7 **Assessment practices in the EMI classroom in Chinese-speaking higher education contexts**

Challenges and considerations

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Introduction

English medium instruction (EMI), by definition, refers to the use of English to teach academic subjects in a setting where English is a second or a foreign language (Dearden, 2014; Macaro et al., 2018). Such practice is gaining momentum in the higher education context in non-native English-speaking (NNES) regions, including Chinese-speaking domains. This growing trend is largely driven by the drive within higher education toward internationalization (see Chin & Li, Chapter 1 for a discussion on this). It is not unusual for NNES teachers and students to hold the expectation that EMI has the potential to enhance domestic students' English proficiency and intercultural competence, and further promote their competitiveness in the global job market (Galloway et al., 2017; Hu & Lei, 2014; Kao & Tsou, 2017). To this end, EMI is often conceptualized and practiced as an English-immersion program, where English is used as the dominant instructional language between the NNES teacher and students.

Research increasingly reveals that the practice of EMI has posed significant challenges to the standards of teaching and learning in NNES contexts, mostly due to the constraints of the English proficiency of the students and teachers. For example, EMI research in Chinese-speaking contexts has demonstrated that students have difficulties in several areas, including understanding and using disciplinary terminology and general academic vocabulary; comprehending lectures and participating in classroom discussions; and achieving the appropriate academic style in writing (Evans & Morrison, 2011; Galloway et al., 2017; Li & Wu, 2017; Wang et al., 2018). In addition, some EMI teachers may not have adequate English communicative competence to deliver course content effectively; consequently, there is sometimes dilution of content (Galloway et al., 2017; Hu & Lei, 2014; Huang, 2018). All too often, the university fails to offer sufficient support to address difficulties faced by teachers and students (Hu & Lei, 2014).

While most research has focused on teaching challenges and learning difficulties in the EMI classroom, assessment has often been overlooked and remains under-researched, despite being an essential part of teaching practice (Dearden, 2014; Macaro et al., 2018). However, the influence of classroom assessment on learning may be no less profound than other aspects of teaching practices, since it may exert direct influence on learning by informing students about their learning outcomes. Furthermore, the way it is practiced may affect students' learning processes (Sambell & McDowell, 1998). The effect of classroom assessment may even be more prominent in Chinese-speaking regions, where the culture tends to place remarkable emphasis on assessment, testing, and examination (Berry, 2011). Among a few studies which examine assessment practices in the EMI classroom, some issues have already been identified, including the language in which the assessment should be administered; whether English should be included as a focus of assessment; and the fairness and validity of an assessment conducted in a foreign language (Dearden, 2014; Shohamy, 2012; van der Walt & Kidd, 2013).

The purpose of this chapter is to present a critical review of the existing research on assessment in the EMI classroom in Chinese-speaking contexts, exploring how assessment issues identified in such a classroom setting can be addressed and how teachers can create an EMI environment that is conducive to learning through appropriate assessment practices based on a learning-oriented assessment (LOA) approach (Carless, 2007, 2015; Jones & Saville, 2016; Turner & Purpura, 2016). This review is intended to provide an overview of current assessment practices in the EMI classroom. Moreover, it is hoped that it will provide insight by identifying critical aspects of assessment practice that require further inquiries and research, and benefit student learning within, or possibly beyond, Chinese-speaking contexts. The discussion will also highlight implications for EMI teachers' professional development with regard to assessment in Chinese-speaking contexts.

Assessment practices in the EMI classroom in Chinese-speaking contexts

In her large-scale research on the implementation of EMI practice in 55 countries around the world, Dearden (2014) provides very little information regarding how assessment is practiced in the EMI classroom. However, she does call for the appraisal of assessment practices, including the assessment procedure and the focus of assessment, in relation to EMI. This research inspires the investigation of the actual assessment practices in the EMI classroom, with special focus on the effect of medium of instruction. This section reviews the studies on the assessment practices in the EMI classroom in higher education in Chinese-speaking contexts. Most of the research has been conducted in Taiwan and China, where English is acquired as a foreign language, rather than a second language.

First of all, Hu and Li (2017) investigated the effect of instruction language on question-response interactions, a form of classroom assessment,

between teachers and students in the EMI classrooms in two major universities in China. The EMI classrooms, which represented a range of disciplines including business and management, law, social studies, and music, comprised stretches of classroom discourse conducted in the English language, the Chinese language, and a blending of English and Chinese. Teacher questions and student responses were coded in terms of cognitive complexity (using Anderson and Krathwohl's (2001) revision of Bloom's (1956) taxonomy of educational objectives) and syntactic complexity (i.e., the minimal terminal unit [T-unit]). The results showed that while instruction language had no effect on the syntactic complexity of questions and responses, it did have an impact on the cognitive complexity. In particular, the English segments were characterized by cognitively lower-order teacher questions and student responses and a monologic pattern of interaction between teachers and students. Teachers were found to ask more comprehension-related questions in the English segments. Students were more likely to offer no response to teacher questions in English interactions; however, they were more likely to demonstrate their comprehension in Chinese interactions.

Other studies made more comprehensive explorations of how assessment is planned and performed in the EMI classroom. For example, Kao and Tsou (2017) investigated the assessment tools and grading criteria adopted by 29 EMI teachers teaching in the fields of business and management, engineering, and foreign language in higher education in Taiwan. Findings of survey and interview data showed that most of the teachers conducted assessment for summative purposes and used similar assessment tools and formats in both their EMI and non-EMI classes. However, the teachers showed considerable variation in their expectations of the role of English in the EMI classroom, which further affected their expectations of students' use of English and whether students' English proficiency would be evaluated. For example, around half of the participants expected EMI could improve students' English proficiency by requiring students to perform assessment tasks in English, whereas the other half believed that English was merely adopted as a medium of instruction, not a focus of instruction. Nevertheless, 73% of the participants acknowledged that students' English proficiency affected grading to some extent in the EMI classroom. No evidence showed that the teachers explicitly explained to students whether or how their English proficiency would be evaluated. Though the participants in this study claimed to be aware of students' learning difficulties in the EMI classroom, and some compensatory approaches were reported, it is also unclear whether there was a shared understanding among the EMI teachers that students' learning difficulties needed to be accommodated.

With the aims of collecting data on how assessment is conducted in the EMI classroom and highlighting relevant challenges, Wu and colleagues conducted a detailed exploration into Taiwanese university teachers' assessment behaviors by taking into consideration a variety of contextual

factors, such as disciplines, class sizes, students' educational levels and English proficiency, teachers' expectations regarding English, and their (EMI) teaching experience. In the exploratory study, Lin and Wu (2015) interviewed three university teachers from the fields of business, engineering, and medical science, respectively, in terms of their assessment practices in EMI courses. All the teachers reported conducting assessment and providing feedback in English. The teachers also acknowledged that students' classroom performance was inevitably affected by their English proficiency level, and they said they would provide extra resources for students who fell short of the expected level of English. These included assigning study partners or providing audio/video recording of lectures. Despite the similarities in assessment practices, the teachers exhibited different views on the role of EMI courses for students and whether English ability should be a part of the assessment criteria. For example, the teacher from the medical science discipline regarded English ability as an integral part of the medical profession and included English communicative competence in the assessment criteria. However, the other two teachers did not evaluate students' English proficiency in grading, yet they held different views regarding the beneficial effects of EMI to students' professional development.

Li and Wu (2018) further broadened the scope of their investigation by examining not only the Taiwanese university teachers' assessment practices in the EMI classroom but also their self-perceived skills in these practices. The effects of the medium of instruction (English vs. Chinese) and teacher- and course-related variables related to assessment practices were also examined. The results of survey data revealed a high correlation between techniques that were less commonly practiced and those in which the teachers felt less skilled, signaling the possibility that assessment practices in the EMI classroom were dominated by the teachers' familiarity with certain techniques rather than by instructional objectives. In addition, the teachers perceived themselves to be less skilled in certain assessment practices that may be beneficial to students' learning, such as self-assessment and the design of test items that assess higher-level cognitive abilities. Compared with courses taught in Chinese, in EMI courses teachers less frequently involved assessment of students' higher-order abilities. They also less frequently provided feedback or communicated assessment results to students.

Moreover, a considerable number of the teachers indicated that English was a focus of assessment, though not necessarily a focus of instruction. Although the EMI teachers were aware of students' difficulties with English, these difficulties were not commonly taken into consideration and accommodations were seldom made. Finally, the teachers' assessment practices were found to be mediated by variables such as discipline, class size, and the teachers' focus of assessment.

The studies reviewed above have generated a number of assessment concerns in Chinese-speaking contexts, which require immediate attention. These are outlined below.

First of all, when English is usually the default language of assessment in the EMI classroom, EMI teachers differ in their choices of whether to include English as a focus of assessment, although most agree that English is not a focus of instruction. However, there is little discussion regarding why or when they choose to include English as a focus of assessment and what has been done to ensure the validity of the assessment given that students in Chinese-speaking contexts demonstrate varied levels of English proficiency.

In fact, EMI teachers in Chinese-speaking contexts are aware of students' difficulties in performing the assessment tasks in English and agree that students' assessment outcomes are inevitably affected by their English abilities. Nevertheless, they hold different opinions about the need to provide scaffolding or accommodations for students' English difficulties, as well as about the kind of strategies that they consider to be effective. Moreover, as language errors may be pervasive in Chinese-speaking students' English production, there is a lack of consensus on whether teachers should provide corrective feedback on language errors.

The studies reviewed above also reveal that even though teachers report implementing similar assessment practices in EMI and non-EMI courses, the use of English as the language of instruction and assessment does have an effect on how assessment is actually conducted in the EMI classroom. A lack of systematic discussion on the assessment issue in the new classroom setting of EMI may lead teachers to perform assessment practices and address challenges based on their individual beliefs and experiences, disciplinary conventions, or managerial concerns, rather than on the basis of approaches that may support or enhance learning. There has been growing attention to the interrelationship of assessment, teaching, and learning, and the facilitative role assessment plays in relation to learning. In the section that follows, we present a review of research centering on learning-oriented assessment (LOA), which may provide insights into the discussion of the assessment issues in the EMI classroom.

The learning-oriented approach to assessment

According to Boud (2000), assessment serves two purposes: to provide certification (summative assessment, or the assessment of learning achievement) and to aid learning (formative assessment, or the assessment practices that enhance learning). While the traditional view of assessment places more value on its summative functions, there is an increasing shift of attention toward its function of enhancing learning. The concept of learning-oriented assessment (LOA) further suggests that the conventional distinction between summative assessment and formative assessment should be disregarded, because both should serve the purposes of assessment *of* learning and assessment *for* learning, with the primary focus on the latter aspect (Carless, 2015; Jones & Saville, 2016; Turner & Purpura, 2016). In other words, LOA prioritizes learning in the process of assessment and the purpose of assessment is to

collect evidence of learning, the results of which are used to adapt teaching or to guide the next step in learning.

The LOA approach targets learning in a broader sense, which includes not only the learning of knowledge and skills, but also the development of learners' autonomy in guiding their own learning through self-regulation and self-evaluation. Therefore, critical features of LOA include learners' engagement with the success criteria of the assessment task and the feedback on their assessment outcome. More importantly, at the core of LOA is an assessment task, or a learning task, which is aligned with well-specified instruction objectives and learning goals.

In the context of higher education, one of the major learning goals is professional development in a specific discipline. For example, McCune and Hounsell (2005) specify quality learning in the higher education context as students' development of the ways of thinking and practicing (WTP) in the discipline. WTP generally refers to "particular understandings, forms of discourse, values or ways of acting which are regarded as central to graduate-level mastery of a discipline or subject area" (McCune & Hounsell, 2005, p. 257). Carless (2015) has contextualized the notion of LOA within the domain of higher education, and identified three elements of LOA practices, including a learning-oriented assessment task, students' evaluative expertise, and engagement with feedback. Evaluative expertise emphasizes student engagement with the learning objectives and knowledge of the quality criteria, which enable them to further make evaluation of their own performance and that of others. This evaluative expertise is closely associated with students' engagement with feedback, because their familiarity with the quality criteria determines their ability to process the feedback and to make further improvement possible. Several guidelines are provided as tips to help develop students' WTP, such as engaging students in "real-life" activities that "are contextualized within specific disciplinary situations" and providing learning tasks that clearly and directly promote the knowledge and skills that the course requires (see Carless, 2015, p. 965).

However, learning in the EMI classroom in an EFL context appears to be a little more complex, as English language learning is often an intended goal or a hidden agenda. In particular, English language ability has been viewed as an inseparable part of WTPs in certain subjects or disciplines, for English has become the dominant academic and scientific language (Altbach, 2013). If the development of the ability to comprehend or communicate discipline-specific discourse in English is expected in the EMI classroom, then this should be included as a goal of learning as well as a target of assessment.

A body of literature has contextualized the discussion of LOA in a foreign language learning classroom (Jones & Saville, 2016; Turner & Purpura, 2016). Similar to other LOA research, the literature highlights language learners' engagement with the language learning task's success criteria and feedback on the learners' language performance. However, more specific to the goal of language learning is that the learners should be given

opportunities to perform a learning task that require their purposeful use of language in a meaningful or authentic context, because it is believed that “learning transpires as interlocutors engage in the participatory practices of meaning making (i.e., clarifying, verifying, giving/responding to feedback) in social interaction” (Turner & Purpura, 2016, p. 266). Therefore, to foster students’ academic English ability, as required by the discipline, it is suggested that assessment should involve activities that elicit students’ use of English. However, equally important to the development of English as an L2 is the setting of learning goals and the fact that the design of assessment tasks should take account of the level of English proficiency of the target learner group. It is important to provide scaffolding to support students’ task performance by adjusting the level of task difficulty so that students have the capacity to engage with it.

The discussion of LOA within the setting of higher education (Carless, 2015) and foreign language learning (Jones & Saville, 2016; Turner & Purpura, 2016) provides a useful reference for us to consider the assessment issues in the EMI classroom in Chinese-speaking contexts, where the learning of content knowledge is conducted through the medium of a foreign language that students are still learning.

An LOA approach to solving the assessment issues in the EMI classroom in Chinese-speaking contexts

EMI presents challenges to content teachers, for it requires them to be sensitive to issues that may arise when using a foreign language as a medium of instruction, such as how learning through English affects EFL students’ learning and performance. Previous reviews on assessment practices in the EMI classroom in Chinese-speaking contexts have also revealed concerns that need immediate attention. In particular, there is a lack of consensus regarding whether the teachers should address Chinese-speaking students’ difficulties in performing an assessment task in English and how to deal with errors in students’ use of English. At the core of the issues is whether English should be a focus of assessment and, if so, how this should be implemented. The LOA approach may provide useful guidelines for the EMI teachers in making these pedagogical decisions. Considerations and possible measures for dealing with these issues are discussed below.

The role of English in both instruction and assessment should be more carefully considered

EMI teachers in Chinese-speaking contexts hold differing views regarding whether English should be included as a focus of assessment. Literature in the Taiwanese higher education context reveals that generally no more than 30% of EMI teachers consider English to be a focus of assessment in addition to content learning, and that even if this is the case, they nevertheless rarely

include English as a focus of instruction (Kao & Tsou, 2017; Li & Wu, 2018; Lin & Wu, 2015).

The LOA approach emphasizes that assessment should be aligned with teaching objectives and learning goals. Therefore, whether to include English as a focus of assessment should be carefully considered in accordance with the course objectives (Barnard, 2014; Shohamy, 2011). English should become a focus of assessment when it is a relevant WTP for a subject or the discipline. However, to include it as a focus of assessment may bring the validity of the assessment into question, if students' performance is confounded by their English proficiency. This issue deserves attention especially in Chinese-speaking contexts or other EFL contexts where students show a mixed level of English proficiency. Most current practices reveal that EMI teachers in Chinese-speaking contexts anticipate that immersing students in an English environment will lead to their English improving. For example, Li and Wu (2018) have found that while two fifths of the teachers in their study included English as a focus of assessment, one third of them clearly indicated that English was not their focus of instruction. In other words, English has become an implicit learning goal that students have to achieve on their own. It does not seem feasible to expect content teachers to include English as a focus of instruction, since language teaching is not their field of expertise and content courses have their own curricular requirements to fulfill. However, if English is to be included as a focus of assessment, teachers should ensure that students have access to the resources necessary for their English to improve in the specific areas required by the course.

More explicit evaluative criteria should be given

One essential element of LOA practices is students' understanding of and engagement with the quality criteria of the assessment task at hand, which allows them to make judgments about their own performance and that of others. The teachers play an important role in making the quality criteria transparent to students, and this requires intense communication between the teachers and the students about the nature of the criteria and how they can be matched to real products.

In cases where English is included as a focus of assessment, the teachers should also be clear, to themselves and to the students, about whether use of English will be evaluated and, if so, what the evaluative criteria will be. Explicit communication of assessment criteria and even systematic instruction should be provided before the students' English is assessed. The communication of assessment criteria from teachers to students is not a common practice in many Chinese-speaking classrooms (Li & Wu, 2018), which may well be a relic of the traditional teacher-centered approach or Chinese culture's preference for ambiguity (Zhou & Deneen, 2016). In addition, *effective* communication of the assessment criteria also affects students' performance to a great extent. As mentioned in Lin and Wu's (2015) study on three EMI teachers' practices,

one teacher regarded English as an inseparable part of the medical profession; therefore, she included the accuracy, adequacy, and fluency of English language as assessment criteria. Despite such seemingly explicit criteria, it is still likely that students will hold vague and varying concepts about what qualifies as a successful model of accurate, adequate, and fluent presentation, especially when EFL students and teachers appear to be overly obsessed with the native speaker model of English (Galloway et al., 2017). It will be helpful if teachers can provide models of English (preferably both explicitly good and poor ones) when communicating or negotiating assessment criteria with students. The understanding of assessment criteria can also be enhanced by involving students as assessors of their own performance (i.e., self-assessment) or that of their peers (i.e., peer-assessment). Such assessment practices can effectively engage students in the learning process and clarify their understanding by involving them in the actual application of the learning goals and the criteria for success. Furthermore, through the peer- or self-evaluation process, students can gradually develop self-regulation (Boekaerts & Corno, 2005) and autonomy in guiding their own learning, which has been termed *assessment as learning* by Dann (2014).

Scaffolding should be provided to alleviate students' English difficulties

Scaffolding refers to the support for learners, given either by their peers or by their lecturer, to enable them to complete a task or develop new understanding which they are not able to manage on their own (Hammond & Gibbons, 2001; Jones & Saville, 2016, p. 95). The literature on LOA in a foreign language classroom stresses the importance of providing scaffolding to support students' learning. In the same vein, it is equally important for the EMI teacher to provide students with scaffolding, since they may encounter double difficulties in comprehending abstract and complex concepts in a language they are less familiar with. However, as shown in the literature, it is not common for teachers to try to accommodate students' English limitations in assessment, mostly because English is not the focus of instruction (Li & Wu, 2018). However, teachers' hands-off attitude to the language issue may result in a negative impact on students' learning.

If students are linguistically challenged by a task where the assessment of content knowledge is the major focus, teachers should consider providing support to linguistically challenged students by providing them with some formulaic speech patterns or by presenting useful phrases for discussion or templates for oral presentations.

Strategy teaching can have a more profound effect on students' long-term learning. For example, teachers can demonstrate how students can make use of web resources, such as online dictionaries, linguistic search engines, and online writing labs, to help them prepare a written report. In terms of oral presentations, the teacher can demonstrate the conventions of academic discourse and share their own strategies, such as writing a script or conducting rehearsals.

EMI teachers can also provide scaffolding by arranging opportunities for peer learning. For example, the teacher can group students with different levels of English proficiency together so that students can scaffold each other in the linguistic domain. Past studies show that peer learning or collaborative learning can lead to greater academic achievement and stronger motivation for learning. It is also beneficial to students' development of critical thinking, social, and communicative skills (Gokhale, 1995; O'Donnell, 2006; Springer et al., 1999).

In addition to what has been mentioned above, teachers can further lessen the linguistic demands on students by reducing the use of English. One way is to choose assessments that involve non-verbal forms of representation, such as drawing or hands-on demonstrations. Another way is to include the students' L1 as another linguistic resource allowed in the assessment.

There has been a preference for monolingual English classrooms in EMI, in which the use of L1 has been discouraged. This preference comes from the expectation that EMI will benefit EFL students' English proficiency by maximizing their exposure to English. However, the literature has also revealed some challenges of administering assessment in English in Chinese-speaking contexts. For example, Li and Wu (2017) conducted a survey to examine students and faculty members' experiences and perceptions of EMI courses implemented in an international finance and business management program in a private university in Taiwan. In the study, students voiced difficulties in expressing themselves in English due to limited vocabulary and grammar knowledge. Moreover, they experienced difficulties in understanding test items, which were written in English. Indeed, more than 60% of students indicated difficulties in comprehending the lectures and course materials in English. The difficulties students experience in taking the tests in English pose a threat not only to the validity of the tests but also to the learning motivation and self-esteem of the students. Students whose English proficiency is insufficient for them to perform the assessment task in English are likely to have greater levels of anxiety and may even retreat from the learning process (Li & Wu, 2017; Lin & Wu, 2015).

It is generally believed that the incorporation of L1 into an assessment may ensure, or at least enhance, the fairness of the assessment if its major aim is to assess students' subject knowledge. However, it should be noted that the L1 effect could be mediated by students' familiarity with the scaffolding measures (de Backer, 2018; van der Walt & Kidd, 2013). That is, if the content is taught in English and students are not familiar with the terminology in their L1, then a bilingual assessment may not benefit students' performance. Moreover, in an EMI classroom in which students are of diverse linguistic backgrounds, the use of a particular language other than English may favor a certain linguistic group of students, and further raise a fairness issue (see relevant discussions in Coyle et al., 2010, p. 118).

Therefore, it is important that the use of language in the assessment should not be considered independently of the use of language for instruction. If

students' L1 is to be used as a semiotic resource in the assessment, the teacher could consider incorporating it into instruction. Barnard (2014) has proposed a dual-medium education model which includes the L1 as an important tool to facilitate students' learning of academic subject matter and a valuable linguistic resource to acquire academic English in the process of negotiating meaning (p. 17). In this model, Barnard demonstrates how the inclusion of L1 in addition to English in the EMI classroom helps to foster students' bilingual academic literacy, an ability valued in the multilingual community and which may be considered indispensable in some professional communities, such as medical science. Proper incorporation of L1, either by use of code-switching or translanguaging, in the EMI classroom can lead to more effective learning and teaching of the subject knowledge, especially when students' English proficiency is far from adequate for them to receive English-only instruction or when students have prior knowledge of the subject matter in their L1.

Effective feedback should be provided in order to further learning and development

Following the concept of LOA, in which assessment is viewed as a way to collect the evidence of learning and examine the gap between students' learning performance and the intended outcome, assessment feedback is one critical element to bridge the gap and make further learning possible (Black & Wiliam, 1998).

With respect to the focus of feedback, EMI teachers in Chinese-speaking contexts hold differing views regarding whether they should provide corrective feedback on language errors. Li and Wu (2018) revealed that more than two thirds of the EMI teachers in their study only occasionally or never correct students' English errors in assessment performance because language was not the focus of instruction, even though some of them indicated that English language was one of their focuses of assessment.

Feedback should be an integral part of assessment. Therefore, if the use of language is considered a focus of assessment, feedback, either in oral or written form, should be given to guide further development toward the intended goal. Feedback need not address all the language errors observed in a student's performance; instead, it is more effective when it is selective, highlighting specific aspects that the students can do something about. In the EMI classroom where content is the main focus of assessment, teachers can adopt a meaning-focused approach to language error correction. That is, feedback is given on those language errors that cause ambiguity, misunderstanding, or fail to conform to the discourse convention of the subject field (similar to the notion of "functional assessment" in Mohan et al., 2010).

The professional development of EMI teachers in terms of assessment literacy

To address the pedagogical challenges in the EMI classroom, training programs or workshops have been organized, yet assessment is rarely a

training focus (Fenton-Smith et al., 2017; Tsui, 2017). However, university teachers' assessment practices are often influenced by their past experience, disciplinary traditions, or other contextual factors (Bearman et al., 2017; Li & Wu, 2018). Teachers still need training to develop their assessment literacy and awareness of the link between learning, instruction, and assessment (Postareff et al., 2012).

The LOA approach can provide a checklist with which EMI teachers can reexamine and adjust their teaching to meet the learning needs of their students in the classroom. This can ensure coherence between teaching and assessment focuses and further promote positive relationships between assessment and learning. Therefore, it is strongly suggested that the LOA approach serve as the major principle on which training courses for assessment are organized. However, we are also aware that in reality its application can be challenged or hindered by a number of concerns, such as large class size or characteristics of the student cohort (e.g., NNES students with varied levels of English proficiency, or a student body with varied cultural or linguistic backgrounds). In addition, while providing broad guidelines, it remains less clear how the LOA principles can fit into specific disciplinary traditions, given that different disciplines reveal different epistemological characteristics, which may further determine their concept of teaching and preferred teaching methods and thus their methods of assessment (Bager-Elsborg, 2018; Hodgen & Marshall, 2005; Lueddeke, 2003; Neumann et al., 2002). Training should make an attempt to account for these challenges.

The broader setting beyond the EMI classroom, such as the department and the university, also plays a role in affecting teachers' assessment practice (Bearman et al., 2017). For example, the provision of institutional support and resources, such as teaching assistants, an ESP curriculum that is closely aligned with the linguistic needs of EMI courses, or downsizing EMI classes, can effectively lessen the workload of teachers while enabling more learning-oriented practices, such as the provision of timely and specific feedback. In addition, there is need for in-house development programs, which can foster the sustainable development of pedagogical knowledge, including, but not limited to, the aspect of assessment. An in-house developmental program could also help address teachers' pedagogical needs especially when there is both a growing demand for courses conducted in English and also pedagogical concerns that are specific to disciplines and NNES contexts.

Last but not least, these LOA practices require a change in teachers' beliefs about how learning takes place and the role of assessment in learning. This notion of LOA is not new in Chinese-speaking regions. In fact, regions like China, Hong Kong, and Taiwan incorporated the concept of *assessment for learning*, or elements of it, in their educational reforms of assessment at the primary and secondary levels of education at the beginning of the 21st century. However, such practices have not been effectively implemented due to the deep-rooted examination culture in Chinese societies and insufficient understanding among teachers of the concept of *assessment for learning* and how it can be administered in the classroom (see Berry, 2011 for a detailed

review). In addition, while LOA emphasizes a learner-centered approach, in which learners as well as teachers take active roles in learning interactions, many classrooms in Chinese-speaking contexts are still dominated by teacher-centered instruction, with little or no teacher-student or student-student interaction. This traditional lecture-based teaching might be more efficient in transmitting knowledge; however, learning might not occur if students show little engagement. Therefore, a prerequisite for the successful application of LOA is often a change in the mindset regarding the value of assessment and its interrelationship with learning. To be specific, the widely-held belief in Chinese societies that assessment mainly serves summative functions needs to be modified, and assessment needs to be repositioned as a way “for the learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there” (Assessment Reform Group, 2002).

Conclusion

Language is in fact an integral element of content, and familiarity with the language determines one’s access to academic content. Therefore, EMI for EFL teachers and learners does not only imply a change in the code through which content knowledge is transmitted or received, it also leads to fundamental changes in overall classroom practices, affecting “what is taught, how it is taught,” and also “what is learned and how” (Bailey et al., 2008). The same is true for assessment. Assessment practices in the EMI classroom need to be carefully planned by taking into consideration the effect of medium of instruction on learning. Specifically, assessment must be used not to frustrate learners, but to enhance their learning and confidence in using English as an additional language in their professional domain.

Research on EMI reveals Chinese-speaking students’ difficulties in learning disciplinary expertise through English. We propose that this may be addressed if teachers adopt learner-centered approaches to teaching. Specifically, teachers could use regular classroom assessments to constantly monitor students’ progress and to adjust their own teaching to students’ needs. The LOA approach provides broad guidelines on how appropriate assessment practices can promote learning. However, several aspects of the practice of LOA in the EMI setting still need further research, including, but not limited to, the best practice of language choice in assessment tasks and feedback-giving; effective scaffolding strategies that help to alleviate students’ language difficulties and, if possible, to enhance further learning; and satisfactory assessment criteria for evaluating English communicative abilities, either speaking or writing, in the EMI context (e.g., Pilkinton-Pihko, 2013). In addition, it is worth further investigating how the LOA principles can fit into specific disciplinary traditions. What is more, it is also likely that the LOA approach may need modifications within Chinese-speaking contexts (Brown et al., 2011; Zhou & Deneen, 2016). However,

exploration of these issues requires that teachers first change their mindset about the purpose of assessment and incorporate the notion of LOA into their teaching practices. It takes time and effort to change, but the reward will be worthwhile.

References

- Altbach, P. G. (2013). The imperial tongue: English as the dominating academic language. In P. G. Altbach (Ed.), *The international imperative in higher education* (pp. 1–6). Rotterdam, Netherlands: Sense Publishers.
- Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. New York: Longman.
- Assessment Reform Group. (2002). *Assessment for learning: 10 principles*. Cambridge, UK: University School of Education.
- Bager-Elsborg, A. (2018). How lecturers' understanding of change is embedded in disciplinary practices: A multiple case study. *Higher Education*, 76, 195–212. doi:10.1007/s10734-017-0195-0
- Bailey, F., Burkett, B., & Freeman, D. (2008). The mediating role of language in teaching and learning: A classroom perspective. In B. Spolsky & F. M. Hult (Eds.), *The handbook of educational linguistics* (pp. 606–625). Malden, MA: Blackwell.
- Barnard, R. (2014). English medium instruction in Asian universities: Some concerns and a suggested approach to dual-medium instruction. *Indonesian Journal of Applied Linguistics*, 4, 10–22.
- Bearman, M., Dawson, P., Bennett, S., Hall, M., Molloy, E., & Boud, D. (2017). How university teachers design assessments: A cross-disciplinary study. *Higher Education*, 74, 49–64. doi:10.1007/s1073401600277
- Berry, R. (2011). Educational assessment in Mainland China, Hong Kong and Taiwan. In R. Berry & B. Adamson (Eds.), *Assessment reform in education: Policy and practice* (pp. 49–61). Dordrecht, Netherlands: Springer.
- Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles Policy and Practices*, 5, 7–73. doi:10.1080/0969595980050102
- Bloom, B. S. (1956). *Taxonomy of educational objectives: The classification of educational goals; Handbook I: Cognitive domain*. New York: David McKay.
- Boekaerts, M., & Corno, L. (2005). Self-regulation in the classroom: A perspective on assessment and intervention. *Applied Psychology*, 54, 199–231. doi:10.1111/j.1464-0597.2005.00205.x
- Boud, D. (2000). Sustainable assessment: Rethinking assessment for the learning society. *Studies in Continuing Education*, 22, 151–167. doi:10.1080/713695728
- Brown, G. T. L., Hui, S. K. F., Yu, F. W. M., & Kennedy, K. J. (2011). Teachers' conceptions of assessment in Chinese contexts: A tripartite model of accountability, improvement, and irrelevance. *International Journal of Educational Research*, 50, 307–320. doi:10.1016/j.ijer.2011.10.003
- Carless, D. (2007). Learning-oriented assessment: Conceptual bases and practical implications. *Innovations in Education and Teaching International*, 44, 57–66. doi:10.1080/14703290601081332
- Carless, D. (2015). Exploring learning-oriented assessment processes. *Higher Education*, 69, 963–976. doi:10.1007/s10734-014-9816-z

- Coyle, D., Hood, P., Marsh, D. (2010). *CLIL: Content and language integrated learning*. Cambridge, UK: Cambridge University Press.
- Dann, R. (2014). Assessment as learning: Blurring the boundaries of assessment and learning for theory, policy and practice. *Assessment in Education: Principles, Policy & Practice*, 21, 149–166. doi:10.1080/0969594X.2014.898128
- de Backer, F. (2018, July). *The effect of multilingual assessment on the science achievement of pupils*. Paper presented at the 40th Language Testing Research Colloquium (LTRC), Auckland, New Zealand.
- Dearden, J. (2014). *English as a medium of instruction—A growing global phenomenon*. London: British Council.
- Evans, S., & Morrison, B. (2011). Meeting the challenges of English-medium higher education: The first-year experience in Hong Kong. *English for Specific Purposes*, 30, 198–208. doi:10.1016/j.esp.2011.01.001
- Fenton-Smith, B., Stillwell, C., & Dupuy, R. (2017). Professional development for EMI: Exploring Taiwanese lecturers' needs. In B. Fenton-Smith, P. Humphreys, & I. Walkinshaw (Eds.), *English medium instruction in higher education in Asia-Pacific: From policy to pedagogy* (pp. 195–217). Cham, Switzerland: Springer.
- Galloway, N., Kriukow, J., & Numajiri, T. (2017). *Internationalization, higher education and the growing demand for English: An investigation into the English medium for instruction (EMI) movement in China and Japan*. London: British Council. Retrieved from https://englishagenda.britishcouncil.org/sites/default/files/attachments/h035_eltra_internationalisation_he_and_the_growing_demand_for_english_a4_final_web.pdf
- Gokhale, A. A. (1995). Collaborative learning enhances critical thinking. *Journal of Technology Education*, 7, 22–30. doi:10.21061/jte.v7i1.a.2
- Hammond, J., & Gibbons, P. (2001). What is scaffolding? In J. Hammond (Ed.), *Teaching and learning in language and literacy education* (pp. 1–14). Newtown, Australia: Primary English Teaching Association.
- Hodgen, J., & Marshall, B. (2005). Assessment for learning in English and mathematics: A comparison. *The Curriculum Journal*, 16, 153–176. doi:10.1080/09585170500135954
- Hu, G., & Lei, J. (2014). English-medium instruction in Chinese higher education: A case study. *Higher Education*, 67, 551–567.
- Hu, G., & Li, X. (2017). Asking and answering questions in English-medium instruction classrooms: What is the cognitive and syntactic complexity level? In J. Zhao & Q. Dixon (Eds.), *English-medium instruction in Chinese universities: Perspectives, discourse and evaluation* (pp. 184–203). New York: Routledge.
- Huang, Y.-P. (2018). Resistance to English-medium instruction practices: A qualitative case study. *Teaching in Higher Education*, 23, 435–449. doi:10.1080/13562517.2017.1421629
- Jones, N., & Saville, N. (2016). *Learning oriented assessment: A systemic approach*. Cambridge, UK: Cambridge University Press.
- Kao, Y.-T., & Tsou, W. (2017). EMI course assessment: A survey study of the issues. In W. Tsou & S.-M. Kao (Eds.), *English as a medium of instruction in higher education: Implementation and classroom practices in Taiwan* (pp. 183–205). Singapore: Springer.
- Li, M.-Y., & Wu, T.-C. (2017). Creating an EMI program in international finance and business management. In W. Tsou & S.-M. Kao (Eds.), *English as a medium of instruction in higher education: Implementation and classroom practices in Taiwan* (pp. 21–38). Singapore: Springer.

- Li, N., & Wu, J. (2018). Exploring assessment for learning practices in the EMI classroom in the context of Taiwanese higher education. *Language Education & Assessment, 1*, 28–44. doi:10.29140/lea.v1n1.46
- Lin, A., & Wu, J. (2015, May). *An exploratory study on the issues of EMI assessment in Taiwan*. Poster presented at the 2nd Asian Association for Language Assessment (AALA) conference, Bangkok, Thailand.
- Lueddeke, G. R. (2003). Professionalising teaching practice in higher education: A study of disciplinary variation and 'teaching-scholarship.' *Studies in Higher Education, 28*, 213–228. doi:10.1080/0307507032000058082
- Macaro, E., Curle, S., Pun, J., An, J., & Dearden, J. (2018). A systematic review of English medium instruction in higher education. *Language Teaching, 51*, 36–76. doi:10.1017/S0261444817000350
- McCune, V., & Hounsell, D. (2005). The development of students' ways of thinking and practising in three final-year biology courses. *Higher Education, 49*, 255–289. doi:10.1007/s10734-004-6666-0
- Mohan, B., Leung, C., & Slater, T. (2010). Assessing language and content: A functional perspective. In A. Paran & S. Lies (Eds.), *Testing the untestable in language education* (pp. 217–240). Clevedon, UK: Multilingual Matters.
- Neumann, R., Parry, S., & Becher, T. (2002). Teaching and learning in their disciplinary contexts: A conceptual analysis. *Studies in Higher Education, 27*, 405–417. doi:10.1080/0307507022000011525
- O'Donnell, A. M. (2006). The role of peers and group learning. In P. A. Alexander & P. H. Winne (Eds.), *Handbook of educational psychology* (pp. 781–802). Mahwah, NJ: Lawrence Erlbaum Associates.
- Pilkinton-Pihko, D. (2013). *English-medium instruction: Seeking assessment criteria for spoken professional English* (Doctoral dissertation). Retrieved from <https://helda.helsinki.fi/handle/10138/41795>
- Postareff, L., Virtanen, V., Katajavuori, N., & Lindblom-Ylänne, S. (2012). Academics' conceptions of assessment and their assessment practices. *Studies in Educational Evaluation, 38*, 84–92. doi:10.1016/j.stueduc.2012.06.003
- Sambell, K., & McDowell, L. (1998). The construction of the hidden curriculum: Messages and meanings in the assessment of student learning. *Assessment & Evaluation in Higher Education, 23*, 391–402. doi:10.1080/0260293980230406
- Shohamy, E. (2011). Assessing multilingual competencies: Adopting construct valid assessment policies. *Modern Language Journal, 95*, 418–429. doi:10.1111/j.1540-4781.2011.01210.x
- Shohamy, E. (2012). A critical perspective on the use of English as a medium of instruction at universities. In A. Doiz, D. Lasagabaster, & J. M. Sierra (Eds.), *English-medium instruction at universities: Global challenges* (pp. 196–201). Bristol, UK: Multilingual Matters.
- Springer, L., Stanne, M. E., & Donovan, S. S. (1999). Effects of small-group learning on undergraduates in science, mathematics, engineering, and technology: A meta-analysis. *Review of Educational Research, 69*, 21–51. doi:10.3102/00346543069001021
- Tsui, C. (2017). EMI teacher development programs in Taiwan. In W. Tsou & S.-M. Kao (Eds.), *English as a medium of instruction in higher education: Implementation and classroom practices in Taiwan* (pp. 165–182). Singapore: Springer.
- Turner, C. E., & Purpura, J. E. (2016). Learning-oriented assessment in second and foreign language classrooms. In D. Tsagari & J. Banerjee (Eds.), *Handbook of second language assessment* (pp. 255–272). Berlin: De Gruyter.

- van der Walt, C., & Kidd, M. (2013). Acknowledging academic biliteracy in higher education assessment strategies: A tale of two trials. In A. Doiz, D. Lasagabaster, & J. M. Sierra (Eds.), *English-medium instruction at universities: Global challenges* (pp. 27–43). Bristol, UK: Multilingual Matters.
- Wang, Y., Yu, S., & Shao, Y. (2018). The experiences of Chinese mainland students with English-medium instruction in a Macau university. *Educational Studies*, 44, 357–360. doi:10.1080/03055698.2017.1373635
- Zhou, J., & Deneen, C. C. (2016). Chinese award-winning tutors' perceptions and practices of classroom-based assessment. *Assessment & Evaluation in Higher Education*, 41, 1144–1158. doi:10.1080/02602938.2015.1066306