

A review of studies on English medium instruction courses in universities

Zhang Xueshan^{1,*}, Wang Xiaolian², Pei Shasha³

¹Faculty of Humanity, Hongkong Polytechnic University, Hongkong, China

²School of Foreign Languages, Nanjing Forestry University, Nanjing, China

³Shanghai Huayao Baoshan Experimental School, Shanghai, China

*Corresponding author

Abstract: *The topic of English medium instruction (EMI) courses in universities has drawn widespread attention recently. English-medium instruction courses refer to academic content teaching through English in non-English speaking countries[8]. In non-English speaking countries, English is treated as a foreign language instead of an official or a second language. Based on the review of a limited number of recent studies, this article highlights some critical issues about EMI courses in universities and points out questions that need further research in this area.*

Keywords: *EMI, current issues, further research*

1. Introduction

It is well known that globalization continues, and English is becoming lingua franca in academic research and publishing. Under such circumstances, more and more English-medium instruction (EMI) courses are provided in universities in different regions, such as countries in the European continent and Asia.

2. Growth and rationale underlying EMI courses in universities

According to a survey conducted by Wächter and Maiworm^[1], in 28 European countries, the number of EMI programs increased from 2389 in 2007 to 8089 in 2014, rising 239% over the last seven years. In Asia, a marked increase in EMI programs in tertiary institutions is seen due to the promotion of EMI programs by high authorities. Governments in China and Japan strongly support the transformational EMI programs in tertiary institutions^[2]. The document compiled by China's Ministry of Education^[3] contained the requirements of enhancing universities' global competitive ability by imparting EMI courses. Due to government departments' great support of EMI courses, universities have provided more and more EMI courses during the past twenty decades. In China, a noticeable increase in international students' numbers also triggers EMI projects to spread widely. According to China's Ministry of Education^[4], up to 2011, there were 2900 thousand international students from 194 countries in China, increasing 10.38% compared with 2010. Besides, Many Chinese university leaders believe that EMI courses are vital for improving local and international competitiveness and rising rankings, becoming top-tier universities^[5]. To show generous support with EMI courses, institutions implement incentives to teachers involved in EMI courses, such as extra salary, promotions, and abroad training opportunities. In support of EMI, Li^[6] stated that EMI was seen as a natural language study process in which learners improve language competency through mastering specific subject content. EMI is also believed to effectively cultivate students' international mindset, improve students' academic English proficiency, and enhance students' employability.

Macaro et al.^[2] asserted that a large proportion of previous research was about theoretical issues according to their systematic review of EMI literature, such as describing EMI program characteristics and explaining the necessity of implementing the EMI program. In contrast, only a small proportion of empirical studies on EMI in tertiary institutions was conducted globally. This conclusion is also supported by Zhu and Yu^[7]. They reviewed more than 90 papers researching EMI courses in China. Most of these papers introduce concepts, fundamental theoretical issues about EMI, empirical studies are rare.

3. Empirical research of EMI courses in universities

Some scholars conduct empirical studies from the macro-perspective while others explore the practical issues about EMI projects from the micro- perspective. On the macro-level, Hu and Lei^[8] conducted a case study about the EMI project in a Chinese university on Spolsky's language policy framework, indicating an existing gap between the policy and practical language practice EMI classroom. The gap indicated that the qualities of EMI courses in Chinese universities should be as a matter for concern. There was a misalignment between the intentions of EMI courses and classroom language practices. Xu^[9] suggested that different EMI courses provided by various universities in mainland China varied significantly. In terms of the textbooks used in EMI courses in China, some of them are original English textbooks, some of them are adapted according to students' language proficiency by local teachers. Concerning the proportion of English medium instruction in EMI courses in Chinese universities, three different types can be figured out: English-dominant, Chinese dominant, and a balanced mixture of English and Chinese. On the micro-level, several other issues are identified, such as the perceptions of students and teachers toward EMI courses, the influence of EMI courses on the attitudes and motivations of students towards English study, the language competence of students and teachers in EMI programs, the discourse analysis of the English instructions, and the English and content learning outcomes of EMI courses.

Students' perception of EMI courses and the influence of EMI courses on students' English attitudes and motivations are discussed heatedly. Wei et al.^[10] investigated 218 second-year students majoring in different disciplines in a less elite university in China's northern part. Results showed that those learners involving in EMI courses held a positive attitude towards EMI courses. However, they admitted that their English learning motivations through EMI were weak. Jiang et al.^[11] pointed out that students' expectations in academic career developments enhanced their motivations for participating in the EMI programs in a medical university. However, Xu^[9] argued that the statistical results of questionnaires among 672 EMI learners and 184 non-EMI learners from seven universities located in seven cities in China showed that EMI students held less favorable attitudes toward English. There are also variations of attitudes toward English among students in different modes of EMI courses. Learners tend to have more favorable opinions toward English if a larger proportion of English instruction is delivered in the EMI courses. According to Hu and Lei^[8], students believed EMI learning outcomes were not as successful as expected. Students felt confused when teachers use English instruction to explain notions and complicated logical problems. Nevertheless, when lecturers summarized these contents through Chinese, students could have a clear idea. Joe and Lee^[12] conducted a case study among 61 university students in a Korean medical school in Seoul. Findings showed that both students with high and low language proficiency perceived English instruction negatively. Existing literature shows that students' perceptions of EMI courses are highly context-dependent, differing according to specific contexts. Thus, further research is needed to examine students' perceptions of the EMI program and motivations and attitudes towards English learning in different contexts. Besides, more studies should focus on the influence of EMI courses' English construction quality on students' perceptions and attitudes.

Moving to consider the problem of students' language competence, Wu et al.^[13] pointed out that it was common to assume that students' low proficiency in English detriment the effectiveness of EMI courses. Hu and Lei^[8] reported that professors in their research believed students' limited English abilities were significant problems in EMI courses. Students who were interviewed also thought their poor command of English impeded the effectiveness of EMI courses. However, Evans and Morrison^[14] conducted a longitudinal study tracing 28 Hongkong University students' learning experiences and a questionnaire survey among 3009 first-year university students. Their research aimed to find the difficulties of students who have to learn professional content through English, which is their foreign language. The results show that challenges faced by these students include "understanding technical vocabulary" and "comprehending lectures" (P. 203). Nevertheless, most students are highly motivated students and can cope with difficulties through hard-working and seeking support from peers and lecturers. Finally, language problems can be addressed properly. The same conclusion was supported by Yang^[15]. He suggested that instructors in his study thought students involved in the EMI courses had adequate language abilities to learn academic content through English. Under most circumstances, universities set the entry requirements for students to participate in the EMI program. For example, some universities provide opportunities to the top 20% of students who also have excellent English test scores in the international university entrance exam. These entry requirements mean to ensure that students enrolled in the EMI program have adequate language and learning abilities to cope with the EMI course study. According to these arguments mentioned above, it can be concluded that most university students have the learning abilities to participate in EMI courses study with support from teachers, peers, and

institutions.

Next section turns to the issues of teachers' perception and language competence in EMI courses. Instructors state that the teaching of EMI courses is demanding and challenging. Compared with academic courses delivered through the native language, the workload of EMI courses is much heavier. Despite these difficulties, most lecturers positively embrace EMI initiatives since they believe EMI courses are essential for students to have international mindsets and promising academic careers. Currently, most of the EMI courses' teachers are content experts and put a large proportion of emphasis on content learning, believing that English is just a communication tool in this circumstance^[5]. The teaching of language should fall within the responsibility of language teachers. About instructors' language competence, Hu & Lei^[8] indicated that it should be mentioned that many teachers in EMI courses in mainland China lack adequate language competence to conduct professional content through English. Professors with low English proficiency found it difficult to use English to explain complicated and arduous professional concepts. Due to instructors' limited linguistic competence, multiple strategies are adopted in classrooms to cope with language difficulties. Additionally, most of the Instructors involved in EMI courses suggested that institutions should provide them language training programs to improve English proficiency. Further research also indicated the inadequate linguistic competencies of teachers in EMI programs. Jiang et al.^[11] suggested that discourse patterns of EMI courses were determined by the emphasis on content and the limited language abilities of instructors. Many pragmatic strategies are employed in EMI courses, such as code-switching and written words on PPT slides. Chang^[16] analyzed the instruction of English in EMI courses in a medical school at a southern university in China through systematic functional law, indicating that, in EMI classrooms, teachers extensively used "linear progression patterns" and "constant progression patterns." Less derived progression patterns that have higher demands on English competency are found (P. 101). Hu and Li^[17] analyzed discourse patterns of questions and answers in EMI courses in a southwest China university through minimal terminal analyses, suggesting that English questions and answers are cognitively simple sentences. These studies additionally support the opinion that English instruction quality in EMI courses should be improved.

To investigate the English and content learning outcomes of EMI courses, Lei and Hu^[18] conducted research investigating whether the EMI courses could influence students' general English proficiency and attitudes towards learning and English use. They find no significant differences between English medium students' and Chinese medium students' CET-4 and CET-6 scores. However, Li^[6] evaluated the influence of EMI courses on students' language proficiency through pre-test and post-test on students' vocabulary, morphological awareness, and reading comprehension (P.158). Tests showed that students performed much better after participating in the EMI courses. Nevertheless, it should be pointed out that the researcher neglected several confounding variables in this research. Joe and Lee^[12] administered tests to examine whether the English instruction influenced students' comprehension of academic content. Test results showed that students' comprehension of academic content was not influenced by English medium instruction. In summary, more research about the English and content learning outcomes should be conducted with improved methodology, and there is an argument about what kind of English should be tested for students in EMI. Some scholars suggest that general English is different from subject-specific English in EMI courses.

4. Conclusion

It can be concluded that EMI courses' research is highly contextual. Research conducted in different contexts is necessary. Additionally, effective methods to improve the EMI courses' English instruction qualities are needed. Many scholars suggest the cooperation between expert and language teachers should be an effective and efficient way to conduct EMI courses. Therefore, it is essential to experiment to testify the influence of cooperation between content expert and language teachers on students' English and content learning outcomes. Nevertheless, language teachers indicate that it is difficult for them to accomplish this massive job as the vast differences between general English and subject-specific English. As people's awareness of lifelong learning is rising, some English teachers have also become content experts by obtaining professional qualifications, such as international accounting qualifications. Thus, these language teachers can provide language support to content experts in EMI programs.

Based on the above discussion, quasi-experiment research about the influences of the EMI courses, by the cooperation between content experts and language teachers with professional qualifications, on students' perception towards EMI and students' language and content learning outcomes need to be conducted.

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