

CLIL: A New Trend Of Teaching English To Engineering Students

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Abstract

CLIL, which stands for "Content and Language Integrated Learning," is a method of teaching content areas to students who are learning English as a second (or even third) language. Using a language that is not the student's mother tongue as a medium of instruction and assessment, CLIL is an innovative approach to education. The process of acquiring knowledge and skills across the curriculum is made more challenging and time-consuming when taught in a language other than one's mother tongue. While content-based integrated learning (CLIL) is extensively used in K-12 settings, this is not always the case in higher education. The primary focus of technical institutions is on the acquisition of engineering knowledge (content) in a variety of sub-disciplines. The ability to speak multiple languages and communicate effectively is becoming increasingly important for technical college grads in today's competitive employment environment.

The use of CLIL in the classroom is cutting edge at the moment. It is when a class is taught in a language other than the one spoken at home. Languages other than English are often taught using CLIL. Learning English as a second language is popular in India. The primary goal of this paper is to evaluate the effectiveness of CLIL training that incorporates technology in an Indian engineering college setting.

key words: CLIL, English language instruction, engineering level, intensive educational environment etc.

Introduction

Learning a new language is essential to success in today's classrooms. Learning a new language is an imaginative process that relies heavily on exposure to different cultures. For the sake of better international communication, people all across the world are learning languages other than their own. Educational programmes that aim to foster a student's acquisition of a second language, such as bilingual education and Immersion, are thriving in the twenty-first century. Multilingual education, which builds on the foundation laid by bilingual education, necessitates the study of more than two languages. Also, in order to get the intended result, language learning needs to find a new way to put it into practise. The ability to master grammar rules is not sufficient for optimum learning. Learning a language and using it effectively in real-world situations are both essential nowadays. Since the students have access to a plethora of informational resources thanks to ICT, the classroom experience needs to overcome these challenges and provide a rich learning environment that tends to maximise the students' skill development in a global context that is always growing.

The most current development in this area of language teaching and learning is called Content and Language Integrated Learning (CLIL). Even though learning a language through content is not new, CLIL's pedagogical structure sets it apart from other language education courses. Although English has risen to prominence as a global language of communication, it is still considered a foreign language in India. This language is often used in the country's official documents. India is home to many different cultures and languages. Although Hindi is the National Language of India, there are still a small number of individuals who do not speak it and hence, every Indian citizen needs a link language to interact with his or her fellow citizens. Learning English will help one communicate better in this setting. Anyone who masters this tongue will have the tools to interact with others domestically and abroad. In light of these challenges, traditional approaches to teaching English as a second language need to be supplemented with novel approaches (Shyamlee, 2012). Meaningful and efficient

language acquisition can both be achieved through the use of the CLIL approach.

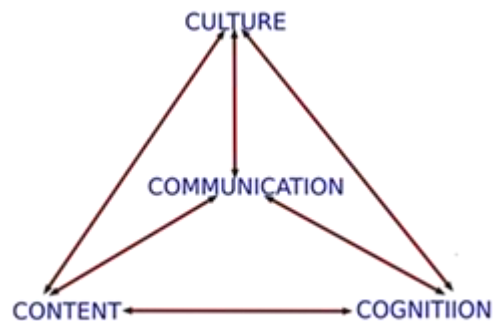
Using a second language as a means of instruction is known as Content and Language Integrated Learning (CLIL) (Banegas, 2012). Learning a language through exposure to it in the context of other topics is known as content and language integrated learning. It is an approach with two main goals: acquiring knowledge about the subject matter and mastering the target language. The "transport medium" for material in CLIL classrooms is language, which distinguishes them from typical language courses (Banegas, 2012). Content-based instruction, bilingual education, and second language learning through immersion are all synonyms for CLIL. The Pedagogical 4C framework distinguishes CLIL from these other concepts by focusing on four key areas: content, cognition, communication, and culture. It is a way to show deference to the cultural norms of both the native tongue and the language one is learning. Curriculum content can take any number of forms, according to the needs and interests of the student. Communicative language teaching and task-based learning have a common foundation with CLIL models and pedagogies (Banegas, 2012). Accordingly, the study's overarching goal is to use CLIL to enhance students' command of English while they acquire scientific knowledge.

Content and Language Integrated Learning

Using a foreign or second language in a content area classroom to teach both the subject matter and the language is an example of integrated learning. This word was created in 1994 by David Marsh of the University of Jyväskylä in Finland: Through content-language integrated learning (CLIL), students are able to learn both the subject matter and the target language at the same time. Because of its interdisciplinary nature, CLIL calls for a diversified research strategy (Coyle, Hood, & Marsh, 2013). Initially, content- and language-based instruction (CLIL) were viewed as complementary goals. Learning environments that can accommodate a wide variety of pedagogical aims and student experiences are fundamental to integrated CLIL practising. As a result, effective pedagogical strategies that incorporate subject-

matter expertise, cross-disciplinary perspectives, and individualised learning sequences scaffolded for language and content-specific cognitive demands are synthesised.

With the help of CLIL, students may put their newly gained language abilities to work right away, rather than just studying them for the future. Young students and those who have struggled with traditional language learning in the regular curriculum can benefit greatly from this method. This may be of special importance in occupational settings because it gives language exposure without adding extra time to the curriculum. As an interdisciplinary approach, CLIL fosters communication and understanding between fields of study and languages. Therefore, content-language-integrated learning (CLIL) is neither "language learning" nor "subject-area learning." The CLIL objectives are frequently referred to as the 4 Cs (Coyle, 1999) - Content, Communication, Cognition, and Culture.



To aid in the creation of CLIL pedagogies, the 4 Cs Conceptual Framework was designed from a more all-encompassing vantage point. This paradigm recognises the importance of developing students' cultural, communicative, cognitive, and linguistic skills, and highlights how CLIL education differs significantly from more conventional approaches to teaching.

The 4Cs framework recommends the following components for effective CLIL instruction:

- Firstly, Cognition, the production of abstract and/or concrete concept links, comprehension, and linguistic competence.
- Second, the goal of content-language integrated learning (CLIL) is not to have students memorise facts and figures but rather to have them create their own understanding while being challenged.
- Third, culture, or the sharing of ideas and experiences that broadens and enriches one's understanding of the world and its many individuals.

English for Engineering Students in India



Because English-speaking countries have historically benefited economically, commercially, and technologically, learning the language is more vital than ever. As of its central role in the oral and written dissemination of students' major subject information, the English language has become a fixture in today's engineering universities. Students who speak a language other than English attend classes where the focus is squarely on the subject matter.

Knowledge of physical and mathematical concepts, analytical procedures, and models, as well as a set of generic abilities, make up the technical portion of an engineering degree. A student at this level has to learn to be self-motivated, to work well with others, to prioritise and organise their work, to accept and implement constructive criticism, and to deal effectively with stressful situations. Students would be prepared for any challenge in life or work if they were expected to develop all of these abilities. It is disheartening that many bright engineering students fail to get chosen for

study abroad programmes because of their inability to communicate well in interviews and group settings.

The role of the language teacher is to hone these abilities, as they will be necessary throughout the students' lives. Language classes provide relief by putting them in direct contact with the instructor and providing practise in various forms of self-explanation. If a student doesn't know how English's functional features have evolved, then he or she can think that learning English is easy and doesn't require a teacher. The students place a premium on the subject matter of the required lessons since neither the teacher nor the students make an effort to understand the core objective behind the presence of English in the curriculum. However, a good educator would use the subject matter to introduce children to a variety of linguistic skills.

Technical or subject-specific oral and written presenting abilities, as well as relevant explanatory tactics, are taught in English as part of the engineering curriculum. Even if a student has great subject knowledge, they won't be able to convey that knowledge to others without the right kind of mentoring. Students are expected to join professional organisations once they graduate, at which point they will need to adopt a suitably professional manner in order to fit in. Learning a new language helps individuals ramp up their professional zeal in this field.

A student at the undergraduate level in engineering has a solid grasp of the language. Therefore, they need to be taught how to construct their arguments and choose their words carefully to make an impact in their speeches. Students have trouble understanding the importance of using the appropriate tense and voice when speaking publicly. Students don't realise there's a big difference between the written and spoken word, therefore they often make basic mistakes when putting their thoughts on paper. They need to be shown the differences between these two interactive forms of communication.

A learner at this level needs to have excellent listening skills and an awareness of the context in which words and phrases are used. The ability to read is extremely crucial in the business environment. Skimming,

scanning, taking notes, and creating notes are all reading abilities that help students succeed in school. Involving students in the teaching and learning process can help them with all of these aspects of their professional growth.

The 4Cs framework calls for a shift in perspective from language learning to an integrated approach that encourages the student to use and develop the so-called language triptych (language of learning, language for learning, and language through learning). Content language, such as specialised vocabulary/terminology, structures, and grammar, forms the basis of the language of learning, which in turn allows students to get access to foundational concepts and skills connected to the subject theme or topic. Students who use language as a tool for learning are more likely to acquire the metacognitive skills essential for success in a wide variety of academic and professional fields. Learning a new language is an excellent way to improve a student's linguistic knowledge, presentation abilities, and self-management in high-pressure situations like a conference's question-and-answer session.

The goals of content-language integrated learning (CLIL) are to expose students to novel ideas and concepts in the curriculum, boost their performance in both the content area and the target language, strengthen ties to the citizenship curriculum, instill greater confidence in the target language, centre classroom materials around the content area, and give students access to the curriculum by adapting lesson plans to account for students' ability in the target language. Neither a language class nor a topic lecture, CLIL training combines the best of both worlds. Ideally, a CLIL session would incorporate all four language skills listed in the European Common Reference for Languages:

- One of the most important ways to learn a language is through listening;
- reading authentic texts;
- practising one's spoken language until it is fluent.
- Accuracy is secondary;
- Writing is a succession of lexical operations that revises grammar;

The following are hallmarks of effective CLIL instruction:

- Integration of language and receptive and productive skills;
- Lessons heavily based on reading and listening;
- Lesson language focus unconcerned with structural grading;
- Subject-relevant language use;
- A lexical rather than grammatical focus;
- Task types that take into account different learning styles.

The main differences between a CLIL lesson and an integrated skills lesson are that the former includes language exploration, the latter is given by a teacher who is trained in CLIL methodology, and both are based on content that is directly tied to a topic-based subject. Investigating both subject matter and language is what a CLIL lesson is all about. The goal of a CLIL 'approach' is the same as that of a humanistic, communicative, or lexical approach in English Language Training (ELT): to teach methods for exploiting read-or-hear texts and structures in order to support spoken or written language.

Formula with Four Steps

A content- and language-integrated learning (CLIL) lecture consists of six stages:

Selecting Powerful Writings: Most students learn better from books with pictures because they can better picture what they are reading. Students of a foreign language require textual structural cues to aid them in their work. These may be linguistic (headings, subheadings), or graphical (figures, tables, etc.). The text's structure can be examined when the 'essential knowledge' has been determined.

Interpretation of texts: Texts are often represented using diagrams. Students can utilise these frameworks, sometimes known as "ideational frame-works" or "diagrams of thinking," to better organise the thoughts and data presented in a text. Tabular diagrams describing persons and places, flow diagrams showing how something happened, such a set of instructions or a timeline of events, combination charts showing how something happened, and so on are all examples of diagrams. The text's organisation is used to design

lessons and exercises that place equal focus on language acquisition and background information.

Understanding the Language: Students should be able to paraphrase the main points of the text in their own words (language recognition). There is no need to grade language because students would be expected to employ a variety of linguistic registers, but it would be beneficial for instructors to underline and categorise textual language that serves specific purposes. Vocabulary for contrasting, describing a place or a process, and using discourse markers, adverb phrases, and prepositional phrases may all be helpful to students. It is possible that collocations, semi-fixed expressions, and fixed phrases will receive consideration alongside subject-specific and academic terminology.

Student Assignments: When it comes to student assignments, there is minimal variation between CLIL and skills-based ELT classes. Depending on the desired outcome and the individual tastes of the students, a variety of activities should be offered. Some examples of read/listen and do activities for developing receptive skills include: listening and labelling a diagram, picture, map, graph, or chart; listening and filling out a table; listening and taking notes on specific information (dates, figures, times); listening and reordering information; listening and identifying location, speakers, and places; listening and labelling the steps of a process, instructions, or sequences of a text; listening and filling in the gaps in a text. In order to practise both content and language, tasks created for production must be content-based. More linguistic help is necessary than in an English as a Second linguistic course because the subject should be the main focus.

Material Production: There is a complex web of interdependence between language and cognition. However, learning is most efficient when students are presented with problems and given feedback on their performance. Despite the cognitive demands of language, it is critical that language barriers do not prevent learning in CLIL settings. The matrix is a useful instrument for evaluating instructional resources. Learning requires material that challenges the mind. The greatest challenge for CLIL educators is to design lessons

and activities that are not only understandable by students but also stretch their minds. The CLIL trip may involve moving up the scaffolding levels over time.

The Importance of a Competent Language Instructor:

The CLIL methodology does not present any unique linguistic opportunities for the English language educator. Similarly, to ELT, CLIL aims to direct language processing and assist language creation by instructing students in reading and listening skills as well as linguistic structures and lexicon. What sets this apart is that the language teacher is also the topic teacher, or that the subject teacher can take use of language learning possibilities. It is very important how we train teachers to use CLIL.

CLIL in postsecondary engineering instruction

Numerous English-language educational programmes and initiatives in countries where English is a foreign language have been made possible thanks to the implementation of CLIL. Many universities and colleges offer degree programmes in English in an effort to boost their international profile. However, the intricacy of both second language instruction and learning is often undervalued. The primary focus of technical institutions is on the acquisition of engineering knowledge (content) in a variety of sub-disciplines. The ability to speak multiple languages and communicate effectively is becoming increasingly important for technical college grads in today's competitive employment environment. When students are learning subject in a second language, content-specific and academic language support is often provided to help them succeed (Lanqua, 2013).

Professional courses in engineering aim to help students grow in their specialised knowledge and abilities. They're going to get them factory-ready. The student should have enough preparation, with an emphasis on the development of skills relevant to the student's career and personal goals. If the materials created for in-class exchanges are used effectively, all of these can be beneficial. An individual's learning style is shaped by a number of factors, including but not limited to their age, temperament, motivation, personality, learning style, and level of formal education and experience.

The vast majority of Indian students that enrol in English-medium schools have had insufficient opportunities to acquire conversational and interpersonal English skills due to a lack of exposure to the language. Therefore, students need lots of practise in a classroom context to develop the abilities necessary for academic achievement there. Students who have been exposed to the English language in a variety of settings outside of the classroom typically need less support and a shorter period of time to become fully integrated into the regular classroom. Although Archibald suggests that students should spend over 10,000 hours learning a second language, the average student only spends around 7,200 hours learning English. Learning a language should give students the tools they need to communicate effectively in the target language, both in and out of the classroom. Both students and teachers need to be able to communicate effectively. Students' long-term goals, such as being able to communicate in the target language outside of the classroom and taking advantage of a wide range of professional and career prospects, should be central to the teaching-learning process. The semester-based course schedules at technical universities are not sufficient for student learning.

Students' challenges in learning the English language are compounded by the shortage of qualified teachers at all levels. There may not be much for students to learn from teachers who are not fluent in English, thus working to enhance their language skills is a priority. The English skills of rural school instructors are not up to par, even in English-medium classrooms. Teachers' command of the English language is not guaranteed by the possession of a bachelor's degree in English or education. To be deemed competent, English teachers must not only have bachelor's degrees, but also score well on standardised tests of language proficiency designed specifically for use in the academic and professional spheres. Since learning English is not restricted to English courses alone but must take place across a wide range of qualifying examination subjects, it is important that teachers of all subjects receive training on the methods to be utilised for instruction and become skilled in English.

Conclusion

The use of CLIL in post-secondary engineering education has been shown to boost students' confidence, as well as their ability to think critically and communicate their ideas effectively. Furthermore, CLIL fosters community values and cross-cultural understanding. Moreover, studies show that students develop a wider and more varied vocabulary and become more attentive to terminology and concepts provided in both their mother language and the target language. When compared to standard foreign language courses, CLIL results in much higher levels of hearing, speaking, reading, and writing ability in the target language among students. Without sacrificing students' ability to master the subject matter at hand, the CLIL methodology significantly boosts their cognitive growth, exposure to other cultures, and interest in learning a new language. This approach also provides teachers with the chance to advance their careers and learn throughout their lives.

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