



English Medium Instruction from the Perspective of University Students in Algeria

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Abstract

This study investigates undergraduate engineering students' attitudes towards EMI program in Algeria. Data was collected using a questionnaire from a sample of 232 participants and eventually analysed using SPSS. The results revealed that students reported improvement in both their English skills and content knowledge. Further, although many students have grumbled about instructors' accent and English proficiency, they expressed positive attitudes towards content comprehension. Finally, the students held negative attitudes towards trilingual practices in EMI classrooms. Some implications are drawn based on the findings.

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1. Introduction

In the last few decades, there has been a growing interest in English medium instruction in tertiary education worldwide. This spread may be linked to several reasons including the desire to internationalise higher education, improve English ability, attract foreign students, raise local competitiveness, and go further high on the ranking (Turhan & Kirkgöz, 2018). In this study, English Medium Instruction is defined as “The use of the English language to teach academic subjects (other than English itself) in countries or jurisdictions where the first language of the majority of the population is not English”. (Macaro et al., 2018, p. 2).

A great bulk of the literature is devoted to investigating EMI in higher education and its implications in East Asian countries, such as Vietnam (Yao et al., 2021), South Korea (Choi, 2021), Japan (Bradford, 2019), and Hong Kong (Tsui & Ngo, 2017). EMI was also extensively studied in Europe, such as Spain (Roothoof, 2022), Denmark and Italy (Costa & Coleman, 2013). Yao et al. (2021) identified three major areas of students' learning challenges in EMI, including the speaking and writing skills, teacher limitations with English ability and the double barrier of English language and domain-specific vocabulary. In the Spanish context, Roothoof (2022) tackled the debate of dealing with language issues in EMI, reporting on STEM and humanities lecturers positioning themselves as not language teachers.

Unlike in European and South Asian countries, English Medium Instruction (EMI) in non-Anglophone African countries does not seem to be gaining considerable ground in tertiary education. Debates on EMI in Algeria were brought to the surface in 2019 following the declarations by the Algerian minister of higher education that status of English should be improved. A national survey was launched to elicit Algerians' view towards English and EMI. The promotion of English in Algerian higher education was perceived positively because it is regarded as a “decolonial option”(Jacob, 2020, p. 5). Jacob's work reported that Algerian students believe that English should be adopted as an instrumental medium, in an attempt to get rid of French linguistic heritage.

The experience of English in Algerian universities is limited to its introduction as a subject, except at the Institute of Electric and Electronic Engineering at the Institute of Boumerdes, which is considered to be the first institute that adopts English as a medium of instruction to teach subject content. With reference to EMI in Algerian higher education, the phenomenon was first introduced in 1976 at the Institute of Electrical and Electronic engineering (INELEC) (IGEE, n.d). This was part of an agreement signed between the national society of manufacturing and assembly of electrical and electronic equipment and the education development centre with the ambition of creating an institute which offers a solid training in electrical and electronic engineering,

inspired by the American institutions of higher education (ibid).

Studies about EMI (where English is the first medium of instruction) in Higher education in the Algerian context are scarce. In this regard, it is significant to investigate the status of EMI by exploring the perspectives of students as one of the means of aiding current and future students, teachers, and policymakers to become better equipped to attain a satisfactory implementation of English, hence, increasing learning outcomes.

This study seeks to investigate students' perspectives on and performances in EMI classes at the Institute of Electric and Electronic Engineering in order to better examine the strengths and weaknesses of content subjects taught through the medium of English in Algerian tertiary education.

2. Literature Review

2.1 The impact of EMI on disciplinary learning and English proficiency

At the international level, research has been carried out in countries where English holds a foreign language status in order to investigate the impact of EMI on students' academic performance. In a Spanish context, Dafouz and Camacho-Miñano (2016) found that EMI does not reduce students' academic outcomes. Comparing EMI students with non-EMI students' final grades, the authors reported no significant difference. Similarly, in China, (Hu & Lei, 2014), strengthened the

belief of EMI "killing two birds with one stone" which means while students get motivated to learn and use the L2, they eventually contribute to enhancing knowledge acquisition.

These works stand in contradiction with previous findings which argue that the uncompleted comprehension of the lecture delivered in a second language will have a negative impact on students' disciplinary learning (Yeh, 2014). Echoing yeh's view, (Sert, 2008) argued that EMI did not succeed in communicating content knowledge effectively. This led to an increasing scholarly attention to investigating the different factors that hinder the lecture understanding which may be linked to the lecturer's attributes such as accent, speech rate (Yousif, 2006) or the student's lack of language proficiency such as limited listening skills (Cho, 2012) and speech anxiety (Chou, 2018).

In order to overcome these problems and ensure a smooth transition of knowledge many coping strategies are adopted inside the classroom either by teachers such as simplifying the curricular content, relying on visual aids like PowerPoint slides, preparing teaching notes, re-explaining the main points for those who did not understand, and asking students to read the assigned text to know the basic definitions and vocabulary (Hu & Lei, 2014) or by students like using the mother tongue, the dictionary, the internet, relying on 'English tuition classes', and seeking peers' help (Ali, 2020).

In the reviewed literature, EMI courses are thought to be effective in improving students' low level of English ability. Scholarly works have investigated the impact of the provision of English education in higher education on students' English skills via objective language tests. Set in one of the UAE higher education institutes, (Rogier, 2012) compared students' English scores before and after receiving EMI education for four years. Based on standardised general English proficiency tests, Rogier reported improvement in students' productive and receptive skills with speaking and reading being the largest gains.

Another interesting issue to be tackled when addressing EMI in relation to language proficiency is the role played by students' initial level of proficiency. In the Spanish context, (Aguilar & Muñoz, 2014) observed the impact of EMI on engineering students' listening skills and grammatical learning. They found that less proficient students benefited more from EMI courses than students with advanced level in English in both listening and grammar skills.

With respect to the present work, this research seeks to answer five main questions related to EMI. These are: (i) What are the main reasons for enrolling in an EMI program? (ii) How do INELEC students perceive the impact of EMI on their English improvement and content acquisition? (iii) What are students' main difficulties in EMI lecture? (iv) What are students' general attitudes towards EMI

courses? And (v) what are the possible changes that should be implemented for an effective EMI provision?

Although the literature on the sociolinguistic diversity in Algeria is extensive, there has been much less published on language attitudes in higher education, and these studies have rarely devoted a significant volume to the provision of English medium tertiary education. Belmihoub (2018), for example, considered attitudes towards English vis-à-vis other languages, arguing that Algerian students have a great preference for the teaching of English which is viewed as "a vehicle of economic opportunity and knowledge acquisition" (165). In a similar vein, (Bouhmama & Dendane, 2018), revealed that university students wished that English would substitute French as the main medium of instruction in science streams.

These works contribute to structuring understanding about language attitudes, namely English, yet little original empirical studies on EMI in Algerian higher education have previously been conducted. One notable exception here, however, has been a recent work carried out by Medfouni (2020) who elicited students' attitudes towards the potential introduction of EMI in scientific courses. Surveying students who were in attendance at three public universities in Algeria, she found that teachers and students hold positive attitudes towards the implementation of English as an instrumental medium instead of French, the de facto MOI. Respondents built their argument on the basis that English is

linked to global aspirations, while French is associated with the country's prolonged colonial history. Medfouni's work highlighted a number of significant issues related to language discourses and classroom practices under a monolingual MOI policy. Her study, however, discussed only the potential implementation of EMI within the Algerian context, and focused on students' attitudes which were based on theoretical aspirations but not on classroom experiences. Therefore, this research is possibly the first to attempt to fill this gap by focusing mainly on a university setting where EMI is already operating.

3. Survey Participants

The pilot study we conducted on undergraduate students took place in the

Table1. Students' Self-rated Language Proficiency

Self-reported English proficiency	Frequency
Elementary/Beginner	2
Pre intermediate	27
Intermediate	113
Advanced	68
Proficient	22
Total	232

4. Data Collection and Analysis

The questionnaire was used as the main tool for data collection. Prior to designing the questionnaire, a quick overview of the institute's website was made to collect the basic information to help structure the questionnaire's items. A self-administered questionnaire was sent to 300 undergraduate engineering students who were in attendance at the institute of for further commentary, and participants expressed their opinions in a few lines,

2021/2022 academic year at M'hamed Bougara university in Boumerdes. One hundred fifty-eight of the participants were male, and seventy-four were female. Of the 232 participants who responded to the online questionnaire, including a question about their perceived language proficiency, only two students reported having elementary or beginner level, 27 of respondents claimed to have pre-intermediate level, while the majority rated their English level as intermediate. The secondly cited level reported by 68 participants was advanced while 22 students rated themselves as proficient. Among the student participants 28 were freshmen, 96 were sophomores and 108 were juniors.

Electric and Electronic Engineering of Boumerdes. Based on the snowball sampling technique, participants were asked to share the link to the questionnaire with their classmates using virtual networks in order to increase the number of potential participants (Baltar & Brunet, 2012). The 26-item questionnaire was filled out by 232 students. The qualitative data included two open ended questions some of which are shared here to shed further light on the results. Part one of

section one focuses on the participants' background information such as: gender, level, and self-reported English ability. The second part includes multiple-choice questions about the reasons for enrolling in English Medium Instruction (EMI) program. The second section includes items on students' perception of the impact of EMI on their language improvement and content acquisition, students' main difficulties in EMI lecture and students' perception of possible changes for effective EMI provision. Participants were asked to respond on a

5. Results and Discussion

5.1. Reasons for Enrolling in EMI Program

With regard to the reasons that motivate students to enrol in the EMI program, the analysis of the questionnaire shows that participants reported multiple reasons. More than half of the students (56%) reported that it is important to study science in English because English is the language of science, and another (50%) think that EMI is more effective for scientific courses than French, the current medium of instruction in science faculties in Algeria. After the linguistic importance, immigration purposes (52%) were secondly cited as one of the most significant reasons for enrolling in the themselves as good while 29.3% proclaim excellent English ability. The fact that the majority of students have confidence in their English skills is significant as English proficiency is a crucial factor for students' academic success (Rose et al., 2020).

five-point Likert scale ranging from 'strongly disagree to strongly agree'. The survey was offered in both Arabic and English but more than half (n=162) opted for English. The data was then entered into SPSS for statistical analysis. The content validity of the instrument was assessed by experts whose comments helped to refine the survey. On the other hand, cronbach's alpha was tested for finding out the reliability of the two sections in the whole sample and was 0.83 and 0.75 respectively.

EMI program. One of the less cited reasons is related to job opportunities, with only 34% believing that graduating from an EMI degree program may be more beneficial for securing a job in the country. This could be linked to the fact that French is still assuming a decisive role in the job market in Algeria. A report compiled by Euromonitor (2012) for the British Council revealed that 62% of most of the advertised jobs do not require knowledge of English (Ramaswami et al., 2012). In terms of enhancing one's English language level, only (30%) of the students said they opted for EMI program to improve their English ability. Table one shows that the students generally reported good English skills, with 48.7 rating

Table 2. Reasons for Enrolling in EMI Program

Reasons	Frequency	% (N= 232)
I want to improve my English.	69	30
English is the language of science. Thus, it is important to study science in English.	129	56
I want to pursue postgraduate studies and work abroad.	120	52
English is more effective as a medium of instruction for science than French medium instruction.	116	50
English Medium degree program is more beneficial than French medium degree program in terms of job mobility.	78	34

5.2 Perceived Influence of EMI on Language Improvement and Content Acquisition

Table 3 presents findings on the perceived influence of EMI on students' English improvement and knowledge acquisition. In this study, we asked students to self-evaluate their English skills. Students hold a fairly positive attitude towards the influence of EMI on their English improvement. Table 3 shows that (80.6%) of the respondents agreed/ strongly agreed that EMI helped them improve their speaking. Furthermore (83.6%) of the participants agreed/ strongly agreed that their writing skills were improved after taking English medium classes.

Overall, students' self-rated improvement in their writing skills is very high. This result is inconsistent with Yeh (2014) study which reported students acknowledging low impact of EMI on their writing skills, attributing it to the

infrequent use of writing in science majors. Furthermore, around (81.5%) and (82.8%) of participants agreed or strongly agreed that EMI had a positive impact on their receptive skills, listening and reading respectively.

The reported fairly positive attitudes regarding students' English skills improvement do concur with other findings in some previous studies in China (Hu & Lei, 2014), in Turkey (Sert, 2008), and in Taiwan (Yang, 2015). Finally, about 82.8% of the participants reported that EMI helped them improve their knowledge in engineering discipline, echoing the study of (Dafouz et al., 2014)

Table3. Student's Perceived Level of English Improvement

EMI helped me improve my...	SD	D	NA/D	A	SA	Mean	Std. Deviation
	%	%	%	%	%		
Speaking skills	3.4	5.2	10.8	40.5	40.1	4.09	1.01
Listening skills	2.6	7.3	8.6	47	34.5	4.03	0.98
Writing skills	1.7	4.7	9.9	38.8	44.8	4.20	0.92
Reading skills	3	5.2	9.9	37.1	44.8	4.16	1.00
Content knowledge	2.2	4.7	10.3	37.5	45.3	4.19	0.95

Note: SD: Strongly disagree, D: Disagree, ND/A: Neither agree nor disagree, SA: Strongly agree, A: Agree

5.3 Sources of difficulties in EMI Program

Table 4 summarises students' main challenges in EMI lecture. The vast majority of respondents 72% find no difficulty to ask questions in English. As far as content vocabulary is concerned, 47.4% of the respondents reported no difficulty in finding lexical meaning, although, 25.9 agreed/ strongly agreed that content-related vocabulary remains challenging in engineering discipline. As far as note-taking in EMI lecture, the students expressed no difficulty, with 65.6% disagreeing/ strongly disagreeing with the statement: I find difficulty to take notes in EMI lecture. Furthermore, Low English ability of students remained far from being considered as an obstacle in the phase of learning as indicated by 67% of the participants. With regard to students' attitudes towards their instructors' English proficiency, this study reported divergent results which revealed that the students evaluated the instructors' English language proficiency positively (37.9%) than negatively (35.3%) while

(26.7%) remained undecided. Additionally, the respondents have grumbled about instructor's accent, with 41.4% agreeing/ strongly agreeing with the statement involving lecture delivery.

As shown in the table above, Students' attitudes towards instructors' English proficiency and accent were not statistically favourable. The fact which may minimise students' confidence towards instructors' course delivery as mentioned by one of the participants: "...Teachers must be chosen carefully, especially regarding their accent and pronunciation, when the teacher is (almost) fluent, the student trusts them [sic] more in terms of education and credibility"(A1). Seemingly, students tend to link their sources of difficulty to external factors i.e. instructors' language abilities and communicative skills rather than internal factors.

We found in response to research question three, that the students attributed their difficulties in EMI to instructors' accent and low English proficiency, a finding echoing the result of Yao et al. (2021) study which highlighted that limited

English skills of instructors may cause impediment to students' learning. The results came as no surprise as most of the teachers graduated from one of the Algerian universities which offer degree programs in French. One student stated: "Most of them (the instructors) have been [sic] taught in French [sic], so their dictionary is not very rich as it suppose [sic] to be..." (A1). Another student added: "The problem is that teachers are formed (trained) using French language and from one day to another they start

teaching in technical English...using their high school general English level [background] for most of them!." (S2). This finding emphasises the importance of placing English proficiency as a key requirement in hiring instructors. Furthermore, in order to simplify students' learning, our finding, consistent with (Aizawa & Rose, 2020), highlights the need for more EAP courses that address domain specific vocabulary learning.

Table 05: Students' Main Difficulties in EMI program

I find difficulty to :	SD %	D %	NA/D %	A %	SA %	Mean	Std. Deviation
ask questions in English medium classes	19.4	52.6	17.2	9.1	1.7	0.60	0,91
understand content-related vocabulary	9.5	37.9	26.9	23.3	2.6	0.60	1.00
understand the lesson because of the instructor's lack of English proficiency	8.6	29.3	26.7	24.1	11.2	0.76	1.15
understand the lesson because the instructor's accent is not comprehensible	6.9	25	26.7	27.6	13.8	0.76	1.15
understand the lesson because of my low English proficiency	25	42.2	21.1	9.9	1.7	0.65	0.98
take note during the English medium lecture	19	46.6	21.1	11.2	1.7	1.90	2.90

5.4. Students' Attitudes towards EMI

Table 5 summarises students' reactions to EMI. With reference to the use of the Arabic language to explain difficult terminology in engineering discipline, we reported divergent results. In that, (40%) were in favour of L1 use, while (34%) were against it. These contradictory results seem to reflect the participants' mixed feelings towards the use of the mother tongue. One student explained: 'Some teachers have little to no English proficiency which makes it really hard to understand them unless they explain in

Arabic' (S2). With regard to trilingual practices, more than half students (51%) expressed attitudes against the use of more than two languages with the statement: 'class lecture mixture of English, Arabic and French is disturbing. One student noted: "a lot of them (instructors) are more francophone[sic] thus [sic] they tend to mix three languages, an act that I find quite disturbing' (S4). Furthermore, students reported a great deal of satisfaction with 84.9% agreeing/ strongly agreeing with the statement involving lecture comprehension. When asked about the

instructors' use of teaching aids, respondents did not have unanimous positive opinions. More students 42.2%

were undecided, 31.4 % agreed/ strongly agreed, while 17.8% disagreed/ strongly disagreed.

Table 5. Students' Reaction to EMI Lecture

Item	SD %	D %	NA/D %	SA %	A %	Mean	Std. Deviation
I can understand EMI lecture	2.6	2.6	9.9	36.2	48.7	0.61	0.92
The instructors make use of sufficient teaching aids	5.6	12.2	42.2	26.2	5.2	0.62	0.94
It is easier to understand the lecture if the teacher translates the difficult words into Arabic	10.3	23.7	26.3	26.3	13.7	0.62	1.20
Class lectures mixture of Arabic, French and English is disturbing.	6.9	22	19.4	19.4	32.3	0.87	1.32

5.5. Students' Attitudes towards EMI

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Although not unanimously, We found in response to research question four, that the EMI students, consistent with (Kim et al., 2017) favoured the use of Arabic in EMI lecture for clarity and comprehensibility of the content. On the other hand, students' preference for monolingual practices may reflect some disciplinary concerns. That is, the use of Arabic, in EMI lecture could be detrimental to students majoring in certain disciplines such as engineering, in one way, students need to reply primarily on English for their professional development, a finding congruent with Karakas (2016). With respect to trilingual practices, the participants demonstrated negative attitudes. This denotes that the

use of French (a foreign language) may cause a sort of challenge to students who have limited French ability. Overall, these discrepancies in preferences may refer to different levels of English skills and content-related proficiency as reported by (Kym & Kym, 2014). Further, despite grumbling with instructors' English proficiency and accent, the participants reported no apparent difficulty in lecture comprehension. This finding is inconsistent with (Yousif, 2006) who reported that some of the lecturer's attributes such as accent, speech rate may hinder the lecture understanding. In line with Yeh (2014) it can be argued that the students may have had only a superficial grasp of content knowledge and thus were unsure about their disciplinary learning.

5.6. Students' Need for an Effective EMI

Table 6 presents six questions which were asked to ascertain students' perceptions with regard to their needs for an effective EMI. Improving the quality of teaching reaches statistical significance with 92.2% indicating agreement/ strong agreement with the statement. Next in order of frequency was improving the English skills of content subject lecturers (88.8%). With regard to the faculty staff,

results revealed that (81%) would like to be taught by native instructors while (68%) wanted to see the institutes' graduates as instructors. With reference to the preparatory linguistic support, more than half of students (58.2%) expressed their need for more speaking and listening courses to be offered continuously along with EMI courses at least for more than one year. In line with that, one student noted: "I think that the institute should provide more classes of general English, especially the listening and speaking modules because of their infrequent use in EMI"(A3). The students 47.4% also reported their need for grammar and vocabulary learning to be taught for more than one semester.

Table 6: Students' Need for an Effective EMI

I would like to see	SD %	D %	NA/D %	D %	SD %	Mean	Std. Deviation
Speaking and listening modules being offered for more than two semesters.	7.8	14.7	19.4	31	27.2	0.82	1.24
Grammar and English for scientific terms being offered for more than one semester.	9.1	23.3	19.8	33.6	13.8	0.12	1.82
English medium courses taught by the institutes' graduate graduates.	3	5.6	23.3	33.2	34.9	0.68	1.03
The quality of teaching being improved.	0.9	0.9	6	29.3	62.9	0.48	0.72
The English language skills of lecturers being improved	1.3	1.7	8.2	37.5	51.3	0.53	0.80
Our institute relying more on native speakers of English	2.2	3	13.8	6.7	54.3	0.63	0.96

Our findings are consistent with others (Hyland, 2007; Jiang et al., 2019; Schmidt-Unterberger, 2018;) in that, there is a need for more EAP and ESP courses in EMI programmes to introduce students to a wide range of academic communication and study skills i.e. note-taking, oral presentations, participating in discussions, and reading and writing academic papers. Furthermore, instructors should benefit from professional development opportunities in order to ensure the credibility of their course and be able to bypass some of their linguistic insecurities. Instructors' support should also incorporate some methodological training needed to deal with the great diversity of language practices in multilingual classrooms, echoing the finding of Lasagabaster (2022). The literature has also highlighted that university managers are often unaware of what is going on in EMI classroom, and they should not be ignorant about how detrimental incorrect implementation of EMI programmes can be to the quality of teaching (Costa & Coleman, 2013).

6. Conclusion

This paper canvassed students' attitudes towards EMI in the context of a public Algerian higher education institute. The first implication of this study is that the institute should rely on hiring its graduates who are supposed to be equipped with the required language skills. Furthermore, instructors should engage in English language training (ELT) programs in order to promote the quality of English teaching. Similarly, disciplinary instructors and ELT practitioners should engage in collaborative activities which are highly promising in developing English skills through instruction. At the institutional level, universities must support such partnerships by organising workshops for a successful EMI. On the other hand, more (EAP) courses should be provided to help students overcome language-related obstacles.

Another implication of this study is that instructors and students should be aware of the importance of using their mother tongue along with English.

Although literature perceives L1 use as a strategy that limits students' exposure to foreign languages, several other studies highlighted the decisive role played by L1 in breaking English communication barriers, stressing main ideas, managing the classroom, saving time, and building student-instructor rapport.

7. Limitations and Future Research Directions

As with any research paper, limitations are found. While this research focuses only on students' attitudes and experiences, the perspectives of faculty remain unaddressed. Thus, it is highly recommended to gain faculty's viewpoint on how English medium instruction influences their teaching and pedagogy. Main issues to be discussed could encompass the way students' can be assisted to enhance their content learning and English ability, the sources of difficulty instructors encounter in delivering English medium course, and the way they can be helped for more effective EMI, namely teachers who graduated from universities that adopt French medium instruction.

Finally, this research was carried out in one country, which has its own particularities including history, policies and culture. Thus, extending the research to other countries, namely North African would contribute to the debate on EMI.

8. Bibliography List:

- Aguilar, M., & Muñoz, C. (2014). The effect of proficiency on CLIL benefits in Engineering students in Spain. *International Journal of Applied Linguistics*, 24(1), 1-18. doi: <https://doi.org/10.1111/ijal.12006>
- Aizawa, I., & Rose, H. (2020). High school to university transitional challenges in English Medium Instruction in Japan. *System*, 95, 102390. doi: <https://doi.org/10.1016/j.system.2020.102390>
- Ali, H. I. H. (2020). Lecture comprehension difficulties experienced by Omani students in an English-medium engineering programme. *Cogent Arts & Humanities*, 7(1), 1741986. doi: <https://doi.org/10.1080/23311983.2020.1741986>
- Baltar, F., & Brunet, I. (2012). Social research 2.0: virtual snowball sampling method using Facebook. *Internet research*. doi: <https://doi.org/10.1108/10662241211199960>
- Belmihoub, K. (2018). Language attitudes in Algeria. *Language Problems and Language Planning*, 42(2), 144-172. doi: <https://doi.org/10.1075/lplp.00017.bel>
- Bouhmama, S., & Dendane, Z. (2018). Language use and language attitudes among Algerian students. *Journal of Humanities and Social Science (IOSR-JHSS)*, 23(5), 69-77.
- Bradford, A. (2019). It's not all about English! The problem of language foregrounding in English-medium programmes in Japan. *Journal of Multilingual and Multicultural Development*, 40(8), 707-720. doi: <https://doi.org/10.1080/01434632.2018.1551402>
- Cho, D. W. (2012). English-medium instruction in the university context of Korea: Tradeoff between teaching outcomes and media-initiated university ranking. *Journal of Asia TEFL*, 9(4).
- Choi, L. J. (2021). English as an important but unfair resource: university students' perception of English and English language education in South Korea. *Teaching in Higher Education*, 1-15. doi: <https://doi.org/10.1080/13562517.2021.1965572>
- Chou, M. H. (2018). Speaking anxiety and strategy use for learning English as a foreign language in full and partial English - medium instruction contexts. *Tesol Quarterly*, 52(3), 611-633. doi: <https://doi.org/10.1002/tesq.455>
- Costa, F., & Coleman, J. A. (2013). A survey of English-medium instruction in Italian higher education. *International Journal of Bilingual Education and Bilingualism*, 16(1), 3-19.
- Dafouz, E., & Camacho-Miñano, M. M. (2016). Exploring the impact of English-medium instruction on university student academic achievement: The case of accounting. *English for Specific Purposes*, 44, 57-67. doi: <https://doi.org/10.1016/j.esp.2016.06.001>
- Dafouz, E., Camacho, M., & Urquia, E. (2014). 'Surely they can't do as well': A comparison of business students' academic performance in English-medium and Spanish-as-first-language-medium programmes. *Language and Education*, 28(3), 223-236. doi: <https://doi.org/10.1080/09500782.2013.808661>
- Hu, G., & Lei, J. (2014). English-medium instruction in Chinese higher education: A case study. *Higher Education*, 67(5), 551-567. doi: <https://doi.org/10.1007/s10734-013-9661-5>
- Hyland, K. (2007). English for academic purposes: an advanced resource book. *Miscelánea: A journal of english and american studies*(35), 99-108.
- IGEE. (n.d). Presentation, from <http://igee.univ-boumerdes.dz/Presentation.html>
- Jacob, C. (2020). English as a decolonial language: academic frames, popular discourses & language practices in Algeria. *The journal of North African studies*, 25(6), 1013-1032. doi: <https://doi.org/10.1080/13629387.2020.1732627>
- 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.

- doi:
<https://doi.org/10.1080/13670050.2016.1231166>
- Karakas, A. (2016). Turkish lecturers' views on the place of mother tongue in the teaching of content courses through English medium. *Asian Englishes*, 18(3), 242-257. doi: <https://doi.org/10.1080/13488678.2016.1229831>
- Kim, E. G., Kweon, S.-O., & Kim, J. (2017). Korean engineering students' perceptions of English-medium instruction (EMI) and L1 use in EMI classes. *Journal of Multilingual and Multicultural Development*, 38(2), 130-145. doi: <https://doi.org/10.1080/01434632.2016.1177061>
- Kym, I., & Kym, M. H. (2014). Students' perceptions of EMI in higher education in Korea. *Journal of Asia TEFL*, 11(2).
- Lasagabaster, D. (2022). Teacher preparedness for English-medium instruction. *Journal of English-Medium Instruction*, 1(1), 48-64. doi: 10.1075/jemi.21011.las
- 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. doi: <https://doi.org/10.1017/S0261444817000350>
- Medfouni, I. (2020). International Aspirations, French Legacies and Translingual Practices: Exploring the Potential Implementation of EMI in Algerian Universities. *Unpublished PhD thesis*, University of Portsmouth.
- Rogier, D. (2012). The effects of English-medium instruction on language proficiency of students enrolled in higher education in the UAE.
- Roothoof, H. (2022). Spanish lecturers' beliefs about English medium instruction: STEM versus Humanities. *International Journal of Bilingual Education and Bilingualism*, 25(2), 627-640. doi: <https://doi.org/10.1080/13670050.2019.1707768>
- 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. doi: <https://doi.org/10.1080/03075079.2019.1590690>
- Schmidt-Unterberger, B. (2018). The English-medium paradigm: a conceptualisation of English-medium teaching in higher education. *International Journal of Bilingual Education and Bilingualism*, 21(5), 527-539. doi: <https://doi.org/10.1080/13670050.2018.1491949>
- Sert, N. (2008). The language of instruction dilemma in the Turkish context. *System*, 36(2), 156-171. doi: <https://doi.org/10.1016/j.system.2007.11.006>
- Tsui, A. P.-y., & Ngo, H.-y. (2017). Students' perceptions of English-medium instruction in a Hong Kong university. *Asian Englishes*, 19(1), 57-78. doi: <https://doi.org/10.1080/13488678.2016.1230484>
- Turhan, B., & Kirkgöz, Y. (2018). Motivation of engineering students and lecturers toward English medium instruction at tertiary level in Turkey. *Journal of Language and Linguistic Studies*, 14(1), 261-277.
- Yang, W. (2015). Content and language integrated learning next in Asia: Evidence of learners' achievement in CLIL education from a Taiwan tertiary degree programme. *International Journal of Bilingual Education and Bilingualism*, 18(4), 361-382. doi: <https://doi.org/10.1080/13670050.2014.904840>
- Yao, C. W., Collins, C., Bush, T., Briscoe, K. L., & Dang, N. L. T. (2021). English as a 'double barrier': English medium instruction and student learning at Vietnamese transnational universities. *Higher Education Research & Development*, 1-15. doi: <https://doi.org/10.1080/07294360.2021.1896485>
- Yeh, C.-C. (2014). Taiwanese students' experiences and attitudes towards English-medium courses in tertiary education. *RELC journal*, 45(3), 305-319.
- Yousif, A. A. (2006). Listening comprehension difficulties as perceived by. *Journal of King Saud University Language and Translation*, 19, 35-47.