



English-Medium Instruction in Higher Education: Lessons from China

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The last few decades have seen escalating national and institutional efforts to internationalize higher education around the globe. One current, popular strategy is to provide English-medium instruction (EMI) in educational contexts where English is a foreign language. As a curricular strategy intended to internationalize tertiary institutions and improve the quality of higher education, EMI has enjoyed strong policy support in Asia. However, there is a scarcity of empirical research in Asian contexts to justify such policy support. This article draws on the current literature and discusses the rationale and spread of EMI in European and Asian countries. It then presents the findings of four empirical studies recently conducted on EMI in several Chinese universities to provide a Chinese perspective. By way of conclusion, the article discusses the implications of the aforementioned studies for endeavors to implement EMI in Chinese and other EFL contexts.

Keywords: English-medium instruction (EMI), internationalization of higher education, instructional languages, EMI in Chinese contexts, English as a foreign language

The Rise of EMI: Driving Forces and Its Spread

English-medium instruction (EMI) is an educational phenomenon that has been spreading rapidly across educational systems around the world. In his recent monograph on EMI as a global phenomenon, Macaro (2018, p. 1) defines EMI 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.” This seemingly straightforward definition covers a wide range of disparate practices. As an instructional medium, the use of English in individual courses can vary tremendously: from 100% or nearly exclusive use as the sole language of instruction to being used more or less frequently than students’ first language (L1) and to its limited use that is largely restricted to classroom management and/or translation of some concepts, definitions, and formulae (Hu, 2008). When a whole instructional program is concerned, EMI can also refer to situations where all the courses of a program are taught to various extents in English, as well as where some courses are taught in English but others in the same program are delivered in the L1 (Macaro, 2018). The existence of such diverse ways of implementing EMI reflects “a lack of consensus on EMI terminology and definition” (Macaro, 2018, p. 15).

EMI is not a new form of language provision for students in English-as-a-foreign-language (EFL) contexts. It dates back to British colonial times (Macaro, 2018). Even in European countries without Anglo-American colonial rule (e.g., the Netherlands and the Nordic countries), EMI has been implemented in some of their universities for quite some time (Coleman, 2006). In all these cases, EMI

was restricted to a relatively small population of students. However, a complex of driving forces in the last three decades has been invigorating this form of language provision and spreading it far and wide (Hu & Li, 2017). First, globalization, with its concomitant flows of people, capital, knowledge, business, science and technology across borders, has created a dire demand for a world lingua franca and cemented the status of English as that very language (Coleman, 2006; Hu, 2018). Second, many national governments have increasingly viewed EMI as an important strategy for gaining access to cutting-edge scientific knowledge and technological know-how and for enhancing their national competitiveness, especially in knowledge production and technological innovation (Kim, Kweon, & Kim, 2017). Third, EMI is viewed by many ministries of education as an effective way to raise the quality of higher education and develop 21st century skills in their students (Airey, Lauridsen, Räsänen, Salö, & Schwach, 2017). Fourth, various stakeholders have zealously promoted EMI as a means of internationalizing tertiary education so as to attract international/domestic students and high-caliber academics from overseas or domestic institutions under increasing pressure to find new sources of revenue (Wilkinson, 2013). Fifth, numerous universities in Europe and Asia have implemented EMI to enhance the employability skills and hence the competitiveness of their graduates in global as well as domestic markets (Hu, Li, & Lei, 2014). Finally, EMI can play a big role in raising the prestige or rankings of universities (Kim et al., 2017; Piller & Cho, 2013).

These and other contributing factors have led EMI programs to mushroom in European countries, East Asian nations, and many other national contexts. Although China is a newcomer to EMI in tertiary education, starting to promulgate EMI at the turn of this century, Chinese universities, especially top-tier ones, have enjoyed strong policy support (Hu & Li, 2017). Apart from the driving forces mentioned above, EMI is also promoted in the Chinese context as an effective way of overcoming the perceived problems of traditional English language teaching in Chinese universities, and its distinct strength is seen as the killing of two birds with one stone, that is, achieving both disciplinary learning and English proficiency in the same classroom. Thus, in its guidelines issued to raise the quality of undergraduate education, the Chinese Ministry of Education (MOE, 2001) promoted EMI as a key policy initiative, prescribed the minimum proportions of courses to be taught in English, and mandated the number of English-taught courses as an important requirement for university assessment and quality control (MOE, 2005, 2007). With such strong policy support and propelled by a variety of perceived benefits and vested interests, universities across China have vied to introduce EMI programs or courses. For instance, Fudan University, a top university in Shanghai, made 50 EMI courses available at once and paid a faculty member up to US\$1,100 for designing and offering an EMI course (Pan, 2007). Similarly, another university in Shanghai, the East China University of Science and Technology, offered 50 EMI courses within three years and sponsored faculty members' visits to overseas English-speaking universities to upgrade their competence in the use of English as an instructional language (Pan, 2007). Similar developments were revealed in a large-scale survey conducted on 135 universities by Wu et al. (2010), which reported that 132 of these universities had provided EMI courses by 2006, on average, 44 EMI courses per university.

The enthusiastic promotion of EMI in Chinese universities has not been based on empirical research but has been largely driven by some popular yet simplistic assumptions about how EMI can benefit students' disciplinary and English learning (Hu, 2009). Until recently, little rigorous empirical research was conducted in the Chinese educational context to examine what transpires in the EMI classroom and whether EMI can indeed attain the aim of achieving two goals – subject content learning and English language proficiency – at the same time. To address this gap in our knowledge of EMI in Chinese higher education, several researchers have recently conducted a number of empirical studies. In the rest of this article, I will briefly summarize what four of these studies have revealed about EMI in Chinese universities and what implications can be derived for endeavors to implement EMI in Chinese and other EFL contexts.

Four Empirical Studies of EMI in Chinese Universities

Study 1: EMI Stakeholders' Language Ideologies, Practices and Management Efforts

Hu, Li, and Lei (2014) was a case study of a long-standing EMI program for undergraduate students majoring in Business Administration in a national “key” university enrolling some 24,000 full-time students. This program was chosen as the focal case because it was viewed by the university administration as a highly successful EMI program. The case study examined EMI from a language policy perspective and drew on Spolsky’s (2009) tripartite language policy framework in planning the data collection and analysis. Spolsky conceptualizes language policy as being comprised of three components: language beliefs, language practices, and language management. Language beliefs are deeply-seated attitudes, ideas, perceptions, affect, and value judgments with respect to what ought to constitute appropriate language practices in a community or a situational context of language use. Language practices are regular, predictable, and observable linguistic choices, enactments, and behaviors. Language management consists of the deliberate and explicit endeavors made by an authoritative individual or institution to modify or regulate language ideologies and language practices. These three essential components of language policy work together and influence each other in complex, dynamic, and dialectical ways. That is, they shape and are shaped by each other.

Informed by this framework, Hu et al.’s case study set out to answer three guiding research questions: (1) What beliefs were held by staff and students about English and EMI? (2) What language practices were adopted in the focal EMI program? (3) What policy measures were used to manage the language beliefs and practices of the focal EMI program? To address these questions, Hu et al. gathered national and institutional documents on EMI and conducted one-on-one semi-structured interviews with 6 students from the focal EMI program, 4 students taking a parallel Chinese-medium program, 4 professors teaching in the EMI program, and 3 professors teaching in the Chinese-medium program.

The in-depth thematic analysis conducted of the data revealed that prevalent national, institutional, and individuals’ beliefs accorded great prestige and high values to English and proficiency in the language. Specifically, these beliefs held that student attainment of strong English proficiency would benefit not only individual students and faculty members but also the focal university and China as a rising knowledge economy. English language skills were embraced and seen as capable of generating symbolic/cultural capital (e.g., intercultural understanding, global outlook, excellent cultural qualities, and desirable benefits of internationalization) as well as various types of material gain (e.g., strengthened economy, greater competitiveness, enhanced employability, and improved educational opportunities). In terms of Spolsky’s tripartite framework of language policy, “such widely-held beliefs about English performed the ideological task of establishing English competence as a prerequisite for development, be it national, institutional or individual” (Hu & Lei, 2014, p. 559). Thus, they provided a ready-made rationale for the adoption of new language practices and cleared the way for the implementation of EMI as a language policy. However, there are good reasons for interrogating these language ideologies and subjecting them to a critical analysis. Recent scholarship on the global spread of English in general and EMI in particular questions the essentially assumed relationship between English proficiency and national/individual development. For example, Gray (2012) points out that there is no evidence that the use of English in developing countries “has in any material way contributed to actual development” (p. 98). Furthermore, granted that a good command of English can bring along certain benefits and confer some advantages, whether and to what extent these perceived benefits and advantages of English proficiency can be reaped are contingent on the actual language practices enacted by faculty and students in their classrooms.

Hu et al. (2014) found that the actual language practices in the focal EMI program were constrained by the English proficiency of the professors and students. Although all the EMI professors had had graduate training and completed EMI coursework in overseas universities, their communicative command of

English was perceived to be inadequate by themselves, their colleagues and students. As one professor interviewed in the study pointed out, the EMI professors “may be able to teach the English textbook by following it closely, but they are unable to use authentic oral English to deliver the instructional content competently.” Unable to teach interactively, spontaneously, and in a freewheeling manner, the professors were found to be less flexible and improvisational in their classrooms than their colleagues who taught through Chinese, resort to Chinese when they taught difficult concepts or challenging content, and give a superficial treatment of the instructional content. The EMI students’ proficiency in English was not adequate for them to learn through English, either. As one professor noted, “the major problem for EMI is students’ inability to comprehend the instructional content delivered through EMI, and their limited facility with English, particularly in speaking and listening, affects the quality of EMI.” Because of the challenging language demands of EMI and their inadequate communicative competence in English, the EMI professors and students reported adopting various coping language practices, such as simplifying the curricular content, appropriating the language of the English textbooks, staying close to the copious teaching scripts prepared, minimizing interaction and improvisation, doing what is necessary to avoid spontaneous discussion, switching from English to Chinese when explaining difficult materials, repeating the same explanations when students failed to understand, translating instructional content from English into Chinese, depending on Chinese textbooks to compensate for their lack of understanding in EMI classes, and preparing for subject content tests by writing down and memorizing answers from Chinese and English textbooks. While these language practices helped them get by, the professors and the students also admitted that many of these coping strategies had negative effects on the teaching and learning of subject content and the English language.

Given these difficulties and challenges, what language-related support mechanisms were put in place by the university for the EMI program? First, the university policymakers were cognizant that students must attain a threshold level of English proficiency to be able to handle EMI and reap its potential benefits. Thus, they stipulated that only those students who had scored at least 120 for the English sub-test (maximum score possible = 150) in the National University Entrance Examination were eligible for the EMI program. This entry requirement, however, fell far below the criterial Band 6.5 of IELTS, which is commonly accepted as the minimum level of English proficiency required to learn through EMI (Graddol, 2006). Second, the EMI students were provided with additional sheltered instruction in English speaking and writing prior to and during their EMI program to raise their English competence. Although most of the EMI participants in the case study were quite positive about these extra English classes, they also pointed out that the classes were not sufficient to overcome their language problems. Third, as a measure of quality control, the university prescribed the minimum qualification requirements for teaching subject courses through English. These included strong communicative competence in English, previous training on EMI, and overseas working/studying experience. Last, the university tried to support EMI professors by arranging several public seminars on EMI every year, co-organizing an EMI symposium with another university, and independently hosting another one two years later. These measures taken to support EMI at the focal university, however, were seen by the EMI professors as being too limited, inadequate, and ineffective.

Given the findings reported above, one cannot help but wonder whether such an EMI program could achieve the optimistically envisioned goal of students’ acquiring high English proficiency incidentally in the context of content learning. This is precisely the focus of the next study to be reviewed below.

Study 2: Effects of EMI on Chinese Students’ Ability to Use English

Lei and Hu (2014) was a survey-based study conducted on students in the same EMI program examined in Hu et al. (2014). This study aimed to answer the overarching question of whether EMI is effective in improving Chinese undergraduate students’ English competence. As pointed out earlier, despite strong policy support for EMI and its various claimed benefits in China, there was a paucity of empirical research, especially investigations into the effects of EMI on students’ English proficiency. As

a result, after more than a decade of EMI promotion and implementation, little was known about if this form of language provision could indeed result in a good command of English. To bridge this research gap, Lei and Hu (2014) formulated two specific questions to guide their study: (1) Did the focal EMI program have any impact on students' English proficiency? (2) Did the focal EMI program foster positive affect about the learning and use of English?

To answer these questions, the researchers collected data on a range of variables from 64 students in the EMI program of Business Administration and another 72 students in the parallel Chinese-medium program. These variables were intended to be submitted to hierarchical multiple regression analyses to determine which variables significantly predicted a number of outcome variables. The predictor variables were: (1) gender, (2) year of study (sophomore vs. junior), (3) scores for CET Band 4 taken at the end of freshman year before the start of the EMI program, (4) medium of instruction (EMI vs. CMI), (5) perceived necessity of EMI, (6) perceived study burden of EMI, and (7) perceived satisfaction with EMI. The outcome variables included: (1) scores of CET Band 6 taken at the end of sophomore year after the EMI students had received instruction through English for a whole year, (2) attitudes toward English learning (i.e., whether students were positive about learning English), (3) in-class English use anxiety (i.e., whether students felt anxious about using English in class), and (4) out-of-class English use anxiety (i.e., whether student felt anxious about using English outside the classroom). The last three affective variables were measured with scales that were adapted from Gardner's (2004) Attitude/Motivation Test Battery and were included in the study to find out how EMI might influence students' affect concerning English learning and use.

The quantitative analyses yielded several noteworthy findings. First, medium of instruction was not a statistically significant predictor of CET Band 6 scores, indicating that EMI did not make a difference to the students' English proficiency. The only significant predictor of CET Band 6 scores was CET Band 4 scores, suggesting that regardless of instructional mediums, students who had been more proficient in English at the end of their freshman year continued to be more proficient in the language at the end of their sophomore year. Second, both perceived necessity of EMI and CET Band 4 scores significantly predicted attitudes toward English learning. In other words, students who believed that EMI was necessary reported more positive attitudes to English learning, and those who had been more proficient in English at the end of their first year in university were also more positive about learning English at the end of their second year of study. Third, perceived study burden of EMI and CET Band 4 scores were the only two significant predictors of students' in-class English use anxiety. Specifically, students who indicated that EMI increased their study burden reported a higher level of anxiety about English use in class, and students who scored higher in CET Band 4 were less anxious about using English in class. Finally, CET Band 4 scores were found to be the only significant predictor of out-of-class English use anxiety, with higher-scoring students feeling less anxious about using English outside the classroom.

These findings showed that when attitudinal variables and prior differences in their English proficiency were taken into account, the EMI students did not outscore their CMI counterparts on the criterial English proficiency test (i.e., CET Band 6) after receiving EMI for a whole year. Nor did these student possess more positive attitudes to English learning or have less anxiety when using English in or out of the classroom after they received EMI for at least one full year. These results constituted clear evidence of the focal EMI program's ineffectiveness in improving the students' English proficiency or affect related to English learning and use. This conclusion raises the critical question of what prevents an EMI program from achieving what it has been expected to. The next two studies to be summarized below aimed to answer this important question.

Study 3: Classroom Use of English in an Established EMI Calculus Course at a Leading Chinese University

Tong and Tang (2017) conducted a classroom observational study at a top university in China, that is, a leading university directly administered by the MOE. The researchers aimed to find out: (1) how the two

mediums of instruction (i.e., English and Chinese) were allocated in an EMI calculus course for first-year undergraduate students who majored in economics and clinical medicine, (2) what kinds of instructional activities were conducted in each instructional medium and communication mode (i.e., listening, speaking, reading, and writing), and (3) how different cognitive levels of instruction related to the use of the two instructional languages. The calculus course attended by 178 freshmen was chosen for the study because it had “been in place for seven years” (p. 135) and reputedly met the focal university’s requirements regarding EMI courses: allocation of more than 50% of instructional time to the English medium, use of English in “blackboard writing, slides, experiment reports, assignments, examinations, and consultation” (p. 135), adoption of up-to-date English textbooks, and instructors’ possession of “solid content area knowledge and pedagogical skills” as well as “strong communicative ability in English in order to teach the course in English fluently” (p. 135). The instructor participating in the study had taught the EMI calculus course for seven years and published several research papers in English.

To achieve their research objectives, the researchers used a low-inference classroom observation scheme to observe two periods (180 minutes in total) of the 88-hour calculus course. The observation scheme comprised four dimensions: language content, instructional language, activity structure, and communication mode. The language content dimension distinguished four levels of cognitive content: (1) social routines such as light conversation, (2) academic routines such as housekeeping and assignment submission, (3) light cognitive content concerning current events and repetitive skill practice, and (4) dense cognitive content involving cognitively complex communication and specialized vocabulary. The language of instruction dimension also had four levels capturing (1) content presented in L1, (2) L1 introducing L2, (3) L2 clarified through L1, and (4) content presented in L2. The communication mode dimension was intended to capture which language modalities were used and in what combinations. Finally, the activity structure dimension classified various combinations of teacher behaviors (e.g., lecturing, evaluating, directing, and observing) and expected student responses (e.g., listening, discussing, posing questions, and performing).

Descriptive analyses of the classroom observational data revealed several striking patterns of language use in the classroom. First, the instructor was found to teach in Chinese for 67% of the instructional time, in English for 7%, and in a mixture of English and Chinese for 23%. The amount of class time allocated to English contrasted strikingly with the instructor’s self-report (90%) and the students’ estimates (50-80%) collected in a survey. Second, teacher-fronted learning activities (i.e., instructor-lecturing/student-listening and instructor-demonstrating/student-listening) accounted for 95% of the instructional time, and more than two-thirds of such activities were conducted exclusively in Chinese. These results echoed the finding of Hu et al. (2014) reviewed above that there was only limited use of English in Chinese EMI classrooms. Third, with respect to communicative modalities found in the classroom, student-listening accounted for 95% of the class time, indicating that there was very little productive use of English. In fact, there was also very limited receptive use of English, taking up only about 7% of the class time. Finally, although 97% of the instructional time was spent on light and dense cognitive content, only 7% was exclusively in English, and another 22% in a mixture of English and Chinese.

Taken together, these findings meant that in the EMI calculus class, “there was almost no response from the students, nor did the teacher expect a response from the students,” and that “students were not provided opportunities to interact with peers or with the teacher to produce complex content language” (p. 140). Given these findings, the researchers pointed out that the EMI course was not what it had been claimed to be and that it could “hardly be labeled as EMI” (p. 140), having “failed to meet the expectation of improving students’ academic English language proficiency, which is one of the major goals of EMI courses at this university” (p. 141). Some of these findings and conclusions were corroborated in the study to be reviewed below.

Study 4: Teacher-Student Interactions in Chinese EMI Classrooms

Hu and Li (2017) sought to examine the micro dimension of EMI, namely, what actually happens in the

EMI classroom. As previous research (e.g., Cazden & Beck, 2003; Chin, 2006; Larson & Lovelace, 2013) has shown, classroom discourse is essential to students' construction and acquisition of knowledge mediated through teachers' pedagogical scaffolding. Teacher questioning and student responding constitute a core component of classroom discourse (Marton & Tsui, 2004). In a language classroom, teacher questions can be a key mediator of students' language learning because they affect the nature of language input for the students, control the opportunities for and the types of language output from the students, constitute an important source of interactional feedback on (un)successful use of the target language, and are critical to achieving instructional objectives (Hu & Duan, 2019; Lightbown & Spada, 2013). In a similar vein, teacher questions are crucial to disciplinary learning because they can switch on students' content schemata, scaffold their learning efforts, foster their deep understanding and conceptual development, extend their critical thinking capacities, and engage them in the active (co-)construction of knowledge (Chin, 2006; Larson & Lovelace, 2013). As important as teacher questions are student responses, be it in a language or content classroom (Dalton-Puffer, 2007; Gass, 2013). Such responses allow students to communicate their (lack of) comprehension of the learning content, elicit teacher feedback, formulate and test alternative hypotheses about the target language or subject matter, and co-construct language/disciplinary knowledge. An active line of research on teacher questioning and student responding focuses on examining the cognitive and/or linguistic complexity of classroom discourse in relation to language/content learning outcomes. The study reviewed here followed this line of research and was guided by three research questions: (1) What types of teacher question and student response are typically found in Chinese EMI classrooms? (2) Does the medium of instruction have any influence on the types of teacher question and student response observed in these EMI classrooms? (3) Does the medium of instruction have any influence on the cognitive and linguistic complexity of the questions and responses found in the EMI classrooms?

To answer these research questions, the researchers invited 10 EMI professors from 5 disciplines in 2 major Chinese universities to participate in their study and recorded a 50-minute lesson taught by each of them. Each recorded and transcribed lesson consisted of stretches of teacher-student interactions conducted in English only (EM), Chinese only (CM), and a mixture of English and Chinese (EC). A revised version of Bloom's taxonomy of educational objectives (Anderson & Krathwohl, 2001) was adopted to characterize the teacher questions and student responses and assess their relative cognitive complexity. The revised taxonomy groups various cognitive processes into six categories: (1) remembering, (2) understanding, (3) applying, (4) analyzing, (5) evaluating, and (6) creating. Together, these six categories form a hierarchy of incremental cognitive complexity. Following previous studies, two measures – mean T-unit length and clauses per T-unit – were employed to code the linguistic complexity of the identified questions and responses.

Descriptive and inferential statistical analyses yielded several important findings. To begin with, regardless of instructional mediums, teacher questions targeting lower-order thinking skills dominated the classroom discourse. Across all three mediums of instruction, the most frequently asked questions engaged the students in the lower-order cognitive processes of remembering and understanding. There were no teacher questions that targeted the higher-order processes of evaluation and creation. The student responses mirrored the cognitive complexity of the teacher questions. That is, they predominantly involved such lower-order cognitive processes as remembering and understanding. Thus, the very nature of the teacher questions and student responses observed in this study called into question the popular and simplistic assumption that EMI is an effective curricular strategy for achieving deep subject learning and English proficiency at once. Research has shown that deep understanding and mastery of disciplinary content can only result from the active involvement of higher-order cognitive processes and skills (Anderson & Krathwohl, 2001; Chin, 2006), and that extended engagement in pushed language output in response to cognitively complex questions (Dalton-Puffer, 2007; Mercer, Dawes, Wegerif, & Sams, 2004) is needed to develop advanced academic language proficiency (Lightbown & Spada, 2013; Llinares & Pascual Peña, 2015; Swain & Lapkin, 1995). Obviously, the EMI classroom discourse examined in the present study failed to meet these necessary conditions for developing advanced English proficiency.

The second finding is that medium of instruction had an effect on one type of teacher question and two types of student response. Specifically, the professors asked more questions involving the cognitive processes of understanding in English than in Chinese. Furthermore, students greeted English questions with silence more frequently than Chinese questions, and demonstrated their comprehension more often in Chinese than in English. These findings suggested that English as an instructional language had an impact, albeit not a desirable one, on teacher questions and student responses in the classroom. When teaching in English, the EMI professors apparently felt a greater need to check their students' understanding of the instructional content probably because they suspected that their students might not have understood the disciplinary content adequately. Conversely, the students expressed their comprehension more frequently in Chinese than in English because they were more competent in and, consequently, more comfortable with the former than the latter.

Finally, instructional medium was found to have a statistically significant effect on the cognitive complexity of both teacher questions and student responses. That is, teacher questions produced in Chinese were cognitively more complex than those produced in English were; student responses made in Chinese were also found to be cognitively more complex than those made in English were. Instructional medium, however, did not have any impact on the linguistic complexity of either teacher questions or student responses. Regardless of instructional languages, the teacher questions were very simple, averaging merely 6.37 (EM) and 8.78 (CM) words per T-unit, or 1.18 (EC) and 1.39 (CM) clauses per T-unit. Notably, the student responses observed were even shorter and simpler: 2.92 and 4.39 words per T-unit for the EM and CM segments respectively, corresponding to 1.31 and 1.19 clauses per T-unit. These findings indexed an impoverished EMI classroom discourse and, consequently, raised serious questions about the potential of such classroom discourse to enhance students' English language learning, and their productive use of the target language in particular (Gass, 2013; Lightbown & Spada, 2013; Swain & Lapkin, 1995).

Implications of EMI in Chinese Higher Education

Several lessons can be derived from the findings of the four studies reviewed above. First, national and institutional policy on EMI needs to be grounded in solid empirical research rather than assumed benefits and claimed advantages. Without the validation by such research, there is bound to be a yawning gap between optimistically envisioned policy goals and the reality on the ground, and the huge investment of resources in EMI is likely to be wasted. Second, if EMI is to attain the dual goal of subject learning and development of English proficiency, both professors and students must possess an adequate level of English proficiency in the first place. Without sufficient competence in the medium of instruction, professors are unlikely to engage students in complex cognitive processes, scaffold their effort to master disciplinary knowledge or provide rich language input to develop advanced English proficiency in the students. In the absence of functioning proficiency in the instructional language, students are also unlikely to engage in conceptual development, deep comprehension, critical thinking, and knowledge construction. Both their subject and language learning will suffer as a result. Third, at least in the great majority of universities in mainland China, there is a need to provide additional sheltered and intensive instruction in English to raise their students' English proficiency to the threshold level required for EMI. Ironically, if such instruction is effective in improving students' English proficiency, one must ask, "What is the need for EMI in the first place?"

A fourth lesson that can be learned is that most, if not all, EMI teachers are subject experts who have not been trained in language teaching and thus need to build up their repertoire of effective communicative strategies for interacting productively with their students and giving them ample interactional feedback that can effectively support language development. Several decades of second language acquisition research, especially previous work from a cognitive interactionist perspective (e.g., Gass, 2013; Lightbown & Spada, 2013), has demonstrated that negotiated interaction, that is, negotiation

for meaning, can scaffold and extend more elaborate language use and, as a result, drive forward the development of greater proficiency in the target language. A chief justification for EMI is that it can engage students in authentic and meaningful use of English and, consequently, raise their English proficiency greatly. Thus, EMI will defeat its own purpose if it allows students to get by with limited or little use of English to communicate and engage in complex cognitive processes. Finally, policy stipulations about who can teach or learn through the medium of English, together with various incentives instituted to encourage EMI, serve to valorize English proficiency and restrict EMI access to an advantaged subpopulation of faculty and students. Thus, EMI functions to exacerbate and perpetuate educational inequalities in an EFL country like China by being “a service to the privileged, the rich, and the elite” (Hu & Lei, 2014, p. 564), as has already been found in other national contexts (e.g., Costa & Coleman, 2013; Wilkinson, 2013). This state of affairs calls for further research on EMI to be conducted from a public policy perspective, namely a perspective that conceptualizes language in terms of societal welfare, that is, as a public good that concerns everyone in a society. Such a perspective obligates us to examine EMI in terms of not only practical feasibility and allocative effectiveness but also its moral justice and distributive fairness.

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