BOOK REVIEW:

Book Overview and Q&A with David Marsh, Victor Pavón-Vázquez, and María Jesús Frígols-Martín [Review of the Book The Higher Education Language Landscape: Ensuring Quality in English Language Degree Programmes, Valencia, Spain: VIU]
Victoria Bandom and Birgit Strotmann

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Editorial

This Special Issue of Higher Learning Research Communications (HLRC) is dedicated to research in content language integrated learning (CLIL) and English-medium instruction (EMI). As we make our way in the 21st century, higher education institutions are faced with multiple challenges as they try to prepare future professionals. Issues such as globalization and internationalization, technology, access to information, interculturality, and the like pose challenges for future generations. And, higher education institutions play a fundamental role in shaping how that future will look like.

In the face of multiculturalism and the communication barriers that are bound to happen, many countries and educational systems are incorporating English, not only as a means to facilitate contact among cultures, but as a means of instruction in itself. The groundwork laid down during the past decades by several researchers, such as David Marsh, has paved the way to promote multilingualism, not just by learning a language but also by using the second or foreign language as a content delivery method.

Most research in this area has focused on primary and secondary education; thus, the research regarding CLIL and EMI in tertiary education is limited at the moment. However, in recent years there has been a boom in English-taught programs in non-English speaking countries. This means the need for research is this area is bound to grow exponentially as faculty, students, and institutions, and even governments and the labor market, take on the challenges of English-mediated instruction. It is our hope that with this Special Issue, which features research from Japan and Spain, we can contribute meaningful research to the field.

The Editors
Guest Editorial

This issue of HLRC is dedicated to the emergent and rapidly growing interest in English Medium Instruction as a major driver in the internationalization of higher education. It focuses on sharing knowledge and experience in CLIL (Content and Language Integrated Learning) and EMI (English Medium Instruction) from different universities in Eastern and European countries as a means to reflect and improve upon teaching and learning.

As editors, we would like to kick this volume off with a review of one of the most comprehensive and relevant publications on the topic in recent times, The Higher Education Language Landscape: Ensuring Quality in English Language Degree Programmes, (2013). Following the book review is a short question and answer section with its authors and renowned experts in the field, David Marsh, Víctor Pavón Vázquez, and María Jesús Frigols Martín. We would like to extend our gratitude to all three for providing us with their insights, which are, no doubt, of great use to higher education institutions considering embarking upon or improving English-taught degree programs.

Birgit Strotmann
Victoria Bamond
Book Overview and Q&A with David Marsh, Victor Pavón-Vázquez, and María Jesús Frigols-Martín [Review of the Book The Higher Education Language Landscape: Ensuring Quality in English Language Degree Programmes, Valencia, Spain: VIU]

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Abstract

This writing gives a general overview of the book, The Higher Education Language Landscape: Ensuring Quality in English Language Degree Programmes, written by Marsh, Pavón-Vázquez, and Frigols-Martín (2013), as well as a general impressions about its contents. It also includes short biographical information about the book authors and a Q&A, where they answer questions about the book and content language integrated learning in higher education.

Keywords: Content language integrated learning, CLIL, English-medium instruction, EMI, English language program, Marsh, Pavon-Vazquez, Frigols-Martín

Book Summary

The Higher Education Language Landscape: Ensuring Quality in English Language Degree Programmes, written by Marsh, Pavón-Vázquez, and Frigols-Martín (2013) draws on research carried out over a span of fifteen years to produce twenty-six levers that are fundamental to the successful implementation of English-taught degree programs in higher education. In this way it fills an extensive gap in the literature on English-medium instruction (EMI), where a great deal has been published regarding methodologies and good practices within primary and secondary education, but not so much within the context of higher education.
Current internationalization trends are quickly changing this scenario due to the growing demand of universities for guidelines to aid in the process. The authors, through these close to thirty levers, offer a clear set of strategies that could easily fit into the improvement plans of any university where internationalization processes and/or language policy production are concerned, stating them in the form of possible Key Performance Indicators, which are measurable and may be used as a map towards quality international education. The authors themselves define them as a “blueprint for action designed to be adaptable to the environment in which the university operates” (Marsh, Pavón-Vázquez, & Frigols-Martín, 2013, p. 9).

The first chapter covers the first eight levers under the heading Governance & Strategy. In this section, issues such as University Language Policy, Program Objectives and Language Planning, English Language Fluency, Staff Incentives, the Role of Language Specialists, Research, and Learning Technologies are presented. The authors differentiate between language policy and language planning exemplifying policy as the university’s constitution and the plan as the road map. They also advise that program objectives have to be linked to competencies and incentives offered to staff involved in English-taught degree programs to compensate the extra time and effort they have to invest, which may take 300% more time than in their domestic language, according to the authors. Collaboration with language specialists, peers and researchers is a must to ensure quality activities, as is investing in technologies that enable such collaboration.

Levers nine to sixteen form the second chapter on Program Management, with themes such as Student Intake, Voluntary Involvement of Teaching Staff and Coordinated Staff Dialogue, English Language Communication Objectives, Benchmarking Learning Success, Concept Formation, English Language Program Input, and finally, Plagiarism Management. In this chapter the authors highlight that “those universities that internationalize with a clear focus on quality now will be those that will be better suited to thrive” (Marsh et al., 2013, p. 25), claiming an increased importance being placed on the value of higher education and alternative forms of competency-based education as contributing factors. Where staff is concerned, the point is made that involvement in English-taught programs has to be voluntary and coordination within degrees is essential, particularly at implementation. Programs must have clear objectives that include both communication and subject aims, and learning should follow a modular approach that includes continuous assessment and benchmarking. Concept formation is proposed as an important skill for staff to master, as are socio-constructivist methodologies and tasks based on acquiring higher order thinking skills. English language programs are important in universities that offer English-taught degree programs and may be fully integrated, closely integrated or separated from the teaching of subjects, the latter being the least desirable. Detecting plagiarism may pose difficulties for non-native faculty, and therefore providing quality English language detection software is recommended.

Chapter Three is titled Professional Integration and includes levers seventeen to twenty-three, which mostly concern support and cooperation. This section begins with Program Support Staff, continuing on with International Networking, Cooperation & Publishing, Cooperative Ventures, Communities of Practice, Interactional Methodologies, Conceptual Scaffolding, and
Quality Assurance & Accreditation. Here, the book points out that the need for communication skills in English is not reserved only to faculty teaching in such programs, but also required of administrative staff who deal with international students. Lever eighteen purports that “[p]articipation by staff in English-taught degree programmes has been seen by these authors to lead to greater opportunities to network internationally, form collaborative ventures, and open doors for working closely with selected academics from different countries” (Marsh et al. 2013, p. 34). Cooperation can also lead to new ventures being established, which may allow for sharing costs and risks, as the next lever explains. Communities of Practice allow faculty to form groups that may collaborate “to contribute in different ways to the emergent creation and success of teaching and learning outcomes” (2013, p. 37). Digital literacy is behind the lever on Interactional Methodologies, which according to the authors may maximize interactivity and foster peer-learning. Scaffolding is important in language-related learning as it provides necessary cognitive support structures that may be decreased as the learner progresses, and Quality Assurance and Accreditation measure performance and offers external acknowledgement of standards.

The final chapter of the book, Participatory Learning in Media-rich Environments, discusses Digitalized Learning Environments, Social Media, and Studio and Virtual Environments, which correspond to levers twenty-four, twenty-five, and twenty-six. In this last section of the book, authors explain how English-taught degree programs that work with digitalized learning environments hold significant advantages in that they allow for “[t]ailoring and personalizing learning of content with English language and conceptual scaffolding” (Marsh et al., 2013, p. 42). In the next two levers, they go on to accentuate the opportunities for students to interact with peers and experts through social media and give free range to their natural digital literacy in virtual environments.

**Impressions**

This book clearly fills a great gap in the literature concerning English-taught degree programs, their quality implementation, and their role in building the way towards good practice in responsible internationalization. It becomes an extremely useful tool for Higher Education Institutions to systematize English-taught degrees through its twenty-six lever framework. However, its comprehensiveness makes for a somewhat complex tool, which some may find overwhelming to comply with, particularly at the initiation stage. Therefore, it may be advisable for institutions who wish to use it as a reference, to plan several stages of implementation, introducing a set of previously established priority levers at first.

The fact that some levers overlap to some extent may make it possible to fuse several into one, making it slightly more achievable. It would also be helpful to have access to the studies the book draws upon, particularly to those institutions engaging in much needed research within the field. Regardless of these minor critiques, this publication offers much needed knowledge regarding how to go about ensuring quality in English-taught degree programs in a thorough, step-by-step manner.
About the authors

David Marsh

Born in Australia, educated in the UK, and currently based in Finland, Dr. David Marsh is an author, researcher, teacher, and advisor in the field of multilingual and bilingual education, having worked on European Commission projects, for corporations and for governments worldwide. Dr. Marsh has carried out ground-breaking research in the area of Content and Language Integrated Learning (CLIL) as well as on innovation in English-Medium Instruction.

Dr. Marsh has published widely; he is co-author of Uncovering CLIL (2008), Content and Language Integrated Learning (2010), and co-editor of Quality Interfaces: Examining Evidence & Exploring Solutions in CLIL (2012). He is author of The CLIL Trajectory: Educational innovation for the 21st Century iGeneration (2013).

Víctor Pavón Vázquez

Dr. Víctor Pavón Vázquez is an academic at the University of Córdoba (Spain), where he coordinates an innovative program of professional development for academic staff and teachers in schools, who are involved with education through the medium of English. As an author, researcher, and lecturer, he is active in education development programs in Europe and beyond, focusing on research and development for capacity building of higher education, and subsequent competence building of staff to support organizational internationalization processes as part of the objectives of the European Higher Education Area.

María Jesús Frigols Martín

María Jesús Frigols Martin (DEA) is an author, teacher, researcher, and consultant on Content and Language Integrated learning (CLIL), currently holding the position of Head of Institutional and International Relations and the Languages Department, and coordinator for CLIL Studies, at the Valencian International University (VIU). She is closely linked to the design and evaluation of European educational development work, and from 2007-2010 she coordinated an international team leading to the development of the European Framework for CLIL Teacher Education (EFCT) for the European Centre for Modern Languages (ECML) of the Council of Europe. She is also co-author of the award-winning book Uncovering CLIL (2008). Her current research interests include the development of technologically advanced learning environments in higher education as one pillar of the globalization of higher education.

Q & A with the Authors

Q1: What lessons learnt from CLIL in primary or secondary school environments can be applied to the tertiary sector? Are the levers you mention in your publication applicable to a variety of educational sectors?

A1: There are marked differences in primary, secondary and tertiary education both as sectors and across countries. We are in the midst of the biggest global change process facing all of these sectors for over a century. It is only recently that the pressure on higher education
to embark on wide-scale transformation has become acute. Experiences from the primary sector are relevant to the secondary sector, just as those of secondary are relevant to tertiary. This is in recognizing that education is not just about teaching and instruction, but rather in how we create and sustain profound learning environments.

The main lessons to be learnt are about change management. For too long, centuries in some cases, change at all levels has been incremental – tinkering – a bit here and a bit there. The main lesson learnt from primary and secondary education is that change needs to be systemic. To heal the patient you don’t treat one physical disorder without treating the body and mind as a whole. This requires a double-direction process which is driven by shared understanding of what top-down administration declares, and what grassroots teachers believe can be achieved.

If we want to innovate, and introducing CLIL as a dual-language educational experience is potentially highly innovative, then we need to challenge the status quo. This is often easier said than done, but when we change the language of instruction we have an opportunity for this action to open up windows of opportunity for a range of constructive and timely change, and this has to go deep into the system to be successful.

Another lesson that can be learnt is that the decisions and actions that are taken to integrate content and language in higher education, whether at the organizational and curricular level, or at the teaching level, will gradually and inevitably change the educational reality, as it has been proved that CLIL may be one of the main drivers for change in schools.

Content and language teacher collaboration, the way academic content is accessed and used, class dynamics..., there are a number of significant dimensions that are positively affected by the integration of content and language at the tertiary level just as in primary and secondary education. Tertiary education often operates with a high degree of autonomy, whereas schools tend to be more centrally governed, and this is a major difference between these sectors.

The levers we describe are applicable to higher, vocational and professional education as a whole. Some are also applicable to primary and secondary education but often in different ways.

Q2: Is there a benchmarking tool to measure the failure or success of EMI programs at university? What are the effects of EMI on student performance versus non EMI cohorts?

A2: EMI is English Medium Instruction. CLIL is Content and Language Integrated Learning. EMI may or may not be CLIL. CLIL may or may not be EMI. Some training entities in the public domain approach EMI through a monolingual perspective and focus on the ability to speak and use the English language as the predominant competence targeted in training programmes. Others view EMI in the same vein as FMI (French), GMI (German) or SMI (Spanish) and aim for success through strengthening linguistic competence alongside
methodological knowledge and skills. These latter skills are often lacking in higher education environments.

*Ensuring Quality in English Language Degree Programmes* was produced as a benchmarking tool specifically to enable and measure degrees of success when implementing EMI courses and programmes. It was created so as to be read by differing people in higher education in order to be used as a benchmarking tool. We don’t know of any others of this type. We do know, however, that in some countries trans-regional and trans-national university institutions are considering developing benchmarking tools, which may, or may not be similar to those in this publication.

The effects of EMI on student performance in different environments can be found on a continuum from negative to positive. But the same applies to non-EMI student performance. When implemented well EMI can be found to bring added value. When implemented poorly then the outcomes may be worse than education in the first language of the environment.

**Q3:** Could you mention some examples of good EMI practice in higher education institutions, not only in Europe, but also other parts of the world?

**A3:** There are good examples of EMI practice in countries such as Australia and Singapore where higher education has served the interests of students with different linguistic backgrounds for a long period of time. Quality has probably resulted from recognition of the need of the system to respond to the challenge. Equally good examples can be found in specific institutions, and/or faculties within institutions globally.

**Q4:** How does the “lonely professor” get support? Where can they start networking?

**A4:** Any academic needs to consider why they would want to become involved with EMI to a greater or lesser extent in their lives. One of the drivers may be professional development. The starting point for such people could be in seeking out international expert networks that are involved with research, development and teaching through the medium of English.

From a more local perspective, teachers need to be supported in their own universities. The elaboration of an organisational language policy and the identification of clear objectives are measures that do their part to reinforce their role and performance in EMI. Teaching staff also need to be provided with incentives and with a solid training programme adapted to their needs. Networking with other colleagues in other universities is essential, as in establishing a network of collaboration between language departments.

**Q5:** At the very end of your book, in the post-script, you mention that the levers presented could be used within a KPI (Key Performance Indicator) framework. Which of the 26 levers would you say are priority to define as KPIs?

**A5:** At the outset it would be Levers 1-3. These are the language policy, objectives, and
action plans. At a later stage other levers become more significant such as Lever 18 on international networking, cooperation and publishing.

References


Realizing Internationalization at Home through English-Medium Courses at a Japanese University: Strategies to Maximize Student Learning

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Abstract

In 2009, the Japanese government launched the Global 30 (G30) Project, a new initiative to internationalize universities. Selected universities had to create English-medium degree programs at undergraduate level in order to stimulate "internationalization at home." The G30 Project represented a major shift in the focus of internationalization efforts from quantitative to qualitative outcomes. Using a case study approach, this paper investigates one G30 program and the attempts made to open up English-medium course offerings to the wider student body. It explores two related issues: level setting and student attrition. A mixed methods approach was used with data gathered from students and course instructors. Sanford’s (1966/2009) “support and challenge” conceptual framework, as adapted by J. M. Bennett (1993), and Vygotsky’s (1978) “zone of proximal development and scaffolding” were employed. Results showed that to maximize learning it was important to have strategies to maintain a high level of course content while also providing targeted support to students at appropriate times. Effective strategies for reducing course attrition were identified.

Keywords: Higher education internationalization, Global 30, English-medium course, English-medium instruction, level setting, student course attrition, content language integrated learning, EMI, CLIL

Introduction

There have been increasing demands for higher education institutions (HEIs) in non-English speaking countries to establish English-medium programs and courses in order to attract international students, produce graduates who can contribute to the global workforce, and promote international profile of the institution (Doiz, Lasagabaster, & Sierra 2011; Lavankura, 2013; Kuroda, 2014). HEIs in continental Europe and throughout Asia have increased the number of range of English-medium programs and courses in recent years (Bradford, 2012). Japanese universities, previously not noted for providing English-medium programs, have recently started to follow this trend. To be more competitive in the globalized society and attract the world’s “best” international students, Japanese leading universities have been striving to create quality English-medium degree programs at graduate level, and even at the more human resource intensive, undergraduate level.
In 2009 the Japanese government began to provide incentives to universities to establish English-medium programs through a new university internationalization project referred to as the “Project for Establishing University Network for Internationalization,” or the Global 30 (G30) Project. This project resulted in a significant increase in English-medium degree programs and individual course offering in Japanese universities. Over the five years of the G30 project, 2009 to 2014, 33 undergraduate and 123 graduate English-medium degree programs were newly established (Ministry of Education, Culture, Sports, Science and Technology [MEXT], 2014).

One driver for creating English-medium programs and courses is that they allow universities to overcome the Japanese language barrier, making it possible to attract a larger and more diverse international student population. In the global race for securing the largest possible market share of highly talented international students, reducing the language barrier offer the promise of overcoming the hitherto phenomenon of “Japan passing”, where talented students head to the English speaking countries rather than Japan, despite its mature HE sector (MEXT, 2008).

Another driver is that English-medium courses are of interest to local students and can help promote “internationalization at home.” In addition to attracting international students in Japan, the Japanese government has sought to send Japanese students overseas to foster globally competitive human resources. Despite the trend, Japanese students are less mobile now and far fewer are going overseas for study now than in the bubble years of the 1980s and early 1990s. Given this situation, internationalization at home has been an alternative strategy and can provide non-mobile local students with international learning experiences.

Despite the expectations, offering English-medium programs and courses is not without its challenges for Japanese institutions. Ensuring a high quality teaching and learning environment is one such challenge (Bradford, 2012; Burgess, Gibson, Klaphake, & Selzer, 2010; Jon & Kim, 2011; Kuwamura, 2009; Lassegard, 2006; Mori, 2011; Tsuneyoshi, 2005). This paper explores student teaching and learning issues involved with English-medium instruction in Japanese universities, and the strategies that instructors are employing to enhance the quality of the at-home international learning environment. For the purpose of this paper, English-medium instruction (EMI) and EMI courses and programs refer specifically to the situation where a course or program is delivered in English in an educational setting where English is a second language.

This paper reports on a case study of one G30 program offered by a national university in Japan that, for the purposes of this study, will be called the Social Science International Undergraduate Program (SOC Program). The SOC program took in its first cohort of students in 2010. The students have a very high level of English proficiency and initially participation in classes was limited to student enrolled on the SOC program or the other English medium undergraduate program offered by the university. However, starting in the spring semester of the 2012 SOC Program began to offer its courses to the wider campus community. While various issues arose as a result, this paper specifically explores two important interconnected issues: course-level setting and student course attrition, taking into account both student and instructor perspectives. It seeks to better understand how to maximize student learning and course completion in English-medium classes attended both by students enrolled on English-medium programs and those enrolled on programs offered in Japanese.

Course-level setting and reducing student course attrition are challenges faced by instructors in any classes, but arise as particularly important with English-medium courses.
Universities in an increasing number of non-English speaking countries are offering English-medium courses and programs. Bradford (2012) notes that universities in quite different cultural settings, Asia and continental Europe, are experiencing similar issues when delivering English-medium programs related to language, culture and the structure of the programs and courses. This paper identifies strategies for maximizing student learning in the context of one Japanese program that will can be employed in other English-medium program settings as well.

**English Medium Courses in Non-English–Speaking Countries**

This section offers a brief review of research on English-medium programs and courses offered in Japan as well as other non-English speaking countries. It highlights the perceived challenges identified in the literature before introducing the conceptual framework that will play a crucial role in this paper.

There have been a small but growing body of literature on English-medium instruction (EMI) in Japan. The previous studies identified two main interrelated issues instructors and students face in the English-medium programs and courses: linguistic and cultural challenges. Mori (2011) and Bradford (2012) observed shared issues in Japan and non-English speaking European countries. They mention that students’ and instructors’ limited English proficiency and diverse cultural norms and expectation may negatively affect quality of the courses (Bradford, 2012; Mori, 2011). Instructors may not be linguistically competent enough to deliver courses effectively, and students may not be able to fully understand a course due to lack of English proficiency (Mori, 2011, p. 68). Some studies have noted that linguistic challenges in English-medium courses can create boundaries between different groups of the campus community. For Japan, Burgess et al. (2010) indicated a negative outcome because of Japanese students facing linguistic challenges in taking English-medium courses. He argued that this results in *Dejima-isation*, a term used to describe the isolation of international students and Japanese returnees from the rest of the campus community (p. 470). The community divide issue also happens in South Korea. Jon and Kim (2011) stated that English-medium courses could cause an “English divide” (p. 154). Students whose level of English proficiency is low tend to obtain lower grades on their assessments. These students, therefore, avoid English-medium courses because they value their grade point average.

As for cultural issues, Bradford (2012), Jon & Kim (2011), and Tsuneyoshi (2005) explored how a diverse student body can create different expectations and needs in class in Japan. Tsuneyoshi (2005) stated that diverse international student groups can bring diverse needs and expectations in terms of the format and style of lectures to courses (p. 79). She also added that having Japanese students in the English-medium courses only increases these needs (p. 79). Bradford (2012), on the other hand, noted that “English instruction leads to an ‘Americanization’ of classroom and accountability practices, partly due to the difficulty of separating English from its dominant culture and to the need for international transparency in the program” (p. 3). This issue was noted by Jon and Kim, who concluded that “[f]or Japanese students, the American type of class structure, using multiple evaluations and detailed descriptions of what to do in a syllabus, made them feel unprepared and did not acknowledge them as independent scholars” (2011, p.167).

English-medium courses in Japan and non-English-speaking countries have certainly raised various challenges in both teaching and learning. Non-English speaking countries face

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1. Japanese returnees refer to those who return to Japan after residing and being educated abroad for a period of three years or more.
common issue with the introduction of English-medium programs and courses. These challenges lead to quality concerns regarding the programs and courses. Therefore, it is meaningful to explore what kinds of issues instructors and students face and their solutions. The past literature, however, tended to primarily identify challenges faced when adopting English-medium courses without suggesting strategies to resolve the issues and maximize student teaching and learning.

This research examines challenges to introduce English-medium courses in Japan and offers effective ways to provide students with a meaningful international learning experience. It can contribute a new perspective to the recent literature on English-medium programs and courses in non-English speaking countries by offering an investigation of EMI practice in a Japanese leading university.

**Conceptual Framework**


Sanford noted that well-balanced challenges and support are required for student learning and development. “[P]eople do not change unless they encounter a situation to which they cannot adapt with the use of devices already present. They have to innovate, to generate some new response to meet the new situation offered them” (Sanford, 2009, p. 44). However, when students face too much of a challenge with an inadequate amount of support, they grow overwhelmed, which hinders their learning. Conversely, if students face less of a challenge with too much support, they become disinterested, which also hinders their learning.

J. M. Bennett (1993) utilized the framework and developed “a model for balancing content and process challenges for learners” (Figure 1). The model suggested that educators need to support learners by paying attention to the process, which is a teaching method, while challenging them with the content. In addition, if the content is less challenging, the process should be more challenging (Bennett, Bennett, & Allen, 2003, p. 254).

![Figure 1. Content and process: Balancing challenge (J. M. Bennett, 1993).](image)
This framework and model have been applied to intercultural learning in language classrooms in order to maximize students’ language and culture learning. SOC and non-SOC mixed courses have different dynamics, but the frameworks and the model should be applicable, because both situations aim to enhance student learning. The framework and the model are used to determine the level setting of a course and to maximize student learning.

Another theory used in this study is Vygotsky’s (1978) ZPD, which addressed the development and learning of children, but has recently been widely applied to teaching and learning in various areas. This theory is defined as “the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1978, p. 86). More concretely, Woolfolk (2005) explained the ZPD as “the area where the child cannot solve a problem alone, but can be successful under adult guidance or in collaboration with a more advance peer” (p. 55). Vygotsky (1978) asserted that children learn better in the ZPD when provided with appropriate assistance from more skillful peers.

It is vital for educators to understand not only where the student is now, but where the student can potentially be in the near future. For students to transit from assisted and independent learning zone, “scaffolding” can play a significant role. Echevarria and Graves (2006), Gibbons (2002), and Mohan (2001) have noted that second language learners need “significant support in the form of scaffolding and sheltered content instruction” to take English-medium courses (as cited in Burgess, 2010, p. 470). The idea of scaffolding is the learning process originated from Vygotsky’s concept of ZPD (1978). Building on this, Raymond defined scaffolding as the “role of teachers and others in supporting the learner’s development and providing support structures to get to that next stage or level” (Raymond, 2000, p. 176). The concept of scaffolding helps educators understand how to best promote students’ learning and development and help students’ learning process to eventually function as an independent learner.

Methodology

This section first describes the G30 Program and the SOC Program at one G30 selected national university to have a better understanding of this paper research. The G30 Project allowed the national university to introduce English-medium undergraduate degree programs for the first time. Here, the author will explain the backgrounds of the G30 as well as the dynamics of SOC Program course design, delivery, and its students at the university. Then, the author will introduce how the data collection was conducted.

Global 30 Project

The recent university internationalization project, “Project for Establishing University Network for Internationalization,” or Global 30 (G30), was launched in 2009 as a part of the 300,000 Foreign Students Plan. The project endeavors to secure 300,000 international students by 2020, by enhancing academic, financial, language, and cultural adjustment support and educational environments with the 13 selected universities expected to lead Japanese internationalization initiatives at higher education level. One unique element of this project is that the selected universities are required to establish English-medium degree programs, with the objective of alleviating one of the major obstacles of studying in Japan, the Japanese language barrier. Another element of this project is that it aims to create a learning environment for both international and local students to learn from each other (MEXT, n.d.).
The national university investigated is one of the G30 selected universities. It established two English-medium undergraduate and two graduate programs for this project. This paper explores one of the undergraduate degree programs, the SOC Program.

SOC Program and Student Dynamics

This section introduces students’ backgrounds in order to provide a greater understanding of student diversity in the SOC and non-SOC mixed student courses (Figure 2). The SOC program targets those who have been educated overseas or are from the international school system in Japan (SOC students). SOC students have high levels of English proficiency since they are required to study and obtain the degree completely in English. Some have grown up in multicultural or lingual environments. Some have completed all education at an international school in Japan but never been abroad. Others have attended local schools and studied in the local language.

![Figure 2. Chart showing student dynamics in SOC and non-SOC mixed courses.](chart)

The term, “non-SOC students,” is used here to describe any students who are not on the SOC program (i.e., international students, domestic students, and exchange students from various departments). Non-SOC students bring further diversity to the English-medium SOC courses because they are from different countries from the SOC students, have different cultural and linguistic as well as learning backgrounds, and varying expectations from the courses (Tables 1-5). Each semester has had different dynamics of diversity in the SOC and non-SOC mixed student courses; however, the trend shows that the majority of the non-SOC students are undergraduate Japanese students taking SOC English-medium courses with the purpose of English improvement and an interest in the course content. The SOC courses are either social science-focused content or skill-based courses with English instruction. All courses employ
pedagogy of student-centered learning. Each course has specific learning outcomes or targets attitudes, knowledge, and skills that students should achieve by the end of the course. In this learning environment, where students from diverse backgrounds are learning together, instructors experience challenges in student teaching and learning. The following section details some challenges that were identified through interviews with students and instructors.

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Table 2. Registration Status

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<tr>
<td>Bachelor 2nd year</td>
<td>7%</td>
</tr>
<tr>
<td>Bachelor 3rd year</td>
<td>12%</td>
</tr>
<tr>
<td>Bachelor 4th year</td>
<td>5%</td>
</tr>
<tr>
<td>Master 1st year</td>
<td>23%</td>
</tr>
<tr>
<td>Master 2nd year</td>
<td>2%</td>
</tr>
<tr>
<td>Doctoral 1st year</td>
<td>1%</td>
</tr>
<tr>
<td>Exchange student</td>
<td>12%</td>
</tr>
</tbody>
</table>

Table 3. Registered Major

<table>
<thead>
<tr>
<th>Major</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social sciences</td>
<td>47%</td>
</tr>
<tr>
<td>Foreign studies</td>
<td>17%</td>
</tr>
<tr>
<td>Law</td>
<td>14%</td>
</tr>
<tr>
<td>Economics</td>
<td>11%</td>
</tr>
<tr>
<td>School of Letters</td>
<td>6%</td>
</tr>
<tr>
<td>Sciences</td>
<td>1%</td>
</tr>
<tr>
<td>Engineering Science</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
</tr>
</tbody>
</table>

Table 4. Percentage of Students Who Have Taken Courses in English

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>56%</td>
</tr>
<tr>
<td>No</td>
<td>44%</td>
</tr>
</tbody>
</table>
Table 5. Reasons for Taking SOC Courses

<table>
<thead>
<tr>
<th>Reason</th>
<th>JPN Student</th>
<th>Non-JPN Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>English improvement</td>
<td>42%</td>
<td>15%</td>
</tr>
<tr>
<td>Content of the course</td>
<td>32%</td>
<td>61%</td>
</tr>
<tr>
<td>Other reasons</td>
<td>26%</td>
<td>14%</td>
</tr>
<tr>
<td>Others: Study-abroad preparation, continuous learning after a study-abroad experience, English-medium instruction, different ways of delivering courses, friend/teacher recommendations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data Collection

The aim of this study was to identify teaching challenges in SOC and non-SOC student mixed courses. The data collection comprised three phases: questionnaires were distributed at the beginning and at the end of the semester to all non-SOC students during the first phase, and in the second phase, semi-structured individual interviews were conducted with SOC and non-SOC students as well as instructors. The third phase entailed weekly course observations by the author, acting as a teaching assistant (TA). The purpose of the data collection was to examine teaching challenges from multiple perspectives in order to determine how to create an effective teaching and learning environment.

The ethical protocol for this study was approved by the School of Human Sciences Ethics Review Committee, Osaka University (No. 12004), and was conducted on the basis of informed consent.

Non-SOC Questionnaires

SOC courses were offered to non-SOC students from the beginning of the Spring semester of 2012. The aim of the questionnaires was not only to understand students’ backgrounds and experience, but also to generate data that could be used to enhance SOC and non-SOC student’ teaching and learning experiences.

Data for this paper came from pre- and post-questionnaires that were distributed to all non-SOC students taking SOC courses in the Spring of 2013 in order to understand students’ backgrounds and their experiences of the courses. The questions sought to find out which student populations were taking the SOC English-medium courses, why they were taking them, and their perceived challenges and benefits. The questionnaires were distributed twice, at the beginning and at the end of the semester. The questionnaires were in Japanese and in English, and students were allowed to use either language when answering the open-ended questions.

Semi-structured Interviews

Semi-structured interviews were conducted to gain further insight into non-SOC students’ experiences in courses, as well as those of SOC students and instructors. Sixteen SOC students, 20 non-SOC students, and seven instructors were interviewed during the academic year 2012-13. The students were asked to detail their motivations for taking the SOC
courses if non-SOC students, and their course experience focusing on challenges, benefits, and support that were useful or they thought could be useful to enhance their learning experience. The instructors were asked to detail their teaching strategies and their perception of the challenges they faced when teaching students from diverse backgrounds. Interviews were conducted either in Japanese or in English, whichever language students and instructors felt comfortable using. The interviews were digitally recorded and transcribed. Japanese transcriptions were translated into English by the author.

**Course Observations**

Some of the courses were observed weekly by the author, acting as a TA and an observer. There were advantages and disadvantages to this dual role. On the one hand, the author was able to gather rich data that helped better understand the learning environment, the learners, and the instructors. On the other hand, becoming part of the program as a SOC TA and building good relationships with the research participants made it difficult for the author to always maintain a detached perspective on the research topic.

Ultimately, everyday class observations, as well as daily interactions and conversations with professors and students, interviews with professors and students, and questionnaires offered different perspectives on the program and enriched the research data.

**Data: Identifying Challenges in SOC and Non-SOC Students Mixed Courses**

Course-level setting and student course attrition were the main issues that arose during the interviews with every instructor. These two issues are interrelated. One cause of student course attrition is that the course level is set too high. This section clarifies these two issues from multiple perspectives: students, instructors, and a TA.

**Level Setting**

The non-SOC students' backgrounds showed that they have diverse linguistic and learning backgrounds, as well as various reasons for taking the courses. When teaching these students, instructors face difficulties on setting the course level. Some instructor's comments are provided here. Different levels of students' English fluency are the first challenge they face, as noted by one of the core instructors on the program:

As an instructor, it is difficult to know where to set the level. I do not want to bore SOC students. That's for sure. At the same time, I do not want to ignore the students whose English is still basic. So I have to find a mutual ground. That is a big challenge.

(Instructor A – A core course instructor on the SOC Program)

There was also a perception among instructors that the SOC students can manage a higher workload in preparation for the class. This idea is rooted partly in the students' familiarity with the English language medium of instruction, but also because the curriculum includes specifically the development of meta-cognitive skills (Kusuma-Powell & Powell, 2013). Thus,
another instructor member articulated his difficulties in attempts to identify how much individual students are capable of given the diversity of the student body:

SOC students, Japanese students, international students, exchange students, all kinds together. I always need to think about how much they can read, how much work I can expect them to do outside the class. So I'm constantly struggling with this and trying to get feedback from the students. (Instructor B – A core course instructor)

An examination of the students’ perspectives showed that they have different opinions on the SOC course workload. An exchange student from the Philippines said, “the courses at my home university are really demanding, and the amount of readings in SOC courses is pretty adequate for me” A non-SOC Japanese student stated, “the amount of work for assignments is more than for the Japanese regular courses. SOC courses are about eight credits worth!”

Instructors are trying to understand students’ capacity and determine a level where all students can benefit from the course. While on the one hand they are concerned with those students who do not have a strong command of English or basic knowledge of topics in the social sciences, they are also concerned to challenge those students with a high level of English proficiency and with considerable knowledge on social sciences issues:

SOC students have already taken four courses related to sociological issues and they are fluent in English, and here I have non-Sociology non-English native students. It [the class today] did not seem boring for SOC students, but I still have to think about how they will react to covering the same topic. (Instructor C – A core course instructor)

It is not surprising, then, that some SOC students perceive a gap in knowledge between SOC students and non-SOC students. As one third year student commented: “Some students are not on the same level as SOC students in terms of background knowledge.”

Inappropriate level setting can lead to student course attrition. If a level is set too high, some students might become frustrated and drop the course, but if the level is set too low, some students grow bored and drop the course. As one core instructor noted, “Level setting is difficult. You do not want students to drop out. We want to support them. We do not want them to fail if they work hard.”

Non-SOC Japanese students struggle not only with course preparation but also in class. One non-SOC Japanese student discussed his struggles in class, and he felt that he had become an incompetent learner:

I felt so much frustration that I could not express what I wanted to say in class. Also, I sometimes did not have any idea what to say since I was not able to fully understand the reading materials...I became a person who cannot do anything in the English-medium SOC courses.

Entrance to the investigated national university is highly competitive, so for some of the non-SOC Japanese students they experience not only frustration, but also a challenge to their hitherto identity as high achievers.

Although Japanese students expressed their struggles in the interviews, Table 6 shows that overall only 3% of the students felt the level of the course was “too difficult”, and most
students perceived it as “difficult” or “just right.” Since the level of courses is set high, it is not surprising that students perceived it as “difficult.” This indicates the possibility that students are able to deal with the level of the course if appropriate support is provided.

Table 6. Course Level

<table>
<thead>
<tr>
<th>Level</th>
<th>Non-Japanese Students</th>
<th>Japanese Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too difficult</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Difficult</td>
<td>28%</td>
<td>48%</td>
</tr>
<tr>
<td>Just right</td>
<td>70%</td>
<td>44%</td>
</tr>
<tr>
<td>Easy</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Too Easy</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Not sure</td>
<td>0%</td>
<td>5%</td>
</tr>
</tbody>
</table>

This section covered the types of challenges both students and instructors face. The following section details an examination of student course attrition caused by these challenges.

Student Course Attrition

The data collected over three semesters gives us some insights into which students drop the courses, and when and why student course attrition occurs. Exploring and understanding these tendencies can help identify effective ways of supporting students in order to reduce student course attrition rates.

Instructors noted that non-SOC students often drop out from a course at the beginning or the end, and that the majority do so at the end of the course when they are required to complete the final assignment. One core SOC course instructor expressed this clearly by stating, “at the end of the courses, many of the non-SOC students choose not to submit the assignments, but they actually attend most of the courses. But they just do not complete the final assignment.” Instructors insisted that they would like to identify the reasons for this occurrence; however, neither instructors nor TAs were able to clearly identify the reason for sudden course attrition at the end of the semester.

Interactions with students as a TA during the courses, however, provided insight as to why some choose to drop the courses. As a TA, the author observed that students often do not ask for help, even when they clearly need it. The results of the non-SOC student questionnaires also show that Japanese students are very much more likely to report the course they are attending is difficult, yet this does not translate into an equal number indicating that they need support (Tables 6 & 7). One would expect that students who find the course level difficult would feel the need for support. Nevertheless, for Japanese students there are more students reporting they find the course difficult or too difficult (51%) than those saying they need support (34%). If we contrast this with the non-Japanese (non-SOC) students, while 30 percent report finding the course they are taking difficult or too difficult, the majority (28%) recognize that they need support. We can surmise that the higher attrition rate for Japanese students is the result of too much challenge with insufficient take up of support. The following is a student’s comment: “Although I feel that I need support, I am here attending SOC courses in order to challenge myself. I would like to see how much I can do by myself.”
Toward the end of a course, the author received e-mails from students stating that they were dropping the course. The students usually explained that they had tried their best to keep up with the course material but had failed to do so. A non-SOC Japanese student mentioned that she was able to complete the course, even though she faced some obstacles in class. She stated that support was key in her having completed the course. “I think I was able to survive because it was a small-sized course with much inclusive learning atmosphere, and I had enough support from classmates and teachers. However, I have seen some students dropping out from the SOC courses.” These interactions would seem to suggest that instructors need to increase their understanding toward student learning and intervene student learning with appropriate amount of support and times, which may be an important way of reducing attrition.

<table>
<thead>
<tr>
<th>Response</th>
<th>Non-Japanese Student</th>
<th>Japanese Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>28%</td>
<td>34%</td>
</tr>
<tr>
<td>No</td>
<td>70%</td>
<td>64%</td>
</tr>
<tr>
<td>Not sure</td>
<td>2%</td>
<td>1%</td>
</tr>
</tbody>
</table>

**Analysis**

The teaching challenges associated with SOC and non-SOC mixed classes were explored from the perspectives of students and instructors in the previous section. The following question should be first reconsidered in order to analyze the complexity of the issues: for what and for whom should the SOC learning opportunities be provided? This question is examined with considerations of the goals of SOC and the purposes of offering the courses to non-SOC students. Clearly answering this question can help identify where to set a level for the course.

**SOC Learning Opportunities for What and for Whom?**

According to MEXT (n.d.), one of the G30 aims is to “nurture internationally competent individuals by creating an academic environment where international and Japanese students can learn from one another” (p. 4). Previous government initiated internationalization projects have focused heavily on international students, but the G30 goals make clear that international learning opportunities should be offered to both local and international students. The director of the G30 SOC Program stated that the university began offering SOC courses to the wider campus community to broaden the scope of internationalization, as well as nurture demanding learners in order to be more competitive in the globalized world. SOC courses, therefore, should offer learning opportunities not solely to international students, but to the wider campus community and so expand the breadth of internationalization. They should help to create an inclusive learning environment for both local and international students, and enable better learners. SOC instructors, therefore, need to ensure that a learning environment is created that is beneficial to anyone with an interest in the courses.

A diverse range of students are taking SOC courses and for a variety of reasons. This leads to another important question: should these learning opportunities be provided to students who want to take SOC courses for reasons not specified in course learning outcomes? Some non-SOC students take courses simply for English improvement. SOC courses are not explicitly for the purpose of English improvement. They have specific course learning outcomes that are
stated clearly in the syllabus and form part of the criteria for course assessment. What are the implications of allowing students with very different motivations to take these courses? A gap may arise between student expectations regarding the course and what the instructor feels he or she is doing and which fit into an overall, internal, undergraduate curriculum. Regarding overall SOC program goals and the desirability of opening SOC courses to non-SOC students in order to expand the reach of internationalization initiatives, we can conclude that these courses should, in principle, be open to anyone with an interest in the course, irrespective of the students’ motivations. Yet in considering the level of practice, both students and instructors need to have a mutual understanding of the course learning outcomes and the significance of taking SOC courses in terms of program goals. Instructors and TAs also need to provide effective support to those students who are able to achieve the learning outcomes each course sets.

**Course Level Setting**

As discussed in the previous section, the course level should be set for all students to benefit, regardless of their background. The modified version of Sanford’s challenge and response theory, challenge and support theory, was applied to consider how to provide effective learning to diverse groups of students. When the levels of the content and the process (teaching methods) are both set high, some students are overwhelmed and drop the course. If the levels of the content and the process are low, some students grow bored. When students are from different linguistic, cultural, and learning backgrounds, instructors and TAs need to provide support regarding the process to students while challenging students with the content. Caution should be exercised when providing additional support to those who can possibly be challenged more in the process.

**Scaffolding Students**

According to Vygotsky’s theory of the zone of proximal development, appropriate support needs to be provided by educators or “capable peers” to enable students to move from their current level of development to a desired or potential development level that is currently beyond their reach. Vygotsky called this space between actual and potential development the zone of proximal development (ZPD) (1978). When students are in the ZPD, in this case an English-medium and interactive learning environment, they need scaffolding to support their transition to being a capable learner in this context. In the G30 SOC learning environment, scaffolding was erected by the G30 instructors and/or TAs by creating a balance between challenge and support. To aid this process, instructors and TAs needed to be aware that students were in a transition process from an assisted to an independent learning zone. The balance of support and challenge was adjusted depending on where the student was located in his or her own zone of proximal development. Instructors sometimes need to provide or withdraw levels of support at appropriate times. Going through the learning process, students were then able to become independent learners in this new, previously overly challenging, environment. As a TA, the author observed students repeating the G30 SOC courses two or three times and, in so doing, transitioning from dependent to independent learners of English-medium, interactive courses. At first, these students could hardly participate in class discussions, but subsequently started taking leading roles. In turn, these students became capable peers able to support other students transitioning from an assisted to more independent learning zone.

**Rapport between Student-Instructor**

As discussed in the previous section, instructors and TAs need to provide student support for the process while challenging students with the content. In order to gain an in-depth
understanding of students’ growth and challenges in learning over time, it is important to obtain direct and indirect feedback from students. In the Japanese context, feedback from student to instructors generally occurs only at the end of a course. During or after a class, Japanese students usually feel power-distanced from their instructors and rarely offer feedback (Hofstede, 1986; Phuong-Mai, Terlouw, & Pilot, A. (2006). Yet, dialogue is a powerful tool for instructors to understand and promote student learning and development.

Students’ responses were obtained using both direct and indirect methods. Securing both direct and indirect methods allows students with different cultural backgrounds to pass their voice to their instructors. Regular in-class and after-class talks were useful, but it is important to secure indirect feedback through all approaches, such as weekly course reflections, pre- and post-questionnaires on students’ learning experience, and course evaluations. Instructors have been incorporating their considerations of students’ feedback into their practice. The SOC courses were offered to students during the first year as a trial period. The program experienced a high student course attrition rate. By receiving regular feedback from students, instructors and TAs were able to monitor students’ progress, achievement, and behaviors of students and determine the best way to support students. It is always important to have a close student-instructor rapport in order to receive student feedback; however, it is also crucial to have a strong instructor-instructor network to share teaching experience.

Student Course Attrition Rates

The research data show that students, especially a large number of Japanese students, drop SOC courses at the end during the final assessments period. Bennett, Bennett, and Allen (2003) stated, “If the challenge is excessive, the learner will resist or engage in flight, psychologically or even physically” (p. 254). Instructors and TAs need to step into their learning more toward the end of the semester by paying more attention to Japanese students, because they also have a tendency to challenge themselves excessively and do not seek sufficient support.

The data from the last semester show a sudden decrease in student course attrition (Figure 3). Instructors and TAs are more aware of students’ challenges and appropriate ways of supporting them. The university also provides more TAs for SOC courses. It is unusual for Japanese universities to provide TAs for small-sized courses, but it is important to increase support by having more TAs in order to maximize student learning. Surveys should be conducted regularly to further investigate the best way of supporting students.
Discussion and Conclusion

Universities in non-English speaking countries have introduced EMI as a key internationalization strategy. Universities and individual instructors, however, are often struggling to find how best to provide students with effective learning opportunities. This research focused on two pertinent issues: level setting and student course attrition. It identified effective strategies to maximize student learning that may be of interest to educators who are teaching English-medium programs and courses in similar settings.

Previous studies on EMI have highlighted the perceived or actual negative outcomes of introducing EMI courses into Japanese universities and explained these in terms of linguistic and cultural dilemmas. However, in this in-depth case study of the Social Science International Undergraduate Program at one national university in Japan, it was shown that educators were able to turn some of the identified challenges into positive outcomes. They were able to successfully enhance student teaching and learning and decrease student course attrition rates. To create effective learning for everyone in the SOC course context, the level of the course content should be set high, but the teaching and learning process must be accompanied by considerable scaffolding for students, especially those who are new to the EMI learning environment.

In addition, this research revealed that Japanese students tend to overestimate their learning capacity and underestimate the value of support. Instructors need to be aware of that hidden message, that some students do need support in order to fully benefit from courses even though they do not seek it out. It can be argued that in the EMI learning environment Japanese students are learning how to learn and how to become demanding learners in a very new environment. Instructors and TAs need to be a part of their learning process to help them successfully to be independent demanding learners in the near future.
In the above process, educators and TAs require institutional support. Despite growing demands for the implementation of English-medium courses in Japan, there is perhaps insufficient understanding of the challenges that both students and instructors face. It is not only the language that is different, but often the pedagogy is also new. Add to this the diverse educational background of students and instructors, and the complexity of the EMI classroom can perhaps be better appreciated. To achieve the demands of this educational setting, not just students, but instructors also require a degree of scaffolding, particularly those new to EMI and/or interactive learning. Instructors may need professional development training to enhance their own skills and ability to support students effectively and appropriately in English-medium course settings.

This research also revealed the significant role that TAs can play in the delivery of English-medium courses. They can help scaffold students’ learning as capable peers. At the same time, the TAs in this study contributed to lowering the course attrition rate. Japanese universities would do well to establish quality TA systems as a response to increasingly diverse teaching and learning needs. As with students and instructors, TAs need to be better trained and prepared for international learning environments. The current TA trainings lack the delivery of the knowledge and skills needed to assist students with diverse backgrounds in English-medium courses. TAs in English-medium courses need different knowledge and skills to support both students and instructors from the ones in Japanese courses.

Future research needs to further clarify and evaluate the skills and knowledge that students are acquiring in EMI learning environments. In a globalized society, it is necessary for students to gain skills and knowledge to be global citizens who can effectively work with diverse others. This is one of the motivations to introduce EMI as an internationalization strategy in non-English speaking countries. As this research indicated, creating learning opportunities does not automatically lead to student learning. The important process for producing effective student learning is that educators are better aware of how students learn as well as intentionally intervene their learning. Exploring if students truly are gaining skills and knowledge to be global citizens will provide universities and educators new insights toward student teaching and learning.

As Knight (2012) stated, “there is no ‘one size fits all’ model of internationalization” (p. 4). She also added that each country, each institution, and each program must determine the best approach to internationalization based on its clear set rationales, goals, and expected outcomes. Each university must determine the best approach to internationalize its curriculum and student teaching and learning, and whether the introduction of English-medium courses would be appropriate or not. The number of English-medium programs and courses has been increasing in Japanese higher education settings over the past five years. This paper offers insights not only for those institutions involved in EMI program and course delivery, but also HEIs in other cultural settings as well.

References


Making the Match Between Content and Foreign Language: A Case Study on University Students’ Opinions Towards CLIL

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Abstract

CLIL methodology is gaining path in Spanish universities as a promising means to train students to manage in a globalized world by increasing their competence in foreign languages, particularly English. The advent of CLIL in tertiary settings raises a variety of questions related to the possibility and the manner of applying this approach to English-Mediated learning contexts, especially regarding the syllabi planning and methodological development to scaffold the learning of the target language and the subject content. Although a number of experiences are currently starting to be reported in Spanish university settings, this phenomenon is still recent and needs to be extensively investigated. Thus, on the one hand, the present article intends to show the positive opinion of post-graduate university students after the curricular integration experience and the application of CLIL scaffolding techniques. On the other, it proposes to identify areas of methodological improvements and recommendations in the application of CLIL in the referred programme, as well as in other higher education contexts.

Keywords: CLIL methodology at university, English-Mediated Instruction (EMI), curricular integration, language and cognitive learning, scaffolding techniques, students’ opinions

Introduction

As CLIL methodology has reported successful experiences in compulsory education, this approach is likewise gaining path in Spanish universities as a promising means to increase competence in foreign languages, particularly English, to train students to be able to manage in a globalized world.

The mechanism to integrate the learning of English into the acquisition of the non-linguistic curricular contents involves a complex patchwork of language and reasoning scaffolding techniques to increase learners’ motivation and foster the simultaneous development of the target language, cognitive skills, and content comprehension. For that reason, this practice demands, on the one hand, the break with the traditional arbitrary curricular subject division and, on the other, the curricular integration of linguistic and nonlinguistic areas in a meaningful manner in relation to objectives, learning processes and assessment procedures.

The advent of ICL (Integrated Content and Language), as CLIL is widely known in tertiary settings, raises a variety of questions related to whether and in which manner this
practice could gradually be applied to English-Mediated learning contexts; in particular, to the organization and procedures at instructional levels regarding the syllabi, along with the methodological and linguistic rearrangements to fulfil learners’ demands.

Although a number of experiences are currently starting to be reported, ICL in Spanish universities is a recent phenomenon which still needs to be investigated. Under this light, the present article intends, on the one hand, to show the positive evaluation of post-graduate university students at a Spanish university after the curricular integration experience and the application of CLIL scaffolding techniques and, on the other, to identify areas of methodological improvements and recommendations in the application of CLIL in the referred programme as well as in higher education contexts.

**CLIL and the Curricular Integration**

CLIL methodology seems to be gaining prestige as a feasible model for university foreign language-led instruction valuable to effectively integrate the learning of the foreign language and the acquisition of the contents in subjects of a nonlinguistic nature. This section will explore the concept of curricular integration and the integrative mechanisms in which this methodology is grounded, as well as its possible and current application in Spanish tertiary contexts.

**Curricular integration.** Curricular integration views the world without the artificial knowledge division traditionally implemented in the shape of subjects. The concept has been studied by numerous researchers (Beane 2005; Fogarty & Pete, 2009; Jacobs, 2010; Shoemaker, 1989) who have agreed on describing it as thematic, linked, holistic, interdisciplinary, and continuum. A basic definition is the one by Shoemaker (1989), who defined it as “…education that is organized in such a way that it cuts across subject-matter lines, bringing together various aspects of the curriculum into meaningful association to focus upon broad areas of study” (p. 5).

Curricular integration presents numerous benefits to train students manage in the so-called knowledge society (Beane, 2005; Jacobs, 2010). Firstly, it requires learners to transfer strategies and skills acquired in the different subjects to other content areas which, in turn, can strengthen their understanding and learning motivation; secondly, it can offer a potential solution to manage the increasing amount of areas to be dealt within the curriculum.

Nevertheless, curricular integration can take place in a variety of manners and degrees. To this regard, Fogarty and Pete (2009) maintained that the different models have in common the overlap of syllabus material which can originate occasions for joint work. Thus, for example, an integrated curriculum can develop specific cross-curricular objectives, particular lessons with certain cross-curricular activities, various cross-curricular links, or whole planning wheels including all the subjects in the curriculum (Figure 1).

![Figure 1. Models to integrate the curriculum (Fogarty, 1991, p. 14).](image-url)
Curricular integration in CLIL. Curricular integration is essential in CLIL as it claims the simultaneous acquisition of contents of a linguistic and non-linguistic nature. Gajo viewed it as “an ‘umbrella’ term used to talk about bilingual education situations” (as cited in Bentley, 2010, p. 5). Bentley (2010) described it as “an evolving educational approach to teaching and learning where subjects are taught through the medium of a non-native language” (p. 5). Marsh (2002) agreed with both, but added the motivational dimension and claimed that it can develop a “can do” attitude. Baetens-Beardsmore pointed out that CLIL cannot only aid foreign language learning but education in its general sense (as cited in Marsh, 2002). Finally, for Genís and Martín de Lama (2013), CLIL places the curricular contents of the target language and of other subjects as context to favour communication in second languages (p. 22). Regarding contents acquisition, this methodology also advocates task-based, project-centred or problem-solving learning in which the learner builds his/her own knowledge either individually or in cooperation with others (2013, p. 22).

CLIL experiences have proved successful at Spanish compulsory education stages for several reasons (Coyle, 2011; Coyle, Hood, & Marsh, 2010; Dalton-Puffer, 2007; Dalton-Puffer, Nikula, & Smit, 2010; Lasagabaster & Ruiz de Zarobe, 2010; Llinares, Morton, & Whittaker, 2012; Lyster, 2007; Marsh, 2002; Marsh & Wolff, 2007; Mehisto, Marsh, & Frigols, 2008):

• it can increase the learners’ exposure to the foreign language though the integration of the target language into the subject content classes;
• it can raise students’ thinking ability, as they must actively use the foreign language to learn other curricular subjects, relate concepts, and reflect about their own learning;
• it can provide a meaningful context for language use and cognitive development which, in turn, can foster students’ engagement in learning;
• and, it can address the question of different learning styles, as it is the learners themselves who must organize and plan, often in cooperation, how they are going to tackle the tasks proposed.

Integrative CLIL curriculum design. CLIL methodology is dual-focused since it entails two main objectives: one related to the topic (nonlinguistic subject) and the other associated with the foreign language (linguistic subject) (Marsh & Wolff, 2007). However, depending on the amount of instruction hours through immersion, the degree of curricular integration (Figure 1), and on whether the focus is more on the language or on the subject, CLIL implies a wide spectrum of educational contexts within a continuum, from soft to hard CLIL going through modular CLIL (Figure 2).

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Nevertheless, despite the label it takes, it requires the joint work of the teachers involved together with the complex combination of the syllabi of both the foreign language and the nonlinguistic subject(s). CLIL units and lessons revolve around three main components, namely content, communication, and cognition, and a fourth one, community, which embraces the other three (Figure 3). This 4 Cs framework ensures a) guidance for adequate progression in knowledge and skills acquisition (content); b) learning interaction in the foreign language and language use for learning (communication); c) learning engagement, and development of thinking skills for knowledge understanding (cognition); and, d) awareness of self and others, as well as emergence of feelings of citizenship (adapted from Coyle, Holmes, & King, 2009, p. 12-15).

![Figure 3](image)

**Figure 3.** Main steps in CLIL unit planning (adapted from Coyle et al., 2010).

**Scaffolding as the integrative tool in CLIL unit planning.** Since in CLIL learners encounter the additional challenge of developing simultaneously their cognitive, as well as their foreign language skills, they will need extra support throughout the whole process (Bentley, 2010; Coyle et al., 2010; Mehisto et al., 2008). This external help, referred to as scaffolding, denotes the temporary aid received from teachers or from more expert peers in order to face new contents until they eventually become independent learners.

Scaffolding is extremely necessary in these educational contexts in which the foreign acts as a mediator of the contents, so as to facilitate the comprehension of linguistic and nonlinguistic contents and reduce the linguistic or the content overload. As Swain stated, “content teaching must guide students’ progressive use of the full functional range of language, and to support their understanding of how language form is related to meaning in subject area material” (as cited in Pérez-Vidal, 2015, p. 34). However, integrating the learning of the target language and the subject content(s), and the development of thinking skills, require a careful and systematic planning and monitoring of the learning process. Thus, in CLIL contexts, and depending of the CLIL type, the focus should be on keeping a balance between language form and content.

The process in the use of scaffolding techniques such as visual aids (e.g., images, photographs), non-verbal language, language modelling, dialogues, contextualization, graphic organizers or questioning, among others, is complex as it should be graded depending on the learners’ prior knowledge (or the Zone of Proximal Development [ZPD]1). In this sense, Cummins’ Quadrant (Cummins, 1996) is considered an effective tool to design CLIL units, lessons, and for materials adaptation, since it can aid alternatively scaffold cognitive and linguistic skills and it makes learners evolve from concrete to abstract thinking while gradually increasing the contents’ linguistic demands (Genis & Martín de Lama, 2013). According to Cummins (1996), learning and assessment tasks should progress so that learners advance towards the most cognitively demanding part of the quadrant (Figure 4). Simultaneously, the

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1 The Zone of Proximal Development (ZPD), a theory developed by Vygotsky, refers to “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers” (1978, p. 86).
linguistic load of tasks should become higher as learners advance in their content knowledge and their thinking skills development. Scaffolding techniques encompass the whole process by alternating the cognitive and the linguistic assistance, once at a time, to ensure the correct acquisition of both the linguistic and the non-linguistic contents.

Figure 4. Cummins Quadrant (adapted from Cummins, 1996).

**CLIL to Integrate Linguistic and Nonlinguistic Contents at Spanish Universities**

As argued in the previous section, CLIL is reaching higher education based on its relative success in compulsory education. In this scenario, the questions which arise are whether and in which manner this practice could be applied to tertiary contexts.

Spanish higher education institutions are increasing their offer of programmes being taught in English. In this context, it seems indispensable to find a methodology which can aid to combine at the same time the learning of the foreign language and the subject contents, for which CLIL is regarded as a possible solution. However, the application of CLIL to Spanish tertiary settings is relatively new and investigations in this field have tentatively started to be reported.

**English-Mediated Instruction (EMI) in Spain.** Globalization has brought along an interest in internationalization (Michavila, 2012, 2014) at Spanish universities with the purpose of increasing their social prestige and competitiveness in the global market, and meet the requirements of the European Higher Education Area (Deardan, 2014; Halbach, 2012; Halbach, Lázaro, & Pérez, 2013; Smit & Dafouz, 2012). Thus, a growing number of Spanish universities are implementing programmes taught through the medium of English, namely English-Mediated Instruction (EMI hereinafter), related to a wide variety of disciplines.

The application of ICL entails a meticulous adaptation to the idiosyncrasy of university studies. In relation to this, a soft-hard CLIL dichotomy does not seem enough to address the variety of contexts of English-led tuition in higher education. The movement in CLIL implementation in higher education is clearly explained by Greere and Räsänen (2008) (Figure 5), who detailed the passage from “non-CLIL” and “pre-CLIL” experiences, with separate subject-specific and foreign language content, to Language for Specific Purposes (LSP) and the subsequent “partial CLIL”, which also included Language for Academic Purposes (LAP), until
the stages of “adjunct” and “dual-focused” CLIL are reached (p. 6). According to Brebera and Hloušková (2012), current EMI programmes can be placed somewhere within this framework depending on the level of integration of their subjects.

![Figure 5](https://www.HLRCJournal.com)

Figure 5. Steps from non-CLIL to CLIL in higher education (Greere & Räsänen, 2008, p. 6).

Furthermore, in order to transform EMI practices into fully dual-focused ICL, institutions and instructors would require the introduction of decisive changes to meet students' requirements (Bertaux, Coonan, Frigols, & Mehisto, 2010; Doiz, Lasagabaster, & Sierra, 2013; Halbach, 2012; Marsh, Pavón, & Frigols, 2013), which pass for promoting tight collaboration and communication among teachers and departments. In this respect, Smit and Dafouz (2012), like Pavón and Gaustad (2013), demanded the design and implementation of university language policies prior to CLIL experimentation. In this line, while Fortanet-Gómez (2013), González (2013), and Doiz et al. (2013) proposed guidelines for a multilingual language policy, Forán and Sancho (2009) presented a sample of the theory and the practice of a top-down CLIL implementation.

Likewise, the implementation of a CLIL type of approach in tertiary settings seems to affect teachers’ autonomy, as they need to reorganize their syllabi and lesson plans to integrate linguistic and nonlinguistic objectives and contents, and apply CLIL-specific scaffolding learning techniques and assessment procedures. To this regard, Forán and Sancho (2009) also proposed reformulating the CLIL teacher’s role into that of facilitator and provider, and Halbach et al. (2012) emphasized the importance of learners’ linguistic needs in these settings. In the meantime, while Aguilar and Rodriguez (2012) remarked the exclusion of linguistic aims and assessment items in CLIL classes, Dafouz and Núñez (2009), Ball and Lindsay (2013), and Fortanet (2012) reinforced the importance of teacher training in linguistic scaffolding. Likewise, González and Barbero (2013) proposed a list of new pedagogical features necessary in higher education CLIL as, according to Sancho (2009), there is a mismatch between what instructors know about CLIL and what they actually do. In a similar vein, Smit and Dafouz (2012), claimed for ESP and CLIL teachers’ preparation, and Wozniak (2013) advocated a tight collaboration between content and language teachers.
Regarding students' learning results, Aguilar and Rodriguez (2012) reported a high level of satisfaction with the acquisition of specialized vocabulary along with a rise in their listening and speaking skills. Dafouz and Sánchez (2013), for their part, emphasized the importance of high order questions to increase understanding, while Argüelles (2013) pointed out the reported holistic view of learning provided by the CLIL experience. Finally, Dafouz, Camacho, and Urquía (2013) gave evidence for the equal results in contents acquisition in comparison to non-CLIL groups.

As for students' opinion towards ICL, Aguilar and Rodríguez (2012) pointed out the benefits of CLIL for learners from both a motivational and a language competence perspective. Likewise, Dafouz and Núñez (2009) reported on the positive view of CLIL in order to raise students' academic and professional opportunities.

Therefore, in order to contribute to the on-going research on ICL, the next section presents the results of a cross-curricular investigation on Spanish university learners to elicit their opinion towards the use of CLIL methodology in their subject content university classes.

Research

This investigation aimed at surveying cross-sectionally the students' opinion on ICL after the integration of the syllabus of one foreign language subject and another content subject in a post-graduate degree at a private Spanish university in Madrid (Spain). The results will be analyzed in detail to identify areas of methodological improvement in CLIL application in the programme that could be applicable to other higher education contexts.

Context and Population

The research was conducted at the Master’s Degree in Bilingual Education at a Spanish university. The main objectives of the programme are a) to train future teachers in bilingual education and CLIL methodology, and b) to improve their communicative skills in English. For this purpose, 93% of the programme’s subjects are taught in English. The 60 ECTS degree is composed of 48 credits in content learning, with modules such as Principles and Rationale of Bilingual Education or Content and Language Integrated Learning (CLIL), among others. The other 12 credits are related to the development of communicative competence in English with the 3-subjects module of Communicative Skills in English (SCE). The subjects involved in this study are CLIL Courses Planning and Design (from the CLIL module), with attention on the subject content (subject content or SC hereinafter), and Communicative Skills in English 1 (from the CSE module), with focus on the foreign language (foreign language or FL hereinafter).

The students' population had a total number of 23 individuals although only 19 of them answered the survey. Before being accepted into the programme, all students had to pass a test (CERF) on their level of English. To this regard, B1+ was considered the minimum acceptable to progress in the programme; although, as the graph below shows, 13% of students were accepted with a B1 / B1+ level. On the contrary, 52% of them were placed between B1+ and B2+, 26% were between B2 and B2+, and 9% of them were over B2+.
Figure 6. Tested level of English of students prior to course start.

The Design and Application of the Curricular Integration

In the curricular integration used, only the last four didactic units (out of seven) in each of the subjects were combined. Moreover, taking into account the stages towards CLIL previously described (Greere & Räsänen, 2008), the integration of the curriculum of the two subjects involved in the study could be viewed as “adjunct CLIL” since a) the language support was integrated in the subject studies and took place simultaneously, and b) teachers from both SC and FL jointly planned learning outcomes and evaluation criteria. The situation prior to the CLIL integration was the typical pre-CLIL one in which a) the two courses were taught by subject specialists through a 100% immersion although with rare collaboration with the language teacher; and b) language learning was expected take place due to exposure; although, linguistic outcomes, aims, or assessment criteria were not specified.

The curricular integration was designed following elements and procedures of CLIL methodology (Figure 7), namely:

- The selection of contents in SC and in FL along with the statement of linguistic and nonlinguistic objectives.
- The proposal of learning tasks, starting with the focus on cognition (and the passage from LOTS to HOTS), and following with the ones of a linguistic nature, by making use of techniques related to CLIL, such as cooperative work, which will lead to:
  - individual knowledge acquisition;
  - language and cognitive scaffolding;
  - explicit treatment of linguistic issues in the content class with the aim of developing learners’ interpersonal and academic language;
  - a holistic understanding of knowledge; and
  - the acquisition of competences and knowledge application in new contexts.
- The planning of assessment tasks to check both on learners’ language and cognitive (content) achievement through the practice of self- and peer assessment, and the reflection on the skills acquired and the learning process followed.
Survey Categories and Items

At the end of the 1st term (February 2014), after applying the CLIL approach in the last four didactic units of both subjects, learners were asked to fill in a survey in Spanish to express their opinion on the methodology followed to train their linguistic competence and their cognitive skills.

The questionnaire consisted of 12 items related to CLIL methodology on two categories, namely “Students’ communication in English in the content class” and “Students’ cognitive work in English in the content class” (Table 1), whose script is included in the running text of the survey results. Five out of the 6 items in each category were closed statements, followed by one open-ended item for “Further comments” in order to gain a deeper understanding on the answers in each of the blocks. Students had to range their responses from 1 to 5 on a Likert scale depending in their level of adherence, 1 being “strongly disagree” and 5 “strongly agree”. Surveys were conducted in Spanish, although the text of categories, statements, and students’ remarks has been translated into English for this article. Hereby the items in the survey are explained:

**Category A.** In this group of items, students were surveyed about the use of CLIL to improve their communication in the foreign language (Coyle et al., 2010; Cummins, 1996; Dalton-Puffer et al., 2010; Lyster, 2007; Llinares et al., 2012; Marsh, 2002; Mehisto et al., 2008). This category included the following aspects:

- **Improvement of BICS.** This item intended to know whether students felt that their interpersonal communicative skills (BICS) expanded.
- **Exposure to and practice in different genres.** Through this statement, learners could give their opinion on the helpfulness of being exposed and use different text types in the foreign language.
• **Acquisition of CALP.** In this item, students could express their satisfaction towards the use of CLIL to aid the acquisition of their cognitive and academic type of language.

• **Use of foreign language scaffolding techniques.** This statement intended to discover whether the use of techniques such as visual aids (e.g., images, photographs), non-verbal language, language modelling, dialogues, and contextualization, among other, had aided the understanding of language unknown to learners.

• **Increase in students’ talking time.** This item aimed at eliciting whether or not the application of CLIL methodology had made students take the talking lead in classes.

**Category B.** Through this set of items, learners were investigated on their opinion of CLIL to nurture their cognitive work in English in the content class (Anderson, Krathwohl, & Airasian, 2001; Coyle et al., 2010; Lyster, 2007; Marsh, 2002; Mehisto et al., 2008). This group comprised the following items:

• **Improvement of contents understanding.** Through this statement, learners could express to which extent the integrated learning experience had fostered deeper content acquisition.

• **Progressive reasoning from LOTS to HOTS.** In this item, learners conveyed their opinion towards the use of CLIL to help them gradually acquire and apply knowledge.

• **Use of cognitive (content) scaffolding techniques.** This item aspired to find out if the use of techniques such as visual aids (e.g., images, photographs), contextualization, examples, graphic organizers, or questioning, among others, had helped students understand the contents in English.

• **Exploitation of effective questioning.** This statement was meant to evaluate the use of open questions to learners to check on their understanding and to guide their gradual progression from LOTS to HOTS.

• **Opportunities for revision and consolidation questioning.** By means of this last item, students could voice their opinion on the effectiveness of regular revision in order to consolidate their learning.

<table>
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<tr>
<th>A</th>
<th>Students’ communication in English in the content class</th>
<th>6 items</th>
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<tbody>
<tr>
<td>1</td>
<td>Improvement of BICS</td>
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<tr>
<td>2</td>
<td>Exposure to &amp; practice in different text types</td>
<td></td>
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<tr>
<td>3</td>
<td>Acquisition of CALP</td>
<td></td>
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<tr>
<td>4</td>
<td>Use of foreign language scaffolding techniques</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Increase in students’ talking time</td>
<td></td>
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<tr>
<td>6</td>
<td>Further comments</td>
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<tr>
<th>B</th>
<th>Students’ cognitive work in English in the content class</th>
<th>6 items</th>
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</thead>
<tbody>
<tr>
<td>7</td>
<td>Improvement of contents understanding</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Progressive reasoning from LOTS to HOTS</td>
<td></td>
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<tr>
<td>9</td>
<td>Use of cognitive (content) scaffolding techniques</td>
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<tr>
<td>10</td>
<td>Exploitation of effective questioning</td>
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<tr>
<td>11</td>
<td>Opportunities for revision and consolidation</td>
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<tr>
<td>12</td>
<td>Further comments</td>
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Table 1. Research survey categories
Results & Discussion

In this section, the results of the closed survey items are presented and discussed, integrating in each subsection the acknowledged comments made by learners for each of the categories in “Further comments” (i.e., items 6 and 12).

Students’ Communication in the Foreign Language

Improveoment of BICS. Students exhibited a high degree of adherence to the statement proposed in this item (“The effort I have made to study contents through English has helped me communicate better in the target language”), as 89.5% of learners strongly agreed and almost 10.5% agreed. No further comments were given on this issue.

Exposure to & practice in different genres. In this statement (“It has been useful for my English competence to experiment with different types of texts in English (e.g., descriptive/argumentative, oral/written, formal/informal, etc.”), 52.6% agreed and 42.1% strongly agreed on the benefits of exposing learners to different types of texts to aid foreign language acquisition. To this regard, they claimed that “the teacher has made us speak and write and do different things” and that they had to “speak and write in English all the time in class and to perform the different tasks”. No additional comments could give account for the 5.3% of neutral answers.

Acquisition of CALP. According to learners’ responses to this item (“I have learnt academic language related to the subject”), 68.42% strongly agreed and 31.58% agreed that CLIL methodology had helped them acquire meaningfully the required language related to the subject in order to succeed academically. Nevertheless, one learner complained that she did “not feel prepared to speak in English in class” as she did “not know how to hold class discussions” on academic issues, even though she had acquired “much knowledge on subject-related vocabulary”. This answer could reveal a possible flaw in the application of CLIL.
methodology either as possibly having focused too much on subject-specific language and not so much on the academic (and subject-compatible) language.

Figure 10. Acquisition of CALP.

**Use of foreign language scaffolding techniques.** In students’ reactions towards this statement (“I have been able to understand new vocabulary and expressions in English thanks to the support in the shape of non-verbal cues, language modelling, dialogues, contextualization, etc.”), although 42.11% of students agreed and another 42.11% strongly agreed that teachers had provided an adequate linguistic scaffolding, 10.52% of them disagreed and 5.26% strongly disagreed. The explanation to this could be found in some learners’ remarks in which they claimed that, given the linguistic difficulties when dealing with the contents in English, they would have needed more assistance regarding linguistic functions and, to this regard, reinforce the idea expressed in the answers to the previous statement about the low development of overarching academic expressions. Thus, this is a methodological aspect which needs to be revised.

Figure 11. Use of foreign language scaffolding techniques.

**Increase in students’ talking time.** To this issue, the students’ responses were quite shared. While 36.84% agreed and 31.58% strongly agreed on the idea that students should take the talking lead in the class (“It has been useful that we spoke during most of the class time”), 21.05% were neutral and 10.53% disagreed. To this regard, it seems that students who displayed a low level of satisfaction in the previous statement felt likewise that they had not improved in their communicative competence in English, and responded also negatively to the issue proposed here. This could suggest a direct relationship between the lack of linguistic modelling received as regards linguistic functions and the unwillingness to communicate in the foreign language in the class.
Students’ Cognitive Work in the Foreign Language

Improvement of contents understanding. Here, 73.69% of learners agreed and 21.05% of them strongly agreed with this statement ("The effort I have made to learn the contents in English has increased my understanding of contents"), which shows a high level of satisfaction with the use of the integrated curriculum to foster students’ understanding of knowledge. Only 5.26% of learners did not agree with the advantages of curricular integration; although, no further observations were made to this regard.

Progressive reasoning from LOTS to HOTS. In this item ("I have had time to progressively acquire new contents and competences building on what I already could do"), 31.6% of learners very much agreed and 47.4% agreed on the value of giving students time to build their own knowledge within their ZPD. As they argued, "it has been easy to understand new concepts since the teacher has told us to follow the steps". Nevertheless, 21% of learners neither agreed nor disagreed. Some remarks showed that they usually were required to memorize information and that "sometimes it is difficult to relate concepts and give reason for our answers". Thus, this appears to be an area which needs reinforcement.
Use of cognitive (content) scaffolding techniques. For this statement (“I have been able to understand new contents in English thanks to the support in the shape of non-verbal cues, contextualization, examples, graphic organizers, questioning, etc.”), learners showed in general a high degree of satisfaction (47.37% strongly agreed and 42.11% agreed) with the use of scaffolding techniques with a focus on cognition and contents comprehension. As they claimed, the materials prepared by the teacher had helped “understand better the contents” although language was new. Only 5.26% were neutral and another 5.26% disagreed. The answer could be found in a student remark which complained that “we lose so much time in making graphs out of the texts we read”.

Exploitation of effective questioning. Regarding this item (“The questions the teacher has formulated have made me think and reasons my answers”), 47.37% of students strongly agreed and another 47.37% agreed with the use of open ended questions to promote deeper and transferable thinking (“it’s good not having to learn contents by heart”. However, 5.26% of learners strongly disagreed with this practice as they protested that “(…) it has been difficult to say why thought the way we did” and continued that “sometimes the teacher asks too many questions and I feel pressed”.

Opportunities for revision and consolidation. Students’ answers to this statement (“It has been useful to revise regularly previous learnt contents”) reveal that 47.37% of them agree and another 47.37% strongly agreed that regular revision of previously acquired contents has been useful to consolidate learning, since they argued that “the teacher has made us revise old contents in every activity”. Only 5.26% gave a neutral answer, but none of them provided any explanation for these answers.
Conclusions

The results reported above indicate, in general terms, a positive view of CLIL from Spanish higher education post-graduate students. This, after integrating the learning of English as a foreign language into the curriculum of other content areas through the reorganization of subject syllabi, together with certain methodological and linguistic rearrangements to fulfil learners’ demands.

The survey results seem to show the students’ confidence in CLIL for their English-led classes to aid them simultaneously increase their foreign language acquisition and their nonlinguistic contents learning. Learners were especially contented in relation to the increase in their self-perceived improvement level of English and contents understanding mainly due to:

- the cognitive effort made when dealing with the contents in English;
- the provision of contents in different formats;
- the regular revision of contents; and
- the application of scaffolding techniques to aid their linguistic and cognitive development.

However, according to the survey, one area of improvement has been detected. To begin with, in spite of the students’ advanced level of English before entering the programme, certain linguistic scaffolding aspects appear to need further students’ training and teachers’ methodological adjustments, as they can negatively affect learners’ engagement and hence, their learning results. According to the survey outcomes, instructors must assist their students more in developing simultaneously their BICS and CALP, and to foster their self-esteem as language users, and not only their ability to know academic terms. For that purpose, a better exploitation of linguistic scaffolding techniques, such as functional language modelling, seems to be necessary to increase learners’ active participation using the foreign language in academic contexts.

Furthermore, notwithstanding the optimistic outcomes, further research to collect data from a wider population and context sample would have increased the reliability of the results, as this case study was only applied to a low population sample from just one programme. For that purpose, a more comprehensive investigation on university students’ and teachers’ perceptions on CLIL is being designed.

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Linguistic Outcomes of English Medium Instruction Programmes in Higher Education: A study on Economics Undergraduates at a Catalan University

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Abstract

Globalisation and international mobility in the 21st century has led to the internationalisation of the English language (Crystal, 2003). Research regarding linguistic gains at university levels is however extremely scarce. This study aims to address this gap of knowledge and provide some answers as to how much linguistic gain can be expected after one year of English medium instruction. Two groups of undergraduate students enrolled in different levels of English medium instruction (EMI) were given a pre and post-test over a 1 year period. Results were analysed statistically; significant gains were found only in the semi-immersion group in the grammatical domain; although, there was a trend for improvement as well as higher scores for full immersion students. It might be interpreted that in order for linguistic gains to be seen in adults there needs to be some focus on form and language guidance (Muñoz, 2007; Pérez-Vidal, 2007). Thus, an integrated content and language (ICLHE) approach is more effective than a solely content based EMI model for university level content courses, if linguistic gains are desired outcomes of the programme.

Keywords: English-medium instruction, EMI, content language integrated learning, CLIL, higher education

Introduction

This preliminary study examines the effects of English medium instruction (EMI). The article supplies an overview of the rise of English as a Lingua Franca in Higher Education (HE), focusing in particular on the European Union setting and the policies that support multilingualism in education. To set the background to the study, two fields are reviewed. Firstly, Content and Language Integrated Learning (CLIL), which is considered a predecessor of EMI, because it has been in place for some years across primary and secondary education levels, as

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well as across European countries. Secondly, research from Second Language Acquisition (SLA) is discussed to highlight the importance of periods of intense exposure in SLA development. The emerging field of Integrated Content and Language in Higher Education (ICLHE) is outlined, providing the distinction between ICLHE and EMI. Existing qualitative research describing EMI at different European universities is provided, including perspectives from both lecturers and students. Empirical research regarding linguistic gains in EMI students is presented before describing the current exploratory study.

**English in Higher Education and the European Union**

It is estimated that approximately 400 million of the world’s population speak English as their native language; while more, approximately 430 million, speak it as their second language (L2). The British Council estimated one billion people were studying English as a foreign language in the year 2000 (Crystal, 2003). English is often the first choice when choosing to learn a second language. English is commonly used among professionals who do not speak the same first language, thus giving it the status of a Lingua Franca (House, 2013). The driving force behind the rise of English as an international language is globalisation, mobility, and international business. The ability to communicate in English is an asset and allows professionals to work in the international context, leading to increased career opportunities as well as higher earning capacity. University students in Spain identify one of the reasons they want to study in English as “feeling the need to have the linguistic and cultural skills to function effectively in an international social context and labour market” (Fortanet-Gómez, 2013). The rise in English in the stated context goes hand in hand with English being used as the dominant language of research in HE in Europe and around the world.

The European Union set out a new agenda in regards to multilingualism and interculturalism in the educational sphere in 1999: the Bologna process was released with the goal to develop a coherent and cohesive European higher education arena (EHEA). This would ease mobility and hiring for employers and professionals, as well as make university exchanges more possible for students. This process encouraged universities to attract international students, to develop economic and cultural collaborations with other countries including the mobility of students and faculty, and made it possible for citizens to develop intercultural skills (European Commission, 1999). Nine years later, the European Commission stressed the importance of intercultural dialogue and the need for more effort to achieve proficiency in the mother tongue plus two languages an objective for all citizens in stating that “[a] key instrument in this respect is the Barcelona objective—communication in mother tongue plus two languages. More effort is needed towards achieving this objective for all citizens” (European Commission, 2008, p. 5, emphasis in original).

After these policy changes, study abroad and exchange programmes such as the well-known Erasmus became even more popular, attractive, and attainable for students, encouraging them to spend part of their university period at a participating university. The rise of English as a Lingua Franca came about through a cyclical process, where the increased use of English fuelled the importance of English in HE, which in turn encouraged national policy changes to support the educational system, which then goes back to strengthen the position of English as a lingua franca (Juan-Garau & Salazar-Norguera, 2015; Pérez-Vidal, 2014; Smit & Dafouz, 2012). This is exemplified by HE institutions reactions to English language, to which we will now turn.

Universities began to offer part or whole degree programmes in languages other than the official or traditional languages of the country, most noticeably English (Llurda, Cots, &
Armengol, 2013). The mobility of citizens and the release of the Bologna process required the development of new language policies, whether it be to encourage or protect minority, neighbouring or national languages or to incorporate English or both. The first universities to implement changes in language instruction were mainly concentrated in the northern European countries, Holland, and Sweden, among others, and as time went on EMI became established as a trend throughout Europe. A recent survey of EMI programmes at European universities by Wächter and Maiworm (2008) revealed 2,400 programmes taught entirely through the English language. They approximate about 2% of all European students participating in these programmes.

The main objectives of internationalisation of European universities are, firstly, to attract the most knowledgeable scholars in the given field, and to increase the number of international students, which increases revenue and international recognition. Secondly, to offer internationalisation at home (IaH) for national students, who can reap the benefits of international exposure while studying at their local university (Llurda et al. 2013; Strotmann et al., 2014; Thøgersen, 2013).

The amount of total exposure to English through EMI often varies from university to university. Nastansky (2004) identified three models adopted when implementing English taught programmes in university settings. Firstly, a programme in which the amount of English use remains the same throughout the programme. The second model increases the amount of English taught courses as the degree goes on, and the third, adopted in Germany, involves decreasing the amount of English taught courses as the degree goes on.

The types of changes in university policies discussed in this section have circular effects which can be summarised by the following quote, “[w]hile the global status of English impels its adoption in higher education, the adoption of English in higher education further advances its global influence” (Coleman, 2006, p. 4).

Review of the Literature

The following sections provide a background to EMI in HE and put the study into context. CLIL is defined and discussed as a European approach to multilingual education that has been in use at primary and secondary levels for some time now. Following this, the rational and development behind CLIL as an educational model is detailed, leading to a definition, distinction, and examples of ICLHE and EMI. The article then goes on to highlight the research findings from both CLIL as well as EMI. The review closes with a summary of what type of linguistic gains we can expect to find in EMI based on the current knowledge in the field.

CLIL Education

In the 1990’s, various types of multilingual education were in place throughout Europe, due in part to trends in internationalisation and globalization (Marsh, Pavón-Vázquez, Frigols Marin, 2013). Already by the late 1980’s, terminology referring to “content-based second/foreign language instruction” was appearing in the literature (see Brinton, Snow, & Wesche, 1989; Snow, Met, & Genessee, 1989). In 1994, a report from the Continuing Education Centre of the University of Jyväskylä in Finland expanded on the Teaching Content through English (TCE) programme in that institution during 1992-1993 (Rasanen & Marsh, 1994). In that same year, Marsh (1994) pointed out that “in CLIL the learning and other subjects is mixed in one way or another. This means that in the class there are two main aims, one related to the subject, topic or theme and one linked to the language” (p. 6). Then, in 1995, the European Commission
issued a white paper, *Teaching and learning: Towards the learning society*, where multilingualism was encouraged as part of being European:

> Languages are also the key to knowing other people. Proficiency in languages helps to build up the feeling of being European with all its cultural wealth and diversity and of understanding between the citizens......it is becoming necessary for everyone, irrespective of training and education routes chosen, to be able to acquire and keep up their ability to communicate in at least two Community languages in addition to their mother tongue. (European Commission, 1995, p. 47).

Three years later, Nikula and Marsh were making the case to consider content and language integrated learning (CLIL) the main “umbrella” term to encompass pedagogies that integrate language and content, in which English or another foreign language is used as the means of instruction (1998, p. 4-6).

CLIL is a methodological educational tool in response to the internationalisation of Europe and the consideration of multilingualism as an asset, as referred to in the previous section; it is a multifaceted approach, encompassing social, linguistic, educational and cognitive levels (Pérez-Vidal, 2009).

An example of CLIL is elementary students in Switzerland receiving some of their courses in German or French, two of the nation's official languages (Stohler, 2006), or Dutch secondary students having content courses such as History or Geography taught through English as a foreign language (Admiraal, Westhoff, & Bot, 2006). Another example of an existing content learning model was in place in the Basque Country's multilingual schools. These schools provided education to Basque children in their mother tongue, which had been reduced to a minority language due to political reasons (Cenoz, 2009). This Spanish region, along with Catalonia and Galicia, implemented similar approaches in the 1980s and continue to embrace multilingual education methodologies such as CLIL (Celaya & Pérez-Vidal, 2001; Lasagabaster & Ruiz de Zarobe, 2010). These examples illustrate the use of CLIL not only to instruct a foreign language, but also to maintain and spread regional languages.

**CLIL Rationale**

Second language education has developed over time. Trends in the field have changed from traditional formal instruction (FI) methods, where students are exposed to the secondary language for an hour or two per week, to more innovative, communicative, immersion, and content based methods (Richards & Rodgers, 2014). FI has been popular for many years and is still common practice in many countries and schools around the world. One of the main features of FI classrooms is that a large portion of time is spent focusing on form, providing less opportunity for learners to communicate and interact using the language (Richards & Rodgers, 2014, p. 175-176). The teacher is typically the language expert and primary user, while students learn the language directly, often through grammar exercises. Materials used in the classroom are catered to the student, meaning inauthentic material. Further, the range of communicative contexts the learner is exposed to is limited to the classroom setting. Additionally, there is very limited contact with native speakers or authentic input from the target language (TL) (Pérez-Vidal, 2011; Richards & Rodgers, 2014, p. 90).

At the higher education level, following the revolution taking place in EFL in general with the communicative approach to language teaching, changes in the teaching of academic English emerged in England in the 1980’s and 1990’s, aiming to enhance students’ knowledge
and to aid them in achieving advanced levels in specific subject areas. This became known as English for specific purposes (ESP) and is used to address the specific language needs of the student (Hutchinson & Waters, 1987, p. 6-7). The approach was later adopted in many non-English speaking countries and eventually became known as English for academic purposes (EAP) (Jordan, 1997).

This can be seen as one of the first responses to the internationalisation of universities and student mobility, and the beginning of the rise of English in Academia. ESP provided students with the tools they needed to communicate in English depending on their field, be it law, medicine, tourism, academics, and so on while EAP supported students studying in a multilingual context, especially at the tertiary level (these were usually foreign students studying in English speaking countries) (Fortanet-Goméz, 2013). While these models were being adopted in HE, it was not the only development at the time. The communicative approach brought both meaning and communication elements into language teaching, the adoption of this approach inspired changes in materials and classroom procedures at other levels of education (Pérez-Vidal, 2009). The same concept was the rationale for the common place idea that study abroad stays spur linguistic development. This is supported by Muñoz (2012), who concluded that intensive exposure may lead to a turning point in L2. For Muñoz’s study, 142 undergraduate students in Spain were questioned, with results showing that 85% identified an intensive learning context, for example a study abroad, as the turning point in the quality of their English level. In line with these findings, Pérez-Vidal (2011) found that, after a study abroad period (intensive input exposure), university students make gains in fluency, accuracy, and use of formulaic language (see Serrano, Llanes, & Tragant, 2011; Pérez-Vidal, 2014; Valls-Ferrer & Mora, 2014). These results can be attributed to increased motivation, which is known to be an important factor in SLA.

Another approach to multilingual education is content-based instruction (CBI), which emerged in the United States in the 1970's and 1980's in response to the students' low proficiency English levels at all levels of education. Schools implemented courses where students were encouraged to think and learn in the TL. CBI instruction differs from FI in that language activities are always specific to the content taught, the focus changes from being not only on the TL but also on the actual content. Through focusing on content, learners are encouraged to use the language as a tool for communication rather than study about it (Snow, 2001).

Following this, a bilingual education model emerged, French immersion, developed in response to French becoming the official second language in Canada. The original immersion structure involves instructing the first three years of children’s school experience exclusively in French. Input then tapers off until half of the curriculum is taught in French and half in English by the time students are in the final year of primary school. However, over the years there has been many alternatives to the original system. Varying among provinces and schools, some start immersion in the 4th or 5th grade, while others only have a few years of intense immersion before returning to an English curriculum (Genesee, 2014). Findings from immersion research are positive and the model is considered a success (Swain, 2000). Research has demonstrated that while learners develop high levels of proficiency in French, they also master content subjects as well as their monolingual peers. Additionally, their cognitive as well as mother tongue development is not impeded (Shapson, 1984). Research into the linguistic outcomes of French immersion show that immersion students outperform their FI counterparts on all tasks, and are better compared to francophone students of their grade. Thus, they tend to achieve near native like receptive skills, reading, and listening; however, speaking and writing skills remain non-native like (Swain & Lapkin, 1982).
The development of CLIL in Europe was able to benefit greatly from and adapt research findings from the Canadian immersion experience, thus FonF (Focus on Form) was combined with a focus on communication and content. In CLIL, content subjects such as math, science, or history are taught through a second or foreign language. A recent definition, taken from Dalton-Puffer (2011), reads, “CLIL can be described as an educational approach where curricular content is taught through the medium of a foreign language, typically to students participating in some form of mainstream education at the primary, secondary, or tertiary level” (p. 183).

There are some key characteristics of CLIL that foster linguistic benefits. Firstly, programmes run alongside conventional FI programmes and thus increase amount of exposure to the TL. Secondly, authentic material is used triggering authentic interaction. Finally, using a foreign language to learn content stimulates interaction, and communication becomes meaningful because the language is used as a tool for real communication (Pérez-Vidal, 2009). These factors expand the number of domains and functions in which the students must use the TL (Escobar, 2004).

Defining ICLHE and EMI Education

ICLHE is considered to have the same focus as CLIL but in the HE arena. Specifically, language outcomes are on the agenda as well as content. Whereas, EMI is focused on content only and no L2 language support is given, the other obvious difference is that EMI is explicitly English while ICLHE is used for many other languages (Smit & Dafouz 2012).

The distinction between ICLHE and EMI is further exemplified through the following two studies, one at an Italian university and the other at a Swedish university. Costa (2012) found Italian lecturers switch from using the language for purely communication (content) to look at it objectively (FonF) (Costa, 2012). For example, terms are explained in the L1 or language structure becomes the focus. The researcher concluded that language was seen as second to content, and that lectures were “mainly meaning focused but with incursions into language focus and thus moving gradually into ICHLE” (Costa, 2012, p. 42). Whereas, in the Swedish study, Airey (2012) considered most programs to be EMI, as they have no focus on language. It was even noted that in some cases professors do not feel comfortable correcting students’ mistakes (Unterberger, 2012), especially concerning grammatical errors over lexical ones (Airey, 2012; Costa, 2012).

ICLHE is an emerging field of research; it has grown quickly in response to the circular process described previously. Researchers are beginning to explore this subfield of multilingual education. Due to this, research to date is mainly descriptive and exploratory, much like the present study. Qualitative research has been carried out, examining the different models adopted as each country and university is a different case and adapts EMI to fit their own unique needs. This is why it is helpful to draw on previous quantitative studies on CLIL to understand language outcomes. What is interesting is that holding a university degree that was taught in English seems to hold value in the minds of many. It is considered an asset when looking for work (Pérez-Vidal, 2014). Thus, by extension the general public is equating finishing a degree through EMI with having a high level of English proficiency. It would be interesting and well worth it to evaluate real linguistic outcomes of EMI. This is what the current study purports to do by filling this gap in research and collecting data on EMI in HE.
Research Findings

As mentioned previously, EMI is still a new field and it is useful to draw upon the CLIL experience for insight to what could be expected in the HE context. Empirical research has shown that CLIL students outperform FI students in receptive vocabulary tasks (Jiménez & Ruiz de Zarobe, 2009). In fact, gains are noted in many receptive language skills, such as receptive vocabulary, reading, speaking (in regards to fluency and risk taking), writing (in regards to fluency and lexical syntactic complexities), some morphological phenomenon, and emotive and affective outcomes. Skills that have not been shown to improve in CLIL environments are syntax, productive vocabulary, informal/non-technical language, writing (in regards to accuracy and discourse skills), and pronunciation (Ruiz de Zarobe, 2011).

The positive effects of CLIL on linguistic skills are often attributed to the increased exposure to the TL, as SLA principles described above support. Linguistic gains are reported after providing learners with intense periods of increased input rather than spacing out exposure over longer periods. Investigating English immersion children in Quebec, Spada and Lightbown (1989) found the group exposed to an intensive block of hours performed better and were more advanced on all tasks when compared to a group exposed to a shorter amount of hours over a longer period. Intensive language programs for young learners also support these findings. Housen (2012) studied 105 Dutch, French, and Greek speaking students across 5-year levels, including primary and secondary school in the European school in Brussels. Results showed an increase of development at the point of increased input in this case in both intensive and formal language instruction classes. In a second study, on English L2 proficiency among 72 Italian L1 students in year 3 and 4, in three different European schools in Italy, Belgium, and the UK, demonstrated that English extracurricular activities provided more contact with the TL and the additional L2 input made a significant difference in fluency, grammar, and lexicon. Studies on adults follow the same trend. Serrano and Muñoz (2007) found gains in all linguistic domains measured in a group exposed to intensive classes (25 hours per week), compared to a group exposed to just 4 hours of instruction per week.

As gains are seen in children and adolescents’ linguistic levels when levels of input are increased, it could be expected to see similar gains in university students’ linguistic skills. In fact, students who elected to study their university courses in English reported perceived linguistic gains as one of the motivating factors for enrolling in EMI (Tazl, 2011). However, there has been little empirical evidence to support this claim. Existing research paints a picture of what exactly EMI is and how stakeholders are reacting and adapting to it. Some academic fields find EMI to be more natural than others. In a study of Physics professors in Sweden, Airey (2012) found lecturers preferred teaching in English and even felt English is the professional language for physicists. This is echoed in Unterberger (2012), where German professors surveyed also found English to be the natural choice for instruction in the Engineering field. In the same survey, some reported EMI lectures were easier than L1 lectures.

Students perceived more gains than losses in studying in an additional language, according to a questionnaire involving 93 Hebrew and Arabic students studying through English and 47 Russian and Arabic students studying through Hebrew (Smith, 2004). In a survey at a Belgian university that encompassed the view points of staff and students of five different faculties, a total of 627 participants found that lecturers favored EMI while students preferred to study in their L1. Both groups felt that their English skills improve as a by-product of teaching or studying in English; although, students placed more emphasis on this, as they hoped and expected to improve their language skills, which echoes Smith’s findings above. This causes
them to expect native-like lecturers, whereas lecturers focus on content and accept far from native-like levels from students, provided that communication is not hindered (Sercu, 2004).

Most professors report more prep time and a harder workload when teaching in English (Airey, 2011; Tazl, 2011). Impressions from students showed that in the first year of taking EMI courses, they found the workload much harder and felt they would perform better if the courses were in their native language. However, professors felt the students struggled more with content than language (Tazl, 2011).

Turning to the focus of this study, there is reason to believe that students’ linguistic levels will improve when enrolled and participating in EMI courses. All students in EMI programmes have studied English before they enter the programme; due to this factor, starting EMI can be considered a period of increased exposure to the target language. Increased exposure has been shown to lead to gains in language abilities in both children and adolescents. This leads us to expect some linguistic improvements in HE students; more noticeable gains are expected in receptive language tasks, and less gains in writing and grammar tasks as found in CLIL and immersion learners. As far as could be established, only one study exists examining the development of linguistic abilities after an EMI treatment. Loranc-Paszyłk (2007) measured undergraduate students’ performance on a reading task. Two groups (N=39) differed in both the type of language instruction they received as well as the amount of EMI exposure. The first was an ICLHE programme in International Relations and the second an English Philology programme (FI, FonF). The task used was the CAE reading proficiency test. The author concluded that, even though the ICLHE group had 60% less exposure to English, the performance of each group was comparable. The author concluded that reading skills acquired through just one discipline are transferable and help L2 performance overall. For example, when students chose to write their final projects in English, those who had higher reading scores performed better in their writing tasks.

In summary, the study outlined above points to linguistic gains on reading tasks by ICLHE students. However, in the current review of research in EMI there seem to be no studies examining linguistic gains based on the performance of lexicogrammatical, listening, and writing tasks, even though there is a perceived value in EMI. More research is needed in order to support these perceptions. Given that these questions remain unanswered, this study aims to address them.

**Research Questions**

This preliminary study examines linguistic gains measured through four tasks: an oral comprehension (listening) task, a written composition, a cloze task, and a grammar task. The research questions are:

1. Do students who take 100% of their degree through EMI experience linguistic gains over a one-year period?
2. Do students who take 50% or less of their degree through EMI experience linguistic gains?
3. Is there a difference in linguistic gains between the two groups based on the amount EMI hours, immersion vs. semi-immersion?
The study took place at a Catalan university, most of the participants were bilingual Spanish and Catalan speakers, and English was a third or additional language for them. The Economics department offers four undergraduate degrees, International Business (IBE), Economics (ECO), Management (MGMNT), and Business Management and Administration (ADMIN). All are four-year degree programmes. All courses are taught through EMI for the International Business degree (IBE), equalling 1500 EMI hours per academic year. Whereas, the ECO, MGMNT, and ADMIN programmes offer various intensities of EMI. Track 3 and 4 offer no EMI courses in the first two years, while the second track offers 275 hours in the first year and 525 in the second year. The first track offers the most EMI courses equalling 625 in the first year and 650 in the second year. In summary, the tracks range from offering 0 to 650 hours of EMI per academic year. Figure 1 below shows a chart with the maximum amount of EMI hours per degree. In the case of this study, the classes can be considered to be EMI rather than ICLHE; there reportedly is no focus on form and no translation or dialogue in Catalan or Spanish. Lecturers provide all materials in English, such as power points and readings, according to information gathered by speaking with trainers on the programme.

![EMI Hours in the Economics Department](image)

*Figure 1. Chart illustrating EMI hours in the Economics department by degree.*

**Design and Participants**

The study adopts a longitudinal pre-test post-test experimental design over one academic year, involving two data collection times and two separate groups of participants, immersion, henceforth IM, and semi-immersion, henceforth SIM. Data collection took place during the Fall and then again at the end of the academic year. Further details are omitted to preserve the anonymity of the data.

The IM group: Participants (N=7) are first year IBE students (mean age=18, 2 female, 3 male). L1= Spanish or Catalan. Their initial level of English was reported to be B1 or B2.
Participants in the IM group have an exposure of 100% of their courses taught through EMI, which by the end of the academic year amounts to 1500 hours.¹

The SIM group: Participants (N=9) first year ECO, MGMNT, or ADMIN students. Three female, six male, mean age=18. L1= Spanish or Catalan. Initial English level was reported to be B1 or B2. This group has 18 to 41 percent of their courses taught through EMI, amounting in between 275 to 625 hours of EMI in the first year. All participants had a minimum of 275 EMI hours over the course of the year.

Data Collection

Students were recruited and asked to fill out an online questionnaire concerning language background, English abilities, past English language studies, and current exposure inside and outside the classroom. The participants were asked to complete a battery of tasks. The administration of the battery lasted two hours and took place outside of class time. There are two sections in the battery of tasks, a written component including three tests, listening comprehension, a cloze test, and a sentence manipulation task. The second section was an oral task.²

Listening task. The listening task is designed to measure participant’s aural abilities. An authentic live BBC radio interview is used; the instructions are given as follows:

You will hear a recorded interview with the female group ETERNAL. Listen carefully to the recording and answer the following questions. You will have three minutes to study the questions before hearing the recording for the first time. You can start answering all questions immediately after the first listening. The recording will be played twice, and there will be another three minutes at the end for you to complete your answers. Now listen to the recording.

The participants are then required to answer a series of fill in the blanks, multiple choice, and true and false questions.

Lexico-grammatical tasks. In the cloze task, participants must fill in the blanks where there is only one correct lexical choice, measuring their lexico-grammatical abilities. The instructions are given as follows, the story contains twenty blanks:

<table>
<thead>
<tr>
<th>Fill EACH of the numbered blanks in the following passage with ONE suitable word.</th>
</tr>
</thead>
</table>

The lady who liked adventure

It was one of those impulse buys that can happen while shopping. Mary Bruce was in London looking for a nice dress ......................... (1) she noticed a showroom with a light aircraft for .................................. (2) at a terribly reasonable price.

¹ Due to small numbers of students who returned for the second test, we have five individuals who completed both tests and four cross sectional participants, two females, two males, age 18. This was necessary to have similar numbers in each group and increase reliability of the statistics tests. Using two cross sectionals was not considered to alter the data due to the very similar profile of individuals.

² Not analysed in this study.
The grammar task consists of twenty sentence manipulations where the participant must change the structure of the sentence according to the prompt, this task is designed to measure syntactic abilities. The instructions are as follows:

Instructions:

**Finish each of the following sentences in such a way that it is as similar as possible in meaning to the sentence printed before it.**

**EXAMPLE:** Despite Jack’s strange clothes, everybody ignored him.

**ANSWER:** Nobody took ........................................................................................................

**ANSWER:** Nobody took notice of Jack’s strange clothes.

**Writing task.** The written composition task requires the participant to write an essay in response to the following statement:

*In the space of the following 30 minutes write an essay about the following topic. Organize your ideas and make use of as wide a range of constructions and vocabulary as possible. ‘Someone who moves to a foreign country should always adapt the customs and way of life of his/her new country, rather than holding onto his/her own customs.*

Writing an essay on a subjective topic leaves the participant free to write their opinions and thoughts requiring no specific content knowledge on the topic, while more advance students are free to write more complex compositions (Barquin, 2012). The writing task was analysed on three measures, Coordination, Accuracy, and Fluency (CAF), explained in more detail in the following sections.

**Analysis**

All data was evaluated quantitatively. The following sections describe the analysis of each task in turn.

**Written analysis task.** Written compositions were analysed using the Childes Computerized Language ANalysis (CLAN) system. This was chosen to insure accurate non-biased results. The compositions were manually typed into word documents, the spelling and grammar auto-correct was disabled, and all errors were left untouched. Once formatted into CLAN files, the researcher coded each error according to the CAF measures (further explained below). Errors were coded as either grammatical, lexical, or pragmatic. Grammatical errors involved errors with function words, verb tense, prepositions, pronouns, and determiners. Lexical errors could be wrong lexical choice, lexical transfer, or idiosyncratic (creative non-words). Pragmatic errors included problems with referent (pronouns with no reference) incorrect use of idioms, expressions, or formulaic language. The compositions were also coded for correct use of discourse connectors or idiomatic expressions, for sentences and clauses (dependent, independent, or coordinating). See Appendix A for complete chart showing the codes used and brief description of each error.

When assigning errors, the researcher tried to assign a single code to each error, the one that suited best. Although, it is possible that in some cases an error could be assigned two codes. Punctuation errors were not counted and spelling errors were only counted when they changed the word or resulted in another type of error. Inter-rater reliability was used where if there was a discrepancy it would be further analysed and agreement made between the researchers.
Once coded, two tests were performed on the data using CLAN. The first, a frequency test used to calculate the number of times each of the codes appeared in a composition. The Second, a test that calculates the number of lexical items used (tokens), the different types of lexical items used (types), and the ratio between the two, resulting in a Type/Token Ratio (TTR). All values were recorded and further values were calculated in Excel for CAF measures. The calculated ratios were then input into SPSS. Non-parametric Wilcoxon signed ranks test were used. The sample is quite small and this results in abnormally distributed data so a parametric test could not be considered. The Wilcoxon test compares the means of two variables and detects if there is a significant difference between the two. In our case the results from the first and second test time were used for each measure. The result is significant if the P value is < .05.

**Complexity measures.** Complexity measures involve two calculations, the first being the coordination index, calculating the number of coordinated clauses divided by total number of clauses minus sentences times 100, which gives a percentage of coordination. An increase in percentage signals an increased use of coordinated clauses, a decrease indicates increased use of dependent and subordinate clauses. Secondly, there is the Guiraud’s index of lexical diversity, which takes into account the length of text in regards to the TTR, and supplies a more balanced value for lexical complexity (Vermeer, 2000). These measures were adopted from Pérez-Vidal (2014), previously used by Celaya & Pérez-Vidal (2001), following Wolfe-Quintero, Inagaki, and Kim (1998).

**Accuracy measures.** Accuracy measures involve calculating errors per word, and errors per clause, based on the errors that were coded into the CLAN system. As explained, the errors could be lexical, grammatical, or pragmatic in nature. The result of this measure is expressed in a numeric value and describes the rate of accurate lexical choice, verb use, and correct morphology. As the value decreases it signifies that fewer errors are detected.

**Fluency measures.** The measure for fluency is a calculation of words per clause and words per sentence, following the concept that longer clauses and sentences are more fluent than shorter simpler clauses and sentences. To obtain this value the count test was performed on the data using the CLAN programme as outlined before.

**Listening task.** The listening tasks were corrected manually and errors were recorded in an Excel table. One point was awarded for a correct response and no point was awarded for an incorrect response. The score from test one was subtracted from the score from test two in order to obtain the amount of gain for each participant. This data was then transferred to SPSS for further statistical analysis.

**Lexico-grammatical tasks.** The cloze and grammar tasks were corrected in order to obtain qualitative data. The correction method assumed one correct answer for each question, so one point was given for a correct response and no point was given for an incorrect response. As for the listening the value of the gain was calculated by subtracting the first test score from the second and the data was analysed in SPSS.

**Results**

The results of the tests were examined first by looking at the descriptive statistics to see if there were any overall mean differences on each task between time one (T1) and time two (T2). Results found are broken down by task: listening, lexico-grammatical, and writing. After
reviewing the descriptive statistics, the non-parametric Wilcoxon signed ranks test was carried out to detect if there were any significant gains between the two tests, for each of the tasks examined.

**Listening Task**

Descriptive statistical analysis of the listening task reveals a lower value on T2 for both IM and SIM groups, by 1 point. This signifies a weaker performance on the listening task, at the second examination period.

<table>
<thead>
<tr>
<th>Table 1. Listening Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Value</td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>Immersion (N=7)</td>
</tr>
<tr>
<td>Semi Immersion (N=9)</td>
</tr>
</tbody>
</table>

**Lexico-Grammatical Tasks**

The means of the grammar task show an improvement of 12.6 points from T1 to T2 for the IM group. While the SIM group shows an average improvement of 11.6. This is a positive result and signals a trend for improvement in grammar tasks.

<table>
<thead>
<tr>
<th>Table 2. Grammar Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Value</td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td>Immersion (N=7)</td>
</tr>
<tr>
<td>Semi Immersion (N=9)</td>
</tr>
</tbody>
</table>

The means from the cloze task also point towards average improvements, a greater improvement for the IM group going up 14.1 points from 33.4 to 47.5 and a slight improvement for the SIM group from 32.0 to 32.3.

<table>
<thead>
<tr>
<th>Table 3. Cloze Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean value</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>Immersion (N=7)</td>
</tr>
<tr>
<td>Semi Immersion (N=9)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 4. Complexity, Accuracy, and Fluency (CAF) Measures in Immersion Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immersion Group</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Guiraud's index</td>
</tr>
<tr>
<td>Time 1</td>
</tr>
<tr>
<td>Time 2</td>
</tr>
<tr>
<td>Coordination index</td>
</tr>
<tr>
<td>Time 1</td>
</tr>
<tr>
<td>Time 2</td>
</tr>
</tbody>
</table>
The analysis of the IM group’s writing task yields the following results. For complexity, a slight improvement on the Guiraud’s index (< 1.) is found. There is a decrease of (37.) in the coordination index, suggesting more subordinate (dependent) and independent clauses used at T2. In regards to fluency measures, there is a (1.) point increase in both words per sentence and words per clause. Finally, for accuracy measures there is a slight improvement (< .1), as less errors were detected in the calculation for errors per word or errors per clause at T2.

Table 5. Complexity, Accuracy, and Fluency (CAF) Measures in Semi-Immersion Group

<table>
<thead>
<tr>
<th>Semi-Immersion Group</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean</th>
<th>Stand. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guiraud’s index</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1</td>
<td>6.33</td>
<td>9.69</td>
<td>7.54</td>
<td>.94</td>
</tr>
<tr>
<td>Time 2</td>
<td>7.89</td>
<td>9.43</td>
<td>8.35</td>
<td>.54</td>
</tr>
<tr>
<td>Coordination index</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1</td>
<td>.00</td>
<td>300.00</td>
<td>86.65</td>
<td>88.35</td>
</tr>
<tr>
<td>Time 2</td>
<td>.00</td>
<td>133.33</td>
<td>52.74</td>
<td>47.28</td>
</tr>
<tr>
<td>Words per Sentence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1</td>
<td>18.33</td>
<td>23.73</td>
<td>19.96</td>
<td>1.92</td>
</tr>
<tr>
<td>Time 2</td>
<td>15.43</td>
<td>31.86</td>
<td>23.01</td>
<td>6.64</td>
</tr>
<tr>
<td>Words per Clause</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1</td>
<td>9.96</td>
<td>16.25</td>
<td>12.76</td>
<td>1.99</td>
</tr>
<tr>
<td>Time 2</td>
<td>8.53</td>
<td>15.19</td>
<td>11.95</td>
<td>2.27</td>
</tr>
<tr>
<td>Errors per Word</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1</td>
<td>.08</td>
<td>.19</td>
<td>.13</td>
<td>.04</td>
</tr>
<tr>
<td>Time 2</td>
<td>.09</td>
<td>.17</td>
<td>.13</td>
<td>.02</td>
</tr>
<tr>
<td>Errors per Clause</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1</td>
<td>.92</td>
<td>2.56</td>
<td>1.66</td>
<td>.64</td>
</tr>
<tr>
<td>Time 2</td>
<td>.83</td>
<td>2.13</td>
<td>1.52</td>
<td>.40</td>
</tr>
<tr>
<td>Number</td>
<td>7</td>
<td>9</td>
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<td></td>
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</table>
A similar trend is noted in the SIM group, a higher mean value on the Guiraud’s index at T2 (< 1.). A (33.91) difference between T1 and T2 was measured on the coordination index, suggesting more use of independent and subordinate (dependent) clauses. Regarding fluency, there is a (3.) point difference between the two means for words per sentence, suggesting longer sentences in the second test. However, when looking at words per clause the mean decreases slightly there (< 1.) On accuracy, measures the means remain virtually the same for both T1 and T2, suggesting almost no change in regards to errors per word or errors per clause, for the SIM group.

Wilcoxon Signed Ranks Test

In order to detect if the improvements noted on examination of the descriptive statistics were in fact statistically significant the Wilcoxon signed ranks test was performed on the data. This test was selected to compare the difference of mean values from T1 to T2 on each of the tasks measured.

Table 6. Immersion Group

<table>
<thead>
<tr>
<th>Median Differences Between Test One and Test Two</th>
<th>Wilcoxon Signed Rank Test Significance Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening</td>
<td>.10</td>
</tr>
<tr>
<td>Grammar</td>
<td>.79</td>
</tr>
<tr>
<td>Cloze</td>
<td>.50</td>
</tr>
<tr>
<td>Fluency</td>
<td>1.0 words per clause</td>
</tr>
<tr>
<td>Accuracy</td>
<td>.31 errors per word</td>
</tr>
<tr>
<td>Complexity</td>
<td>.24 coord. index</td>
</tr>
</tbody>
</table>

Note. Value is significant if p=<.05.

The results for the first three tasks, listening grammar, and cloze, all reflect values where p=>.05 (table 6). The CAF measures also reflect values where p= >.05, for all tasks. The interpretation is that the IM group shows no significant gains in any of the language domains measured.

Table 7. Semi-immersion group

<table>
<thead>
<tr>
<th>Median Differences Between Test one and Test Two</th>
<th>Wilcoxon Signed Rank Test Significance Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening</td>
<td>.77</td>
</tr>
<tr>
<td>Grammar</td>
<td>.01*</td>
</tr>
<tr>
<td>Cloze</td>
<td>.82</td>
</tr>
<tr>
<td>Fluency</td>
<td>.14 words per clause</td>
</tr>
<tr>
<td>Accuracy</td>
<td>.95 errors per clause</td>
</tr>
<tr>
<td>Complexity</td>
<td>.06 coord. index</td>
</tr>
</tbody>
</table>

Note. Value is significant if p=< .05.

*Significant
The SIM group results (Table 7) show no significant improvements for the cloze or listening task, between T1 and T2. A significant gain was detected in the grammar task \((p=.01)\). Regarding the CAF measures there were non-significant results for fluency and accuracy. However, the Guiraud’s index \((p=.05)\) is very close to a significant finding.

**Discussion**

Referring back to research question one (do students who take their entire degree through EMI experience linguistic gains over a one-year period?), results for the IM group, who receive their entire degree programme through English were positive. Mean gains in lexico-grammatical tasks were observed, and on all CAF measures on the writing task. No improvements were noted on the listening task. Although the means pointed towards an improvement when tested, statistically significant gains were not detected using non-parametric tests. Thus, it can be asserted that there is a trend for improvement in lexico-grammatical and writing tasks in students who study their entire degree programme through EMI.

Regarding the second research question (do students who take less than half of their degree through EMI experience linguistic gains?), the results for the SIM group point to a trend towards improvement on all tasks save the listening task. Further, when analysed, statistically significant linguistic gains were detected in both lexico-grammatical tasks as well as lexical complexity in the writing task. These findings suggest students enrolled in semi immersion EMI courses do experience linguistic gains in the domains of complexity of writing and grammar, as well as a general trend towards linguistic improvement.

Addressing the third research question (is there a difference in linguistic gains between the two groups based on the amount EMI hours, immersion vs. semi-immersion?), the data point towards similar mean gains from T1 to T2 in both the IM and the SIM groups. The mean values reflect more average improvements in the IM group but when tested statistically significant gains were detected in the SIM group only.

Some reasons as to why this could be is that participants have achieved a B1 or B2 level in English and may have plateaued. Without putting a lot of effort and having some formal instruction, many adults experience difficulty reaching advanced levels in a second language. Students may feel they have a good enough level and that they can get by, giving them little incentive to enhance their English language skills, as Wilkinson (2004) stated, “language is a tool once they have the minimum needed there is little incentive to enhance skills” (p. 453).

The second factor that may inhibit linguistic gains is the question of input, and interaction. As we saw earlier from Tazl’s (2011) and Airey & Linder (2004) students as well as lecturers behave slightly different in EMI classes. Students tend to interact less and ask less questions, also lecturers stick to the plan more and tend to follow the slides, with less interaction storytelling and other such nuances. This may affect the amount of interaction with English and therefore their output abilities. In addition, many professors are lecturing in their second or additional language and are not language specialists. Thus, there is little or no correction of students’ errors in class or in assignments; instead, focus is entirely on content so students have little feedback on their language skills. As Sercu (2004) summed up:

If lecturers cannot provide appropriate language input, if students are not provided with adequate opportunities for interaction in the foreign language, if students do not already possess a command of the language that allows them to benefit from English-medium
instruction, the hoped for enhancement of students language skills may remain forthcoming. (p. 548)

Some limitations of the study and suggestions for further research are: the current study was a preliminary study and it would be well worth it to repeat the same analysis on a larger number of students. It would be interesting to measure the students over a longer period of time, their entire degree programme perhaps. It would be interesting to observe the lectures in order to have a clear picture as to exactly what kinds of interactions are going on and exactly what the input is.

Conclusion

This preliminary study has provided a background and review of the relatively new field of EMI in the European context. The study examined the linguistic outcomes of two groups of EMI undergraduate students in a Catalan university. Findings show a trend towards improvement for both groups of students measured through a listening task, lexico-grammatical tasks, and a composition task where accuracy complexity and fluency were measured. A significant gain in grammar skills is evidenced in the SIM group. Regarding the results from the listening test. The lecturers are non-native speakers of English. Due to this, the students do not have native accent input and this could be a factor as to why their listening comprehension of native speakers does not improve. However, they improve on grammar of which they receive more target like input through readings, presentations and lectures.

This preliminary study contributes to the field by highlighting a trend for linguistic improvement after EMI treatment. However, further research is needed to confirm the trend noted in this study.

References


Costa, F. (2012). Focus on form in ICLHE lecturers in Italy. Evidence from English-medium science lectures by native speakers of Italian. AILA Review, 25, 30-47.


### Appendix A

<table>
<thead>
<tr>
<th>Grammatical Error Codes</th>
<th>All types were counted as grammatical errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>GrE:trans</td>
<td>Grammatical error as a result of L1 transfer, using a wrong structure due to L1 transfer.</td>
</tr>
<tr>
<td>GrE:fw</td>
<td>Inappropriate use of a function word (pronouns, determiners, prepositions, conjunctions) or omission in obligatory contexts.</td>
</tr>
<tr>
<td>GrE:adv/j</td>
<td>Comparatives and superlatives, when an adverb/adjectives used inappropriately, or in the wrong form.</td>
</tr>
<tr>
<td>GrE:n</td>
<td>Missing noun, wrong form (morphology).</td>
</tr>
<tr>
<td>GrE:v</td>
<td>Tense, aspect, auxiliary verb missing, omission of a verb that is needed in the sentence structure, wrong form (morphology).</td>
</tr>
<tr>
<td>GrE:wo</td>
<td>Error due to wrong word order, one or several elements that are misplaced in the sentence, lack of inversion in questions.</td>
</tr>
<tr>
<td>GrE:ag</td>
<td>Lack of agreement between subject and verb or between determiner and noun.</td>
</tr>
<tr>
<td>GrE:neg</td>
<td>Errors with negatives, double negatives, confusion between no/not, negative particle errors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lexical Error Codes</th>
<th>All types were counted as lexical errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>LexE:idio</td>
<td>Idiosyncratic form used by the learner, creative morphology or made up non-words.</td>
</tr>
<tr>
<td>LexE:trans</td>
<td>Words directly borrowed from the L1 whether modified or not, false friends.</td>
</tr>
<tr>
<td>LexE:cho</td>
<td>Wrong lexical choice, mistakes with commonly confused words, use of words in inappropriate text.</td>
</tr>
<tr>
<td>LexE:omi</td>
<td>Omission of a lexical item, the learner cannot retrieve.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pragmatic Error Codes</th>
<th>All were counted as pragmatic errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>PragE:ref</td>
<td>Erroneous use of reference markers, ambiguous references.</td>
</tr>
<tr>
<td>PragE:idio</td>
<td>Idiosyncratic usage not clearly ungrammatical, problems with formulaic language and idioms.</td>
</tr>
<tr>
<td>PragE:con</td>
<td>Wrong discourse connector.</td>
</tr>
<tr>
<td>F:</td>
<td>Discourse connectors of the kind ‘to sum up’, ‘for example’ and idiomatic expressions used correctly.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Syntactic Complexity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Sentence, any string between full stops (as the writer has written it) When writers miss punctuate the researcher identifies sentences according to syntactic structures</td>
</tr>
<tr>
<td>C</td>
<td>Independent clauses</td>
</tr>
<tr>
<td>DepC</td>
<td>Dependent clauses</td>
</tr>
<tr>
<td>Coord</td>
<td>Coordinating clauses</td>
</tr>
</tbody>
</table>