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Internationalization of Higher Education and English Medium Instruction: Barriers to and Possibilities for Inclusivity

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Abstract

Higher education is a key focus of the United Nations sustainable development goal for inclusive and equitable education. Indeed, the internationalization of higher education is paramount to ensuring learners are equipped to address global challenges. Yet the rapid, global increase of English Medium Instruction (EMI), or teaching academic subjects in English when English is not the first language of the country or region, presents challenges to the inclusivity and access to higher education. This paper focuses on linguistic and cultural issues that arise when the language of the learner is eliminated from instruction, and offers strategies and examples to address these problems. Guided by Sociocultural and Cognitive Load theories, best practices for countries and programs interested in implementing EMI along with pedagogical strategies that emphasize the cultural and linguistic context of the learner will be provided. With English increasingly viewed as the lingua franca, this topic remains an important area for education internationally.

Key Words: Sustainable Development goals, Higher Education, English Medium Instruction, Cultural and Linguistic Relevance

Introduction

Higher education has traditionally been a pathway to achieve the fourth goal of the United Nations (UN) Sustainability Development (SDG) initiative, which seeks to ensure inclusive and equitable, quality education and lifelong-learning opportunities for all (UN, 2022). Successful Goal four outcomes could potentially influence the UN Sustainability Goal 10: Reducing inequality within and among nations (UN, 2022). Yet barriers to achieving these goals include inconsistencies in providing equitable opportunities for English language learning in a global world where English is often considered the lingua franca, and a lack of emphasis on first and heritage languages within higher education (Belhiah & Elhami, 2015; Macaro et al., 2018). As Sahan et al. (2020) emphasize, "The sustainable development goals make no mention of language of instruction in their learning outcome targets, despite the effect it has on educational equity" (p. 14).

In this article, the implications of the widespread use of English Medium Instruction (EMI) will be explored. EMI, or the use of English to teach some or all academic subjects/disciplines in jurisdictions where English is not the first language, has increasingly become a common practice within higher education institutions, globally (Dearden, 2014; Macaro et al, 2018). Also known as content-based language education or content and language integrated learning, EMI provides learners with the opportunity to learn and practice English while simultaneously learning content or discipline specific subjects (Macaro et al., 2018).

Literature Review

The use of EMI has grown rapidly around the world and in all levels of education, but more so in higher education (Macaro et al., 2018). Dearden (2014), for example, identified 55 countries where EM was established or was in the process of being established. Close to 30% of those identified countries held a developing status according to the World Bank (2020). Reasons for this growth include political, economic, and practical benefits such as the rise of globalization, the need for a unifying language for communication, and English as the common language for international research (Koksal & Tercan, 2019; Macaro et al., 2018; Megahead, 2017). This rapid, global growth, however, has outpaced research into implications of EMI use, and policy

development that could provide frameworks to guide its implementation (Macaro et al., 2021; Sahan et al.,2021).

Strengths and Barriers of EMI

While many reasons exist for the explosion of EMI, perhaps none are more salient than unification. As the global lingua franca, English provides a unifying language in regions and countries where multiple languages are spoken such as the Middle Eastern Gulf Corporation Countries (GCC) (Koksal & Tercan, 2019). English has also become a connector for business, technology, industry, and finance worldwide making it an increasingly essential tool for globalization (Salome, 2022; Selvi & Yazan, 2017).

Similar benefits to the use of EMI are mirrored in higher education, where increasing numbers of international and intercultural exchanges highlight the need for a unified means of communication (Macaro, 2018). Yet it is the increase of transnational eLearning and eLearning institutions that have globalized education and intensified the use of EMI (Selvi & Yazan, 2017). As online instructional technologies have evolved, the use of EMI has increased, and so have the demands for it (Querol-Julian & Camiciottoli, 2022; Selvi & Yazan, 2017). Academic research and scholarly publications are also most often English publications and developing countries may lack their own research base or research base in the country's first language, yet students are typically expected to read and analyze at least some research (Alkaabi, 2016; Wagner & Majeed, 2021). An additional overlooked reason for EMI use in developing countries is a lack of resources in the region's first language (Macro et al., 2018). Many higher education institutions have limited educational resources in their first languages, such as textbooks or other teaching materials which leads to at least some reliance on EMI (Macaro et al., 2018).

Despite the benefits of a global language, EMI presents barriers to higher education degree attainment. Student comprehension issues and difficulties engaging are two potential outcomes of EMI barriers. In a systematic literature review of EMI in higher education, Macaro et al (2018) found that educator deficiencies in teaching within EMI environments and lack of student English language proficiency were the greatest concerns noted in the studies. Educator deficiencies can stem from limited guidance and training on how to implement EMI as well as a lack of teaching resources for EMI

instruction (Dearden, 2014). Yet, it is English proficiency issues that have been associated with non-completion of degree programs (Suliman & Tadros, 2011). This in turn privileges those persons in non-English-speaking countries who can afford a private K-12 education that includes EMI learning and increases educational inequalities due to lack of access to English language learning (Sultana, 2014). In other words, who is able to receive an "English-based education" and who is not, is most often based on resources, and lack of English-based educational resources becomes an obstacle to obtaining the UN's SEG of access to inclusive and equitable education. Thus, EMI could potentially become "a vehicle for creating an elite class" (Dearden, 2014, p. 15).

The use of EMI also undermines the use of first languages which lead to both practical and ethical issues. For students who enter professions, such as counseling, nursing, or social work, in which they need to communicate orally and in writing in the first language, a lack of discipline specific communication can hamper their abilities to communicate. Ethically, English is the language of colonialism, and particularly within developing countries, the widespread use of English is a form of linguistic hegemony and symbolic representation of colonialism (Roth, 2018; Wagner & Majeed, 2021).

Theoretical Framework

Cognitive load (CL) theory developed by John Sweller is an instructional model based on the knowledge of human cognition (Sweller et al., 2011). This framework builds on the model of human information processing by Richard Atkinson and Richard Shiffrin in 1968. According to Sweller (2010), "cognitive load" relates to the amount of information that working memory can hold at one time. The theory identifies three different forms of cognitive load: Intrinsic cognitive load, Extraneous cognitive load, and Germane cognitive load (Sweller, 2010). Intrinsic cognitive load refers to the inherent difficulty of the material itself, which can be influenced by prior knowledge of the topic. Extraneous cognitive load refers to the load generated by the way the material is presented and which does not aid learning. Lastly, germane cognitive load includes the elements that aid information processing and contribute to the development of 'schemas' (Sweller, 2010).

The framework contends that our working memory has a maximum processing of new information for about 2-4 elements at a time (Roussel et al., 2017; Nawal, 2018). It

further purports that new information needs to be processed by the working memory, stored in the long-term memory, and made available for use, i.e., transferred back to the working memory for organizing and linking so information can be understood, and communication is effective (Roussel et al., 2017). However, Sweller (2010) suggests the working memory has a limited capacity, and for these reasons, some find that when processing secondary information that includes both content and a second language, the working memory may become overloaded (Belhaih & Elhami, 2015; Roussel et al., 2017). For many individuals, this overload can affect the amount of content learned and the speed at which the information is learned. To remedy this, Sweller recommends avoiding overloading instructional methods with additional activities that do not directly contribute to learning.

The second framework which could be employed is Lev Vygotsky's sociocultural theory. This theory emphasizes the role that social interaction plays in psychological development. More specifically, it suggests that human learning is largely a social process and the origination of human intelligence in society or culture (Vygotsky & Cole, 1978). Further, sociocultural theory suggests that our cognitive functions are formed based on our interactions with those around us who are "more skilled." (Cherry, 2022). The major theme of Vygotsky's theoretical framework is that social interaction plays a fundamental role in the development of cognition. Vygotsky believed that thinking has social origins, and that cognitive development cannot be understood without reference to the social context within which it is embedded. He proposed that social interaction plays a critical role in the process of cognitive development, especially in the development of higher order thinking skills (Allman, 2018).

A second aspect of Vygotsky's theory is the idea that language is an essential tool in the learning process. In this construct, human action on both the social and individual planes is mediated by tools and signs, or semiotics, such as language, systems of counting, conventional signs, works of art, etc. Vygotsky suggested that using these tools, or semiotic mediation, co-construction of knowledge is facilitated, and social and individual functioning is mediated. These semiotic means play an important role in development and learning through appropriation (Allman, 2018).

The third and most widely adopted concept of Vygotsky's sociocultural theory is the concept of the "zone of proximal development" (ZPD). This is "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). According to Vygotsky (1978), it is essentially the zone where learning takes place. This "zone" is the area of exploration for which the student is cognitively prepared but requires help and social interaction to fully develop (Briner, 1999). Vygotsky considered the ZPD to be a better and more dynamic indicator of cognitive development as compared to merely measuring what can be accomplished independently (Scott & Palincsar, 2013). For example, a teacher or more experienced peer, such as a peer expert, is able to provide the learner with "scaffolding" to support the student's evolving understanding of knowledge domains or development of complex skills. Collaborative learning, discourse, modeling, and scaffolding are strategies for supporting the intellectual knowledge and skills of learners and facilitating intentional learning.

Strategies for Language Inclusivity and Equity in Higher Education

Despite barriers, inequities, and complexities of implementing EMI, the pervasive global use of English precludes the likelihood that EMI will eventually decrease, particularly within higher education. Nevertheless, there are strategies that can be implemented at the country, program, and instructor levels that can create more inclusive learning opportunities for students that have varying levels of English proficiency.

Country Level

A lack of clear policies at the country level and within ministries of education can become obstacles to understanding what the "contextual, geographical, historical, and political reasons" (Dearden, 2014, p.14) countries have for adopting EMI as well as the extent of EMI adoption. An example of a language policy that includes broad suggestions for implementation is Croatia:

> With increased international mobility as one of its priorities, the Ministry of
> Education, Science and Sport has developed an Action Plan for the

removal of obstacles and strengthening of the international mobility in education,

which includes the increase in the number of study programmes offered in

foreign languages as one of its measures

(Dearden, 2014, p. 16).

Other countries such as Kazakhstan, have trilingual policies in which language of instruction could be based on the ethnicities of the population together with targeting more English in instruction (Dearden, 2014; Macaro et al., 2018).

Unfortunately, many countries lack clear language policies and/or suggested methods of how and how much EMI should be implemented. This is due in part to what Macaro et al. (2018) describe as enthusiastic stakeholders who rush to implement EMI, making EMI a frequent top-down decision with less input from those who could provide guidance. This lack of guidance leads to inconsistent implementation and negatively impacts training and resources for EMI teaching (Dearden, 2014; Macaro et al., 2018). Thus, prior to implementing EMI, considerations at the country level could include researching and gathering information about the current teaching and learning needs within regional and/or country higher education institutions (Belhiah & Elhami, 2015).

Considerations could involve what professions in specific countries might benefit from a bilingual, EMI, or first language teaching approach. For example, Students entering medical fields may be required to use EMI so they can converse with medical staff from different regions of the world. However, for students entering such professions as counseling or social work, bilingual or a first language education might better prepare them for communication-based professions within specific contexts. Finally, considerations for implementation should also include professional development of instructors. Unfortunately, Macaro et al. (2018) found that there was no currently available research data on the outcomes of EMI teacher preparation or preservice programs, yet addressing the need for preparation and professional development are highlighted among multiple studies (Belhiah & Elhami, 2015.Dearden, 2014; Macaro et al., 2018).

Program Level

At the program level, university programs can consider pedagogical models that align the teaching philosophy, values, and pedagogical preferences with cultural sensitivity

and responsiveness to strengthen learning connections for students. Two such approaches are culturally responsive pedagogy and cultural humility.

Culturally responsive pedagogy, according to Gay (2018) includes four key areas. Caring includes how instructors honor cultural values and student experiences and bringing those values and experiences into teaching. It also involves being responsive to the needs of students. Communication consists of tailoring communication styles to the context. This could consist of the use of some first language during instruction to assist students in expressing their academic knowledge (Gay, 2018; Wagner & Majeed, 2021). Curriculum emphasizes the importance of contextualizing the curriculum to the cultural context and integrating cultural examples and cultural resources throughout the curriculum. Finally, congruity is the importance of using instructional methods and strategies that are culturally familiar to students (Gay, 2018).

While culturally responsive pedagogy provides a relevant structure for instructors, cultural humility provides an emphasis on instructor self-reflection and awareness (Fisher-Bourne et al., 2015). Accountability to students is emphasized through an emphasis on learning from and listening to students (Wagner & Majeed, 2021). This in turn provides opportunities for instructors to understand how their students learn best, and what is important to them.

Together with an emphasis on culturally sensitive pedagogies, programs can also encourage more extensive cultural orientations for new instructors through the use of mentors or co-mentors. New faculty who are teaching outside of their home countries could be paired with faculty who are proficient in the first language and are cultural insiders (Wagner & Majeed, 2021). As EMI environments often require both language and cultural guidance, instructors who are from the cultural context can assist new faculty in adapting teaching and curriculum content to the local context. A final program level recommendation includes thoughtful deliberations regarding theories, knowledge, and practice models that are culturally appropriate and relevant, and those that are not. Because of the extensive use of Western textbooks and materials in many parts of the world, intentional faculty discussions should address what should be taught within a cultural context (Macaro et al., 2018). For example, Western policy textbooks contain

material that is not relevant to all cultures. In other disciplines such as Social Work, Education, and Nursing, not all program theories may be relevant to specific contexts. In such cases, materials could be supplemented by enlisting the assistance of community agencies who could provide culturally relevant case studies or examples (Wagner & Majeed, 2021).

Instructor Level

Instructor level strategies can be used by individual faculty to mitigate comprehension and engagement difficulties in EMI environments. Language scaffolding, human simulation, use of peer groups, and culturally congruent teaching strategies are some examples.

Language Scaffolding/Key courses in L1

Some language scaffolding or temporary support to assist learners in accessing meaning and relevance of their learning is almost always needed in EMI environments (Gay, 2018; Vasquez, 2022). Proctor et al. (2007) suggest using a universal literacy environment strategy within digital materials. Firstly, key vocabulary and concepts in the first language could be embedded within digital materials to assist with comprehension. Additionally, terms and concepts can be hyperlinked to translations and sample sentences to assist students in understanding these terms within the linguistic context (Proctor et al., 2007). These strategies could potentially reduce cognitive load and assist learners in making connections.

During traditional higher education lectures, students learning in EMI environments may have difficulties keeping pace with the traditional lecture. Thus, shortening lectures or breaking up the lecture into micro lecture-application activities-micro lecture-application activities assists students with both comprehension and engagement. Flipped class and especially the use of video lectures provide students with the additional benefit to go back and relisten to portions of a lecture they did not understand (Wagner & Bogagies, 2020). Finally, for programs that offer some type of field education, i.e., internships or practicums within the community, encourage the use of written assignments in the first language so students can learn to practice and communicate competently and professionally in their first language (Li, 2013; Sevilla et al., 2018).

Human Simulation

Human simulation can be another strategy used to increase first language professional linguistic competence. The term human simulation refers broadly to activities in which students interact with trained actors as simulated clients in a real-world practice setting or practice laboratory that closely resembles a real work practice setting (Fowler & Pusch, 2010). These actors could be faculty, theater students, or professionals who have practiced in the field and who are proficient in the first language. During simulation, students focus less on the acting skills of the simulated client and more on building their own skills (Petracchi & Collins, 2006). This provides students the opportunity to use their first-language skills, and garner feedback from the actors and/or the course instructor (Colvin et al., 2020). Unlike peer-to-peer role plays, human simulations are typically focused on real-world problems and interactions that are more closely aligned with what students will experience in practice (Colvin et al., 2020). Human simulation is also an example of a culturally congruous teaching strategy as practice education is embedded within a culturally relevant simulation. Research has demonstrated that simulations raise student self-awareness, which can be used in refining professional skills (Bolesta & Chmil, 2014; Potter & Allen, 2013).

Peer Collaboration

Kirschener et al. (2018) suggests that group work appears to reduce cognitive load for second language learners through the opportunities it provides for students to obtain information from others during collaborative activities. Group Work also has the potential to strengthen comprehension. Safa and Rozati (2017) found in their research of 90 Iranian students that the use of both expert and co-equal peers during group work were more effective in strengthening listening comprehension than if students engaged in individual practice. The authors recommended providing students with more opportunities to interact with peer experts, i.e., those students that have more second language expertise and could help their peers build oral and listening comprehension skills through the process of communication (Safa & Rosati, 2017). Peer experts would ideally be distributed evenly among student groups to provide additional language scaffolding for students who are less proficient in English. Additional suggestions include making expectations and directions for group work and group learning projects

clear and specific, as well as help students with negotiating the division of group labor. Students from cultures that are traditionally teacher centric or where the teaching style is more directive and didactic, may need group work roles to be assigned (Baeteen et al, 2016; Filatova, 2015).

Culturally congruent teaching techniques

Using pedagogical techniques and approaches that are culturally familiar to students are some of the ways that instructors address how students learn best. As Gay (2018) explains, congruity comprises "reducing the "strangeness" of new knowledge and the concomitant "threat of the unfamiliar" (p. 204). When considering the issue of cognitive load in EMI settings, because students are learning in a second language and learning new discipline specific content knowledge, adapting the material to the context and using culturally relevant teaching strategies could potentially mitigate cognitive load challenges (Wagner & Majeed, 2021). Examples of culturally congruent approaches include balancing student-centered approaches with teacher-centered approaches, use of nomination during class discussions, and the use of community engagement projects.

In some contexts, students may be unfamiliar with student-centered learning approaches. Student-centered learning is an approach that encourages a high degree of learner autonomy and responsibility for their learning (Baeteen et al., 2016). In such contexts, a balance between student-centered and teacher-centered approaches, i.e. more directive approaches, may provide the needed structure and organization students require (Baeteen et al., 2016; Gay, 2018). Typically, this balance would provide more direction, assure that expectations are made clear, and include the use of consistent feedback (Filatova, 2015).

Classroom discussions are common higher education pedagogical strategies and typically rely on students to volunteer and answer questions and add to the discussion. Yet students who are from cultures where teacher-centered learning environments were more common, may wait for an instructor to call on them (Choudhury, 2005). Additionally, students may lack confidence to answer questions or provide opinions due to their level of English proficiency and fears of making mistakes (Campbell, 2007; Choudhury, 2005). Nominating students, such as calling on students or asking for a specific number of volunteers to address a discussion topic or question, can provide a

strategy to address this issue (Choudhury, 2005; Campbell, 2007). Choudry (2005) adds the importance of wait time after asking questions for student as second language learners will likely need extra time to develop their responses.

Additional communication techniques that could be used by instructors to reduce cognitive load include slowing one's rate of speech and avoid asking back-to back questions (Campbell, 2007). Finally, continually contextualizing content through such methods as using community engagement projects, locally based case samples, and other forms of problem-based learning that focus on local issues are methods for students to link their cultural experiences with new knowledge.

Recommendations

The following summation of strategies are recommendations for inclusive and equitable practices for EMI use. At the country level, gather information prior to implementing EMI that include reasons for implementation such as the specific context, program, and learner needs EMI will address. Design policies and procedures for implementation to meet those needs that include adequate professional development for faculty. At the program level, embed pedagogical frameworks within curriculums that are culturally and linguistically responsive. This involves both mentoring of faculty who are teaching outside of their home countries as well as aligning teaching materials and textbooks with the cultural context. Finally, at the instructor level, use inclusive practices within EMI environments such as scaffolding unfamiliar concepts and terms, use of some first language in teaching, human simulation, peer collaboration, and culturally congruent teaching techniques.

Conclusion

Although EMI presents many challenges to SDG 4: assuring equitable and inclusive education for persons globally, it continues to be widely used. The demand for a unifying language together with resource issues for limited first language educational resources, has helped to establish English as the lingua franca in higher education institutions, globally. Yet its rise has also created inequities that marginalize students who lack English proficiency. Intentional contextualization of EMI and the use of culturally relevant pedagogical skills can bridge gaps created by EMI, opening spaces for a more inclusive education.

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