

## ASSESSING THE IMPACT OF CONTENT-BASED INSTRUCTION ON LEARNING EFL IN AN ESP CLASS

**Moundir Al Amrani**

*Institut National des Postes et Télécommunication (INPT), Rabat, Morocco*

[alamrani@inpt.ac.ma](mailto:alamrani@inpt.ac.ma)

**Abstract:** *English for Specific Purposes (ESP) is the field of language teaching and learning of English in a specific area of specialty. However, learning ESP is not to be understood as just learning a set of technical vocabulary and expressions; it is about learning to use English in a given specific context with the implication of all the skills and objectives of language learning. This qualitative research investigates the impact of Content-Based Instruction (CBI) on developing comprehension and vocabulary in a course of English for Specific Purposes at an engineering school in Morocco where English is learnt as a Foreign Language (FL). A total number of 40 students were divided into two groups of 20 students per class and were taught a fifteen-hour course of legal English over a period of six weeks. Each class lasted one hour and fifteen minutes, at the pace of two classes per week. Focus was on reading comprehension and learning vocabulary in an interactive way by engaging the learners actively. At the beginning, both groups were given the same pre-test to determine their present knowledge of legal English. After the experiment period, another post-test was administered to the students to determine their level of progress. At first, the results of both groups in each test were compared with each other. Then, the results of each group in the pre-test were compared with the results of the same group in the post-test. The general result is that both groups have made progress in improving comprehension and vocabulary capabilities in legal English. As for same-group results, the experiment group have managed to make significant progress in their post-test results compared to their pre-test results, while the control group maintained their higher score shown in the pre-test. The conclusion drawn from this is that Content-Based Instruction does help students improve their comprehension and vocabulary capabilities in ESP. Therefore, focus on content does yield positive results in learning language. Reducing content to just a topic through which learners learn language may cause the learners to miss a learning opportunity. Thus, there may not be a reason to give the content aspect of a language course less importance than the language aspect.*

**Keywords:** Content-Based Instruction; English for Specific Purposes; English as a Foreign Language; CLIL; Comprehension, Vocabulary

### 1. Introduction

The economic growth in Morocco has attracted international companies that require job candidates to be able to use English for specific job requirements.

Moreover, there are calls for education reforms to give foreign languages in general, and English in particular, more value and importance in the national curriculum. However, so far, English for Specific Purposes (ESP) has not had a clear position in the Moroccan education system. ESP is mainly taught in vocational training schools and in some university and college courses and it is mainly practiced by teachers who may not have formal training in teaching ESP. Moreover, there are no clear guidelines when it comes to teaching and designing syllabi for ESP, leaving it in the hands of the teachers to make their own decisions as to when and how to teach ESP, and to decide on the course content and the materials to use. This leaves a void as to which approach is most appropriate to teach Moroccan students ESP in a context where English is used as a foreign language. Following this, the present paper outlines an experiment on the impact of teaching ESP through Content-Based Instruction on Moroccan engineering students' comprehension and vocabulary capabilities. The experiment consists of teaching a course of legal English over the period of six weeks to examine the hypothesis that CBI is more relevant to teaching and learning ESP in an EFL context.

## **2. Theoretical Background**

### **2.1. Literature Review**

The applicability of Content-Based Instruction (CBI) to wider and varied language contexts has rendered it increasingly popular (Grabe and Stoller, 1997). However, CBI's versatility has also put its criteria to question, as several researchers seem not to agree on what defines a CBI approach. As a basic explanation, CBI is often looked at as a philosophy of teaching that aims at guiding student's development to become independent learners outside the classroom (Stryker and Leaver, 1997) by engaging them in activities that help them develop critical thinking skills, learning and communicative strategies, as well as depth in learning culture (Morioka, Hayashi, and Ushida, 2008:264).

Other more specific definitions describe CBI as an approach which 'view[s] the target language largely as the vehicle through which subject matter content is learned rather than as the immediate object of study' (Brinton et al., 1989:5). In this regard, the work of Krashen (1982) on comprehensible input has been influential in advocating the relevance of CBI to language teaching and learning, as CBI creates opportunities for learners to use the language meaningfully and practice cognitively demanding language tasks (Snow, Met, and Genesee, 1989). Similarly, Cummins' notions of cognitive demand and decontextualized language (1984) have provided CBI with further support. Thus, CBI bridges the unnatural gap between language and content created and maintained by notional/functional approaches to language teaching and learning (Brinton et al., 1989).

The relevance of content in learning ESP where language is used as a means for meaningful learning has been emphasised by several researchers. In a research on ESP versus EGP, Lo (2012:79) concludes that the characteristics of a successful ESP syllabus include, among others, having meaningful tasks. A course designed for adult learners should surpass the traditional focus on notional/functional aspects of language. Adult learners are predisposed to learn language when it is a vehicle of meaningful learning rather than a target in itself.

Moreover, 'people learn a second language more successfully when they use the language as a means of acquiring information, rather than as an end in itself' (Richards and Rodgers, 2001:207). Similarly, Hutchinson and Waters (1987:109) make content focus an integral component of their ESP materials design model. Therefore, an ESP course is more than a language course; it has a content dimension that serves the learners' needs through automaticity, meaningful learning, intrinsic motivation, and communicative competence (Brown, 2001) to help students develop second language competence within specific topic areas (Tsai and Shang, 2010:78).

However, various studies have dealt with the impact of CBI on language learning and found conflicting results as to whether CBI does yield positive results in language learning. Mason (1971) conducted a research on students following courses in L2 and others following ESL courses and, according to him, there was no significant difference between the two groups in level of achievement in learning L2. Counter results were found by Swain (1974) who conducted a research on the level of achievement in learning French as a second language. The results of this research, according to Swain, indicated that immersion programs helped the students achieve higher levels of learning than those taking courses of French as a second language. In another study, Kasper (1997) evaluated the impact of CBI on students' performance in an ESL context. The study revealed considerable improvement in the experimental group's scores in comparison with the control group's. This means that accumulating background knowledge on topics continually dealt with proves to be significant in learners' progress (Tsai and Shang 2010:79). In a similar study, Glenn (2005) assessed the effect on content, proficiency and academic literacies in a bilingual sheltered-content approach course. Her results conclude that delivering content through content-based instructional strategies helps students contextualize concepts and expand their reading skills (Tsai and Shang, 2010:79). These results are further corroborated by studies conducted by Kasper (1994a, 1995a, 1995/96, 1997a and Parkinson 2000).

More recent studies have covered the relation between ESP and CLIL, and it has been discussed in several articles from varying perspectives. Joseba Ordeu (2013) looked into the compatibility between ESP and CLIL in a Spanish university where continuous efforts have been made to replace ESP courses with CLIL courses. The findings of the research reveal that both types of courses are compatible in terms of objectives and principles.

In what may be considered a follow-up research, Tzoannopoulou (2015) highlighted the points of convergence between CLIL and ESP and their implementation in a journalism course at a Greek university. Tzoannopoulou concluded that the implementation of CLIL activities contributes to the course objectives and helps the learners engage actively in producing the pieces of work the professional community expects. Therefore, the implementation of the core principles of CLIL appears to be beneficial to ESP courses.

In a similar study, Vanessa Leonardi (2015) explored ESP and CLIL in the context of tertiary level education. Her research supports the idea that learning English at university level could benefit from collaboration between ESP and CLIL, since there are more areas of convergence between these two approaches. This conclusion has been substantiated by Woźniak (2017) in a study she conducted on the roles

of ESP teachers as interdisciplinary lecturers. The results of this study emphasise that ESP and CLIL are collaborators rather than rivals.

From the learner perspective, integrating CLIL in education has received positive feedback on the part of the learners as confirmed by a number of studies. In a three-year longitudinal study at a university in Spain, David Lasagabaster and Aintzane Doiz (2015) analysed students' self-perceptions of, among other things, language improvement. The result is that the students' perception of their language improvement was greater in their CLIL classes than in their English as a Foreign Language classes.

Support to this study comes from Alejandra Nuñez Asomoza (2015) who explored students' perceptions of CLIL at a Mexican university and her findings are concurrent with Lasagabaster and Doiz's (2015). Asomoza's study results show that students have an overall positive perception of CLIL courses offered at the BA in foreign languages at the *Universidad Autónoma de Zacatecas Mexico*. The students explain this by the possibility to use language in a different context. Similarly, in a study conducted between 2010-2015, Antonio Jiménez Muñoz (2016) measured the impact of the methodological interventions of CLIL and EMI (English as a Medium of Instruction) on students' grades. The findings revealed that CLIL improves EMI results by 3.6%.

Several other studies (Chostelido & Griva 2013; Chansri & Wasanasomsithi 2016; Canlas 2016; Yang 2016) have continued to assess the impact of CLIL in education and its promising potential for language and content learning. Their findings seem to converge in confirming the positive impact of CLIL on students' language improvement.

These studies, as well as others not mentioned here, seem to have covered the impact of CLIL on students' improvement. The present study continues in the same direction by assessing the impact of CLIL in comparison with the lexical approach in an ESP course in an engineering school in Morocco where English is a foreign language. Therefore, exploring the impact of CLIL in an ESP course in a country where English is a foreign language may reveal other aspects of the importance of content in a language course, especially ESP where content knowledge is considered an integral part.

## **2. 2. Defining: CLIL/CBI- -ESP**

The affinities between ESP and CLIL, including Content-Based Instruction (CBI) and Theme-Based Instruction (TBI), call for deeper understanding of the distinctive aspects of these approaches and methods, as well as their implication in second and foreign language learning in an ESP course. Therefore, it is important to define each one of them to show its relevance to the present study.

### **2.2.1. Content and Language Integrated Learning (CLIL) /Content-Based Instruction (CBI)**

Basically, both CLIL and CBI refer to a method of language teaching where language is considered a vehicle for carrying meaning, unlike some other teaching methods that place emphasis more on the structural aspect than on the content aspect. The term 'CLIL refers to situations where subjects, or parts of subjects, are taught through a foreign language with dual-focused aims, namely the learning of content and the simultaneous learning of a foreign language.' (Marsh, 2002:2). When focus and attention shift towards structure at the expense of content, as it is

the case with notional-functional and structural approaches, we step out of the CLIL circle. The phrase 'Content and Language Integrated Learning,' coined by David Marsh back in 1994, denotes an approach to language and content learning that uses each aspect for the benefit of the other.

There are many facades to CLIL and its implementation is subject to the teacher's view and the demands and objectives of the teaching-learning context. At the heart of this approach, there is the dual focus on language learning and content learning, which is an important factor in learning a foreign language. Although the definition seems to simplify the nature of CLIL, reducing it to an approach where language is learnt through content is misleading. In general terms, it is basically about bringing these together. In other words, taking a deep look at this approach can enlighten us on certain pitfalls and misconceptions about it.

Content-Based Instruction (CBI) refers to 'the teaching of content or information in the language being learned with little or no direct or explicit effort to teach the language itself separately from the content being taught' (Richards & Rodgers, 2001:204). Hence, CBI is about learning specific course content through the medium of a language other than the learner's L1 with the aim of learning L2.

Snow (2001) presents five varieties of CBI models that make use of L2 at varying degrees ranging from total immersion to theme-based instruction. Total immersion, the first model, ignores any need for language proficiency as the learners are already proficient users of the language. As for the second model, partial immersion, there is little focus on the linguistic aspect of the course. The sheltered model, the third model, is a context of learning where two teachers, an ESL teacher and a content teacher, work together to help the learners understand L2 content classes. The content specialist gives a lecture and the L2 instructor makes sure the learners understand it. Alternatively, the adjunct model, the fourth model of CBI, aims to prepare the learners for L2 content classes through teaching them the main language points and skills they need to have as prerequisites before joining those content classes. Adjunct model classes are usually taught by ESL specialists to prepare the learners for college classes that are taught in L2. The fifth model of CBI is theme-based instruction (TBI) where focus shifts towards learning L2 through focusing on themes relevant to the learners' specialty and of interest to them. TBI is more relevant to learners of EFL because their level requires making more efforts to improve their proficiency, and classes focus more on L2 learning with less emphasis on the incidental learning of content. However, it should be a condition for TBI to have focus on content and language, which is the main difference between TBI and other types of syllabi.

Table 1 below shows the degree of focus on content and language in each model of CBI. Having a dual focus on language and content imposes on teachers to understand the degree of focus on each aspect. Focus can be on language more than on content; in this case, the approach is language-driven. In the case when focus on content is more than on language, then the approach is content-driven.

Based on this continuum of language and content integration, teachers can make decisions as to which model is best appropriate to adopt. In the case of an EFL context where students have little or no chance to use English outside the classroom, a theme-based model could be the appropriate starting point before venturing into the other more challenging models. At the same time, the Sheltered and Adjunct models may not be of much significant use in an EFL context, as they seem to result in L1 encroaching upon L2. This may lead to reducing the amount of

exposure to L2 students need and at the same time making them foster the habit of depending on their L1 in learning L2.

**Table 1:** A Continuum of Content and Language Integration

Content-Driven				Language-Driven
Total Immersion	Partial Immersion	Sheltered Courses	Adjunct Model	Theme-Based Courses

(Met, M. (1998). Curriculum decision-making in content-based language teaching. J. Cenoz & F. Genesee (Eds.). *Beyond bilingualism: Multilingualism and multilingual education*. Clevedon: Multilingual Matters. 35–63)

### 2.2. 2. English for Specific Purposes (ESP)

As opposed to English for General Purposes (EGP), English for Specific Purposes (ESP) is a division of ELT that conceptualizes learning English in a specific area. According to Master (1997), ESP is an approach to the teaching of English, unlike CBI, which is a type of syllabus, like, for example, task-based or notional/functional syllabi. Thus, ESP and CBI operate at two different levels of ELT hierarchy. As such, ESP can make use of the different types of syllabi, including TBI and CBI. This opens up the dimension of considering reshaping the teaching ESP in such a way that makes use of the potential of CBI. In this paper, CBI is considered as an approach in designing ESL and EFL syllabi.

No matter how many objectives one can set for an ESP course, the main objectives can be broken down into two: a) learning the language specific to a field of concentration or specialty, and b) using this language to communicate in this field. In line with this, Jim Cummins (1980a; 1980b) introduced the concepts of BICS (Basic Interpersonal Communicative Skills) and CALP (Cognitive Academic Language Proficiency). The former represents everyday use of language for communication, which englobes both aural and written forms for all the different purposes, from a simple interaction, such as writing a memo or talking on the phone, to more complex tasks such as explaining a complex process of writing an article in a given field. The second concept, "CALP," represents a specific kind of language that one encounters only in specific contexts. This means that it is unlikely for one to encounter this kind of language outside specific circles, which highlights the importance and relevance of ESP.

Likewise, we can differentiate between transactional and interactional uses of language in communication. Both transactional and interactional dimensions are present in language use; however, in ESP, emphasis may be more on the transactional use of language. Exchanging information and communicating meaning are very much emphasized in ESP, since the learners are getting ready for either further academic study and research, or professional use of the language for work. This brings to the fore the importance of meaning and content in an ESP course, which, in turn, calls for syllabus design.

A relevant, yet often ignored, aspect of adult language learning is the cognitive aspect. An understanding of language learning and brain development could justify why content should be indispensable to language teaching, especially to adults.

### **2. 3. Cognitive Implications**

Since this paper deals with learning ESP in an EFL context, we need to look at language learning from a cognitive perspective. Basically, ESP learners are adults and young adults; therefore, questions about language learning in adults from a cognitive point of view may clarify how content is relevant to teaching language to adults.

Language is a human faculty of the brain, and as such, it is evident that there are parts of the brain responsible for the processing of language. The widespread claim that has been in place for quite some time is that language-related parts of the brain are limited to Broca's area and Wernick's area. This has been revised as new evidence has revealed that other parts of the brain also have a role in language learning and processing (Mundhra, 2005). Moreover, some experiments have proved that learning the mother tongue takes place in different areas of the brain from those where learning L2 takes place (Mundhra, 2005).

In the case of bilingualism, adopting L1 and L2 at an early age is concentrated in the same areas of the brain, while adopting L2 at adulthood takes a separate direction from L1 areas of the brain. Moreover, further research has revealed substantial evidence that the age of learning L2 determines where L2 is stored in the brain. Kim et.al. (1997) carried out such a research and found out that learning L2 simultaneously with the native language at an early age takes place in the same areas of the brain; however, if L2 learning happens at a later age, teenage years or later, L1 and L2 are directed towards separate brain areas.

A possible reason why acquiring an L2 at an early age is assigned to a common brain area with L1 but at a later age is assigned to separate areas is that after the brain has fully developed, it becomes less possible for Broca's area to accommodate two languages, and hence the need for a new storage space for L2 (see Kim et al., 1997).

With the new findings in mind, this means that some models may need some revision. The fact that learning an L2 at a later age is partly monitored by new brain areas calls for attention, as this means that learning L2 may have to follow a new model instead of that of acquiring L1. However, we should pay attention to, and be aware of, the fact that acquiring L1 happens through the simultaneous learning of the syntactic and semantic system of L1. Thus, in order to learn the syntactic and semantic system of L2, the adult brain needs to process them simultaneously. The traditional focus on language structures and rules or on the communicative aspect of language may not serve learners of English at tertiary level. In order to develop the cognitive skill of learning, exposure to meaningful language use is capable of activating the cognitive mechanism of learning L2 on equal terms.

Learning or acquiring a second language can be effective as long as it takes place at an early stage of infancy. If this takes place after the age of puberty, it is possible to learn the language, but its proficiency is not likely to be comparable to L1. With this in mind, in addition to the findings that learning L2 at an adult age is assigned to new brain areas, we can speak about revising current trends in L2 learning at an adult age and consider the role of content in language teaching. To put it simply, since learning L2 at an adult age is assigned to a new brain area, it could be assumed that content should be an integral part of L2 learning instead of putting more emphasis on structure or form.

### **3. Case Study: Impact of CBI on Foreign Language Learning at Tertiary Level**

#### **3.1. Rationale**

Apart from special situations, students of ESP at tertiary level fall into two categories: those who want to get a job and start a career, and others who may consider pursuing a higher academic track in their field of study. In either case, there is a big need for and demand on English. Given the fact that some of these learners may not necessarily speak English as their first language, their level of proficiency should be taken into consideration. The majority of these students are ESL students and many of them are EFL students who may not have the average proficiency level required for better career opportunities or academic study; therefore, CLIL in ESP may be the adequate solution to a number of issues.

CLIL and ESP can come together to meet the needs of students of English in general and of EFL in particular. Combining content and language in ESP can be an ideal approach to make up for proficiency deficiencies, on the one hand, and to meet the needs of the learners' future endeavours, on the other. This has to do with the cognitive predisposition of adult learners to cope with language elements and the recent research findings discussed earlier in this article.

The problem with some other approaches to language teaching and learning is their overt emphasis on language as a target rather than as a means. Course content is usually aligned with linguistic objectives; thus, structure is the means and target of language learning at the expense of its value and potential. What CLIL does is reverse the equation by turning L2 into a self-serving means through content. This means that learning L2 becomes a cognitive process facilitated by, and through, the content taught. In other words, we alter the means of learning while preserving its objective.

#### **3.2. Hypothesis**

Combining content and language in teaching English for Specific Purposes can improve and enhance learning English as a foreign language.

#### **3.3. Research Question**

Do learners show any significant improvement in learning EFL by using CLIL/CBI in an ESP class?

#### **3.4. Participants**

The study is carried out on a sample of two groups, a control group and an experiment group, of 20 students per each. These are engineering students in telecommunications and computer science studying English in their second year at the National Institute of Posts and Telecommunications in Rabat, Morocco. The learners in the two groups study Business English in their third semester. In Semesters 1 and 2, they studied general English to brush up on their use and command of it. In semester 4, they will study a course of English for Telecommunications and Computer science. These students share a background knowledge of French, Arabic, varied dialects of Moroccan Arabic, and some of them may speak a regional dialect of Amazigh language. As for English, they started learning it in 9th grade and up until high school. After that, they continued learning the language for two more years during preparatory classes for

engineering schools. Participants have never studied legal English and have no knowledge of it.

### **3.5. Methodology**

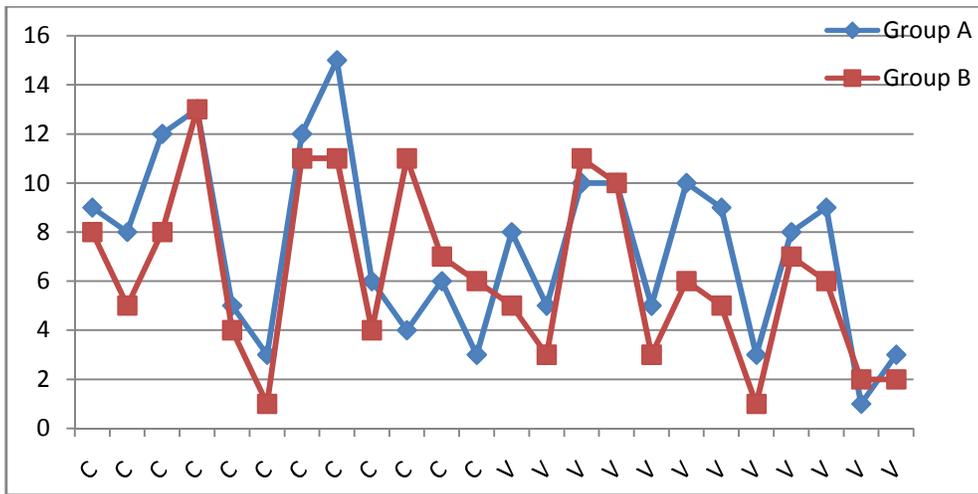
Since the participants have some knowledge of Business English and it is very likely they also have some knowledge of English for computer science and telecommunications, the experiment consisted of teaching them a course of legal English, of which they have no previous knowledge or experience, which was confirmed in interviews with the learners, to better assess their performance and language learning at the end of the experiment.

The study is carried out by administering a pre-test to determine learners' knowledge of legal English to constitute a model for comparison. This was carried out thus instead of a proficiency test, because, since legal English is totally new to them, their present proficiency level is of little use. The learners followed a six-week course of Legal English before they were assigned a post-test to determine their achievement. The course consisted of reading comprehension and vocabulary that were assessed in a twenty-four-question pre-test and post-test, in which twelve questions were asked about comprehension, and a similar number of questions was asked about vocabulary.

Each group of participants were taught the course using a specific method before their progress was assessed after six weeks. Group A (the control group) were taught using a lexical approach focusing on understanding vocabulary and giving definitions, finding information in the text, and checking correct answers. Group B (the experiment group) were taught using a content-based approach focusing on deep understanding of the text, understanding and explaining vocabulary in context, discussing specific ideas pertaining to the subject-matter of the text, and giving specialized explanations to the ideas discussed in the text. Learners were given background explanation of legal rules and when these rules are applied with example cases. After a period of six weeks, a post-test was administered to both groups to gauge the degree of improvement they have made, if any, as far as legal English is concerned.

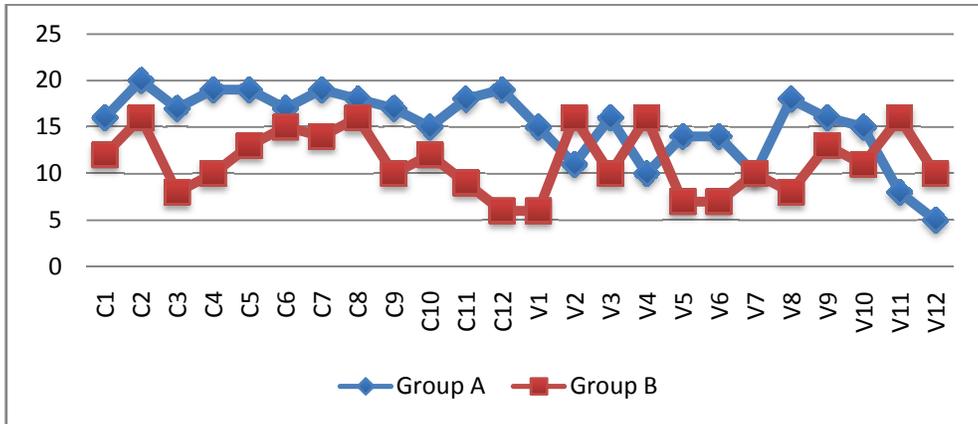
### **3. 6. Results and Discussion**

The overall results of the pre-test show that Group A, the control group, seem to have scored higher than Group B, the experiment group, in most of the questions. Group A overcame Group B in 17 out of 24 questions, and they were equal in just 2 questions. However, as Figure 1 shows, both groups' performance is proportional to the other's. In other words, when Group A scored low, so did Group B, with Group A scoring slightly higher than Group B. Please note that the vocabulary questions are labelled with the letter 'V' and the question number next to it. As for the comprehension questions, each is labelled with the letter 'C' and the corresponding number next to it. The questions are labelled thus for discussion purposes; the nature of the questions themselves has very little use in this study.



**Figure 1:** Comparison of pre-test correct answers of both groups

The post-test results, shown in Figure 2, confirm Group A's high performance and even show some improvement in comparison with the results of the pre-test. The number of Group A participants who answered questions correctly is higher than the number of Group B participants. The highest number for Group A is 20, whereas for Group B the number is 16. However, Group B have shown significant improvement in 4 vocabulary questions. Group A, on the other hand, show significant improvement in comparison with Group B in 5 comprehension questions and in 3 vocabulary questions. Overall, both groups have shown improvement in the post-test in comparison with the pre-test, with Group A always maintaining a higher score, which is explained by the group members' higher performance in the pre-test.

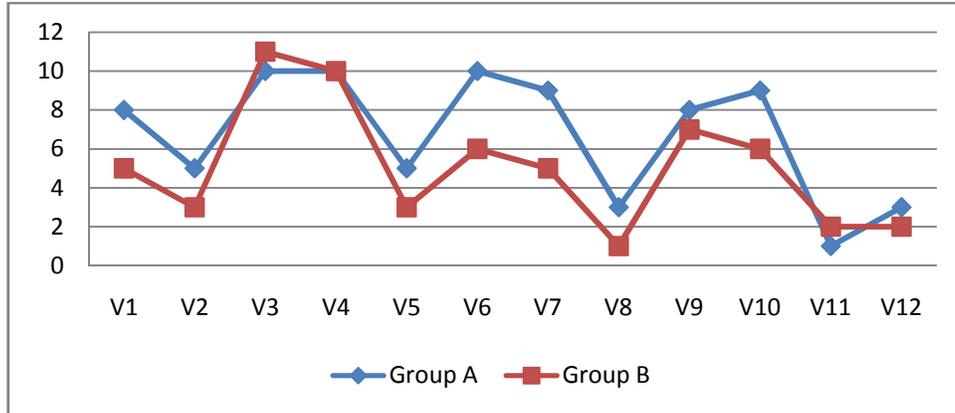


**Figure 2:** Comparison of post-test correct answers of both groups

As noted in the results of both tests, both groups maintained their relative performance, which renders it challenging to spot significant difference between each group's performance both in the pre-test and the post-test. To take a closer

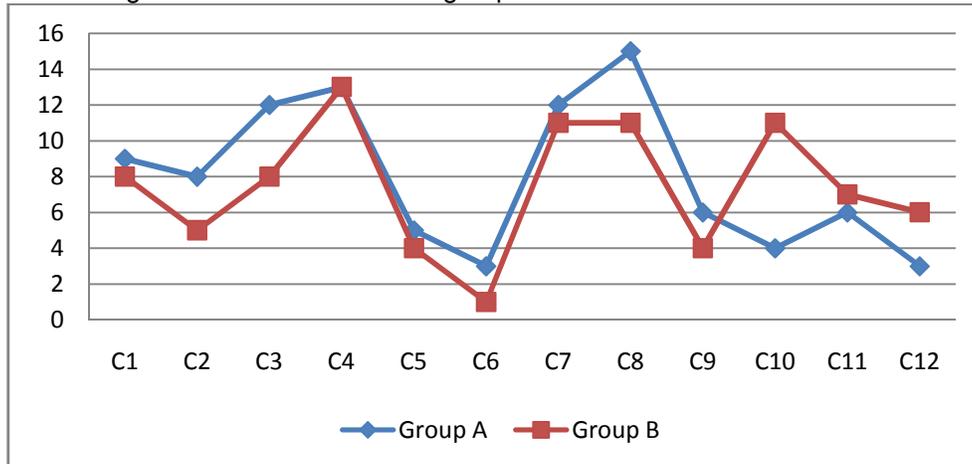
look at the results, focus has shifted towards comparing both groups' results in comprehension and vocabulary in the two tests with each other.

In terms of vocabulary, Figure 3 shows a contrast of the two groups' performance in vocabulary sections of the pre-test. Although both groups' performance seems to be, at first sight, so similar, Group A's predominance is notable, with more participants who got more correct answers in comparison with Group B.



**Figure 3:** Comparison of pre-test vocabulary questions of Group A vs. Group B

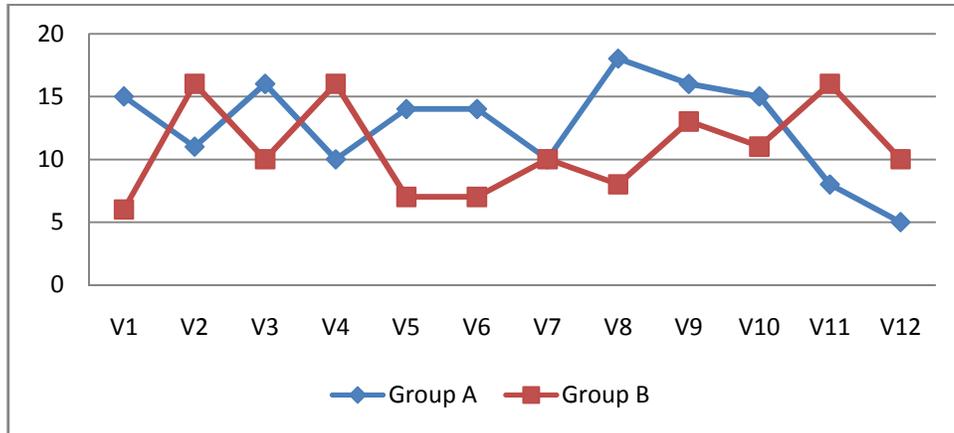
The same could be said about the pre-test results of the comprehension section of the test. As Figure 4 shows, Group A performed better than Group B, with the latter scoring significantly better results in most of the questions. Similar to the results of the vocabulary section, we do not notice any instance of a group scoring extremely lower or higher results than the other group.



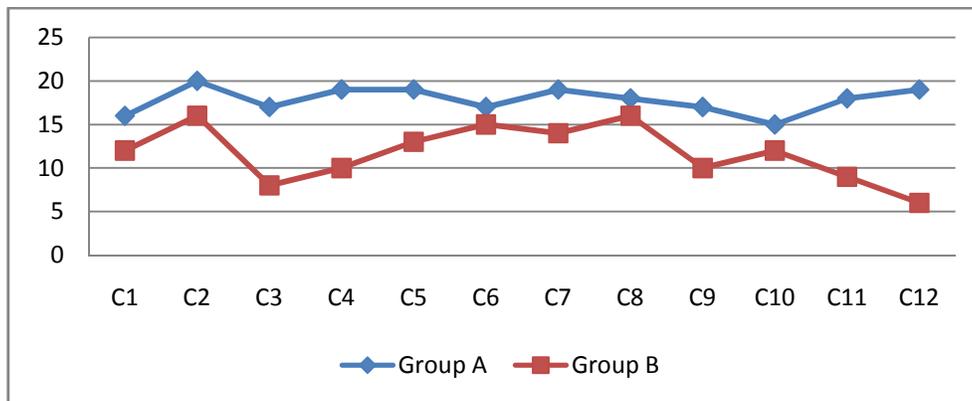
**Figure 4:** Comparison of pre-test comprehension questions of Group A vs. Group B

The remarks made about the pre-test results also apply to the post-test. In Figure 5, Group A maintain their higher results in 7 out of the 12 vocabulary questions, while Group B managed to surpass Group A only in 4 questions; the remaining number of the questions answered was the same. As for comprehension, Group A

surpasses Group B in all the questions (Figure 6).



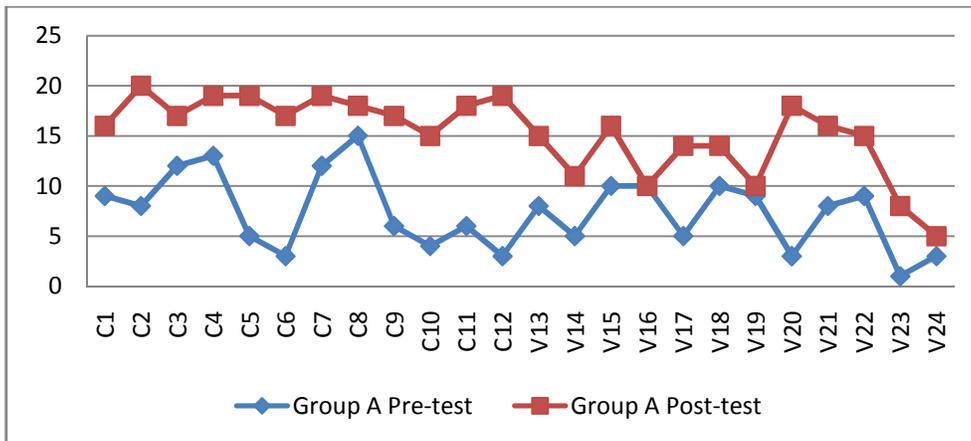
**Figure 5:** Comparison of post-test vocabulary questions of Group A vs. Group B



**Figure 6:** Comparison of post-test comprehension questions of Group A vs. Group B

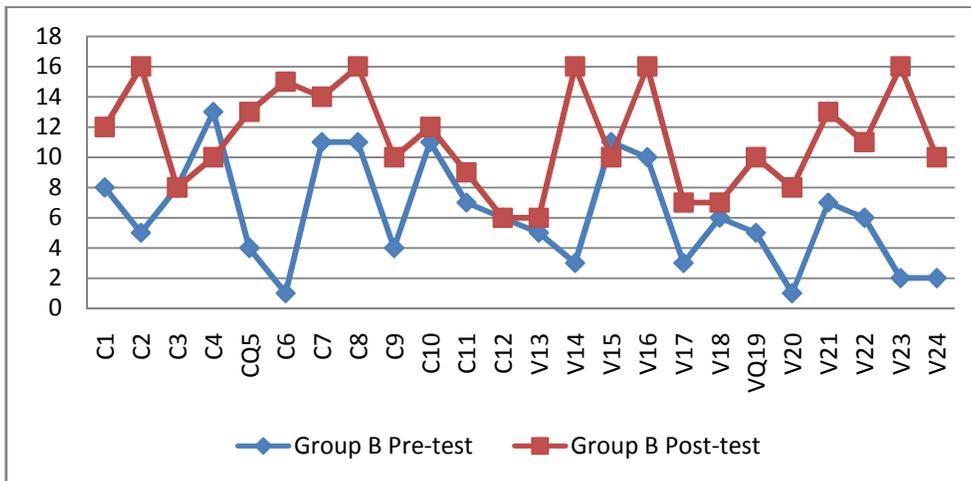
Since the post-test and pre-test results reveal a general preponderance for Group A, an alternative way of examining the test results would be to compare the same group's performance in the pre-test and the post-test to detect any change in that group's performance.

Starting with group A, the control group, a comparison of the difference in performance between the pre-test and the post-test shows clear improvement in terms of the number of questions answered correctly and the number of participants who answered the questions correctly (Figure 7). All of the participants of Group A made progress in all the comprehension questions.



**Figure 7:** Comparison of pre-test and post-test results for Group A

As shown in Figure 8, there has been a remarkable increase in the number of participants from Group B who answered the questions correctly. After comparing each group's performance in the pre-test and the post-test with the other group's performance, we can make a number of remarks. Both groups have made progress, which means that both methods have worked. This also means that neither method excludes the other in terms of achieving the teaching and learning objectives. Therefore, there is no need to rely, for example, on a notional-functional approach that may leave out important aspects of language by giving less or no importance to content, because, rather than hindering learning, adding focus on content seems to make learning more efficient. In other words, language is also learned when used as a vehicle for meaning and not as a set of functions.



**Figure 8:** Comparison of pre-test and post-test results for Group B

These results are in line with the more recent research findings discussed earlier in this paper. Although in some cases the positive impact of CBI/CLIL on language

learning may not be noticeable enough, the impact is still there and it does influence language learning in a positive way. The results of this research also show that content should be an integral part an ESP syllabus (Hutchinson and Wales 1987). The fact that learners have made progress leaves the door open for more possible improvement in the application of CLIL/CBI in language teaching and learning. It could be advanced that more immersion in content could yield significant impact on learners' progress in FL learning.

#### 4. Conclusion

In conclusion, we may answer the research question about whether learners have made significant progress in learning ESP through CBI/CLIL by saying that although there is no big impact on learners' progress, CBI has proved itself to be relevant in learning EFL. This proves that both of content and form are collaborators in language learning. That CBI does not rule out other approaches to teaching and learning a foreign language is in itself a confirmation that CBI also has a place in second and foreign language teaching and learning. However, the door for further research and inquiry remains open, as this research is qualitative in nature. Therefore, testing the impact of CBI on a larger scale over a longer period will yield more substantial results. More emphasis on content for the sake of language teaching may boost learners' development of language and communication skills. Moreover, it may also help with motivation when content is relevant and interesting to learners.

#### References

- Asozoza, N. A. (2015). Students' perceptions of the impact of CLIL in a Mexican BA program. *PROFILE Issues in Teachers' Professional Development*, 17(2), 111-124. <http://dx.doi.org/10.15446/profile.v17n2.47065>.
- Brinton, M., Wesche M., and Snow, M. (1989). *Content-based second language instruction*. New York: Newbury House.
- Brown, H. D. (2001). *Teaching by principles: An interactive approach to language pedagogy*. New York: Longman.
- Canlas, I. P. (2016). The use of Content and English Language Integrated Learning (CELIL) methodologies in teaching selected concepts in physics. *International Journal of Scientific & Technology Research*, 5(10), October 2016, 154-159.
- Chansri, Ch. & Wasanasomsithi, P. (2016). Implementing CLIL in higher education in Thailand: The Extent to which CLIL improves agricultural students' writing ability, agricultural content, and cultural knowledge. *PASAA*, 51, January - June 2016, 15-38.
- Cummins, J. (1980a). The cross-lingual dimensions of language proficiency: Implications for bilingual education and the optimal age issue. *TESOL Quarterly*, 14, 175-187.
- Cummins, J. (1980b). The entry and exit fallacy in bilingual education. *NABE Journal*, 4(3), 2560, pp. 25-59.
- Cummins, J. (1984). Wanted: A theoretical framework for relating language proficiency to academic achievement among bilingual students. Rivera, C. (ed.),

- Language proficiency and academic achievement*. Clevedon, England. *Multilingual Matters* 10, 2-19.
- Fernández, D. J. (2009). CLIL at the university level: Relating language teaching with and through content teaching. *Latin American Journal of Content & Language Integrated Learning*, 2(2), 10-26. Doi:10.5294/lacil.2009.2.2.11
- Glenn, O. M. (2005). The development of English literacy and global studies concepts using sheltered instruction. *Dissertation Abstracts International*, (UMI No. 3166569).
- González, A. J. M. (2013). (In)compatibility of CLIL and ESP courses at university. *Language Value*, 5(1), 24-47.
- Grabe, W., and Stoller F. L. (1997). A six-T's approach to content-based instruction. Donna M. Brinton and Margaret A. Snow (eds.) *Content-based classroom: Perspectives on integrating language and content*. New York: Longman, 78- 94.
- Hutchinson, T. and Waters, A. (1987). *English for Specific Purposes: A learning-centered approach*. Cambridge: Cambridge University Press.
- Kasper, L. F. (1994a). Improved reading performance for ESL students through academic course pairing. *Journal of Reading*, 37, 376-384.
- Kasper, L. F. (1995/96). Using discipline-based texts to boost college ESL reading instruction. *Journal of Adolescent & Adult Literacy*, 39(4), 298-306.
- Kasper, L. F. (1995a). Discipline-oriented ESL reading instruction. *Teaching English in the Two-Year College*, 22, 45-53.
- Kasper, L. F. (1995b). Theory and practice in content-based ESL reading instruction. *English for Specific Purposes*, 14, 223-230.
- Kasper, L. F. (1997). Assessing long-term effects of content-based ESL instruction. A paper presented at *Discipline-Based ESL Instruction: Benefits and Implementation* (a CUNY Development Colloquium). [Online] Available: <http://members.aol.com/hta/Drlfk/long.term.effects.html>(Accessed August 10, 2008).
- Kim, K. H. S., Relkin, N. R., Lee, K., and Hirsch, J.(1997). Distinct cortical areas associated with native and second Languages. *Nature*; 388, 171–174. Available at:<http://mcdb.colorado.edu/courses/3650/SecondLanguage.pdf>(Accessed March 24th, 2014).
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Oxford: Pergamon.
- Lasagabaster, D. & Doiz, A. (2016). CLIL students' perceptions of their language learning process: Delving into self-perceived improvement and instructional preferences. *Language Awareness*, 25:1-2, 110-126. DOI: 10.1080/09658416.2015.1122019
- Leonardi, V. (2015). Bridging the gap between ESP and CLIL in the university context. *Iperstoria – Testi Letterature Linguaggi, Saggi/Essays*, 5 – Spring 2015, 18-26.
- Lo, Y. G. (2012). ESP versus EGP: A case study of an ESP program for vocational high school students of Tourism. *Taiwan International ESP Journal*, 3(2), 71-100.
- Marsh, D. (2002). *LIL/EMILE –The European Dimension: Actions, trends and foresight potential*. Public services Contract EG EAC. Strasbourg: European Commission.

- Mason, C. (1971). The Relevance of intensive training in English as a foreign language for university students. *Language Learning* 21(2), 197-204.
- Master, P. (1997). Content-Based Instruction vs. ESP. *TESOL Matters* 7(6), December 1997, 197-204.
- Met, M. (1998). Curriculum decision-making in Content-Based Second Language Teaching. Jasone Cenoz and Fred Genesee (eds.) *Beyond Bilingualism: Multilingualism and Multilingual Education*. Clevedon, Eng. Multilingual Matters, 35-63.
- Morioka, A.; Hayashi, A. T.; and Ushida E. (2008). Developing web-based multi-level materials for Japanese content based instruction. *Japanese Language and Literature*, 42(2), Japanese Language Education (Oct., 2008), 361-387. American Association of Teachers of Japanese.
- Mundhra, Sumit (2005). Brain and language: importance of brain in language processing. Available at: [http://www.cse.iitk.ac.in/project/sumitMundhra\\_pdf](http://www.cse.iitk.ac.in/project/sumitMundhra_pdf) (Accessed January 20, 2013).
- Muñoz, A. J. (2016). Content and language: The impact of pedagogical designs on academic performance within tertiary English as a Medium of Instruction. *Monográfico I*, September 2016, 111-125.
- Parkinson, J. (2000). Acquiring scientific literacy through content and genre: A theme-based language course for science students. *English for Specific Purposes*, 19, 369-387.
- Richards, J. C., and Rodgers, T. S. (2001). *Approaches and methods in language teaching*. New York: Cambridge University Press.
- Snow, M. A. (2001). Content-based and immersion models for second and foreign language teaching. M. Celce-Murcia (ed.) *Teaching English as a second or foreign language* (3<sup>rd</sup> ed.). Boston: Heinle&Heinle, 303-318.
- Snow, M. A.; Met, M., and Genesee, F. (1989). A conceptual framework for the integration of language and content in second/foreign language instruction. *TESOL Quarterly*, 23, 201-219
- Stryker, S. B., and Lou Betty L. (1997). *Content-based instruction in foreign language education: models and methods*. Washington: Georgetown University Press.
- Swain, M. (1974). French immersion programs across Canada: Research findings. *The Canadian Modern Language Review* 31(2), 117-129.
- Tsai, Y., and Shang, H. (2010). The Impact of content-based language instruction on EFL students' reading performance. *Asian Social Science*, 6(3), March 2010. Canadian Center of Science and Education, 77-85.
- Tzoannopoulou, M. (2015). Rethinking ESP: Integrating content and language in the university classroom. *Procedia - Social and Behavioral Sciences: 32nd International Conference of the Spanish Association of Applied Linguistics (AESLA): Language Industries and Social Change* 173, 149-153.
- Woźniak, M. (2017). ESP in CLIL degree programmes. *ESP Today: Journal of English for Specific Purposes at Tertiary Level*, 5(2), 244-265.
- Yang, W. (2016). ESP vs. CLIL: A coin of two sides or a continuum of two extremes? *ESP Today: Journal of English for Specific Purposes*, 4(1), 43-68.