

The Effect of EMI on the Academic Achievement of Engineering Students: A Case of A' Sharqiyah University, Oman

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ABSTRACT: *Globally, there is a growing trend of teaching and learning academic courses in English in higher education (HE). The objective of this study is to examine the impact of English-medium instruction (EMI) on the academic performance of engineering students at A' Sharqiyah University in Oman. The study employed a purposive sampling technique, together with a case study strategy and a qualitative interpretive approach, to examine the impact of EMI on the academic performance and studies of engineering students. A total of ten engineering students and five engineering instructors were asked to complete an open-ended survey. Furthermore, two classroom observations were conducted to gather data on students' proficiency in communication within engineering-related disciplines. The data obtained from the open-ended survey and observations were analyzed. The findings demonstrated that EMI exerted both beneficial and detrimental impacts on students' academic performance. Advice was provided on how to address the difficulties arising from English Medium Instruction (EMI).*

KEY WORDS: higher education, EMI, Academic achievement, A' Sharqiyah University

INTRODUCTION

The use of English as a medium of instruction refers to the practice of teaching academic courses in places where the majority of the population does not have English as their first language (L1) (Dearden, 2014). Although there are clear hazards associated with adopting this strategy in terms of the local language or languages and classroom processes, the EMI juggernaut appears to be making progress in non-English speaking countries (Kedzierski, 2016). Undoubtedly, there are advantages to utilizing EMI for both students and instructors. However, adopting it also entails that students are compelled to acquire knowledge in their fundamental courses using a foreign language (Kim, 2020). The use of English as the

predominant medium of instruction is rapidly expanding worldwide, particularly in contexts where the majority of individuals have a different native language and, in some cases, a second or even third language (Vu, 2014).

EMI has become an essential part of school curriculum worldwide due to its substantial expansion (Selvi, 2020). Globalization has significantly contributed to the expansion of EMI, since English has become indispensable for facilitating worldwide academic exchange, encouraging the advancement of knowledge, enabling professional mobility, and fostering progress (Montgomery, 2004). Nevertheless, the adoption of EMI has presented several challenges for both subject instructors and students. In 2017, Al-Issa conducted a study on the impact of EMI on the Arabic literacy of students in the United Arab Emirates. The investigation uncovered irrefutable data indicating a clear decline in literacy in Modern Standard Arabic (MSA), despite the continued use and everyday spoken usage of Arabic as a dialect.

Furthermore, universities and colleges worldwide are striving to enhance their systems to be more internationally competitive and to prepare their graduates for the global job market. In countries outside the English-speaking world, their efforts have often resulted in a significant increase in the number of EMI academic programs (Bradford, 2018). In EFL/ESL contexts, this trend is causing faculty members to face increased pressure when it comes to program design, course delivery, and classroom management (Bradford, 2018).

The judgments that lecturers make about their pedagogical approach are of utmost importance in EMI instruction. Encouraging student participation and promoting effective learning are greatly influenced by the design and implementation of lesson plans in the classroom (Chen, Han & Wright, 2020). Implementing an exclusive English language policy inside the classroom can significantly influence students' academic achievements. Students often exhibit limited English competence throughout their academic journey (Williams & Cooke 2002; Dutcher 2004; Aliou, Brock-Utne, Diallo, Heugh, & Wolff, 2006). There is a notable disparity between the level of English language skills that learners possess and the expectations of the curriculum when students move from their first language (L1) to English as a medium of instruction (EMI). The language competence levels of students are sometimes insufficient for them to learn disciplinary information at the proper grade levels. While the specific requirements may differ based on the context, educational practices often impose significant linguistic demands on students in their English as a Medium of Instruction (EMI) programs (Clegg & Simpson, 2016). Moreover, apart from the specific demands of acquiring grammar, vocabulary, and register specific to a particular subject, learners may not always fulfill all the general language-related expectations (Clegg & Simpson, 2016).

This study employed a qualitative interpretive method, utilizing a case study technique, open-ended survey, and classroom observations, to examine the impact of English Medium

Instruction (EMI) on the academic performance and studies of engineering students in Oman. The relevance of this study lies in its scale and its potential to aid EAP and engineering teachers in mitigating the adverse impact of EMI on students' academic performance.

Objectives and statement of the problem

The objective of this study was to examine the perspectives of engineering students and instructors on the impact of EMI on students' academic performance. It tried to address the subsequent research questions:

1. What's the positive impact of EMI on the academic achievement of engineering students?
2. What's the negative impact of EMI on the academic achievement of engineering students?
3. What are the best strategies to treat/ alleviate the negative effects of EMI on the academic achievement of engineering students?

LITERATURE REVIEW

Research indicates that EMI can have varying effects on the academic achievement of EFL/ESL students, depending on the proficiency levels of both the students and the content teachers.

Vidal and Jarvis (2018) utilized the Oxford Placement Test, the CEFR writing scale, and three metrics of lexical diversity to evaluate the effects of three years of English instruction on the proficiency level, essay quality, and lexical diversity of 195 undergraduate students (96 third year and 99 first year) at a Spanish university. Based on the results, the learners' proficiency in their second language (L2) increased considerably. There was a minor rise in the ratings of essay quality, although it was evident. However, there was no significant improvement in the scores for lexical diversity. The study would have been more advantageous if it had incorporated interviews with students and subject instructors to get their viewpoints on the impact of EMI on learning experiences and academic achievement. Instead, the study solely relied on textual analysis of the students' essays.

In a recent study, Al-Bakri (2017) examined the perspectives of students on the implementation of the English as a Medium of Instruction (EMI) policy at a public higher education institution in Oman. The study aimed to investigate the impact of EMI on students' academic performance and learning experiences. The findings indicated that a significant number of students either welcomed or endorsed the EMI policy due to practical considerations, such as potential job opportunities in the future.

Furthermore, Al-Bakri illustrated how students with little English proficiency have been marginalized as a result of the use of English as a Medium of Instruction (EMI). It had an adverse psychological impact on them as well. Consequently, the EMI policy faced controversy due to its denial of equal educational opportunities to specific students, placing them at a disadvantage.

A recommendation was made in response to EMI that the quality of English language instruction in schools should be improved to better equip students for their tertiary education. It is imperative for all universities to provide Arabic Medium Instruction (AMI) courses to facilitate students' comprehension of the academic subjects they are learning. Finally, to enhance their pedagogical abilities, educators should be provided with access to professional development opportunities. Scatolini corroborated Al-Bakri's overarching findings in 2020.

Al-Bakri (2017) simultaneously took a critical stance against EMI. The researcher's critique of EMI lacks a viable alternative to English that would allow students to effectively acquire their core curriculum and achieve comparable employment performance to English speakers upon graduation.

In addition, it would have been advantageous to incorporate the viewpoints of subject teachers and EAP instructors about their students' English-language learning experiences through interviews. The study primarily utilized interviews as the major approach to collect information on students' experiences with English as a Medium of Instruction (EMI) learning. The inclusion of other quantitative data gathering methods would have enhanced the quality of the outcomes.

METHODOLOGY

The primary aim of this research is to analyze and thoroughly understand the viewpoints of Omani engineering students and their instructors on the impact of English Medium Instruction (EMI) on their academic performance and studies.

A qualitative methodology was utilized to assist in addressing the study aims and difficulties, as well as to comprehend social phenomena. Dörnyei and Taguchi (2010) argue that the choice of methodological technique in research should be both pertinent to the research questions and aligned with the study's theme.

The necessary data was obtained using an open-ended survey and observations of instruction and interactions during classroom-based learning. The main approach used to collect data was an open-ended survey, which allowed the researcher to obtain comprehensive data from both engineering instructors and students. The student questions were conducted in Arabic, and the data transcription and coding were likewise carried out in Arabic. Furthermore, the relevant accounts were translated into English.

Given that the research specifically examined a cohort of engineering students enrolled in an English as a Medium of Instruction (EMI) program at A' Sharqiyah University, a case study approach was employed. The case study technique enables a thorough examination of a subject within a limited timeframe. The case study technique was advantageous for the current research as it allowed for a more comprehensive understanding of the participants' ideas and attitudes on the influence of EMI on their engineering education and academic performance.

The researcher chose to use purposeful sampling. The group is comprised of fifteen participants, including five engineering teachers and ten engineering students specializing in various fields of engineering such as communication and electronics, civil, environmental, and construction. Every participant was assigned a code (Inst1–Inst 5 for instructors and S1—S10 for students) in order to maintain anonymity. The participants were inquired about their perspectives on EMI, including their assessments of the favorable and unfavorable consequences of EMI, as well as their approaches to addressing the associated difficulties. The participants were explicitly informed that they had the freedom to withdraw from the research at any given moment, without the obligation to provide an explanation. Purposeful sampling aims to discover and describe the primary concepts found in the case under investigation (Patton, 2002).

RESULTS AND FINDINGS

The impact of EMI on students' academic performance and learning experiences can be either positive or negative. Although it may enhance their English language fluency, it might also impede their capacity to acquire pertinent knowledge, proficiency and skills. This section analyzes the impact of English Medium Instruction (EMI) on students' academic performance and studies, using the collected evidence. The study's findings are analyzed in accordance with the research questions.

Research question 1: “What’s the positive impact of EMI on engineering students’ academic achievement?”

Instructors reported the following responses:

Inst1: “The students get to know, learn, and practice new engineering terminologies which support them academically. 65% of the students in my class are of the opinion that they find EMI useful for their knowledge and future. EMI helps the students greatly in communication with the outside world. EMI significantly provides exposure to the field of engineering. It introduces them to the ongoing development and research in the field of engineering. It assists them to find employment in firms and companies where engineering is practiced daily in and out, invariably, making use of English language formally.”

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Inst2: “EMI helps our engineering students dive into the heart of global engineering dialogue, giving the English skills needed to keep up with international trends and research. It also opens broader career and academic prospects, as many top engineering firms and universities operate in English. In addition, the challenge of learning in a second language can sharpen critical thinking, which is invaluable in engineering problem-solving.”

Inst3: “Most of the engineering data, data sheets, patents are available in English. Hence EMI can help students to, effectively, grasp the underlying principles of research papers published in western world or global data base.”

Inst4: “English can indeed be considered one of the best mediums of education, given its global relevance, access to resources, and opportunities it offers. However, the emphasis should be on promoting multilingualism and preserving diverse heritages.”

Inst5: “EMI brings added value to students, most notably by improving students’ English proficiency and by furthering their global and intercultural competence.”

Students reported the following responses:

S1: “I think EMI can have a positive impact on academic achievement by improving language skills. Also, it can enhance their language proficiency. Additionally, EMI can improve their communication skills which are essential in the globalized world of engineering. Overall, EMI can contribute to the academic success of engineering students by providing them with the necessary language skills and exposure to thrive in their field.”

S2: “Through EMI, students can improve their language skills in English which is a global language in the field of engineering. In addition. Students can get access to wider resources as many engineering references and research papers are available in English, which expands access to knowledge. Furthermore, EMI facilitates communication and cooperation with engineers and researchers from around the world. EMI prepares students to work in international business environments where English is the primary language.”

S3: “EMI can enhance comprehension of technical concepts, facilitate access to global knowledge, improve communication skills in a widely used language, and better prepare students for international opportunities in their field. Additionally, exposure to English can broaden students’ perspectives and encourage collaboration with peers from diverse background.”

S4: “We strengthen our English language as in the future we may work with non-Arabic speakers in engineering firms.”

S5: “EMI will make it easier for us in the future when we deal with foreign investors.”

S6: “EMI helps students acquire and develops English language skills.”

S7: “EMI helps us in our training in the work environment, as English is a global language in more than 70 countries. We can easily discuss with our foreign instructors. We achieve better in the field of engineering as it is a major specialty and requires good knowledge of the English language.”

S8: “EMI Increases our English language skills and keep our pace with the modern era and what the labor market requires, as employment now requires good knowledge of the English language. I believe that studying engineering in English is a positive thing for the student.”

S9: “Using English as the medium of instruction is beneficial to me and helps me advance my competency and language proficiency. I also struggled with speaking, writing, and reading, but [after enrolling in the degree program], things started to become much better. Since English is the language of instruction in college, this has helped me get better at the language.”

S10: “Although it can be difficult for us, learning in English has improved our language skills and allowed us to pick up new vocabulary.”

Research questions 2: What’s the negative impact of EMI on engineering students’ academic achievement?”

Instructors reported the following responses:

Inst1: “For native English speakers, there’s no negative impact. However, for those whose native mother tongue is not English, it, significantly, affects the thinking and innovation. A child sees the world through its mother tongue. Since English language has become universal and perse the basic language of engineering education and practice the students especially non-native speakers must make significant efforts to contemplate and comprehend. For those students whose schooling is in another language, the situation is more critical. 50% of students in my class are of the opinion as mentioned in the previous statement.”

Inst2: “In my opinion, Omani students may face some challenges with EMI such as anxiety, frustration, tension, fear and embarrassment.”

Inst3: “Engineering students can express their natural responses against any engineering challenges in the language in a more effective and wholistic way. But most of the engineering tools and software are in English. Hence, there’s an extra burden to learn the language.”

Inst4: “The downside of EMI is that it can be tough for students who aren’t yet comfortable with English. It might hold them back from fully understanding complex engineering concepts if they are still grappling with the language barrier. This can lead to a lack of

confidence or participation in class, and potentially hinders their overall academic performance.”

Inst5: “Using English language as the medium of instruction and assessment causes anxiety, frustration, tension, fear, embarrassment and, ultimately, poor educational outcomes. In addition, EMI deprives the students of their basic rights to effective understanding, communication, interaction, discussion and inquiry.”

Students reported the following responses:

S1: “Studying engineering in English may negatively impact students’ academic achievement due to difficulty in comprehension and communication. It increases psychological pressure and decreases confidence. However, these challenges can be alleviated by providing appropriate support.”

S2: “The challenges I face include language difficulty, translation and misunderstanding, stress and pressure, concentration, cultural challenges”

S3: “Understanding engineering concepts presented in English can be difficult. EMI may hinder effective communication between students and instructors leading to misunderstandings in asking questions or seeking clarification. EMI reduce engagement and causes psychological stress.”

S4: “Students who are poor in English face difficulty in understanding complex engineering terms. Some students lose their marks because they don’t understand what instructors say in the class and when they answer exam questions.”

S5: “The student resorts to using technical means to translate difficult words, which affects the student’s level of achievement and postpones lessons due to the difficulty of the English language for the student. The engineering major depends a lot on the level of understanding more than memorization, as this language contributes to the difficulty of understanding for the engineering student, especially in understanding the practical problems in the final exams.”

S6: “The students face difficult terms in the curricula, which leads to losing grades.”

S7: “We face difficulty in dealing with the English language because it is not our mother tongue. Some engineering terms are difficult to learn and require time to absorb.”

S8: “My study was negatively impacted by using English as the primary language of instruction. Instead of focusing on my content courses, I should dedicate a significant amount of time to improving my English. Our precious time has been largely consumed by English. Moreover, I have trouble understanding exams because of the technical terms and instructions utilized, which may influence my academic performance and grades. I must practice a lot for my presentations because of English, rather than concentrating on my

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major studies. In addition, I must spend time doing research, defining technical terms, and looking up new words. Because of my poor English, I have trouble following and understanding engineering courses. To complete my tasks before the deadline, I also need a lot of time to plan and write them. These might all be viewed as obstacles that have a significant effect on both my academic achievement and degree.”

S9: “I believed that the required EMI is a time waster and the reason behind my low content learning. Learning English took up time that could have been spent researching the subject matter.”

S10: "EMI has undoubtedly had a negative effect on my studies, but it has also helped me identify my strengths and weaknesses, particularly with regard to English. My inability to write well in English has affected my projects, essays, assignments, and tests.”

Research questions 3: “What are the best strategies to treat/ alleviate the negative effects of EMI on the academic achievement of engineering students?”

Instructors reported the following responses:

Inst1: “It’s important to introduce English language comprehension skills since the start of schools. Hard core policy changed by the government is the need of the hour. Students in my class feel that it’s important for them to learn and acquire skills in the English language so that they do not lag behind the world which is in leaps and bounds with technology and innovation. For the personality development, skill enhancement, job opportunities, technological advancement, the entire education must be invariably in English.”

Inst2: “Strategies to cope with EMI challenges include offering EMI support program for students, defining clear learning outcomes for Arabic an English language contents, developing interdisciplinary teaching, developing textbooks and learning resources that are comprehensive for EMI learners, using simplified and clear explanations.”

Inst3: “A balanced level education since school classrooms will fulfil the need. There must be course taught in native languages and few in English. A hybrid mode will be the way out.”

Inst4: “A good strategy to mitigate the negatives would be to provide additional language support alongside engineering coursework. This could include English tutoring sessions focused on technical vocabulary and concepts. Encouraging collaborative work can also help, as students often learn language skills effectively from peers. And it’s important to ensure that assessments are fair, assessing students ‘knowledge rather than English proficiency.”

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Inst5: “I tend to develop coping mechanisms to avoid EMI. For example, if there are a few spelling mistakes in students’ reports, I will just overlook them because for me, yes, I am not here to teach them English.”

Students suggested the following as strategies to cope with EMI challenges.

1/ Providing language support, creating a supporting learning environment, using diverse educational resources, boosting self-confidence, and supporting mental health.

2/ Improving English language skills through active participation in lessons and lectures, using additional resources, cooperation with colleagues and professors, self-motivation, and good planning.

3/ Creating language support programs, multilingual materials, active learning strategies, clear communication channels, peer support networks, culturally sensitive teaching practices, professional development for instructors.

4/ Students should be exposed to intensive “English for Engineering” courses before studying engineering subjects.

5/ Using various interactive means and using clear and simple words

6/ Intensifying English language learning workshops

7/ Courses must be intensified so that the student acquires the skill of speaking and writing in English

8/ Connecting with engineering staff on regular basis for advice on dealing with engineering contents.

9/ Applying various strategies such as translating, memorizing, using on-line applications to improve engineering vocabulary.

10/ Forming group study to exchange ideas on complex engineering issues.

Findings from class observations revealed that 65 % to 70% of the students were able to interact with their instructor and with their peers, using technical engineering jargon. However, linguistic errors such as sentence construction and pronunciations were spotted. Around 30% of the students in the class struggled with their communication, as they mostly resorted to L1.

In conclusion, the findings of the current study supported the findings from previous studies, in relation to the positive and negative impact of EMI on students’ academic performance.

DISCUSSION

The majority of participants expressed a favorable opinion of EMI, as they believed it enhanced their English fluency and would greatly benefit their future academic and professional pursuits. This viewpoint arises from the extensive utilization of the English language in the current labor force and the high requirement for skilled engineers who possess proficient language abilities in both local and international job marketplaces. The study's findings suggest that EMI can significantly impact students' future employment. The impact of this influence might be either positive or detrimental, depending on its effect on academic progress in engineering and English language skills.

Nevertheless, the findings indicated that Omani engineering students who participated expressed the perception that they had to allocate a significant amount of time to studying English instead of concentrating on the technical components of their courses due to the mandatory use of English as a medium of instruction (EMI).

Ultimately, students derived significant advantages from EMI sessions as they enhanced their proficiency and linguistic abilities. However, some students began to assume that their lack of comprehension and inability to learn the necessary skills placed them at a disadvantage only because of the language barrier in their chosen field of study. Moreover, the survey findings indicated that it is necessary for language and subject instructors to work together in order to enhance students' language proficiency. However, to do this at a systemic level, it is necessary for teaching staff members from various programs and sectors to collaborate.

CONCLUSION, IMPLICATIONS, AND RECOMMENDATIONS

Notwithstanding the challenges it presented, the evidence derived from observations and the survey unambiguously demonstrates that EMI enhanced students' learning. Students perceived that EMI provided them with a chance to enhance their language proficiency, as seen by their responses, despite the accompanying barriers and difficulties. Therefore, it is important to promote and sustain the use of EMI in Omani engineering education, since it enhances students' language skills and increases their chances of securing high-quality employment in engineering-related sectors. However, a significant number of participants expressed concerns about EMI and its potential impact on their GPAs and academic achievements.

The study yields some results and ideas that might be implemented to improve the quality, content, and presentation of EAP courses. Furthermore, they might assist engineering teachers in delivering their subject courses in English and supporting students in overcoming language-related barriers and difficulties. The findings of this study may also be valuable for those involved in developing teacher training programs and educational materials for English for Academic Purposes (EAP) and English for Specific Purposes

(ESP). This has the potential to mitigate the potential harm that English Medium Instruction (EMI) might inflict upon students. Furthermore, the study proposes that in order to mitigate the adverse impacts of EMI on students' academic performance and studies, collaboration between engineering professors and EAP teachers is necessary to enhance students' language proficiency in their engineering courses. To fully unlock the immense potential of EMI higher education in Oman, it is imperative that engineering professors undergo training in pedagogical matters and the efficient and purposeful utilization of EMI.

Future research

Despite acknowledging the constraints of a limited sample size, this study diligently implemented the required safety measures to accomplish its goals. The purpose of this study is not to make broad generalizations, but rather to analyze the viewpoints of instructors and students on the influence of English as a Medium of Instruction (EMI) on the academic achievement of engineering students at A' Sharqiyah University, Oman. Further studies should be conducted using a bigger sample size and a quantitative research technique to gain a better understanding of how EMI is implemented in educational institutions that share a comparable field.

References

- Al-Bakri, S. (2017). Effects of English medium instruction on students' learning experiences and quality of education in content courses in a public college in Oman. Unpublished PhD. Thesis, University of Exeter, UK.
- 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>
- Airey, J. (2012). I don't teach language: The linguistic attitudes of physic lecturers in Sweden. *AILA Review*, 25(1), 64-79. Doi: <https://doi.10.1075/aila.25.05air>
- Al-Issa, A. (2017). English as a medium of instruction and the endangerment of Arabic literacy: The case of the United Arab Emirates. *Arab World English Journal (AWEJ)*, 8(3), 3-17. <https://dx.doi.org/10.24093/awej/vol8no3.1>
- Ali, N. L. (2013). A changing paradigm in language planning: English-medium instruction policy at the tertiary level in Malaysia. *Current Issues in Language Planning*, 14(1), 73-92. <https://doi.org/10.1080/14664208.2013.775543>
- Belhiah, H., & Elham, M. (2015). English as a medium of instruction in the Gulf: When students and teachers speak. *Journal of Language Policy*, 14(3), 3-23. Doi: <https://doi.org/10.1007/s10993-014-9336-9>
- Bradford, A. (2018). 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. <https://doi.org/10.1080/01434632.2018.1551402>

- Braun, V. & Clarke, V. (2006). Using thematic analysis in Psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Byun, K., Chu, H., Kim, M., Park, I., Kim, S., & Jung, J. (2011). English-medium teaching in Korean higher education: Policy debates and reality. *Higher Education*, 62(4), 431-449. <http://dx.doi.org/10.1007/s10734-010-9397-4>
- Chen, H., Han, J., & Wright, D. (2020). An Investigation of Lecturers' Teaching through English Medium of Instruction—A Case of Higher Education in China. *Sustainability*, 12, 1-16. Doi:<https://doi.10.3390/su12104046>
- Clegg, J. & Simpson, J. (2016). Improving the effectiveness of English as a medium of instruction in sub-Saharan Africa. *Comparative Education* 52(3), 359-374. Doi: <https://doi.10.1080/03050068.2016.1185268>
- Cohen, L., Manion, L. & Morrison, K. (2000). *Research Methods in Education* (5th Edition) London: Routledge Falmer.
- Dafouza, 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>
- Dearden, J. (2016). English as a medium of instruction – a growing global phenomenon. British Council: UK. Retrieved November 2015, from www.teachingenglish.org.uk.
- Dörnyei & Taguchi (2010). *Questionnaire in second language research: construction, administration, and processing*. UK: Routledge.
- Dutcher, N. (2004). *Expanding Educational Opportunities in Linguistically Diverse Societies*. Washington, DC: Centre for Applied Linguistics.
- Ekoc, A. (2020). English medium instruction (EMI) from the perspectives of students at a technical university in Turkey. *Journal of Further and Higher Education*, 44(2), 231-243. Doi:<https://doi.10.1080/0309877X.2018.1527025>
- Guo, H., Tong, F., Wang, Z., Min, Y. & Tang, S. (2018). English-vs. Chinese-medium instruction in Chinese higher Education: A quasi-experimental comparison. *Sustainability* 10(11), 1-17. Doi:<https://doi.10.3390/su10114230>
- Hamid, M. O. (2011). Globalisation, English for everyone and English teacher capacity: Language policy discourses and realities in Bangladesh. *Current Issues in Language Planning*, 11(4), 289-310. Doi: <https://doi.org/10.1080/14664208.2011.532621>
- Heugh, K. & Wolff, H.E. (2006) *Optimizing learning and education in Africa - the language factor: a stock-taking research on mother tongue and bilingual education in Sub-Saharan Africa*. <http://hdl.handle.net/20.500.11910/6650>
- Holi, I. H. (2018). *Omani Engineering Students' Experiences of Learning through the Medium of English*. Unpublished PhD thesis, University of Huddersfield, UK.

- Huang, D. (2015). Exploring and assessing effectiveness of English medium instruction courses: The students' perspectives. *Procedia – Social and Behavioural Sciences*, 173, 71 – 78. Doi: <https://doi.org/10.1016/j.sbspro.2015.02.033>
- Takepoto, I. Omar, N. A. M., Boon, Y., & Iqbal, S., M, Z. (2012). Perspectives on oral communication skills for engineers in the engineering profession of Pakistan. *International Journal of Applied Linguistics and Literature*, 1(5), 176-183. Doi: <https://doi.10.7575/ijalel.v1n.5p.176>.
- Kedzierski, M. (2016). English as a medium of instruction in East Asia's higher education sector: a critical realist Cultural Political Economy analysis of underlying logic. *Comparative Education*, 52(3), 375-391. Doi: <https://doi:10.1080/03050068.2016.1185269>
- Kerklaan, V., Moreira, G., & Boersma, K. (2008). The role of language in the internationalisation of higher education: An example from Portugal. *European Journal of Education*, 43(2), 241–255
- Kim, Y. (2020). The Value of Interactive Polling and Intrinsic Motivation When Using English as a Medium of Instruction. *Sustainability* 12, 1-13. Doi: <https://doi:10.3390/su12041332>
- King, J.M. (2014). An exploratory investigation into content teacher views on English as a medium of instruction policy enactment in the UAE Feral Tertiary Sector. Unpublished PhD thesis, the University of Exeter. <http://hdl.handle.net/10871/17359>
- Kirkpatrick, A. (2011). English as an Asian lingua franca and the multilingual model of ELT. *Language Teaching*, 44(2), 212-224. Doi: <https://doi.org/10.1017/S0261444810000145>
- Lin, T., & He, Y. (2019). Does Bilingual Instruction Impact Students' Academic Performance in Content-Based Learning? Evidence from Business School Students Attending Bilingual and L1 Courses. *Sustainability* 11, 1-18. Doi: <https://doi: 10.3390/su11010263>
- Macaro, E., S., Curle, J. Pun, J. An., & J. Dearden. (2018). A Systematic review of English medium instruction in Higher education. *Language Teaching*, 51(1), 36–76. Doi: <https://doi.org/10.1017/S0261444817000350>
- Montgomery, S. (2004). Of towers, walls, and fields: Perspectives on language in science. *Science* 303(5662), 1333–1335. Doi: <https://doi:10.1126/science.1095204>
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd). Newbury Park: Sage.
- Phuong, Y., H., & Nguyen, T. T. (2019). Students' Perceptions towards the Benefits and Drawbacks of EMI Classes. *English Language Teaching*; 12(5), 88-100. Doi: <https://doi: 10.5539/elt.v12n5p88>

- Raddawi, R., & Meslem, D. (2015). Loss of Arabic in the UAE: Is bilingual education the solution? *International Journal of Bilingual & Multilingual Teachers of English*, 30(2), 85-94.
- Shohamy, E. (2013). Critical perspective on the use of English as a medium of instruction at universities. In A. Doiz, D. Alabaster and J.M. Sierra (Eds.), *English-medium instruction at universities: Global challenges* (pp. 196-210). *Multilingual Matters*, Bristol: UK. Doi:10.21832/9781847698162-014
- Sivaraman, I., Al Balushi, A., & Rao, D.H. (2014). Understanding Omani students' (University) English language problems. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 3(1), 28-35
- Selvi, A.F. (2020). Resisting English medium instruction through digital grassroots activism. *Journal of Multilingual and Multicultural Development*.
<https://doi.org/10.1080/01434632.2020.1724120>
- Tollefson, J.W., & Tsui, A.B. (2003). *Medium of instruction policies: Which agenda? Whose agenda?* Mahwah: Lawrence Erlbaum. Routledge.
- Vidal, K., & Jarvis, S. (2018). Effects of English-medium instruction on Spanish students' proficiency and lexical diversity in English. *Language Teaching Research*, 1-20.
Doi: <https://doi.org/10.1177/1362168818817945>
- Vu, N. T. T. (2014). English as a medium of instruction: Challenges for Vietnamese Tertiary Lecturers. *The Journal of Asia TEFL*, 11(3), 1-31.
http://www.asiatefl.org/main/download_pdf.php?i=59&c=1412065511&fn=11_3_01.pdf
- Williams, E., & J. Cooke. (2002). Pathways and Labyrinths: Language and Education in Development. *TESOL Quarterly* 36(3): 297–322. Doi:
<https://doi.org/10.2307/3588415>
- Zacharias, N. T. (2013). Navigating through the English-medium-of-instruction (EMI) policy: Voices from the field. *Current Issues in Language Planning*, 14(1), 93–108. Doi: <https://doi.org/10.1080/14664208.2013.782797>