowledge through a dictogloss activity in which they were required to reconstruct parts of the text through listening and noting down key details. Distributing copies of language analysis worksheets, the instructor asked students to record sentence structures, figures of speech, tone, and word choice. This also involved identifying language features and explaining their effects. The instructor, at this stage, monitored
students’ work, clarified any overlaps and drew attention to special expressions and fixed phrases. Being engaged in a vocabulary extension activity, students practiced key concepts and words through generating their own examples of different concepts, comparing and contrasting related items, and incorporating the concepts and words taught in meaningful discussions. Having completed this task, students were encouraged to map the text through creating a continuous text scroll. This helped them identify text features and recognize the content. Students were also trained on creating concrete models for abstract concepts and ideas, which allowed them to interact physically with the written text. The instructor assisted the students to highlight or underline the most salient points in the text in order to easily access content information. Finally, students practiced follow-up activities such as parallel writing, content extension, oral work, or project work so as to find more related information to the given content using internet resources. In this context, the instructor helped students expand and draw out their linguistic knowledge and practice various lexical items and structures through more detailed study of the written text.

In addition, various types of scaffolding (e.g., linguistic, cognitive, conceptual, and cultural scaffolding) were provided for the students when accomplishing different linguistic tasks. Through linguistic scaffolding, the instructor allowed students to analyse and interpret different cognitive and linguistic demands of the given tasks so as to help them advance to higher levels of linguistic competence, as well as process and internalize the input. This involved processing specialized and academic lexical vocabulary, key language structures, grammatical information, and knowledge about the subject content. Cognitive scaffolding, on the other hand, allowed the students to support information processing, enhance problem-solving processes, and better analyse the complexity of the tasks through setting clear and attainable objectives for both subject content and language development, as well as refining them and determining their priorities. Similarly, conceptual scaffolding aimed at reducing the cognitive load, caused by the complexity of tasks, through explaining key conceptual knowledge and enhancing knowledge retrieval. Cultural scaffolding involved making connections between students’ own culture and other cultures and helping students engage in culturally-relevant teaching situations. Affective scaffolding aimed to provide a motivating environment for learners and support their self-efficacy.

IV. Results

The data obtained were analyzed both quantitatively and qualitatively. Quantitative analysis was performed using t-test and aimed at investigating whether the experimental group students, who participated in the intervention, improved their linguistic competence and CCA more than their control peers, who received regular instruction without CLIL. Additionally, findings were presented in terms of the present study hypotheses. The first hypothesis states that "there is a statistically significant difference between the experimental group students’ mean scores and those of their control peers in the post results of the linguistic competence test in favour of the experimental group students". To verify the first hypothesis, Independent Sample t-test was used to find out any significant differences.
Table 1. Comparing post-results of the experimental group and the control one in the linguistic competence test

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t. Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exp.</td>
<td>43</td>
<td>6.232</td>
<td>0.781</td>
<td>18.392</td>
<td>84</td>
<td>0.000</td>
</tr>
<tr>
<td>Phonological</td>
<td>Cont.</td>
<td>43</td>
<td>3.325</td>
<td>0.680</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morphological</td>
<td>Exp.</td>
<td>43</td>
<td>5.837</td>
<td>0.652</td>
<td>20.338</td>
<td>84</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Cont.</td>
<td>43</td>
<td>2.906</td>
<td>0.683</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orthographic</td>
<td>Exp.</td>
<td>43</td>
<td>5.604</td>
<td>0.659</td>
<td>18.808</td>
<td>84</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Cont.</td>
<td>43</td>
<td>2.976</td>
<td>0.635</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syntactic</td>
<td>Exp.</td>
<td>43</td>
<td>6.465</td>
<td>0.667</td>
<td>21.104</td>
<td>84</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Cont.</td>
<td>43</td>
<td>3.232</td>
<td>0.750</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic</td>
<td>Exp.</td>
<td>43</td>
<td>6.093</td>
<td>0.750</td>
<td>20.637</td>
<td>84</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Cont.</td>
<td>43</td>
<td>2.930</td>
<td>0.668</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Exp.</td>
<td>43</td>
<td>30.232</td>
<td>2.136</td>
<td>32.155</td>
<td>84</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Cont.</td>
<td>43</td>
<td>15.372</td>
<td>2.149</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in table 1, the experimental group students outperformed those in the control one in overall linguistic competence and its dimensions. The experimental group students obtained higher means in the linguistic competence dimensions (ranging from 6.465 to 5.604) and overall linguistic competence (30.232); whereas the control group students obtained lower means in linguistic competence dimensions (ranging from 3.325 to 2.906) and overall linguistic competence (15.372). The t-value for the overall linguistic competence (32.155) is statistically significant at (0.001) level. Hence, the first hypothesis is verified.

The second hypothesis states that "there is a statistically significant difference between the mean scores of the experimental group students in the pre- and post- results of the linguistic competence test in favour of the post-results". To verify the second hypothesis, Paired Sample t-test was used to find out any significant differences.
Table 2. Comparing pre- and post- results of the experimental group in the linguistic competence test

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Measurement</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t. Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonological</td>
<td>Pre</td>
<td>43</td>
<td>0.813</td>
<td>0.698</td>
<td>31.202</td>
<td>42</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>43</td>
<td>6.232</td>
<td>0.781</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morphological</td>
<td>Pre</td>
<td>43</td>
<td>1.0</td>
<td>0.723</td>
<td>31.039</td>
<td>42</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>43</td>
<td>5.837</td>
<td>0.652</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orthographic</td>
<td>Pre</td>
<td>43</td>
<td>1.744</td>
<td>0.693</td>
<td>35.662</td>
<td>42</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>43</td>
<td>5.604</td>
<td>0.659</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syntactic</td>
<td>Pre</td>
<td>43</td>
<td>1.325</td>
<td>0.714</td>
<td>34.043</td>
<td>42</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>43</td>
<td>6.465</td>
<td>0.667</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semantic</td>
<td>Pre</td>
<td>43</td>
<td>0.790</td>
<td>0.674</td>
<td>40.425</td>
<td>42</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>43</td>
<td>6.093</td>
<td>0.750</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Pre</td>
<td>43</td>
<td>5.674</td>
<td>2.766</td>
<td>50.061</td>
<td>42</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>43</td>
<td>30.232</td>
<td>2.136</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows that students in the experimental group obtained higher means in the post-results of the linguistic competence test compared to pre-test results. The post-mean scores for phonological, morphological, orthographic, syntactic and semantic competence were 6.232, 5.837, 5.604, 6.465 and 6.093 respectively. The t-value of the overall linguistic competence was 50.061, which shows that the difference is significant at (0.001) level. Hence, the second hypothesis is verified.

The third hypothesis states that "there is a statistically significant difference between the experimental group students' mean scores and those of their control peers in the post results of the CCA scale in favour of the experimental group students". To verify the third hypothesis, Independent Sample t-test was used to find out any significant differences.

Table 3. Comparing post- results of the experimental group and the control one in the CCA scale

<table>
<thead>
<tr>
<th>CCA scale</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t. Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total of scale items</td>
<td>Experimental</td>
<td>43</td>
<td>58.06</td>
<td>4.18</td>
<td>42.17</td>
<td>84</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>43</td>
<td>15.60</td>
<td>5.10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3 indicates that students in the experimental group obtained higher mean score (M= 58.06) compared to that of the control group (M= 15.60). The t-value (42.17) is statistically significant at (0.001) level. Therefore, the third hypothesis is verified.

The fourth hypothesis states that "there is a statistically significant difference between the mean scores of the experimental group students in the pre- and post- results of the CCA scale in favour of the post-results". To verify the third hypothesis, Paired Sample t-test was used was used to find out any significant differences.

Table 4. Comparing pre- and post- results of the experimental group in the CCA scale

<table>
<thead>
<tr>
<th>CCA scale</th>
<th>Measurement</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t. Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total of scale items</td>
<td>Pre</td>
<td>30</td>
<td>17.00</td>
<td>3.518</td>
<td>52.50</td>
<td>42</td>
<td>0.000</td>
</tr>
<tr>
<td>Post</td>
<td>30</td>
<td>58.069</td>
<td>4.182</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 shows that students in the experimental group obtained higher mean score (M= 58.069) compared to that of the control one (M= 17.00). The t-value (52.50) is statistically significant at (0.001) level. Therefore, the fourth hypothesis is verified.

Qualitative data were also recorded aiming to provide further insights into students' gains and determine the ways in which CLIL enhanced students' linguistic competence. Students in the experimental group reported positive perceptions on their experience by studying through CLIL instruction. They commented on how the intervention helped them improve their linguistic knowledge, particularly enhancing their vocabulary knowledge, using complex and compound sentences, and constructing well-formed grammatical structures. This outcome was shared by most participants: one participant commented:

"Being engaged in CLIL increased my ability to use many phrases and clauses to build sentences. I felt at the end that I made a lot of progress and my skills have been improved. I also became able to have a good knowledge of vocabulary in different fields."

Another common theme was the transition from the mere theoretical knowledge to the practical implementation of various language rules.

Another participant commented, "Now, I can write correct sentences and compose well-formed paragraphs. The activities that I practiced during the intervention allowed me to gain more practical knowledge and share my experiences in learning English."

Another participant added, "The intervention was very useful as it helped me use different language structures and create meaningful sentences."

Regarding the enhancement of students' CCA, one participant commented, "The instruction helped me understand issues and topics of other countries and cultures and allowed me to practice many activities and interact with my colleagues."
V. Discussion

The present study attempted to explore the possibility of enhancing students’ linguistic competence through engagement in CLIL activities. Findings indicated that CLIL is promising in developing students’ linguistic competence and CCA. The intervention promoted teacher-student interaction and student-student interaction while practicing various linguistic tasks. Students adopted an active role as commentators and questioners, which allowed them to be competent language users and helped them notice various cultural relationships between the material being taught and world issues. It is likely that CLIL provided students with meaningful contexts to enhance successful language learning. This empowered them to be confident in both language use and subject knowledge. Being trained on how to organize information in content area texts, students could mark various text features and explore language structures in depth, which enhanced their linguistic processing. In addition, students had the opportunity to explore various perspectives in their own and other cultures, which allowed them to gain a deeper level of cultural awareness, become more involved in learning to the content, and engage in meaningful interactions addressing different cultures. This occurred through identifying the hierarchical structures of texts (e.g., cause and effect, comparison, problem and solution, sequence and description), getting involved in the process of construction and deconstruction, and exploring speech and texts of different linguistic backgrounds. Thus, examining the surface and deep structure of the texts allowed students to recognize how different words, phrases and clauses work together to create meaning. Hence students enhanced their CCA while developing their linguistic knowledge.

Students were also engaged in dictogloss reconstructions, either by writing or speaking, in which they listened to texts and then noted key ideas. This practice helped them enhance their oral skills (e.g., correct word pronunciation, word and sentence stress, and intonation patterns), develop their lexical knowledge through substituting words and providing examples and definitions, and enhance the grammatical structures used in writing and speaking. Students were trained on how to focus on language form and produce correct grammatical structures while being engaged in real-life communication or preparing a summary of their work. This also involved drawing students' attention to a particular language feature and helping them synthesize information. This was confirmed by Snoder and Reynolds (2019) and Lindstromberg, Eyckmans, and Connabeer (2016) who affirmed that using dictogloss activities assist students in enhancing their linguistic knowledge.

Besides, teaching vocabulary in context allowed students to provide as many ideas as they could about a specific meaning of a word, understand various possible meanings of words, and identify in what ways the words are different in meaning or similar. Sorting the given words into categories according to their meaning, students could incorporate different vocabulary into their writing and speaking. Furthermore, they were asked to elaborate on or give more details about the words in complete sentences. As students exploited their background knowledge, they had the chance to connect what they had already learnt to new words and then visualize their responses using graphic organizers. Such activities provided students with experience to recognize learning, extend new vocabulary, and recognize the meaning of key words. This is in line with studies confirming that using hands-on activities
and other interactive instructional techniques help students gain new information and vocabulary (e.g., Castellano-Risco, Alejo-González, & Piquer-Píriz, 2020).

In another vein, students' analysis of the text language including author's style (i.e., the particular way in which the text is written), specific word choice, how the ideas and information are embodied in the text, and how the author uses the text to communicate ideas allowed them to fully understand the intended meaning and then use it effectively in guided activities. In this context, students focused on utilizing the rules that govern the language, identifying segmental and suprasegmental features that assist in understanding spoken language, recognizing the purposes for which the language is used, and constructing meaningful interpretations based on the context. Hence, students had the opportunity to make connections between language forms (i.e., different structures used to express a specific meaning) and functions (e.g., inviting, comparing, asking for permission), which helped them present language in context. In addition, the analysis of particular language items occurred in line with the analysis of the situation and author-reader relationship, which in turn affected the choice of language. Students were also encouraged to elaborate on their own beliefs and attitudes about the target cultures, and participate in active inquiry concerning the perspectives and practices of other cultures. This helped them critically evaluate their preconceived ideas and different views on other cultures.

Finally, follow-up activities allowed students to express themselves in written or oral forms. They found it useful to produce oral or written sentences using new language forms. The transfer of practice from reading to writing or oral activities helped them emphasize language use and get engaged in real language practice. Hence, students were able to use vocabulary in context, utilize different structures, examine the semantic content of various words and expressions, identify the interrelationships between sentences, and recognize the socio-cultural meanings of different expressions in situational contexts.

Students in the control group, on the other hand, showed no significant improvement in their linguistic competence and CCA. They could not engage in meaningful interactions and were not allowed to play an active role while learning. This led to lack in their ability to recognize relationships between the content material and world issues. The regular instruction only involved lecturing and conducting some discussions without paying attention to the sociocultural and situational context of the content. Additionally, students could not develop their linguistic knowledge due to little exposure to oral and written language. Hence, students exhibited low levels in their production of the language as well as their CCA.

**Recommendations**

The current study examined the role of combining both subject content and foreign language learning, and provided insights into how to utilize different CLIL activities to enhance students' linguistic competence and CCA. It showed that stimulating the development of linguistic competence and CCA can occur through various CLIL activities. Additionally, such activities can be effectively taught to EFL learners. Based on these results, curriculum designers need to integrate CLIL instruction into English language learning settings.
particularly when teaching content subjects, in order to foster students' foreign language learning and their awareness of cultural issues. Furthermore, EFL instructors should utilize various CLIL activities to foster students' phonological, morphological, orthographic, syntactic and semantic knowledge, which positively affects their scores on different content subjects. They should also stress students' ability to critically evaluate the various views and practices of different cultures and focus on how the social context and culture influence interactions. The assessment of EFL college students should involve different linguistic elements, as well as their awareness of various intercultural relationships. Hence, in CLIL classrooms, students are typically immersed in meaningful and relevant content through utilizing various resources, not being constrained by classroom limits.

**Suggestions for further research**

In the light of the results of the present study, the following suggestions are made:

1. Examining the impact of CLIL, as an integrated approach to English language learning, on the enhancement of other English language skills i.e., listening, speaking, reading and writing.
2. Investigating the effect of CLIL on EFL students' sociolinguistic and pragmatic competence.
3. Investigating the influence of CLIL on EFL students' academic achievement and motivation towards learning the English language.
4. Further research is needed to investigate the role of integrated assessment in CLIL settings as a key component to assess English language learners' language skills.
5. A longitudinal study is needed to investigate EFL learners' creativity, interaction and attitude when implementing CLIL instruction.
6. Investigating the relationship between students' linguistic competence and their CCA.
7. A case study is needed to explore EFL teachers' beliefs about implementing CLIL instruction.

**References:**


The Effect of Content and Language Integrated Learning (CLIL) on Developing English Majors' Linguistic Competence and Critical Cultural Awareness


The Effect of Content and Language Integrated Learning (CLIL) on Developing English Majors’ Linguistic Competence and Critical Cultural Awareness


أثر مدخل التعلم التكاملى للغة و المحتوى (CLIL) في تنمية الكفاءة اللغوية و الوعي الثقافي الناقد لدى طلاب شعبة اللغة الإنجليزية

عمرو فتحي عبادوهاب
مدرس المناهج و طرق تدريس اللغة الإنجليزية
كلية التربية النوعية. جامعة الزقازيق

المستند:

يهدف البحث الحالي إلى تقسيم اثر استخدام مدخل التعلم التكاملى للغة و المحتوى (CLIL) لتنمية الكفاءة اللغوية و الوعي الثقافي الناقد لطلاب الفرقة الثانية بشعبة اللغة الإنجليزية بكلية التربية النوعية، وتألفت عينة البحث من (86) طالباً و طالبة تم تقييمهم إلى مجموعتين (تجريبية N = 43، و ضابطة N = 43). و تمثلت أدوات البحث في اختبار الكفاءة اللغوية (لقياس مستوى الطلاب قليباً و بعدياً في أبعاد الكفاءات الصوتية و الصرفية و الإملائية و النحوية و الدلالية) وكذلك قياس الوعي الثقافي الناقد (لقياس مستوى الطلاب قليباً و بعدياً لدىped أفردهم على تقليم وجهات النظر المختلفة في ثقافتهم و الثقافات الأخرى بالإضافة إلى قدرتهم على الانجراف في العلاقات بين الثقافات) . و استخدم البحث كلاً من التحليل الكمي و الكيفي للحصول على البيانات و تفسيرها. و توصلت نتائج الدراسة إلى وجود فروق ذات لائحة إحصائية بين متوسط درجات المجموعتين التجريبية و الضابطة في كل من نتائج اختبار الكفاءة اللغوية و قياس الوعي الثقافي الناقد لصالح طلاب المجموعة التجريبية.

الكلمات الدالة: التعلم التكاملى للغة و المحتوى، الكفاءة اللغوية، الوعي الثقافي الناقد.