

DEVELOPING ACADEMIC LANGUAGE AND SKILLS AS A SUPPORT FOR CONTENT LEARNING IN HIGHER EDUCATION: A PROPOSAL OF AN OPEN EDUCATIONAL RESOURCE

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1. INTRODUCTION

The internationalisation of European Higher Education Institutions plays a significant role in the need to prepare Higher Education students for globalised working environments (Macaro, 2018). Based on the need for training university students for successful academic performance, in recent decades, there has been a growing interest in the promotion of educational approaches aiming at developing the internationalisation of European Higher Education Institutions (Knight, 2005). This process attracts foreign students, i.e., it favours the enrolment of students with other first languages (L1s), and it improves the language competence of domestic students by enriching learning with cultural experience, preparing them for globalisation, and improving the intercultural skills of home university students. It also contributes to sharpening the international profile of Higher Education Institutions as it enhances the profile of the university within the country and establishes agreements and exchanges with other institutions. Likewise, this process contributes to brain gain as it attracts foreign staff and doctoral students (Wächter & Mainworm, 2014, p. 54).

Drawing on this current concern about the internationalisation of European Higher Education Institutions, there are two main lines of development. While “internationalisation abroad” (Knight & de Wit, 2018) refers to all types of education across borders (mobility of students,

instructors, scholars, programs, courses, curriculum, and projects), “internationalisation at home” consists of a series of practices devoted to promoting activities that help students develop international understanding and intercultural skills at their home universities (Beelen & Jones, 2015).

In recent years, a growing number of educational programs have emerged intending to foster internationalisation “at home” in order to develop 21st-century transversal skills and to increase employability across the European Union (Wächter & Maiworn, 2014). The use of an additional language, English in most cases, in the teaching of disciplinary subjects has played a significant role in enhancing interdisciplinary educational approaches. The employment of English as a Medium of Instruction has attracted a great deal of attention on its impact on second language (L2) learning in Higher Education and due to the resulting significance of this approach to increasing graduates’ employability in the digital era. For instance, English-Medium Instruction programmes have experienced a substantial growth of 239% in seven years, from 2007 to 2014 (Wächter & Maiworn, 2014). In parallel with this, English-Medium Instruction students’ perceptions and linguistic needs have been widely researched (Aguilar & Rodríguez, 2012; Jian et al., 2019; Macaro, 2018). However, to the best of my knowledge, very little attention has been paid to other factors, such as their training needs and the design of materials addressing Higher Education students’ needs on academic language and linguistic skills in English-Medium Instruction contexts (Aguilar & Rodríguez, 2012; Piquer-Píriz & Castellano-Risco, 2021).

The present study explores some of the possible implications of Content and Language Integrated Learning (CLIL) and its adaptation to the Higher Education instructional setting –Integrating Content and Language in Higher Education (ICLHE)– in specific learning environments at the University of Extremadura (Spain). This Higher Education Institution, in the last decade, has expressed its commitment to the implementation of a series of practices to promote educational approaches aiming at enhancing internationalisation “at home” (Beelen & Jones, 2015).

This chapter is organised in the following way. Section 2 describes the study, and Section 3 is concerned with the methodology employed for the development of an Open Educational Resource and the research design. Section 4 analyses the results of the pilot study. Findings are discussed in section 5. Finally, the conclusion acknowledges some limitations and suggests directions for future research in Section 6.

2. OBJECTIVES

This study is framed in the development of the regionally-funded research project “Diseño de entornos virtuales de aprendizaje colaborativo para la enseñanza de contenidos y lenguas extranjeras (AICLE) en la Educación Superior adaptados a la Universidad de Extremadura – ICLUEx¹⁰⁹ (IB18055)”. The ICLUEx project seeks to contribute to the quality of teaching content subjects through English by integrating content and language in virtual collaborative learning environments. The main objective of this research project is to identify learners’ linguistic and training needs in relation to courses taught in English (English-Medium Instruction) in order to develop Open Educational Resources, using a CLIL approach in Higher Education, aiming at helping students to overcome their L2 linguistic difficulties (Piquer-Píriz, in press).

For this purpose, a total of seven self-study, online content-driven modules were designed, developed, and implemented with computer tools and online platforms to promote the integration of content, foreign language, and the development of transversal skills: (i) ‘Writing Outlines’ module; (ii) ‘Concept Maps’ module; (iii) ‘Writing Definitions’ module; (iv) ‘Writing Summaries’ module; (v) ‘Reporting Data’ module; (vi) ‘The Language of Presentations’ module; (vii) and ‘Writing Abstracts’ module. Although this research is specifically adapted to the reality of the University of Extremadura, the main goal is to support this integrated teaching in the field of Higher Education.

¹⁰⁹ Further information on the *ICLUEx* project is available at <https://l2earnuex.wixsite.com/icluex>.

In the present study, I describe the classroom-based research on the use of an innovative Open Educational Resource aiming at embracing customised adjunct-CLIL materials for training specific academic language skills in ICLHE programmes. This study presents the design and reports on the first piloting experience of a particular Open Educational Resource – ‘Concept Maps’ module – developed as part of the action-research process of the *ICLUEx* project at the University of Extremadura. This adjunct-CLIL material seeks to promote interdisciplinary training on the target academic language required while helping English-Medium Instruction students develop specific academic skills in *organising information visually*. In particular, the Open Educational Resource intends to foster digital practices and self-study with tailor-made interactive online training on concept mapping.

3. METHODOLOGY

3.1. METHOD I: DEVELOPMENT OF THE OPEN EDUCATIONAL RESOURCE

Regarding the ‘Concept Maps’ module, there were three main steps followed for the development of the online adjunct-CLIL material: (i) needs analysis; (ii) material design criteria; and (iii) material implementation procedure.

3.1.1. Analysis of students’ linguistic and training needs

In line with the rest of the Open Educational Resources, the ‘Concept Maps’ module was developed based on the analysis of English-Medium Instruction students’ linguistic and training needs in relation to the subjects taught in English at the University of Extremadura. This first step in the development of materials was carried out through three different analyses: target situation analysis, present situation analysis, and strategic analysis.

To identify students’ needs, an online 44-item questionnaire, adapted from Pérez-Cañado (2020), was distributed to a total of 155 students attending 15 different BA degrees, where English is the medium of instruction. These university students were asked to rate their level of

agreement with several statements related to their self-perceived linguistic and methodological needs.

Results showed that, in general, these English-Medium Instruction students perceive the need to improve their academic vocabulary and develop linguistic skills (see Fielden-Burns & Martín-Gilete, 2022; Martín-Gilete & Fielden-Burns, in press; Piquer-Píriz, in press). From these findings, it was inferred the need to develop teaching materials that enhance those skills and provide students with specific training in academic English, in general, and specific English in relation to the subjects taught in the English language.

Bearing in mind the results obtained in the needs analysis phase, the objectives were established, as well as which skills and language content should be achieved to support the enhancement of English-Medium Instruction students' academic language and skills.

3.1.2. Material design criteria

The design of this customised adjunct-CLIL material to meet English-Medium Instruction students' needs was carried out in a five-step procedure: (i) definition of the linguistic objectives; (ii) task or exercise implementation focused on the linguistic objectives; (iii) selection of the appropriate computer tools; (iv) development of the structure of digital materials and design of a coherent sketch for its elaboration; and (v) elaboration of a multimedia script.

3.1.3. Material implementation procedure

The development of the adjunct-CLIL material was carried out in an eight-step procedure: (i) development of the multimedia product; (ii) development and implementation of the multimedia script; (iii) product testing and review; (iv) carrying out a pilot experience; (v) evaluation and final version; (vi) preparation of the teaching guide; (vii) guidelines for the educational use of multimedia material; (viii) and use and evaluation of the final product.

For these purposes, the present *ICLUEx* module on concept mapping is aimed at projecting itself in successive cycles concerning the

organisation cycle of action-research within the University of Extremadura to improve the quality and effectiveness of CLIL approaches across the existing university courses. The first action-research cycle focusing on the structure of the Open Educational Resource is complete. As will be seen below, the current state of the present ‘Concept Map’ module has already gone through the first cycle of the ‘conceptualisation’ phase, the ‘planning’ phase, the ‘action’ phase, and the ‘evaluation’ phase.

3.1.4. ‘Concept Maps’ module¹¹⁰

As part of the topic *organising information visually*, the design of the Open Educational Resource on ‘Concept Maps’ aimed to contribute to providing students with the fundamental linguistic knowledge and skills, i.e., know-how, in order to understand and create concept maps with an interactive three-hour learning experience.

The ‘Conceptualisation’ phase of the module

Although the ‘Concept Maps’ module is mainly content-driven, the *Common European Framework of Reference for Languages (2020)* was taken as the referential and starting point to design this adjunct-CLIL material. Aimed at an upper-intermediate language level (B2), the topic of ‘infections and coronaviruses’ was introduced throughout four different online tailor-made task phases, implementing both theoretical aspects and practical exercises under the principles of e-learning, student-centred learning, self-study, and self-assessment.

Based on the needs analysis carried out previously, three main learning outcomes were conceptualised according to the *Common European Framework of Reference for Languages guidelines (2020)* at B2 level: (i) ‘written comprehension’ and ‘oral comprehension’ in terms of language skills; (ii) ‘compare and contrast’ regarding language functions; and contents concerning a language focus:

¹¹⁰ For more detailed information on the syllabus design of ‘Concept Maps’ module, see Piquer-Piriz et al., 2022, pp. 29-34.

- Identification of concrete and abstract nouns in context with the aid of monolingual dictionaries.
- Acquisition of vocabulary with the use of prefixes and suffixes in word-formation practice, i.e., nouns, verbs, adjectives, and adverbs.
- Use of prefixes and suffixes to form new meaningful words in context.
- Comprehension of static and dynamic linking words or phrases forming propositions in context.
- Development of knowledge on different types of linking words or phrases in the English language.
- Employment of linking words or phrases in context.

At the end of the module, regarding teaching contents, learners will be able to create their own concept map on a given topic without any type of guidance or support. Students will be able to build a concept map including the main elements and characteristics of concept mapping in their productions: concepts, linking words or phrases, propositions, and the hierarchical structure of downward arrows and cross-links. Likewise, students will be able to self-assess their own performance as well as peer-assessing others' creations of concept maps by providing their fellows with supported feedback on concept mapping. These are the teaching contents of the module:

- Knowledge of what concept maps are, and how concept mapping works as a knowledge representation tool.
- Identification of the main elements and characteristics of concept maps: concepts, linking words or phrases, and the structure and organisation of concept maps in real samples.
- Use of concepts and linking words or phrases in real concept mappings.

- Creation of a concept map including the main elements and characteristics of concept mapping and providing other peers with feedback on their own concept maps.

Concerning language contents, at the end of this module, students will be able to understand both written and oral input as well as to produce written output related to the content objectives. Language-wise, learners will expand their knowledge, and they will use ‘concepts’ (concrete versus abstract nouns) and ‘linking words or phrases’ (conjunctions and connectors) in context.

The ‘Planning’ phase of the module

Following the PPP-A structure (Presentation; Practice; Production; Assessment), the Open Educational Resource was designed by content lecturers, language specialists, and Information Technology (IT) experts. This module included a total of 15 activities arranged in a series of four customised online task phases of different typologies: reading comprehension, listening comprehension, and language focus. At the end of each task phase, students are presented with a self-assessment test on the contents worked in the session. As being a tailor-made Open Educational Resource, students can either do the whole module, or just single sessions or activities.

Phase 1, *Warm-up Phase* (tasks 1-2), introduces what concept maps are and how this knowledge representation tool works. Students will complete a questionnaire on concept maps in order to test their prior knowledge and lay the foundation of concept maps. In this phase, students are provided with an introductory theoretical video¹¹¹ with an overview of the *ICLUEx* module. Besides, students will be self-assessed so as to test their practice and learning at the end of the first task phase. The approximate time to complete this task phase is 20 minutes.

Phase 2, *Pre-task Phase* (tasks 3-5), aims to present concept mapping, that is, the main elements and characteristics of concept maps. Students

¹¹¹ The introductory video to the Open Educational Resource can be accessed in *YouTube* at <https://bit.ly/3uCHF1c>.

will be able to identify and recognise concepts, linking words or phrases, propositions, crosslinks, and the structure and organisation of concept maps with real samples. At the end of this task phase, students will be self-assessed in order to test their performance and learning. The approximate time to complete this task phase is 30 minutes.

Phase 3, *Task Phase* (tasks 6-11), focuses on the language practising the use of concepts and linking words or phrases in concept mapping. Students will be asked to complete two concept maps with given options to choose from in order to fill in the gaps with the correct concepts and linking words or phrases in the target concept maps. Tasks 9 and 10 are presented as extension tasks, i.e., an extension of knowledge on what concepts and linking words or phrases are, linguistically speaking. At the end of this task phase, learners will be self-assessed in order to test their practice and learning. The approximate time to complete this task phase is 50-90 minutes.

Phase 4, *Follow-up Phase* (tasks 12-15), aims to assess students building of their own concept map with the aid of the software *CmapTools*^[12] without any other type of help or support. Students will be asked to include the main elements and characteristics of concept mapping in their productions: concepts, linking words or phrases, propositions, and the hierarchical structure of downward arrows and cross-links. In addition, optionally, students will provide other peers with feedback on their own concept maps. At the end of this task phase, students will be self-assessed in order to test their performance and learning. The approximate time to complete this task phase is 30-40 minutes. As a note for instructors, before starting the ‘Concept Maps’ module, it is highly recommended that students have an introduction to *CmapTools* in order to know how this concept map software works. However, this module facilitates the official tutorial in the development of the Open Educational Resource.

Similar to the rest of the *ICLUEx* modules, the ‘Concept Maps’ Open Educational Resource as the final product can be implemented as a self-

¹² *CmapsTools* is available at <https://cmap.ihmc.us/>.

study interactive learning experience with the online software *Genially*¹¹³. Furthermore, this tailor-made module allows students to access each phase of the activities in separate task-phase Open Educational Resources. As well, each task can be adapted to the university's *Moodle* so that students can receive feedback from their instructors.

3.2. METHOD II: RESEARCH DESIGN

The research design will be described in relation to the participants and the procedure employed to assess the development of the module on 'Concept Maps' in the first pilot study of the action-research process.

3.2.1. The 'Action' phase of the Open Educational Resource

A total of 31 first-year undergraduate students (3 male and 28 female students) attending BA disciplinary courses taught in English at the University of Extremadura participated in this pilot study. All participants were home university students, whose first language is Spanish, enrolled in the BA in English Studies except for one of them who was an Erasmus+ student from Italy. The average L2 level of participants was B2, although a wide range of levels was found in this group: B1 (n = 7), B2 (n = 22), C1 (n = 1), and C2 (n = 1). This module was implemented with a group of English-Medium Instruction students, of whom 21 learners had attended CLIL courses at school or high school.

The implementation of the module, i.e., the first pilot study, was carried out during the second semester of the 2020-2021 academic year during class time as part of the disciplinary course "English Language II". Participants spent an average of 3.64 hours to complete the module distributed in an average of 1.87 days.

3.2.2. The 'Evaluation' phase of the Open Educational Resource

After the implementation, an online 24-item questionnaire was distributed to rate students' level of agreement with several statements about the suitability of the structure of the Open Educational Resource and

¹¹³ 'Concept Maps' module developed by *Genially* is available at <https://bit.ly/3c1wZ5l>.

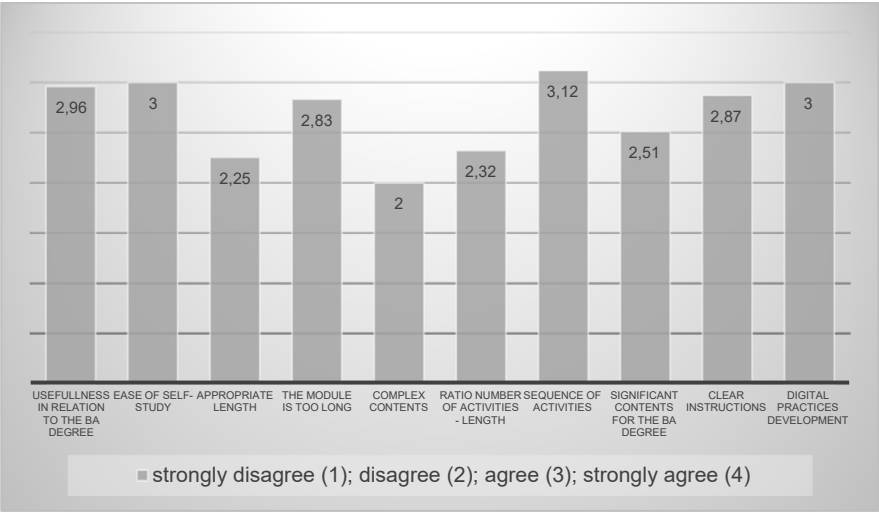
effectiveness of this adjunct-CLIL material design according to three elements: (i) organisation of the module (planning and sequence of activities); (ii) linguistic aspects; and (iii) overall satisfaction rating.

Direct observation was employed to gather qualitative data on students’ performance and detect any unclear instructions or missing guidelines.

4. RESULTS

Results will be described in relation to students’ rating of their level of agreement with the structure of the Open Educational Resource. Regarding the organisation of the module, results indicated that, in general, these students agreed with the presented planning and sequence of activities that they were working on within the module (see Graph I).

GRAPH 1. Organisation of the module: Students’ rating of their level of agreement.



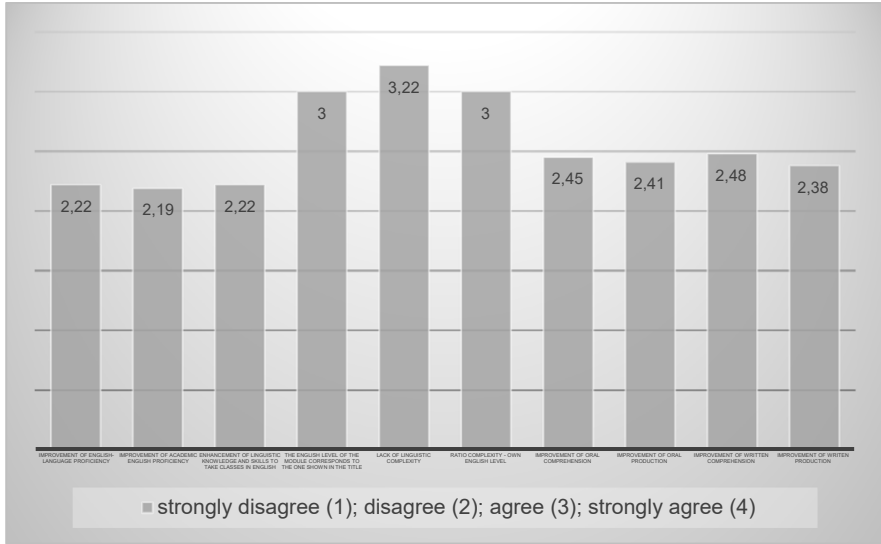
Source: own elaboration

However, students’ disagreement with the length of the Open Educational Resource was observed as most learners considered the module extensive, for example.

Turning to students’ rating of their level of agreement in terms of linguistic aspects, results showed that, in general, this group of English-

Medium Instruction students agreed that the English level and complexity of contents presented were appropriate to their own level of the English language (see Graph 2).

GRAPH 2. Linguistic aspects: Students' rating of their level of agreement.



Source: own elaboration

However, a close look at the data allowed the observation that these learners did not consider that they had notably improved their language proficiency while completing this module.

In contrast, results revealed an overall satisfaction rating of 3.51 out of 5 among participants. As Table 1 shows, 80.6% of English-Medium Instruction students, i.e., 25 out of 31 learners, were satisfied with the Open Educational Resource and would recommend other peers to complete it.

TABLE 1. Overall students' satisfaction rating.

N	Overall satisfaction rating (out of 5)	To be recommended
31	3.51	Yes: 25 (80.6%)
		No: 6 (19.4%)

Source: own elaboration

Some of the reasons that these English-Medium Instruction students reported on why they would recommend the Open Educational Resource concerned its usefulness and how fun it was to improve their English level, to improve their performance in their degree, or for their future careers. To illustrate, these were some of the qualitative results found in the overall students' satisfaction rating:

- “It’s a great opportunity to know this language better and use it correctly. Besides, it’s really useful for the future.”
- “Because you learn how to use very useful technological tools that you can use during your degree and your future career.”
- “It’s a fun way to learn.”
- “Apart from providing you knowledge in English, it is very useful to learn how to deal with concept maps.”
- “Because this module can be useful when studying and also to improve your English.”
- “It’s easy to complete and when you finish, you realise that you have understood new concepts.”
- “Because it will help you understand aspects from other subjects.”
- “It’s a way to learn how to use concept maps and to learn more vocabulary.”
- It helps you summarise the contents in the other subjects.”
- “Fun and informative”
- “It’s very interesting”
- On the other hand, some English-Medium Instruction students (19.4%), i.e., 6 out of 31 learners, would not recommend this module to other peers because they found the Open Educational Resource mainly extensive, among others:

- “I haven’t learned a lot, so it’s been useless.”
- “It takes a lot of time.”
- “It’s too long with similar activities.”
- “It’s too long and not really useful because it presents basic things I knew.”
- “It’s not useful for my degree and I think it is not necessary for my academic background.”

Overall, the length of this Open Educational Resource was observed as an important suggested improvement in the design of materials according to these English-Medium Instruction students’ rating of their level of agreement with the structure of the module.

5. DISCUSSION

Internationalisation of Higher Education Institutions is an ever-growing reality in Europe (Macaro, 2018). In this view, the *ICLUEx* project aims to contribute to the internationalisation of the University of Extremadura and establish a network for the exchange of knowledge and resources with other European Higher Education Institutions. In addition to these objectives, this project aims to enhance the ability of students at the University of Extremadura to communicate in English in different professional fields and to make adjunct-CLIL materials available to professionals who are involved in bilingual teaching in Higher Education.

Drawing on the fact that participants in this study had prior knowledge and experience with the use of the online software *CmapTools* as they had already worked with this tool in a different disciplinary course on the use of new technologies during the same semester, it seems to be that the implementation of this Open Educational Resource not only helped English-Medium Instruction students with the fostering of the transversal skills of *organising information visually* and digital practices for the development of their academic skills, but also this module contributed to improving students’ performance on different disciplinary courses they were attending at that time: both in terms of contents and in relation to language.

In general, students seem to appreciate materials organised around specific linguistic academic skills. However, findings on the assessment of the material design of the ‘Concept Maps’ module (see Section 4) suggest that there is a need to adopt modifications, both changes and adaptations, to this adjunct-CLIL material in order to further improve the quality of the Open Educational Resource.

6. CONCLUSIONS

In this chapter, I have presented the design and reported on the first piloting experience of an Open Educational Resource on concept mapping developed as part of the action-research process of the regionally-funded research project, *ICLUEx*, at the University of Extremadura.

There are some limitations to this study. This adjunct-CLIL material proposal has been designed to be adapted to a concrete Higher Education context of the University of Extremadura. Therefore, the Open Educational Resource aims to be further developed through an action-research process within the Higher Education Institution involved in order to improve the quality and effectiveness of ICLHE approaches across the existing university courses. The first piloting experience addressed the consistency and structure of the teaching materials designed. However, bearing in mind the results of the first pilot study, future work should be done focusing on learners’ linguistic benefits by analysing students’ performance and development of academic vocabulary and skills in successive cycles of action-research. Therefore, a second pilot study is aimed at measuring learners’ receptive academic communicative competence progression and content knowledge. For this purpose, pre-testing and post-testing measures are suggested to be employed to analyse learners’ linguistic competence evolution.

7. ACKNOWLEDGEMENTS

This research was supported by the Government of Extremadura Funds: “Diseño de entornos virtuales de aprendizaje colaborativo para la enseñanza integrada de contenidos y lenguas extranjeras (AICLE) en la Educación Superior adaptados a la Universidad de Extremadura – ICLUEx”,

Grant No. IB18055; and “Ayuda a Grupos de la Junta de Extremadura; FEDER (Fondo Europeo de Desarrollo Regional), una manera de hacer Europa,” Grant No. GR21151 (HUM022 English Language and Applied Linguistics, University of Extremadura).

8. REFERENCES

- Aguilar, M., & Rodríguez, R. (2012). Lecturer and student perceptions on CLIL at a Spanish University. *International Journal of Bilingual Education and Bilingualism*, 15(2), 183-197.
<https://doi.org/10.1080/13670050.2011.615906>
- Beelen, J., & Jones, E. (2015). Redefining internationalization at home. In A. Curaj, L. Matei, R. Pricopie, J. Salmi & P. Scott (Eds.), *The European Higher Education Area* (pp. 59-72). Springer.
https://doi.org/10.1007/978-3-319-20877-0_5
- Council of Europe. (2020). *Common European Framework of Reference for Languages: Learning, teaching, assessment – Companion volume with new descriptors*. Council of Europe Publishing.
- Fielden-Burns, L., & Martín-Gilete, M. (2022, April 27-29). EMI students’ perceptions of their and their teachers’ linguistic skills: Current progress and future needs for curricular design [paper presentation]. 39th International Conference of the Spanish Society for Applied Linguistics (AESLA). Las Palmas de Gran Canarias, Spain.
- Jiang, L., Zhang, L. J., & May, S. (2019). Implementing English-medium instruction (EMI) in China: Teachers’ practices and perceptions, and students’ learning motivation and needs. *International Journal of Bilingual Education and Bilingualism*, 22(2), 107-119.
<https://doi.org/10.1080/13670050.2016.1231166>
- Knight, J. (2005). *Internationalization of Higher Education – New directions, new challenges*. International Association of Universities. 2005 IAU Global Survey Report. Paris, France.
- Knight, J., & de Wit, H. (2018). *Internationalization of Higher Education: Past and future*. *International Higher Education*, 95, 2-4.
<https://doi.org/10.6017/ihe.2018.95.10715>
- Macaro, E. (2018). *English medium instruction: Content and language in policy and practice*. Oxford University Press.
- Macaro, E., Curle, S., Pun, J., An, J., & Dearden, J. (2018). A systematic review of English medium instruction in Higher Education. *Language Teaching*, 51(1), 36-76. <https://doi.org/10.1017/S0261444817000350>

- Martín-Gilete, M., & Fielden-Burns, L. (in press). Estudiantes de Educación Superior en entornos de aprendizaje EMI: Más allá de las necesidades lingüísticas. In L. M. Martínez-Serrano (Ed.), *El poder y la promesa de la educación bilingüe*. Tirant Lo Blanch.
- Pérez-Cañado, M. L. (2020). Addressing the research gap in teacher training for EMI: An evidence-based teacher education proposal in monolingual contexts. *Journal of English for Academic Purposes*, 48, 100927. <https://doi.org/10.1016/j.jeap.2020.100927>
- Piquer-Píriz, A. M. (in press). E-learning in EMI: Academic language for university students. Peter Lang.
- Piquer-Píriz, A. M. & Castellano-Risco, I. (2021). Lecturers' training needs in EMI programmes: Beyond language competence. *Revista Alicantina de Estudios Ingleses*, 34, 83-105. <https://doi.org/10.14198/raei.2021.34.05>
- Piquer-Píriz, A. M., Castellano-Risco, I., Alejo-González, R., Martín-Gilete, M., Fielden-Burns, L., Blázquez-López, L., Calderón-Poves, C., & Pérez-Valenzuela, A. (2022). Integración de contenidos y lengua extranjera en la Universidad de Extremadura: Guía sobre recursos para el desarrollo de destrezas académicas en la enseñanza-aprendizaje a través del inglés. Servicio de Publicaciones Universidad de Extremadura. URI: <https://dehesa.unex.es:8443/handle/10662/15310>
- Roquet, H., Vraciu, A., Nicolás-Conesa, F., & Pérez-Vidal, C. (2022). Adjunct instruction in Higher Education: Examining the effects on English foreign language proficiency. *International Journal of Bilingual Education and Bilingualism*, 25(4), 1377-1398. <https://doi.org/10.1080/13670050.2020.1765967>
- Siegel, J. (2020). Comprehension in English medium instruction (EMI) lecturers: On the impact of lecturer L2 English Use. *Language Learning in Higher Education*, 10(1), 73-91. <https://doi.org/10.1515/cercles-2020-2005>
- Wächter, B., & Maiworm, F. (2014). English-taught programmes in European Higher Education: The picture in 2007. Lemmens.