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Motivation of Students for English as a Medium of Instruction (EMI) and Content and Language Integrated Learning (CLIL): Current Research Foci in Different Countries

Abstract

Content and language integrated learning (CLIL) and English as a medium of instruction (EMI) are emerging as the preferred contexts of language learning. CLIL and EMI classes continue to proliferate in schools around the globe. The aim of this paper is to investigate the current research trends in studies of motivation to learn within EMI and CLIL settings. We sought to identify the current countries of research, educational levels, and themes that prevail in EMI and CLIL motivation research. We performed a topic search of the keywords “CLIL” or “EMI” and the keyword “motivation” in the *Web of Science* database for Social Sciences Citation Index (SSCI) articles published in 2020. We analyzed 17 articles related to motivation within EMI or CLIL contexts. The results showed that European countries produced the most research, with Spain being the most prolific. A majority of the studies took place at the secondary and tertiary levels of education. Comparative studies of CLIL or EMI contexts with that of traditional classrooms emerged as the prevailing theme. Future research could include more studies regarding the impact of CLIL on students at the primary level of education, in addition to studies of students from varied socio-economic backgrounds.

Keywords: English as a medium of instruction, content and language integrated learning, motivation, Europe, Asia, South America

Introduction

As the prominence of English as the lingua franca of academia, business, and tourism continues to grow, many schools across the globe have placed emphasis on English language learning. In order to prepare students for these fields, English has emerged, not only a foreign language, but more importantly, as the language of academia used for teaching and learning in a variety of curricular subjects (Rose et al., 2020). As such, two new forms of English language learning have emerged: content and language integrated learning (CLIL) and English as a medium of instruction (EMI).

EMI refers to a setting in which English is used to teach academic subjects to L2 (second language) users of English. It is a relatively common and favored method at universities (Kao, 2020). The availability of EMI courses enables institutions to attract both domestic and international students by creating the opportunity to provide instruction to students from differing L1 (first language) backgrounds. However, there remain concerns that content learning may be hindered by students' potential lack of English language skills (Reus, 2020).

In the CLIL classroom, concerns about content learning are lessened by the fact that both language skills and subject area content are taught co-equally (Kao, 2020). As such, the objectives of CLIL instruction are to generate both language learning and content knowledge gains (Pfenninger, 2020). Due to the nature of this practice, teachers in the CLIL classroom have the dual responsibility of both content and language lesson planning and instruction (Kao, 2020).

We attempted to investigate how these forms of English learning impact student motivation. Our research questions are as follows:

- (1) Which countries feature most prominently within the current research on motivation to learn or teach in the context of CLIL or EMI?
- (2) Regarding educational level, which populations are studied most prevalently in this field of research?
- (3) Which themes have emerged within the key findings of the literature?

Methodology

We searched the topic “CLIL AND Motivation” OR “EMI AND Motivation” in the *Web of Science* (WoS) database in January 2021. The search was limited to SSCI (Social Sciences Citation Index) articles published in ‘2020’. The number of returned records was 18.

After the initial screening one of the returned records was excluded due to lack of relevance. The total number of analyzed records in this study is 17.

The records were classified according to three criteria:

- a) country of research – for each record we identify the country where the research were conducted;
- b) educational levels of the researched populations – based on the International Standard Classification of Education (ISCED), for each record we identify whether the researched populations are in the level of primary (ISCED 1), secondary (ISCED 2 or 3), post-secondary non-tertiary (ISCED 4), tertiary (ISCED 5, 6, 7, or 8) education; in the case of types of populations other than students, we specify the researched group;
- c) key findings – we summarize the key findings and categorize them; we let categories emerge in order to see the state of the art in this field.

Researched populations

Country of research

Literature from Europe comprised the majority of the research (N=11, 64.7%) that was returned by our search. Most of these papers came from Spain (N=6), a well-established country for CLIL motivation research. However, a number of European countries appear within the body of research into CLIL and EMI as it relates to motivation, including Germany, the Netherlands, Russia, and Switzerland.

Regarding Asia, we found only two papers from Chinese speaking regions here (Mainland China and Taiwan). The only other country within Asia that appeared was Japan with two studies.

In South America, Argentina, Colombia, and Chile produced one study each. Researchers (e.g., Reus, 2020) have noted the beginnings of a CLIL push in Latin America, perhaps similar to that in Europe over the past two decades.

Educational levels of participants

The education levels of the participants in the studies varied with the majority (N=8, 47.1%) of studies featuring samples of students at the secondary level of education. We found a lack of research at the primary education level (N=2, 11.8%). In total, 6 studies focus on participants from the tertiary educational level (university students). Some studies also included teachers as a researched population (N=5, 29.4%). Note that 4 papers focus on two different populations.

We also analyzed the relationship between the country and educational levels of the researched populations. Articles in Europe include the whole range of educational levels with the main focus on the secondary level (8 out of the total of 11 studies). Comparatively, all articles in Asia focus on university students (N=4), and one of these articles also includes teachers. Studies from South America focus on teachers (N=2) and the university students (N=1).

Thematic categorization of the research

The following key themes and findings emerged in the current literature related to EMI/CLIL context and motivation. We illustrate each theme using specific key findings of some selected articles.

CLIL or EMI versus traditional classes

CLIL and EMI courses can potentially be difficult and time consuming for schools to implement, so it is important to understand the benefits of these types of courses when compared with traditional academic and English as a Foreign Language (EFL) courses.

In a comparative study of primary and secondary CLIL and non-CLIL students in Spain, Martínez Agudo (2020) found little correlation between achievement in CLIL courses and motivational variables, leading to the conclusion that not all motivational factors have the same impact on student learning. Lack of interest was found to be the variable with the greatest impact on student achievement. The author recommends that CLIL teachers adjust their approaches based on the observed needs of individual learners.

Halbach and Iwaniec (2020) investigated how CLIL affects students from different social strata. They suggested that students who are more willing to 'put in the extra effort' are attracted to CLIL learning options. Interviewed teachers felt that students' desire to learn and 'better themselves' was a better predictor of CLIL success than socio-economic status (SES). Teachers also stated that the possibilities that learning English presents for students is a motivating force in itself; additionally, the characteristics developed by bilingual learning create opportunities for success, regardless of SES. The researchers also found that parental involvement in student learning was greater in bilingual school contexts.

Castellano-Risco, Alejo-González and Piquer-Piriz (2020) focused on the development of receptive vocabulary in the CLIL vs EFL learning context for

Spanish secondary-school learners. The CLIL group had a significantly larger receptive knowledge of the 2,000 most frequently used English words and the 570 most frequent academic English word families than their EFL counterparts. They also investigated differences between early, standard and late CLIL students (i.e. students who joined CLIL classes in early primary, late primary, or lower secondary) and concluded that there are no significant differences between these groups.

Jaekel (2020) examined language learning strategies used among CLIL and EFL students in Germany and found no significant effect.

Salvador-García et al. (2020) aimed to analyze the impact of CLIL in the context of physical education classes in Spain. Physical activity was higher in the experimental group (CLIL) than in the control group (non-CLIL group). Focusing on social relationships, the sociometric questionnaire results show that there were no statistically significant changes. However, interview data revealed that CLIL tasks promoted more cooperation and students tended to feel interpersonal relationships were improved.

Teacher factors

The studies in this category included teachers in the sample populations. The implementation of CLIL and EMI courses requires teachers who are not only experts in their academic field, but also possess the ability to present the material in English, and in the case of CLIL, demonstrate English language teaching skills as well.

Banegas and del Pozo Beamud (2020) found that engaging university EFL teachers in Colombia as developers of learning materials was a rewarding experience which increased both the knowledge and affective variables of the teachers. Teachers reported feeling engaged and excited about the materials with enhanced identities as both teachers and material creators.

A study by Han et al. (2020) revealed that Chinese academics have concerns about international students' lack of participation and attitudes of international students in EMI classrooms due to their lack of English skills. Supervisors also report challenges in communicating with international students, as both students and teachers experienced issues due to their English language proficiency. Also, some Chinese students expressed concerns regarding feelings of decreased academic rigor in EMI classes in order to accommodate international students.

A study by Kao (2020) included pre-service CLIL teachers in Taiwan. The findings from the study demonstrate that although there are many potential benefits of CLIL, both teacher training and classroom implementation of CLIL practices must be well planned in order to generate motivated and successful students.

Student attitudes

Research has shown that student attitudes toward learning are an influential aspect of the learning process. Studies in this category investigated the effects of CLIL on students' attitudes. For example, Dashkina et al. (2020) compared Russian university students in a CLIL course which combined integrated learning with a virtual environment and a non-CLIL group where the professional discipline and professional English were studied separately. They found that the CLIL approach led to better outcomes in terms of English language learning and content area

knowledge. Students also showed improved attitudes toward language learning, enhanced motivation, and increased academic interest.

A study by Fernández-Agüero and Hidalgo-McCabe (2020) focused on motivation in the context of Spanish secondary students. These students were streamed into two strands according to their linguistic competence. The two 'strands' exposed students to varying amounts of CLIL learning. Students in the high-exposure strand felt that they had more agency over their academic trajectory, whereas low-exposure strand students were less certain. Instrumental motivation was found to be an important factor and differed based on CLIL strand.

A study by Mearns, de Graaff and Coyle (2020) found that Dutch learners at the secondary level of education in bilingual settings were more motivated in all areas than students in traditional classes. The authors suggest that rather than CLIL generating motivation, it is more likely that students who choose to learn in a CLIL setting were already motivated learners.

Content learning achievement in the EMI context

Studies in this category have sought to determine the extent to which EMI impacts content learning achievement. Motivation for learning was studied as one of the possible factors contributing to content learning achievement (e.g., Rose et al., 2020) or as a variable influencing the choice of EMI classes (Reus, 2020).

Specifically, one of the key studies by Rose et al. (2020) found that predictors of success in EMI classes within a group of Japanese university students included English language knowledge and skills related to academic English.

Reus' (2020) study of engineering students at a Chilean university found that achievement differences in the EMI course were mainly predicted by student performance in previous courses. English aptitude was not measured before the course began, and the researcher posits that since students chose to take the EMI section of these classes, those with lower levels of English proficiency most likely opt for courses in their first language (L1).

Age of onset

We found one study which specifically focused on the effects of implementing a bilingual learning environment at different ages. Pfenninger (2020) researched students at the primary level in Switzerland to determine if implementing CLIL courses at earlier ages has any significant impact on linguistic factors. He found that students who began CLIL classes at the age of seven show similar L2 development to that of students who began earlier at age five. However, students who began CLIL classes at a later age, in this case the age of nine, fell behind the other groups in terms of the trajectories of their linguistic development.

Conclusion

Most of the articles related to CLIL/EMI motivation research came from Europe. Spain was found to be the most prolific country, producing a significant percentage of the research. However, South America is beginning to emerge as a potential CLIL and EMI research setting. All of the researched populations in South

America and Asia were students at the tertiary level of education or teachers. Whereas in Europe, we found a wider range of educational levels.

The lack of research from L1 English speaking countries was notable. CLIL courses could serve as an effective bridge to integrate English as a second language (ESL) students into traditional L1 English classrooms. Future research into CLIL and EMI motivation in L1 English speaking countries is recommended.

More studies of students at the lower education levels are also needed to understand how earlier exposure to CLIL classes impacts different populations of students regarding affective variables and achievement. Fernández-Agüero and Hidalgo-McCabe (2020) point out that CLIL courses often signal a privileged social economic status (SES) and an elite education. Normalization of CLIL as an option for students at all SES levels, heralded by more research into CLIL with students of lower SES, can potentially begin to change the educational landscape and provide the opportunity for more equitable education systems.

It should be noted that our narrow keyword search, as well as timespan and index restrictions, have provided just a sample of the literature regarding motivation in CLIL and EMI courses.

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References

- Banegas, D. L. & del Pozo Beamud, M. (2020): Content and language integrated learning: A duo ethnographic study about CLIL pre-service teacher education in Argentina and Spain. *RELC Journal*. <https://doi.org/10.1177/0033688220930442> (Accessed 04 February 2021).
- Castellano-Risco, I., Alejo-González, R. & Piquer-Píriz, A. M. (2020): The development of receptive vocabulary in CLIL vs EFL: Is the learning context the main variable? *System*, 91, Article 102263.
- Dashkina, A. I., Khalyapina, L. P., Kobicheva, A. M., Odinokaya, M. A. & Tarkhov, D. A. (2020): Developing a model of increasing the learners’ bilingual professional capacity in the virtual laboratory environment. *Applied Sciences*, 10(20), Article 7022.
- Fernández-Agüero, M. & Hidalgo-McCabe, E. (2020): CLIL Students’ affectivity in the transition between education levels: The effect of streaming at the beginning of secondary education. *Journal of Language, Identity & Education*. <https://doi.org/10.1080/15348458.2020.1795864> (Accessed 03 February 2021).
- Halbach, A. & Iwaniec, J. (2020): Responsible, competent and with a sense of belonging: An explanation for the purported levelling effect of CLIL. *International Journal of Bilingual Education and Bilingualism*. <https://doi.org/10.1080/13670050.2020.1786496> (Accessed 05 February 2021).
- Han, Y., Li, W., Bao, M. & Cao, X. (2020): An investigation of the experiences of working with multilingual international students among local students and faculty members in Chinese universities. *Sustainability*, 12(16), Article 6419.

- Jaekel, N. (2020): Language learning strategy use in context: The effects of self-efficacy and CLIL on language proficiency. *International Review of Applied Linguistics in Language Teaching*, 58(2), 195-220.
- Kao, Y. T. (2020): Understanding and addressing the challenges of teaching an online CLIL course: a teacher education study. *International Journal of Bilingual Education and Bilingualism*. <https://doi.org/10.1080/13670050.2020.1713723> (Accessed 05 February 2021).
- Martínez Agudo, J. D. (2019): The impact of CLIL on English language competence in monolingual context: A longitudinal perspective. *The Language Learning Journal*, 48(1), 36-47.
- Mearns, T., de Graaff, R. & Coyle, D. (2020): Motivation for or from bilingual education? A comparative study of learner views in the Netherlands. *International Journal of Bilingual Education and Bilingualism*, 23(6), 724-737.
- Pfenninger, S. E. (2020): The dynamic multicausality of age of first bilingual language exposure: Evidence from a longitudinal content and language integrated learning study with dense time serial measurements. *Modern Language Journal*, 104(3), 662-686.
- Reus, L. (2020): English as a medium of instruction at a Chilean engineering school: Experiences in finance and industrial organization courses. *Studies in Educational Evaluation*, 67, Article 100930.
- Rose, H., Curle, S., Aizawa, I. & Thompson, G. (2020): What drives success in English medium taught courses? The interplay between language proficiency, academic skills, and motivation. *Studies in Higher Education*, 45(11), 2149-2161.
- Salvador-García, C., Capella-Peris, C., Chiva-Bartoll, O. & Ruiz-Montero, P. J. (2020): A mixed methods study to examine the influence of CLIL on physical education lessons: Analysis of social interactions and physical activity levels. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.00578> (Accessed 05 February 2021).

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