

Teaching **English**

Investigating policy and implementation of English-medium instruction in higher education institutions in China

A report by EMI Oxford Research Group in collaboration with the British Council in China

Heath Rose, Jim McKinley, Xin Xu, Sihan Zhou





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Abbreviations

Terminology

HE Higher education

EMI English-medium instructionEFL English as a foreign languageESP English for specific purposes

EAP English for academic purposesCLIL Content and language integrated learning

CBI Content-based instruction

MOE Ministry of Education

NNES Non-native English speaker

Initiatives

211 Universities in Project 211 aiming at research and scientific excellence

985 Universities in Project 985 classed as world-class universities in the 21st century

BRI Belt and Road Initiative, a global development strategy by the Chinese government

C9 A league of nine universities considered to be the top universities in China

Summary

Why was this report commissioned?

The internationalisation of Chinese higher education (HE) has accelerated at a rapid pace over the past two decades, spurred by numerous government initiatives. At present, there is a pressing need for an investigation into English medium instruction (EMI) implementation across Chinese universities. In response, this report aims to take stock of the current state of EMI policy implementation in Chinese HE to better understand EMI provision and to inform future EMI growth. It explores multiple levels of policy implementation, alongside an investigation of implementation affordances and challenges.

How were data for the report collected?

This report draws on three phases of data collection at three levels of policy implementation. To investigate top-down policymaking trends, policy analysis was conducted using 93 EMI policyrelated documents produced by 63 universities. To investigate policy interpretation, fieldwork was conducted at eight universities, involving interviews with 26 key EMI policy stakeholders, including university deans and heads of programmes. To investigate EMI in practice, survey research was conducted with 152 EMI teachers and 561 EMI students at multiple universities across China.

What did the project find?

- There has been a recent shift in policy away from bilingual models of EMI towards English-only programmes; however, students and teachers still view bilingualism as normal practice in the majority of EMI classrooms. While English is the dominant language used for course delivery, Chinese is predominantly used for interaction.
- EMI growth has occurred at all levels of HE, but is more pronounced at the postgraduate level, although there is some indication that growth may slow in the future. Nevertheless, many schools are still under pressure to create EMI courses for both the international and domestic student bodies.
- EMI courses are reported in policy to cultivate student talents, to respond to globalisation, to promote internationalisation, and to improve the quality of teaching; however, the main driving force for universities was to meet their internationalisation objectives.

- Disciplinary majors that include EMI courses are considered more likely to lead to better professional and scholastic opportunities for students compared to traditional programmes or language majors. However, students and teachers expressed concerns that EMI may reduce the quality of the subject matter.
- EMI course creation is incentivised through numerous monetary and professional rewards; however, teachers reported that the incentives do not reflect the substantial workload associated with EMI delivery.
- There are numerous regulations focusing on ensuring teachers' language ability to teach through English, but very few regulations focusing on ensuring students have the language ability to learn through English. This is worrying, considering students report a range of language-related challenges leading to a lack of confidence in being successful in EMI classrooms.

What are the main recommendations of the report?

This report makes four main recommendations for future policy development and implementations. These are:

- to create clear and effective evaluative systems to ensure quality implementation of EMI courses and to share good practices
- 2. to provide flexible models of EMI depending on students' needs; in contexts where students might struggle to learn the subject matter, bilingual or content and language integrated learning (CLIL) approaches may be more effective
- to incentivise EMI course creation via a workload model that accurately reflects the real-time demands placed on EMI teachers
- 4. to necessitate discipline-specific and ongoing language support structures for students studying on EMI programmes, rather than relying on the general English curriculum.

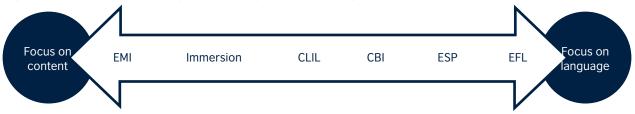
Introduction

It is now well established that the phenomenon of English medium instruction (EMI) in higher education is expanding at a rapid pace across the globe (Macaro, 2018; Macaro et al., 2018; Wächter & Maiworm, 2014). English is becoming universal in many academic disciplines, and internationalisation is being realised via 'Englishisation' of the curriculum within many higher education (HE) institutions (Galloway & McKinley, forthcoming). This switch in medium of instruction means that English has shifted from being taught as a foreign language alongside other disciplinary-focused courses, to becoming an important educational language used for learning and teaching non-language-related academic subjects (e.g. studying engineering content through English; studying business degrees through English).

Defining EMI

EMI is defined as the 'use of the English language to teach academic subjects (other than English itself) in countries or jurisdictions where the first language (L1) of the majority of the population is not English' (Macaro, 2018: 19). This definition is relevant to the context of Chinese HE, where current trends indicate a move from Chinese medium instruction (CMI) towards rapid expansion of EMI provision at universities that are striving for internationalisation. An alternative definition aligns EMI more with content and language integrated learning (CLIL): 'Englishmedium education refers to curricula using English as a medium of instruction for basic and advanced courses to improve students' academic English proficiency' (Taguchi, 2014: 89). EMI programmes come in many forms, which can be placed on a continuum, such as that depicted in Figure 1 (adapted from Thompson & McKinley, 2018).

Figure 1: Continuum of EMI in practice (adapted from: Thompson & McKinley, 2018)



In Figure 1, EMI as a policy would be placed at the far left (with 'content'), while EMI in practice, depending on the programme, might be located anywhere along the centre to left part of this continuum. Taguchi's (2014) definition, located somewhere around the middle of this continuum, might more accurately capture the actual practice of implementing EMI in many institutions of HE where there is a dual focus on students' acquisition of both content and language knowledge (CLIL), or even a predominant focus on language development through the teaching of content (CBI).

Recent years have seen the emergence of numerous forms of educational practice in China, which may give rise to different forms of EMI practices. Chinese universities now offer whole degrees in English, 2+2 degree formats (that include two-year degree completion study abroad opportunities), dual degree programmes, transnational university programmes, as well as numerous courses in discipline-focused programmes switching some of their elective curricula to English in traditionally Chinese medium degree programmes.

Rationale for the study

The growth of EMI in Europe has been well documented (e.g. Wächter & Maiworm, 2014). In other East Asian contexts such as Japan, there have been some notable explorations of top-down policy initiatives which lead to the creation of EMI programmes (see Rose & McKinley, 2018), as well as case study explorations of policy enacted into practice (see Aizawa & Rose, 2019; McKinley, 2018). However, similar monitoring exercises of EMI policy implementation at multiple levels have yet to be conducted in China. This study aims to take stock of the current state of EMI policy implementation and plans in Chinese HE to map current EMI provision and predict future EMI growth. It uses two previously conducted studies in Japan as a template to explore EMI growth and implementation (see Aizawa & Rose, 2019; Rose & McKinley, 2018). The proposed project aims to replicate these on a much larger national scale, including data gathering at multiple universities (and university types) in addition to policy scans. This project will explore the macro-, meso- and micro-level policy implementation of EMI in China, alongside an investigation of implementation affordances and challenges.

Literature review

Headline literature

- Internationalisation in Chinese HE has been accelerated via a string of national policies over the past two decades: Project 985, Project 211, Double First-Class universities and the Belt and Road Initiative (BRI).
- At present, there has been little research in the Chinese EMI context across levels of policy implementation.
- As EMI provision is growing rapidly in Chinese HE, there is a pressing need for an investigation of EMI implementation across universities.

Internationalisation of higher education in China

In the past decades, the internationalisation of Chinese HE has experienced a shift from 'inward-oriented' to 'outward-oriented' (Wu, 2018: 1). Key national projects to promote the internationalisation of HE include Project 985, Project 211 and the Double First-Class programme. The recent Belt and Road Initiative by the Chinese government has also brought with it opportunities for internationalisation.

Initiated in 1995 and 1998, Project 211 and Project 985 have been key national projects in Chinese HE policy. The projects aimed at building world-class universities and increasing the quality of Chinese HE (China Academic Degrees & Graduate Education Information, 2009, 2012a). In total, 116 universities were designated as 211 universities (Ministry of Education, n.d.), 39 of which were also 985 universities (China Academic Degrees & Graduate Education Information, 2012b).

985 and 211 universities were regarded as exemplary in research and teaching, although 985 universities were often considered of higher prestige than 211 universities (Ma, 2007), and initiated the C9 League, a consortium of nine universities designated as China's leading universities (the equivalent of the lvy League in the US). All 985 and 211 universities enjoyed national and regional funding privileges (Hayhoe & Zha, 2004; Zha, 2009). The goal of building world-class universities placed 985 and 211 universities in a global benchmarking context. Consequently, one of the major strategies for 985 and 211 universities was the internationalisation of education and research (Huang, 2015).

From the late 2010s, Project 985 and Project 211 were replaced by the Double First-Class programme (Ministry of Education et al., 2017). The term 'double' refers to the two targets of the programme: building first-class universities and building first-class disciplines.

Thirty-six universities are listed as Class A Double First-Class universities, all of which were previously 985 universities. Three previous 985 universities and three previous 211 universities have become Class B Double First-Class universities (Ministry of Education et al., 2017). Class A and Class B Double First-Class universities are all considered to have the potential to become world-class universities, while Class B universities are regarded as still progressing towards the standards of the Class A group (Xinhua News Agency, 2017). In addition to the Double First-Class universities, the programme aims to promote a range of disciplines at 95 universities. Universities with Double First-Class disciplines include 70 previous 211 universities and 25 non-211 universities (Ministry of Education et al., 2017).

Like Project 985 and Project 211, the Double First-Class programme highlights the internationalisation of HE, with its intention to establish world-class universities/disciplines and make China an international HE power by the middle of the 21st century (State Council, 2015). An important change of the programme is the shift from ex ante funding to performance-based funding. The central government's funding will fluctuate based on evaluations of universities' performance, increasing the accountability of those universities (State Council, 2015).

Another demonstration of China's outward-oriented internationalisation is the Belt and Road Initiative. The BRI aims to enhance 'the connectivity of Asian, European, and African continents and their adjacent seas', and establishes the Silk Road Economic Belt and the 21st Century Maritime Silk Road (National Development and Reform Commission, 2015). It has now become a truly global initiative involving infrastructure development and investments in more than 150 countries. In the education sector, the BRI plans to establish a Belt and Road educational community between China and the countries involved, encourage international collaborations and communications between

universities, and foster mutually beneficial opening-up and internationalisation (State Council, 2017). As part of the BRI, a University Alliance of the Silk Road was created to support research and academic exchanges, as well as to support engineering projects. This alliance is based at Xi'an Jiaotong University, and includes more than 30 universities in mainland China and 38 universities in other countries and regions (http://uasr.xjtu.edu.cn/About_UASR/Members.htm). Almost all of the BRI-associated universities are part of the Double First-Class initiative. These initiatives are summarised in Figure 2.

Figure 2: Summary of major initiatives affecting internationalisation of Chinese higher education

Project 985	Project 211	Double First-Class	Belt and Road
39 universities designated 985 universities	116 universities designated as 211 universities	42 universities designated Double First-Class universities	A global development strategy by the Chinese government
Project to promote world-class universities in the 21st century The original founding universities of 985 form the C9 League, considered top-tier universities in China	 All 39 985 universities are also included in this new initiative Project to lead research and scientific excellence in HE 	 Class A (36 universities) Class B (6 universities) 95 universities designated Double First-Class disciplines 465 disciplines spread among 140 schools/ faculties 	University Alliance of the Silk Road includes 132 universities in over 30 countries Alliance supports the initiative with research and academic exchange

Research on EMI policy implementation

Concerning EMI policy implementation, much of the research takes a binary approach by focusing generally on negatives (constraints, issues, challenges, threats, problems, etc.), some balanced with the positives (opportunities, solutions, etc.) – seemingly part of a process of critiquing and problematising this growing area of research. The research also indicates that there are very different models of EMI policy implementation, including full English taught programmes (ETP) for international students only, local students only or integrated, bilingual programmes.

Much of the more-cited research has been in Asian contexts – Korea, Malaysia, Japan, China, Indonesia, Vietnam, India, Bangladesh, etc. (See, for example, Ali, 2013; Cho, 2012; Hamid & Nguyen, 2016; Jiang et al., 2019; Kim et al., 2017; Nguyen et al., 2017; Poon, 2013; Rose & McKinley, 2018; Zacharias, 2013; Zhang, 2018.) Some similar positive—negative discourses can be found in the research from Europe (e.g. Doiz et al.,

2012; Hultgren et al., 2015; Smit & Dafouz, 2012) and several Arabic-speaking countries (e.g. Al-Bakri, 2013; Belhiah & Elhami, 2015), as well as Brazil (Martinez, 2016). While there were a few publications around 15 years ago, there has been an exponential growth of published research on EMI policy implementation in HE since 2012.

The most widely cited article on EMI policy implementation in a HE context is Byun et al.'s (2011) study investigating the effectiveness of EMI in Korean HE in which they collected student opinions through surveys and focus groups. They concluded that while students were satisfied with the opportunities to improve their English proficiency, the enforcement of the policy across disciplines was problematic as it ignored proficiency levels of both instructors and students, and did not coincide with a good support system. This paper also highlighted the impetus behind the EMI policy being to draw more international students to Korean HE.

In Ali's (2013) study of EMI policy implementation in HE in Malaysia, she points out that EMI research has been positioned as a 'language-planning tool to promote students' mastery of English' (p.73). Ali links this with issues of internationalisation of HE and national economic development. But because English is a necessary medium for internationalisation, it conflicts with national language policy. Taking a macro- (national) and meso- (university) organisational approach, the study examined practices and found that relationships between these levels are hindered.

This same approach was adopted in a study of EMI policy implementation in Japan (Aizawa & Rose, 2019), which compared university-level published EMI policy with reports of implementation by EMI professors. These data were also supplemented with student interviews and student questionnaires to offer insight into the micro-level practices in EMI lectures. Similar to Ali's (2013) study, the researchers found similar affordances and barriers regarding EMI implementation between the meso- and micro-levels.

The three-level divisions of language policy research in Ali (2013) and Aizawa and Rose (2019) borrow from Spolsky's (2004) widely used conceptualisation of language policy. It is important to note, however, that the simplicity of the macro-micro layers has been criticised for implying 'a certain hierarchy in which macro-level phenomena somehow take place on a different plane of existence from micro-level phenomena' (Hult, 2010: pp. 18). Thus, research into policy should be woke to the fact that the space between 'layers' of policy may not actually be so distinct. Thus, policy research is more the case of 'zooming in' and 'zooming out' of the various processes of policy diffusion, by 'setting the lens' of magnification upon different processes (Dafouz & Smit, 2016: p. 402). At present, there has been little research in the Chinese EMI context that aims to zoom in and out of EMI policy to explore the details of these overlapping layers of policy implementation.

Research on EMI in the Chinese context

Compared to Europe, although EMI has existed in Hong Kong HE for a century, it has become an increasingly common practice in other parts of China over the past two decades (e.g. Hu & Lei, 2014; Jiang et al., 2019; Macaro & Han, 2019; Zhang, 2018). EMI programmes in these parts of China first gained momentum in 2001 when China entered the World Trade Organisation (WTO) and cultivating an Englishproficient workforce became an urgent priority (Beckett & Li, 2012). The Ministry of Education (MOE) (2001) responded to this demand by issuing a directive, calling for five to ten per cent of university courses to be delivered through English within three years. Since then, EMI programmes have expanded rapidly in the tertiary sector – by 2006, 132 out of 136 universities across mainland China had EMI courses (Wu et al., 2010).

EMI programmes were further catalysed from 2007 as a result of the publication of multiple important national policies. The joint notice by the MOE and Ministry of Finance (2007) on 'Undergraduate Teaching Quality and Teaching Reform Projects in Universities' called for introducing foreign expertise into Chinese HE, promoting bilingual education and substantially enhancing Chinese university students' English competence to directly engage in academic research. In addition, the MOE published 'Notice on Launching the 2007 Bilingual Teaching Model Course Construction Project', aiming to set up 500 bilingualmodel courses in Chinese universities from 2007 to 2010. These policies translated into a boom of EMI programmes within a short time; a phenomenon depicted by Hu as 'a runaway juggernaut that is rattling across the country with fierce velocity' (2008, p. 195).

In recognition of the policy influence on EMI growth, researchers have delivered case studies to explore how national policies trickle down to institutional management and individuals' experience in EMI programmes (e.g. Hu & Lei, 2014; Zhang, 2018). Hu and Lei (2014) analysed national and institutional policy documents and interviewed teachers and students in a Chinese university's EMI programme. Results indicated that students' recognition of the importance of English for economic competitiveness and future job prospects resembled those prescribed in the policy documents. Institutional management was also reflective of policy statements, whose measures include setting English entry requirements for EMI programmes, providing intensive language courses for EMI students, enacting requirements for EMI faculties' English competence, issuing incentives for teaching EMI courses, and providing EMI pedagogical support. The study also pointed out that the EMI pedagogical training is far from effective, a problem also discussed by Macaro and Han (2019). In terms of EMI classroom teaching, discipline knowledge was found to be watered down and possible language gains are compromised as teachers use accommodation strategies and codeswitch to Chinese to make their teaching more understandable. This finding echoes the study of Jiang et al. (2019), which argues that although teachers' use of pragmatic strategies could achieve communicative effectiveness, it leaves little room for improving students' English proficiency.

In a similar vein, Zhang (2018) analysed national policies and initiatives related to EMI and conducted classroom observation and interviews at three universities in China, including one 985 university, one 211 university and one non-985/211 ordinary university. The study reveals the bidirectional internationalisation in national EMI documents, that is, for both facilitating Chinese students' study abroad and attracting international students to China. Remarkable disparities were reported among the three types of universities in terms of international students' ratio, range of subject fields and quantity of degree programmes. Teachers and students' English proficiency was highlighted as a main obstacle to successful EMI implementation and the problem is most observable in the non-985/211 ordinary universities. This finding is in line with previous research that questions whether Chinese students' English proficiency has reached a level for them to truly benefit from EMI programmes (Beckett & Li, 2012; Tong & Shi, 2012).

Although the case studies conducted so far have provided us insight into the relationship between EMI policy and implementation at individual universities, the results are difficult to generalise due to sample limitations, and the immense iceberg of EMI in China has hitherto only revealed a tip. Larger-scale studies are therefore needed to draw a more comprehensive picture of EMI policy, practices and challenges in Chinese HE using a representative sample of universities.

Methods

Main methods

- Macro-level policy research of 93 EMI-related documents produced by 63 universities.
- Meso-level fieldwork at eight universities, consisting of interviews with 26 key EMI policy stakeholders.
- Micro-level survey research with 152 EMI teachers and 561 EMI students.

The study aims to respond to the following research questions, at each level of policy creation and implementation. As so little exists at the national level, we have 'zoomed in' from Ali's (2013) taxonomy to set the lens at different levels.

- Macro: How do top-down HE policies position EMI at universities in China? How are EMI courses developing as a result of such policy planning?
- 2. Meso: How is EMI growth being managed and implemented by schools and programmes in these universities? What challenges does this entail?
- 3. Micro: How is EMI being implemented at the classroom level? What challenges does this entail?

Based on these three overarching research questions, we explored the stated goals and implementation of EMI at the macro- (suprauniversity/university) level, meso- (school/programme) level, and micro- (classroom) level to examine affordances, challenges and differences in policy creation and implementation. Our analysis of these levels aimed to make recommendations for future policy implementation.

The three levels of investigation are depicted in Figure 3. At each of these levels, data were collected to explore policy creation and implementation. Macro-level research involved the systematic investigation of top-down policy at universities which are seen to be driven by internationalisation in China. This involved an analysis of publicly available policy created by universities regarding EMI course creation, through 'document data collection' (Briggs Baffoe-Djan & Smith, 2020). Meso-level research involved fieldwork visits to eight universities in China where programme leaders, heads of schools, senior management and EMI professors/teachers were interviewed. Micro-level research involved the distribution of questionnaires to EMI teachers and EMI students. Interview data from EMI teachers collected during fieldwork that addressed classroomlevel concerns was also used.

Figure 3: Three levels of language policy in research

Macro:

Top-down policymaking at the university level

Meso:

School- and programme-level policy implementation

Micro:

Course-level policy in practice

Sample

The sample for the policy scan included 42 Double-First Class universities and 98 universities with Double-First Class disciplines. These were selected as they have been charged with leading internationalisation and excellence in HE in China. In addition to these universities, a list of BRI universities was checked to ensure we had included BRI-associated universities. Transnational universities that were not part of the Double First-Class university initiative were not included in the policy scan as these universities were seen to operate from a different policymaking perspective, where the medium of instruction of the entire university is English, rather than certain programmes within a predominantly Chinese medium educational context.

However, for the fieldwork component of the project, transnational universities were included to compare the implementation of EMI policy initiatives to those programmes that had grown out of other internationalisation movements. For a similar purpose, we also included a non-Double First-Class language-oriented university to capture EMI programmes that evolved out of language-oriented content-based methodologies.

In total, 93 university-level EMI policy documents from 63 universities were collected. Among the 42 Double-First Class universities, 25 universities were found to have published EMI policy documents. For three universities, full-text documents were not available online but were cited in other documents. Some universities published more than one such document. In total, 44 full-text documents from 22 universities were collected and analysed. Among the 98 universities with Double First-Class disciplines, 43 had published EMI regulation documents. In total, 49 policy documents from 41 universities were collected and analysed. The institutional policy documents included 78 guidance documents and 15 application forms. Regulations stipulated the aims of institutional policy, requirements on teaching and curriculum, application and supervision, and incentives and funding arrangements. Application forms often accompany those regulations. Indicators listed on the application form revealed information about institutional requirements for EMI curricula, and thus were included in data analysis.

For the fieldwork phase of the study, eight universities were visited in four cities in China. The universities were chosen to sample a range of EMI provisions at various types of universities in China. These included:

- two Class A universities, located in two different cities
- **2.** two language-specialist universities, one which is designated a Double First-Class discipline and one ordinary
- **3.** two transnational universities, one well-established and the other emerging
- **4.** two C9 League universities, located in two different cities.

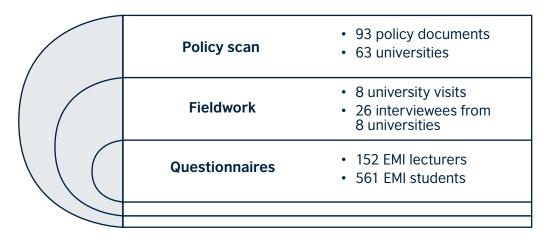
During the fieldwork phase of the study, three of the researchers conducted individual and group interviews with 26 interviewees. These interviewees included people in the following positions:

 four senior managers, including one university vice-president, two heads of academic affairs, and a faculty dean

- **2.** four senior staff of faculty development units, who engaged in teacher training and support
- **3.** two senior managers of international programmes and student offices
- **4.** four EMI programme directors
- **5.** twelve EMI professors and lecturers.

During the survey phase of the study the questionnaires were distributed to the researchers' personal network of contacts and the British Council in China contact universities across China. Due to ethical requirements, which did not allow the collection of university names, it is not possible to determine how many universities were included in this phase of the study. In total, 152 EMI lecturers and 561 EMI students responded to the questionnaire. The sources of data are summarised in Figure 4.

Figure 4: Sources of data



Data collection

For phase one of the research, in July 2019, one of the Chinese research team members searched in the official websites of each Double First-Class university and Double First-Class discipline using two search engines, Google and Baidu, to identify institutional policy documents on EMI. Keywords included each university's name, together with 'English-medium instruction/courses/teaching/curriculum' and/or 'Bilingual instruction/courses/teaching/curriculum'. The documents were inputted into NVivo 11 for content analysis.

For phase two of the study, interviews were conducted at the field research sites in September 2019. The interviews followed the format of semi-structured interviews to allow for flexibility. At two of the research sites, the universities had organised group interviews. While this was not ideal for consistency, it did grant the researchers access to a greater range of people at the university, as these sessions involved both senior managers and EMI lecturers.

For phase three of the study, questionnaires were used to gather information from classroom-level receivers of EMI policy – namely the EMI teachers and students. The teacher questionnaire was adapted from that used by Galloway et al. (2017) for their investigation of EMI in China and Japan to enhance comparability of our findings to theirs. Further items were added from the oft-cited Wächter and Maiworm (2014) questionnaire to allow for possible comparison with their study in the European context. The student questionnaire was adapted from that used in Rose et al. (2019) to explore EMI in Japan, which was adapted from previous research in the Chinese context, namely Evans and Morrison's (2011) study of students' language-related challenges at an English-medium Hong Kong university.

Data analysis

The coding process for policy document analysis started with open coding to generate codes from the documents. Those codes were then clustered into 14 sub-themes and four major themes. Table 1 shows the coding structure.

Table 1: Coding structure

Themes	Sub-themes
1. Definition of EMI	1. Bilingual instruction
	2. English and/or bilingual instruction
	3. English instruction
2. Aims of the policy	1. Cultivating talents/students
	2. Globalisation and internationalisation
	3. Quality of teaching and curriculum
	4. National and/or provincial policies
	5. Higher education and university development
3. Teaching and curriculum	1. Teachers
	2. Students
	3. Curriculum
	4. Teaching and assessment
4. Management and funding	1. Application and supervision
	2. Funding and incentives

Interviews were written up into field notes, which were used to confirm, elaborate or contradict policy findings to interpret how policies had been interpreted into practice by the universities and schools. Field notes were used in analysis as opposed to transcriptions to maintain consistency, as not all interviewees had consented to being audio-recorded. For those interviews not audiorecorded, there were three researchers present, so detailed notes could be taken by two researchers, while all three researchers conducted the interview. As we were interested in the content of what was said (as opposed to how it was said), this dataset was deemed sufficiently rich to respond to the research questions. In cases where interviewees responded in Chinese, immediate interpretation into English was provided by one of the researchers.

Questionnaires were subjected to descriptive statistical analysis, keeping with the tradition of exploratory research. As Briggs Baffoe-Djan and Smith (2020) observe: 'The primary role of descriptive statistics (or descriptives) in data analysis is therefore to enable researchers to meaningfully describe and summarize quantitative datasets' (p. 398). As the purpose of our research was to understand current policy implementation, rather than to make inferences from the data, descriptives fulfilled our immediate purpose.

Ethical considerations

Before data was collected, the researchers applied for ethical clearance from Oxford University's Central University Research Ethics Committee, which was granted in June 2019. At many of the Chinese universities, the distribution of the questionnaire gained further clearance from each university's internal ethics boards.

Findings

Models and areas of growth in EMI provision

Headline findings

- In policy, there has been a pivot away from the creation of bilingual programmes, with more emphasis on English-only and mixed programmes.
- In practice, students and teachers report multilingualism and bilingualism as normal practice in EMI classrooms.
- English language is the dominant language used for EMI course delivery, but interaction and discussions take place predominantly in Chinese (in most cases).

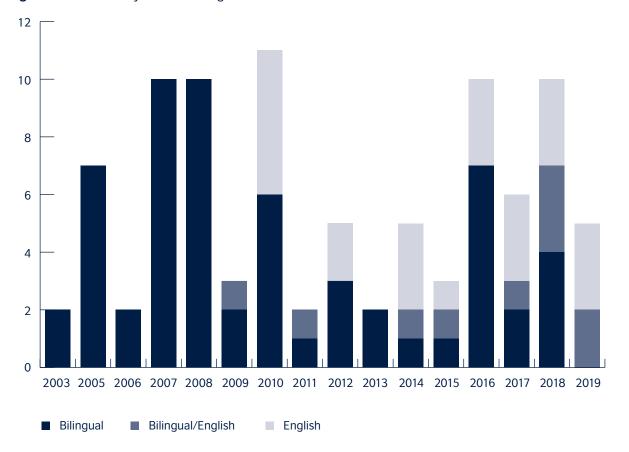
As previous research has outlined numerous models of EMI, we first sought to investigate the types of EMI prevalent in universities in China.

Policy scans

In the title of 93 documents, EMI was referred to as 'bilingual teaching/instruction' (60 documents), or '(all) English teaching/instruction' (23 documents), or 'bilingual and/or (all) English teaching/instruction' (ten documents). Figure 5 shows the changes in titles

across the years. Before 2009, EMI was only referred to as 'bilingual teaching/instruction'. The use of '(all) English' and 'bilingual and/or (all) English' began to emerge after 2009, with an increasing trend until now. Among all 34 documents published before 2010, only three per cent had 'English' in the title; however, the percentage has grown to 54 per cent among the 59 documents published from 2010 to 2019.

Figure 5: Publication year and changes in titles



More specifically, 41 documents outlined the definition of EMI. Most definitions include two elements: 1. academic courses, mostly excluding English/foreign language subject courses and 2. the use of English language or foreign language in instruction and teaching materials. 'Foreign language' was used when EMI was named as 'bilingual teaching/instruction'. However, many of those documents stated that 'bilingual' refers to Chinese and English. Teaching materials, which include textbooks, writings on the blackboards, assignments, exam papers and slides, are required to be in English/foreign language. Many universities required the percentage of English-medium instruction to be more than 50 per cent, while a few had different regulations.

At Nanjing University of Aeronautics and Astronautics, for instance, there are three types of EMI courses: type A EMI courses, where all teaching materials are in English and the English-medium instruction time is more than 85 per cent; type B EMI courses, where all teaching materials are in English but the Englishmedium teaching time is more than 50 per cent; and type C EMI courses, which has more than 50 per cent English language teaching materials and more than 15 per cent English-medium instruction time.

Universities had stipulated requirements for the construction of EMI course curricula. EMI courses could be subject courses, mandatory courses or elective courses, but most universities required EMI courses to be subject courses. Both new and old courses are allowed to be developed into EMI courses. A few universities stipulated that when students were selecting courses, EMI courses should have 'bilingual/English-medium' in the title and course description.

Fieldwork

The fieldwork data confirmed the existence of numerous models of EMI provision, often within the same schools. These included:

1. international courses in fully English taught programmes, which catered to international students only. At almost all universities where such programmes were discussed, they had been created for the exclusive purposes of attracting enrolment from non-Chinese full-degree students, and were not made available for enrolment by local students

- 2. bilingual courses, which mostly catered to the needs of domestic students who had elected to take some of their course content in English. In these courses, there was an expectation that some Chinese would be used, but some materials, presentation slides and readings would be provided in English
- 3. all English courses in non-EMI programmes, which mostly catered to non-degree international exchange students in addition to local students who could take them as electives. These courses were often described as being equivalent to those offered in Anglophone contexts, as the international students needed to use them to gain discipline-focused credits for their home degrees
- 4. content courses for English majors, which provided students who were majoring in language studies with an opportunity to use English for academic studies. These EMI courses were often in language-related disciplines such as cultural studies, linguistics, area studies, translation, journalism and media studies
- fully English taught courses within transnational universities or co-run EMI programmes. These were similar to international programmes, except that students were mostly local (rather than international) students.

Interviews with programme co-ordinators revealed that although distinct lines were drawn around EMI programmes, such as strict regulations about who was allowed to enrol in them, these lines were far more blurred at the course level. In several universities, for example, an international course that had been created for a master's-level international degree programme could also be taken as an elective course by local undergraduate students, as well as non-degree international students on exchange programmes. Thus, the single EMI course fed into multiple degrees, attracting a diverse range of students within them. Lecturers of EMI courses also suggested that 'all English courses, in name, did not necessarily indicate that they were all English in practice'. Lecturers working in almost every programme (bar some of the international programmes) expressed that it was often necessary to use Chinese in certain situations to ensure students understood difficult content. Likewise, some lecturers working in bilingual courses expressed that their use of Chinese was extremely limited, especially in the C9 League universities where student proficiency was high, and international students had enrolled in their course and had limited knowledge of Chinese.

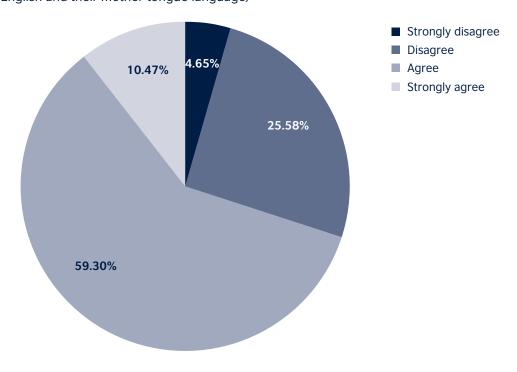
Thus, at the micro-level there were indications that the definitional lines between 'all English courses' and 'bilingual courses' were less distinct in practice than indicated in policy.

Questionnaires

Teacher questionnaire data supports the diversity of EMI models (Figure 6). When asked about language use in EMI classes, the majority of the participants

(69.77 per cent) agreed that staff and students should be permitted to use both English and their mother tongue in class. 10.47 per cent strongly agreed with the statement. In contrast, only about one-third of the participants (30.23 per cent) disagreed and those who strongly opposed multilingualism in EMI classes only take up 4.65 per cent of the total cohort.

Figure 6: Language use in EMI classes and programmes (participants were asked how far they agree with the statement: I believe that EMI programmes/classes should permit staff and students to use English and their mother tongue language)



Some items on the teacher questionnaire probed respondents further regarding the use of language for various classroom functions. The results, drawn from 73–78 valid responses to the survey items, are shown in Table 2. As can be seen, the use of English averaged 74.5 to 86.52 percent, with it most predominantly used on PowerPoint (ppt) slides, and least often used in spoken lectures. Important to

note, however, is that the median for three of the categories was 100 per cent, indicating that many of the respondents suggested that their course materials, slides and assessment were entirely in English. This might reflect the bilingual course policy, where some input is in English, but the lectures are delivered bilingually.

Table 2: Percentage of English use reported by EMI teachers

	Percentage of spoken lectures in English	Percentage of course materials in English	Percentage of ppt slides in English	Percentage of assessment in English
Mean	74.5	82.39	86.52	80.78
Median	86.5	100	100	100
SD	28.91	26.69	25.12	30.09
Range	100	97	90	95
Minimum	0	3	10	5
Maximum	100	100	100	100
Count (n)	78	76	75	73

The student questionnaire also revealed flexibility in terms of their own use of language to perform various functions in their EMI classes. Respondents were asked to rate on a sliding scale of 1–7 whether they used Chinese or English for a variety of class tasks, with 1 representing always Chinese, 7 indicating always English and 4 representing a 50–50 split in language use. The descriptive results of these items are presented in Table 3. As can be seen from

the data, only the item 'Answering the teacher's questions' is at the middle point, indicating that students on average use Chinese and English equally for this task. For all other items, on average, students use Chinese more than half of the time to complete the task, indicating a large amount of Chinese language use for classroom interaction, especially in discussions with other classmates.

Table 3: Use of Chinese and English in EMI classrooms

	Mean	SD	Range
Answering the teacher's questions	4.07	1.70	6
Asking the teacher questions	3.63	1.85	6
Taking part in whole-class discussions	3.28	1.70	6
Taking part in pair-work activities	3.01	1.60	6
Discussing classwork with classmate	2.74	1.64	6

Growth of EMI

Headline findings

- Faculty and school deans are under pressure at some universities to create EMI courses and programmes.
- EMI is expanding at most top universities, but the pace of growth depends largely on each university's needs.
- Growth of EMI is largest at the postgraduate level.
- Senior administrators indicate that the pace of growth of EMI may slow down in the future.

The policy analysis revealed that some universities encouraged EMI courses in certain disciplines. For instance, South China Normal University specified that at the university, Double First-Class disciplines should have at least two EMI courses. Nanjing Forestry University and 15 other universities encouraged EMI courses in 'high-tech disciplines' and 'subjects that may be in need for China after joining the World Trade Organisation', including (international) finance, law, information technology and biotechnology. The results in Figure 5 show steady growth in EMI provision, with more policies on bilingual programmes emerging in 2007 and 2008 compared to subsequent years. In contrast, most growth in policies surrounding English-only EMI courses and programmes have appeared from 2010. These policies, however, do not accurately portray actual growth in EMI at the university level, but merely suggest areas in EMI provision that are being supported and promoted in top-down policymaking.

The fieldwork data indicated a mixed picture of current and future EMI expansion at each of the eight case universities. At the Class A comprehensive universities there appeared to be a direct push for expansion of EMI programmes. At one of the universities, the faculty dean mentioned that at the university-level dean meetings, each faculty dean had to report on the number of new EMI courses their school had created, and that performance of a dean was somewhat evaluated according to their success at creating EMI courses and international programmes. At the other Class A university, the head of academic affairs stated that the university has incentivised the creation of EMI courses through increased funding to schools offering new programmes. These universities indicated that a lot of the push at programme level was lessening, stating that while EMI growth would continue in the future, it would not continue at the rapid pace of the

previous five to ten years. One interviewee stated that there were some indications that EMI provision might even lessen in future years, pointing to new regulations that all textbooks at the university be written in Chinese – a stipulation at odds with EMI programme delivery. At the C9 League universities, EMI expansion appeared to be the result of a mix between top-down policy to create programmes and courses for the large number of exchange students at the universities, and the organic switch to English for many courses by the professors themselves to cater to the highly fluent English-speaking local and international student body.

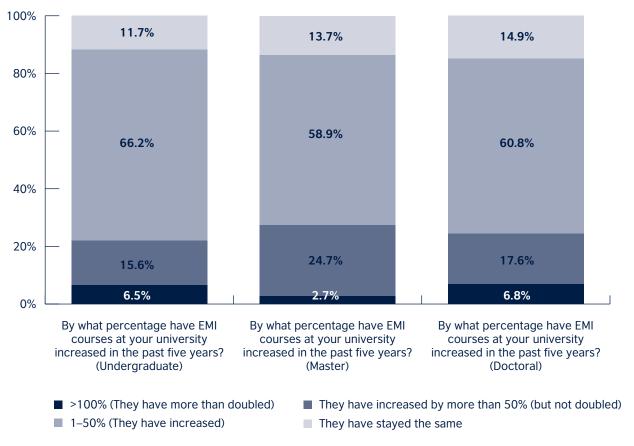
In the two language-specialist universities, the creation of EMI courses was more organic and bottom-up. It was usually the responsibility of language teachers to create new courses for the purposes of expanding the academic offerings to English majors. English was decreasingly being seen as a sole major for the students, so EMI courses offered these students an opportunity to use English for the purposes of learning other content. In the Class A language university, the language department was described as the 'incubator of EMI programmes', where content courses in subject areas such as business and journalism had originally been offered as part of an English major (a type of CBI course), but, as the number of these courses grew, they became their own departments and eventually their own independent schools, offering full EMI or bilingual degrees in their specific disciplines. The dean of one of these 'incubated' schools described their offering of EMI programmes as a bilingual undergraduate degree, an option for a double degree at the undergraduate level, as well as an international English-only master's degree. This school had no plans for further expansion, but rather to build the quality and student numbers within their current programmes.

At the transnational universities, the expansion of EMI programmes was very centralised as these universities were entirely English-medium institutions. Expansion was thus tied to the strategic plan of the university to increase the number of programmes and students. At the established transnational university, massive expansion of programmes had occurred, and appeared to be planned with the development of a new campus to cater to new faculties, and planned increases in student numbers. At the recently opened transnational university, the strategic plan was to build programmes more slowly to eventually maintain a smaller cohort of student numbers in a select range of disciplines.

To predict the trend of EMI development at undergraduate, master's and doctoral levels respectively, the teacher questionnaire asked respondents to rate the development of EMI in their

universities in the past five years and to foresee the growth within five years in the future. Surprisingly, none of the participants discerned any decrease of EMI in the past five years. As Figure 7 illustrates, most teachers agreed that EMI courses have increased at all three levels, though most of them indicated that the growth rate was less than 50 per cent. A larger proportion of the participants (24.7 per cent) suggested that EMI courses have expanded more than 50 per cent at master's level, whereas only 17.6 per cent perceived the same rate of growth at doctoral level and 15.6 per cent at undergraduate level. However, when it comes to double the number of EMI courses at universities, 6.5 per cent and 6.8 per cent of the teachers observed the trend at undergraduate and doctoral level. In contrast, only 2.7 per cent of the cohort agreed that EMI courses have doubled at master's level in the past five years.

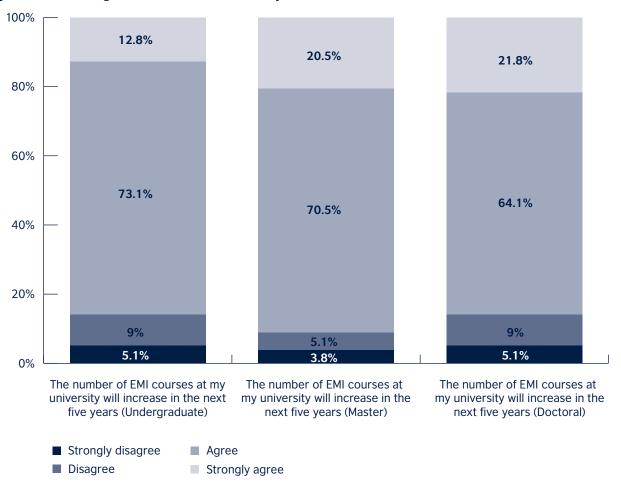
Figure 7: Growth of EMI in the past five years



In terms of the trend of EMI development in the next five years (Figure 8), a significant majority of teachers agreed that EMI courses will continue to grow at all three levels. This trend is predicted with greater certainty at master's and doctoral level, where 20.5 per cent and 21.8 per cent of the participants strongly agreed with the growth compared to that of 12.8 per cent at the undergraduate level. Notably, a small proportion of the cohort disagreed with the potential growth, especially at the undergraduate and doctoral level (14.1 per cent). This proportion is relatively low at master's level (8.9 per cent), indicating that teachers are generally more confident that EMI will increase at master's level within the next five years. These expectations of growth at

the master's and doctoral levels were explained in part by an interviewee at a C9 League university, who stated that there was growing scepticism in China regarding the quality of postgraduate-level education that Chinese students receive when enrolled in master's and doctoral programmes in English-speaking universities. Thus, more and more students were electing to undertake English-medium postgraduate research degrees at competitive Chinese universities (especially at C9 League universities), as opposed to attending less prestigious overseas universities. One interviewee observed that it was less competitive to be admitted at the postgraduate level at such universities, compared to the undergraduate level.

Figure 8: Predicted growth of EMI in the next five years



Driving forces of EMI

Headline findings

- In policy, EMI courses are reported to cultivate student talents, respond to globalisation, promote internationalisation and improve the quality of teaching.
- Language-specialist universities report a devaluation of language majors in China in favour of learning disciplinary content through a target language.
- EMI programmes are viewed to lead to better job prospects and opportunities for study abroad at the postgraduate level.
- Students and teachers are concerned that EMI may involve reducing the quality of the subject matter.

The aims of formulating the institutional policy are found in 65 documents. They form five dimensions:

- cultivating talents/students (mentioned in 44 documents)
- **2.** responding to globalisation and promoting internationalisation (41 documents)
- **3.** improving the quality of teaching and curricula (37 documents)
- **4.** implementing national and/or provincial policies (30 documents)
- **5.** assisting the development of the university and of higher education (16 documents).

Cultivating talents/students

The majority of documents included 'students' in their statement of purpose. With EMI courses, universities intended to improve students' 'English language level', 'academic capability', 'international communication and co-operation capacity', 'creativity', 'global vision and awareness', and 'competitiveness in the globalised society'. Three Double First-Class universities (Shanghai Jiaotong University, Dalian University of Technology and Zhejiang University) mentioned international students in their aims. They noted that with the introduction and development of EMI courses, the university aims to improve its global attractiveness and its capacity to accept international students.

Fieldwork data confirmed this as a major driving force for the creation of EMI courses at many of the case universities. Differences largely depended on university type. In the language-specialist universities, there was recognition that teaching disciplinary content in English was increasingly more valued with the decrease in value of the English major. In three separate interviews, EMI teachers commented that an English major these days was almost like 'not having a major' as EMI programmes allowed students to develop their language knowledge in tandem with disciplinary knowledge, making them more competitive in the job

market. In the transnational university context, both interviewees mentioned that the EMI programmes gave their graduates an advantage when applying for overseas postgraduate studies.

The teacher questionnaire confirmed these issues to be a major driving force. For example, in response to the importance of EMI courses to increase students' global competitiveness, 97.43 per cent of teachers stated that it was an important driver, 32.05 per cent of whom stated it was very important. Likewise, 98.72 per cent of respondents said an important driver for EMI was to increase the intercultural competences of local students, with 32.05 per cent of them stating this as a very important reason.

Globalisation and internationalisation

Globalisation/internationalisation was another heavily coded aim in the policy documents. Universities stated that EMI course development represented a significant response to the challenges of globalisation. Alongside EMI programme development, universities intend to improve their level of internationalisation in teaching staff, curricula and cultivation of research talent. They also promoted EMI courses as important to improving the competitiveness and international impacts of the university. Six universities used the word jie gui (integrate the track) and stated that the university needs to 'integrate the track' with 'advanced teaching notions and modes in the world'. This indicates a notion among those universities that EMI courses are more advanced than current Chinese-medium teaching models.

The teacher questionnaire confirmed internationalisation to be a major driving force for the creation of EMI courses. In response to the importance of EMI courses fostering partnerships with institutions in other countries, 96.16 per cent of teachers stated that it was an important driver, 28.21 per cent of whom stated it was very important. Items related to the use of EMI to attract international academic staff and foreign students rated similarly high.

Quality of teaching and curricula

In total, 37 documents stated that the aim of formulating the policy was to introduce and build EMI courses, improve the teaching quality of EMI courses and general curricula, further develop the curriculum reforms at the university, and enhance the teaching environment. In the fieldwork data, this was a less frequently mentioned driving force, but nonetheless was mentioned by a few interviewees. In one Class A university, faculties in several different schools indicated that the content in the EMI courses is 'simplified' or 'reduced' compared to CMI, echoing the findings of Hu and Lei (2014) and Jiang et al. (2019), and that some students raised concerns that their peers in CMI were gaining more depth of knowledge in their subject areas. Thus, the efficacy of EMI to achieve this goal was questioned by some interviewees.

Regarding evaluation systems like those addressed by Hu and Lei (2014), responses to this question were often vague, often referring only to student evaluations, suggesting there may not be concrete or effective evaluation systems of quality of teaching and curricula in place in these universities. However, unlike Hu and Lei's (2014) study which found generally negative perceptions of evaluations, the interviewees in the present study did not express such dissatisfaction with these processes where they existed, even if unclear.

National and/or provincial policies

National and provincial policy documents relevant to EMI were quoted in 30 documents' statements of purpose. As Figure 5 shows, the first peak of institutional EMI policy documents started in 2007. It is in line with the publication of important national policies on EMI published in 2007, such as *Opinions of Ministry of Education and Ministry of Finance on Implementing 'Undergraduate Teaching Quality and Teaching Reform Projects in Universities'* and the Ministry of Education's *Notice on Launching the 2007 Bilingual Teaching Model Course Construction Project.* National policies quoted in those documents also included *Outline of National Medium- and Long-Term Education Reform and Development*

Plan (2010), Opinions of the Ministry of Education and the Ministry of Finance on Implementing the 'Undergraduate Teaching Quality and Teaching Reform Projects in Universities' during the 'Twelfth Five-Year Plan' Period (2011), and Several Opinions of the Ministry of Education on Comprehensively Improving the Quality of Higher Education (2012).

In the fieldwork, some interviewees referred to these initiatives as part of the driving force for the universities to create new EMI programmes. In Class A universities, the reasons behind offering EMI courses were generally agreed to be top-down, to increase international student numbers, and to foster more internationally minded local graduates, echoing the findings of Hu and Lei (2014). Growth in EMI offerings in these universities was much higher in recent years in contrast to the other universities in the study.

Higher education and university development

Some policy documents mentioned that EMI courses can benefit the development of HE. Some stated that building EMI courses was part of the university's strategic plan, particularly contributing to the building of world-class universities. In the fieldwork data, many interviewees discussed EMI in connection to larger developments in HE to develop world-class institutions. Particularly in the C9 League and Class A universities, faculties made connections between internationalisation policies and global competitiveness of the university.

The teacher questionnaire confirmed university development and competitiveness to be a major driving force for the creation of EMI courses. 96.15 per cent of respondents stated that an important driving force for EMI creation was to sharpen the profile of the university compared to other universities in the nation, of whom 25.64 per cent stated it was very important. Likewise, 98.72 per cent of respondents said an important driver for EMI was to increase the intercultural competences of local students, of whom 32.05 per cent stated this was a very important reason.

Funding and incentives

Headline findings

- In policy, EMI course creation is incentivised through monetary rewards, workload models, promotion and overseas travel opportunities.
- In practice, EMI teachers report that the incentives are not enough, and their biggest concern is the increased workload associated with EMI course creation.

More than half of the documents in the policy scan provided information on funding and incentives for EMI courses. Some universities provided EMI courses funding to reward teachers (in the form of bonuses for Chinese teachers and international faculty) and support course development (in the form of grants or reimbursements for purchasing teaching materials and funding to publish self-edited textbooks).

Another form of incentive is the workload weighting of EMI courses. University teachers need to complete a certain workload each term or academic year, and the workload is related to annual assessment, salary and bonuses. At 29 universities, when calculating teachers' workload, the workload of teaching one EMI course can be counted as 1.2–1.3 times that of teaching a Chinese-language course.

Incentives also involved priority in other applications. At ten universities, teachers delivering EMI courses would be 'considered first' in applications for university-level grants, academic awards, tenure promotion, and overseas training and visiting opportunities, all else being equal.

The interview data confirmed that these incentives were being implemented as stated in the policies. Interviews in the Class A universities confirmed that incentives such as the workload weighting (or 'credits') and monetary incentives were relatively satisfying. But faculties in the C9 League universities stated that such incentives were not enough; for example, 'a tiny bit of money' or 'not reflective of the immense amount of work required to create an English taught course compared to a Chinese taught one'. Instead, many

interviewees in nearly all the universities expressed a professional and academic incentive to create the EMI courses (e.g. wanting to teach in English for themselves and their students). Such personal incentives were linked to the reality that much of their research resources are in English, and they have to publish in English (one interviewee at the Double First-Class discipline university mentioned the 'publish or perish' phenomenon), so teaching in English provides more productive opportunities professionally.

Data from the teacher questionnaire confirmed that EMI courses generally take lecturers much more time to prepare, with 94 per cent agreeing (51 per cent of them strongly) with the statement that 'EMI courses take more preparation time than Chinese-medium courses'. Of the items on the questionnaire which explored the challenges of implementing EMI courses from a teacher perspective, the following five items were rated the highest by respondents, thus representing the largest barriers to successful policy implementation:

- mixed language ability of students in the same course
- **2.** differences in academic ability of students in the same course
- insufficient proficiency in Chinese language of international students
- insufficient proficiency in English of academic staff
- **5.** insufficient proficiency in English of domestic students.

Language-related regulations for EMI teaching and learning

Headline findings

- In policy, numerous regulations focus on ensuring teachers' language ability to teach through English, but very few regulations focus on ensuring students have the language ability to learn through English.
- Many programme co-ordinators and senior faculty members were unconcerned about students' language abilities to cope in an EMI course, assuming students were sufficiently proficient.
- Students report being less confident that they are able to achieve a good grade in an EMI course.
- Students report a range of language-related challenges, particularly in productive skills.

The regulations surrounding language were scattered throughout the policy documents, and largely centred on regulations for teachers and, to a lesser extent, students.

Teachers

Among all the documents, more than 70 per cent had specific regulations on teachers conducting EMI courses. Although regulations varied across universities, each university's requirements for EMI teachers fall into more than one of the following categories:

- a. high-level English language proficiency, including written and spoken English
- b. academic capability in the taught subject
- c. rich teaching experiences in EMI and other courses, with a record of good teaching feedback
- d. training experiences of EMI teaching, offered by the university or overseas institutions
- e. overseas academic experiences
- f. academic positions for example, only professors or associate professors can develop EMI courses.

Some universities stated that each teacher can only conduct one EMI course per term. Other institutions encouraged the recruitment of international faculty members to teach EMI courses.

The fieldwork data revealed that ensuring teacher competence in EMI courses was a major concern for Class A universities, with both universities investing a significant amount of resources into the professional development of academic faculty. In fact, of the eight university visits during the fieldwork phase, it was only at these two universities that senior management from the professional development

units were present at our interviews –perhaps an indication that the role of this unit was seen as highly relevant to the topic of EMI by the universities. In both of these universities, EMI academic staff could avail of a number of avenues of support to enhance their competence of teaching through English, including the use of an organised network of EMI teachers, observation opportunities, university-led teacher training courses, externally led EMI training courses, and a programme that allowed teachers to apply for funds to spend time in an English-speaking university.

In the Class A universities, some participants mentioned that the kind of faculty development support they received in relation to EMI informed their teaching methods in general, which they felt was a good way to foster improved teaching practices across the university. Where there were training opportunities through faculty development offices, EMI teachers indicated general satisfaction, in contrast to the findings of Hu and Lei (2014) and Macaro and Han (2019). Admittedly, these findings may have been affected by the group interview format of both Class A university interviews, but it is notable that no one in these interviews expressed negative ideas about what was offered. However, some did indicate that they would like, or were at least open to, more targeted support in the form of EMI training, rather than training in the pedagogical practices in general. One professor noted that sometimes overseas opportunities had not resulted in actual training experiences, and professors often found themselves without opportunities to participate and observe English-medium courses while visiting overseas universities.

Students

From the policy scan, we found that only nine universities raised concerns about students' capability. For instance, Shanghai International Studies University noted that students taking EMI courses should have 'a relatively good foundation of the language'. China University of Mining and Technology (Beijing) and Ningbo University regulated that the EMI course should be offered to students who had completed the mandatory English language courses, and courses should be developed according to students' actual language proficiency and understanding of subject knowledge. Beijing Sport University asked teachers to assist students in getting familiar with EMI before setting up the course, by introducing vocabulary and references in English and organising lectures by foreign academics. Nanjing Agricultural University asked teachers to organise two parallel classes based on students' English proficiency, one in English and one in English and Chinese.

The interviews revealed that in seven of the eight

universities (the ordinary language-specialist university being the exception), there were no real concerns about students' capability, and there were few concrete procedures for students to join EMI courses. Generally, students self-elected to join them in a rather ad hoc system, and there was a consistent opinion across the interviews that the students who chose to join EMI courses had a level of English proficiency 'good enough' to handle them. There were few proficiency-level requirements such as a standardised test score.

The student questionnaire results revealed a number of challenges associated with learning through English. In terms of self-efficacy, students indicated that their confidence level to achieve a good grade in a course taught through English was on average 63 per cent, compared to 80 per cent for the same course taught in Chinese (see Table 4). This indicates that language-related issues may still be a substantial barrier for students to undertake EMI courses successfully.

Table 4: Student confidence to learn through English

Self-efficacy items related to confidence to succeed in EMI	Mean	SD	n=
How confident are you that you can achieve a high grade in your course when it is taught in English (0–100 per cent)?	62.62	22.29	399
How confident are you that you could achieve a high grade in your course if it were taught in your mother tongue (0–100 per cent)?	80.05	15.83	399

Many other items in the student questionnaire sought to investigate these language-related challenges in further detail. The respondents recorded on a scale of 1–7 the ease with which they could use English to complete 45 tasks in an EMI learning context. The full list of items is presented in the Appendix, and the five hardest items and five easiest items are presented in

Table 5. As can be seen from the table, difficulties were most associated with productive skills of speaking and writing; however, there were elements of productive skills that students also found easy, such as the use of visual aids and notes to support their speaking skills.

Table 5: The five hardest and easiest language-related tasks

	Language-related task	Mean	SD	n=
	WRITING Using an appropriate academic style	3.23	1.12	362
	READING Working out the meaning of difficult words	3.43	1.06	362
Hardest	WRITING Writing a bibliography/references section	3.44	1.34	362
	WRITING Writing the body of an assignment	3.52	1.13	362
	SPEAKING Communicating ideas confidently	3.53	1.30	362
	LISTENING Understanding questions	4.06	1.21	362
	WRITING Referring to sources in written work	4.09	1.34	362
Easiest	SPEAKING Speaking from notes	4.10	1.15	362
	READING Identifying supporting ideas and examples	4.10	1.11	362
	SPEAKING Using visual aids (e.g. PowerPoint)	4.26	1.25	362

Teaching and assessment

Specific instructions on the delivery of EMI courses were documented in 52 policies. Requirements differed from university to university but had many things in common. As noted in 'Changing definitions of EMI', universities often required a certain proportion of the class to be delivered in English. Several documents underlined the balance between English language teaching and subject knowledge, and further emphasised that the teaching quality should be maintained in EMI courses. Therefore, EMI teachers are encouraged to apply multimedia teaching and online teaching methods, develop more in-class discussions and activities than traditional classrooms, establish comprehensive and systematic syllabuses, provide rich English-medium resources, continuously listen to students' feedback, slow down the pace in the classroom and offer extracurricular tutoring if needed, and edit course-specific English vocabulary books to assist students' understanding of the materials.

The policy scan further revealed that textbooks and teaching materials had to be in English (though one interviewee in the Double First-Class discipline university argued for using more materials in Chinese). They can be publications by foreign or Chinese publishers, or self-edited teaching materials. Most universities stated that they preferred up-todate (within three or five years) and high-quality 'original textbooks', meaning those published by foreign publishers and used in other Englishspeaking countries. Teachers were encouraged to provide additional learning resources such as newspapers, online resources and videos in English. Some documents highlighted the issue of copyright, reminding teachers that copying textbooks without the copyright holder's permission is never allowed. A few universities like Ningxia University and Ningbo University stipulated that textbooks should pass the department's/university's evaluation before they can be used.

For course assessment, most universities regulated that course assignments and final exams should be in English, with the aim to test students' mastery of the subject knowledge and the English language. Students needed to complete assignments and exam papers in English, or in Chinese and English if the course was bilingual. EMI courses can also set up oral exams in combination with written exams.

Management and evaluation of programmes

Among 56 documents that specified the 'division responsible to explain the document', 44 of them were issued by the Office of Academic Affairs (*Jiaowu Chu* or *Jiaowu Bu*), which is responsible for curriculum planning, students' registration, teaching assessment and other curriculum-related issues. Of the others, nine were issued by the Office of Graduate School, and the documents were specific to EMI in the postgraduate curriculum, two were issued by the Office of Undergraduate School, and one was issued by the Office of International Cooperation and Communication.

As 42 documents stated, teachers need to apply to the responsible office before setting up the EMI course. Application procedures often included submitting application materials (course proposal, syllabus, slides, textbooks), pilot teaching and assessment, curriculum arrangements and publication by the university.

When delivering EMI courses, departments and responsible offices need to check and assess the course quality throughout. Assessment measures encompassed spot checks in the classroom, getting feedback from students and teachers (via questionnaires or focus groups), and evaluating the course at the end of the term.

Summary of findings

Overall, the study revealed areas of smooth diffusion of policy, as well as areas where implementation differed from policy. In terms of the models of EMI, the policy analysis revealed distinct types of EMI courses and programmes in Chinese universities, which were all confirmed in the fieldwork. At all of the Double First-Class universities, all three forms of EMI were present in the already implemented programmes. At the transnational universities, EMI provision was more uniform, manifesting as all EMI courses, aimed at local students, although a healthy international student population was also present. At the remaining ordinary universities, EMI courses more closely resembled CLIL or CBI courses due to the universities' focus on English language majors. At the C9 League universities, while top-down policymaking did result in the creation of some EMI offerings, many bilingual and all EMI courses aimed at domestic students were not the result of top-down policymaking, but rather the personal and unmonitored choices of the lecturers themselves.

These results show some similarities with models of EMI observed in the European context. In contexts where language proficiency is higher, such as in Sweden and the Netherlands, EMI emerged as a grassroots effort by students to access knowledge available in English, in much the same organic way as reported at the C9 League universities. In the language-focused universities, EMI within language schools adhered more closely to Taguchi's (2014) definition of EMI, which positioned English language development as the primary objective.

Our three research questions were designed to focus on three levels of policy implementation: macro- (university), meso- (programme), and micro- (classroom) levels.

(Macro): How do top-down HE policies position EMI at universities in China? How are EMI courses developing as a result of such policy planning?

At the university level, investigated through the scan of policy documents, we found that the increase of EMI programmes and courses since 2012 was a direct response to top-down policies to increase international student enrolment as well as nurturing an Englishproficient workforce from local graduates. While some of these programmes are offered to international students only (particularly postgraduate programmes), or local students only (particularly undergraduate programmes), descriptions of integrated programmes were found in most documents. We found large initial increases in bilingual programmes and more recent developments focusing on all-English programmes.

2. (Meso): How is EMI growth being managed and implemented by schools and programmes in these universities? What challenges does this entail?

By comparison, at the university-level, programmes varied widely within universities, which we found in our interview data. Speaking with vice-presidents, deans, EMI programme

co-ordinators, EMI teachers, and faculty development and international student officers, we discovered that the management and implementation of EMI programmes and courses were not monitored or evaluated in the same ways, if at all, by their universities. Discrepancies between EMI implementation were especially notable between university types, as the Class A universities and transnational universities seemed to have institutional-level support for EMI teachers and students, while participants from the language-specialist universities and C9 League universities described less institutional support, expressing fairly consistent ideas that both teachers and students could handle the EMI curriculum on their own (although the teachers at the ordinary language-specialist university described a rather different situation where English was used much less in EMI courses).

3. (Micro): How is EMI being implemented at the classroom level? What challenges does this entail?

Finally, in our analysis of the questionnaire data, we found that EMI implementation at the classroom level entailed a number of challenges for teachers and students. For teachers, these centred on the extra burden associated with the creation and teaching of EMI courses compared with Chinese-medium courses. Data also revealed challenges related to dealing with classes containing students of mixed language and academic abilities. This is perhaps the result of courses which allow enrolment of students from multiple programmes, sometimes mixing postgraduate- and graduate-level students some of whom have met language benchmark standards, while others have not. The student questionnaire data revealed that EMI students were less confident about learning content effectively, and also revealed numerous language-related challenges associated with writing and speaking in particular.

Conclusions and recommendations

Headline recommendations

- To create clear and effective evaluative systems to ensure quality implementation of EMI courses and to share good practices.
- To provide flexible models of EMI depending on students' needs in contexts where students might struggle to learn the subject matter in desirable depth and breadth, bilingual or CLIL approaches may be more effective.
- To incentivise EMI via an increased workload model that reflects the time demands for teachers to create and deliver courses in a second language.
- To build discipline-specific and ongoing language support structures for students studying on programmes where EMI occurs.

We have four primary recommendations in response to the data collected. First, in consideration of conflicts between policy and practice (like those observed by Ali, 2013, in Malaysian HE, and Aizawa & Rose, 2019, in Japanese HE), there were concerns raised about top-down policy decisions regarding language use in teaching and materials, as well as support (for example, teachers told that they had to use materials in Chinese at the Double First-Class language-specialist university), without acknowledging how or why these policies would be supportive, or how they should be built into the EMI courses. While most universities in our study do have evaluation systems of teaching and learning in place, including student evaluations, our first recommendation is for more concrete evaluative practices in quality assurance to be built into EMI offerings, confirming with both teachers and students what they find works or does not work.

Another recommendation concerns the ability to meet the stated policy objectives of EMI to enhance the quality of teaching and learning at Chinese universities. Fieldwork data indicated that programme directors and EMI lecturers described the EMI content they provided as 'less' or 'simplified' compared with CMI content in contrast to both other universities and their own institutions. These findings echo those of Hu and Lei (2014), whose study highlighted 'watered down' discipline knowledge. In such cases, we recommended that these courses are supplemented with Chinese materials and/or CMI, providing a bilingual model of EMI where Chinese language materials and/or teaching are structured

into the course. Resourcing Chinese as a supporting language may happen in the form of supportive translanguaging, which can also be structured into the course – a practice observed in European EMI classrooms (Doiz et al., 2012). Such a model of EMI would be more like CLIL, which provides overt language support in the students' learning of content.

A third recommendation is for universities to reconsider monetary incentive schemes for the creation of EMI courses. Numerous policies are focused on such incentives; however, our fieldwork revealed that there was little interest from academic staff in these monetary incentives, and that this was not a primary motivation for them to propose and create new EMI courses. The current system encourages academic staff to self-elect to create EMI courses, and our fieldwork revealed that many teachers who were creating these courses did so for professional and academic reasons, rather than monetary rewards. However, the questionnaire and interview data both pointed to the fact that the creation and teaching of EMI courses was far more time-consuming for these teachers. Thus, our recommendation is for the work required to engage in EMI to be better reflected in more of the workload model incentives, rather than monetary incentives. If the true costs to a teacher's time to engage in EMI were reflected in their workload credits, it may lead to more EMI course creation by teachers who want to create such courses but are hesitant to do so due to the toll it may take on their time.

A final recommendation is for future EMI policy to emphasise the importance of building language support structures within EMI programmes to help students with language-related learning difficulties. Notions of structured English language support in EMI came up only in the data from transnational universities, so we raise the concern that this requires more attention in all universities offering EMI courses. There seems to be an overwhelming assumption – particularly as a surprising number of EMI courses and programmes in the universities in our study do not require a particular English language level to enrol – that students (Chinese and NNES international students) have sufficient English proficiency and that it is 'up to them' to seek support if they need it. Student questionnaires, however, pointed to the fact that students do encounter numerous difficulties in the EMI courses, which leads to reduced confidence in being able to be successful in the programme. Some teachers recognise the

need and provide it outside of class or in unstructured ways. The language courses on offer described in the interviews are general, and not disciplinary-specific. We recommend disciplinary-specific or programmespecific structured English language support that addresses students' immediate needs (such as technical vocabulary, particular genres, etc.) for their EMI studies. EMI research in other contexts has emphasised the importance of targeted language support for EMI students to improve their ability to successfully study content in English (see Rose et al., 2019; Thompson et al., 2019). Other research has suggested that even highly proficient students may struggle to learn difficult content in their second language. Thus, there is considerable evidence to suggest that EMI programmes should consider the benefits that within-discipline, targeted English language support might provide their students.

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Appendix

Students' self-reported language-related challenges (1 = very difficult; 7 = very easy)

	Mean	SD	n=
WRITING Planning written assignments	3.72	1.06	362
WRITING Expressing ideas in correct English	3.65	1.06	362
WRITING Revising written work	3.62	1.07	362
WRITING Using appropriate academic style	3.23	1.12	362
WRITING Writing a bibliography/references section	3.44	1.34	362
WRITING Proofreading written work	3.74	1.22	362
WRITING Referring to sources in written work	4.09	1.34	362
WRITING Summarising/paraphrasing ideas in sources	3.71	1.24	362
WRITING Organising ideas in coherent paragraphs	3.80	1.14	362
WRITING Expressing ideas clearly and logically	3.71	1.17	362
WRITING Linking ideas from different sources	3.69	1.14	362
WRITING Writing the introduction to an assignment	3.80	1.15	362
WRITING Writing the body of an assignment	3.52	1.13	362
WRITING Writing the conclusion to an assignment	3.70	1.16	362
WRITING Linking sentences smoothly	3.80	1.13	362
READING Understanding specific vocabulary	3.66	1.04	362
READING Working out the meaning of difficult words	3.43	1.06	362
READING Reading carefully to understand a text	3.78	1.10	362
READING Reading quickly to find specific information	3.82	1.14	362
READING Identifying supporting ideas and examples	4.10	1.11	362
READING Reading quickly to get overall meaning	3.93	1.14	362
READING Identifying the key ideas of a text	3.94	1.12	362
READING Taking brief, relevant notes	3.95	1.12	362
READING Using your own words when taking notes	3.89	1.13	362
READING Understanding the organisation of a text	3.90	1.12	362
SPEAKING Speaking accurately (grammar)	3.57	1.07	362
SPEAKING Speaking clearly (pronunciation)	3.81	1.27	362
SPEAKING Presenting information/ideas	3.82	1.10	362
SPEAKING Participating actively in discussion	3.83	1.24	362
SPEAKING Communicating ideas fluently	3.58	1.23	362
SPEAKING Speaking from notes	4.10	1.15	362
SPEAKING Asking questions	3.86	1.24	362
SPEAKING Answering questions	3.72	1.16	362
SPEAKING Communicating ideas confidently	3.53	1.30	362
SPEAKING Using visual aids (e.g. PowerPoint)	4.26	1.25	362

	Mean	SD	n=
LISTENING Understanding the main ideas of lectures	4.03	1.15	362
LISTENING Understanding the overall organisation of lectures	3.99	1.15	362
LISTENING Understanding key vocabulary	4.00	1.15	362
LISTENING Taking brief, clear notes	4.03	1.22	362
LISTENING Identifying supporting ideas and examples	4.02	1.16	362
LISTENING Understanding lecturers' accents	3.98	1.20	362
LISTENING Following a discussion	3.98	1.23	362
LISTENING Identifying different views and ideas	3.87	1.20	362
LISTENING Understanding questions	4.06	1.21	362
LISTENING Understanding classmates' accents	3.89	1.20	362

