

Students' perspectives on the challenges of English Medium Instruction (EMI) courses: Seeking insights to better focus English for Academic Purposes (EAP) Courses

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Students' perspectives on the challenges of English Medium Instruction (EMI) courses: Seeking insights to better focus English for Academic Purposes (EAP) Courses

学生から見た EMI 授業の難しさ：学内 EAP コースのより適切なコース設定を目指す調査から見えること

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Abstract

English-medium instruction (EMI) has quickly become a significant part of higher education around the world. To help students prepare for the demands of EMI, English for Academic Purposes (EAP) courses often have a significant role. In order for EAP courses to optimally prepare students for EMI, it is important that those managing EAP programmes have a good understanding of the nature of EMI and of students' abilities to deal with its demands. This paper reports on a study in which 192 students enrolled in EMI courses at a university in Japan responded to a questionnaire on the challenges of their EMI course and how well the prior EAP courses helped them prepare for those challenges. The questionnaire data revealed that EMI courses at the institution primarily require receptive skills (i.e. listening and reading), but that students also see a need for greater speaking ability since when EMI courses do demand active skills, students find it challenging. The study therefore provides some insights into how the institution's EAP courses may best evolve in order to better support students in their future studies.

世界の高等教育では、英語による教育（EMI）が急速に重要な部分を占めるようになってきた。それに伴い、アカデミック英語に関する教育（EAP）はしばしば、学生の EMI 授業履修を可能にする大切な役割を担っている。学生を最大限 EMI コースに適応させるため、EAP コースの運営者は、EMI 授業の性質やそれを受ける学生の能力をしっかりと理解している必要がある。本論では、日本のある大学で EMI 授業を受けた学生 192 人のアンケート結果を分析した。学生が EMI 授業の受講にどのような難しさを感じたか、また学内 EAP コースがどの程度 EMI コースに役立ったかについて、学生たちの回答を報告する。アンケート結果から、学内の EMI 授業では、主に受動的スキル（リスニングやリーディング）が必要とされていることがわかった。また、EMI 授業で積極的な貢献が求められた時、それを行うことが難しいことから、学生はより高いスピーキング力も必要と考えていることが分かった。学生の将来の学習をよりよく支援するために、EAP コースをどのように改善していくのがよいかについて、本論は一定の示唆をしている。

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1. Introduction

English-medium instruction (EMI), “the use of the English language to teach academic subjects in countries or jurisdictions where the first language (L1) of the majority of the population is not English” (Dearden, 2015, p. 2), has become a prominent part of university education across the globe in recent years, largely as a result of top-down government-sponsored programmes which can be seen as a response to processes of globalisation and the growth of English as an international language (Macaro, 2018). Yet experience around the world shows that EMI courses are challenging for students, with research demonstrating that students may experience difficulties of various kinds. To help students prepare for this challenge, English for Academic Purposes (EAP) programmes are often provided. These courses seek to assist students in acquiring linguistic knowledge and academic skills that will better enable them to pursue studies in English.

A key feature in the development of EAP curricula is an understanding of what tasks students will be required to perform in their future studies and of how challenging these tasks typically are for students. This paper reports on a study, conducted by members of a university’s EAP Course Management Committee, that sought to reveal just this by surveying students enrolled in EMI courses. The study builds on previous work (Brown et al., 2019) in which the views of faculty members teaching EMI courses were examined. The paper begins with a brief overview of EMI’s rise in higher education, the challenges that EMI poses for students and the links between EMI and EAP. The study’s aims, method and results are then presented, before a discussion is provided of the findings and some possible implications for the EAP programme.

2. Background

2.1. The rise of EMI

One attraction of EMI is the idea that it may enable the concurrent achievement of two positive outcomes (Macaro, 2018). On the one hand, it is thought students can develop their English proficiency as they are exposed to content delivered through the medium of English and are challenged to carry out various tasks (e.g. comprehension of lectures and readings, discussions, presentations, examinations and essay writing) in English. On the other hand, it is argued that, despite the challenges, students can acquire knowledge of academic content to the same extent as they would if they were learning through their L1.

For governments and education administrators, EMI has been seen as an important tool for the internationalization of higher education and for facilitating student mobility. That is, the provision of EMI courses in universities is considered essential if universities are to attract international students, which in turn is thought to be beneficial to the entire student body. Equally, EMI courses are seen as a key stepping stone in allowing and encouraging domestic students to expand their horizons and to study overseas (Block & Khan, 2021; Macaro, 2018). In Japan, the setting for this study, these policy

goals have been central to interest in EMI (Hashimoto, 2018; Rose & McKinley, 2018) and have led to the implementation of a series of funding programmes aimed at fostering EMI provision: the Global 30 Project (MEXT, 2009), Go Global Project (MEXT, 2012) and Top Global University Program (MEXT, 2014).

The research reported in this paper was carried out at and focused on Kanazawa University, a mid-sized national university in Japan, which was selected for the most recent of these funding programmes: the Top Global University Program. At the time of the university's application for funding (in 2013), 2.4% of undergraduate and 3.9% of post-graduate courses were EMI, and the university's aim is for 50% of undergraduate and 100% of post-graduate courses to be EMI by the end of the project in 2023 (Kanazawa University, 2014). As of 2019, some progress towards these goals had been achieved, with 22.9% of undergraduate and 42.5% of post-graduate courses in the university officially declared EMI courses (Kanazawa University, 2020).

2.2. The challenges of EMI

EMI poses considerable challenges for students and a number of previous studies have looked into the extent and nature of these challenges (see Table 1). As the study findings show, there are challenges for students across all the four skills and for students at different levels of proficiency.

Table 1. Studies of challenges faced by students in EMI

Study	Method	Setting	Participants	Findings
Taguchi and Naganuma (2006)	interviews	an EMI university in Japan	13 students	13 students reported listening as the primary difficulty; 12 described struggles with reading requirements; 10 had difficulties producing paragraph-level discourse; 8 reported problems with oral communication. Students ascribed most of their problems to limitations with high school English classes and lack of opportunity for language use.
Kırkgöz (2009)	interviews	three EMI departments at a university in Turkey	120 students	Students reported concerns with: <ul style="list-style-type: none"> • Speaking ability: taking part in and speaking fluently during lectures. • Reading ability: comprehending readings due to specialised

				<p>vocabulary and unfamiliar uses of familiar words.</p> <ul style="list-style-type: none"> • Writing ability: unfamiliarity with academic writing conventions. • EMI culture shock: demands of the programme and contrast with previous experiences.
Evans and Morrison (2011)	interviews	a university in Hong Kong	28 first-year students in EMI classes	<p>Four main challenges identified:</p> <ul style="list-style-type: none"> • understanding technical vocabulary, which hindered comprehension of both lectures and reading materials; • lecture comprehension, because of technical vocabulary and instructors' accents; • developing a writing style appropriate for university; • adapting to academic culture and conventions (learning and teaching methods, discipline-specific requirements).
Soruç and Griffiths (2018)	questionnaire	an EMI university in Turkey	39 first-year students from two departments	<p>Four challenges identified:</p> <ul style="list-style-type: none"> • vocabulary-related difficulties (e.g. understanding words used in class); • teacher/class-related difficulties (e.g. understanding the teacher) • affective/cognitive difficulties (e.g. interacting with others); • speaking- and listening-related difficulties (e.g. understanding the accent of other students).
Aizawa and Rose (2019)	interviews	a university in Japan	7 students	<p>Students of all proficiency levels described difficulties in EMI classes.</p>

				<ul style="list-style-type: none"> • High-proficiency students: amount of writing, essay organisation. • Intermediate students: lecture comprehension, reading comprehension, technical vocabulary. • Low-proficiency students: understanding instructors, taking part in discussions, taking notes.
Aizawa and Rose (2020)	questionnaire (from Evans & Morrison, 2011); interviews	a university in Japan	<p>Questionnaire: 103 students (47 had received English-medium education [EME] in high school; 56 had received Japanese-medium English education [JME])</p> <p>Interviews: 20 students (10 EME; 10 JME)</p>	<p>Questionnaire: On a five-point scale (1 = hard, 5 = easy), for EME students writing (median = 3.47) was perceived as the most difficult skill; reading (3.7), speaking (3.8) and listening (3.7) were all rated similarly. For JME students, writing (median = 3.0), reading (2.9) and speaking (2.9) were all rated similarly; listening (3.3) was rated as easier.</p> <p>Interviews:</p> <ul style="list-style-type: none"> • Writing challenges: slow production speed, poor essay organisation skills, insufficient vocabulary, incorrect grammar. • Reading challenges: slow processing speed, insufficient vocabulary. • Speaking challenges: fluency, accuracy, vocabulary (esp. specialised vocabulary). • Listening challenges: lecture speed, accents, insufficient vocabulary.

2.3. EMI and EAP

EAP programmes have historically been provided in English-speaking countries as preparatory courses for overseas students entering or seeking to enter institutions of higher education. In recent years, however, just as EMI provision has increased rapidly, EAP courses also have proliferated around the world (Björkman, 2008, 2011). EAP programmes in such settings – that is, settings in which English is little used outside the classroom – may need to be rather different in nature from “traditional” EAP, in order to reflect local characteristics of the EMI courses students may go on to take. For example, rather than taking their entire degree in English, students may have a mix of EMI and conventional courses, or, as Brown and Adamson (2012) have noted, though EMI courses may be delivered in English, classroom practices and culture may remain rooted in local academic norms. Therefore, EAP courses preparing students for EMI need to take account of the actual demands of such classes and the needs of learners.

As explained above, the university in focus in this study is committed to a rapid expansion in its provision of EMI courses under the auspices of the government’s Top Global University Program. As a consequence, the first-year compulsory English language curriculum has also changed substantially in order to support the achievement of the university’s Top Global University Program goals. This has led to the creation of an EAP programme consisting of four eight-week courses which are compulsory for first-year students. The EAP I course concentrates on paragraph writing (specifically, descriptive and opinion paragraphs); EAP II is a presentations course (specifically, informative and opinion presentations); EAP III is concerned with reading texts (600–800 words) and writing summaries and responses to them; EAP IV focuses on the writing of an essay based on two 800–1200-word reading passages and a third source selected by the student; and running across all the courses is a concern with academic conventions in terms of formatting work, the avoidance of plagiarism, and citing sources.

In our previous study (Brown et al., 2019), we began the process of considering how far these EAP courses serve as preparation for students who go on to take EMI classes within the university. This was achieved by conducting a survey of EMI instructors concerning the tasks demanded of students in EMI classes and the ability of students to carry out those tasks. Considering both how common various tasks were reported to be in EMI courses and how much difficulty instructors perceived students to have with these tasks, the study concluded that the EAP courses should seek to develop students’ skills in four core areas: writing essays/reports in English, engaging in discussions in English, listening to lectures given in English and reading papers/book chapters/other written materials in English. This study was therefore of great value; however, it was also small in scale, with questionnaire responses from just 22 instructors, and only revealed instructors’ perspectives on the key issues. There remained therefore a need to gain a wider perspective and most importantly to hear students’ own voices on the challenges they face. Accordingly, we decided to conduct a follow-up study to obtain the views of students in EMI courses at the institution. This study had two

aims:

- (1) to elicit students' views on the challenges they face in EMI courses and the skills/types of knowledge they consider necessary for EMI courses;
- (2) to evaluate to what extent our EAP courses help prepare students for EMI courses.

3. Method

In order to pursue the above aims, a questionnaire was developed and administered to students taking EMI courses to obtain insights into their perspectives on the skills and abilities that students require for EMI courses. The following sections give details on the questionnaire, the participants and the analyses undertaken.

3.1. Questionnaire

The questionnaire (see Appendix) was based in large part on a previous questionnaire used in our study eliciting the views of EMI instructors (Brown et al., 2019), but also drew on a number of previous studies (Aizawa & Rose, 2019; Evans & Morrison, 2011; Soruç & Griffiths, 2018; Taguchi & Naganuma, 2006) that have investigated students' difficulties in EMI courses in different contexts. It included questions about students' reasons for taking their current EMI course and their experience with other EMI courses, questions about students' English abilities and the abilities needed for the current EMI course, questions about what students were required to do in that EMI course and how well they felt they could do these things, questions about challenges faced in the course, and questions about how well they felt the EAP courses helped to prepare them for the EMI course. There were both multiple-choice questions, in order to obtain easily analysable data, and open-ended questions, in order to give students an opportunity to more freely express their thoughts. In expectation that almost all respondents would be L1-Japanese or highly proficient in Japanese, information about the research and the questionnaire itself were provided in Japanese. The questionnaire and the plan for the research project were approved by the Human Subjects Research Ethics Review Committee of the Institute of Liberal Arts and Science, Kanazawa University.

The questionnaire was administered with the support of heads of department and instructors who teach departmental EMI courses. These instructors were asked to invite students to participate in the research by their heads of department at the request of the EAP Course Management Committee and were sent a copy of the questionnaire to inform them of its nature. As well as the questionnaire for this research project, respondents were at the same time asked to respond to a number of questions prepared by the institution's Super Global University (SGU) office (responses to which do not form part of this project and so are not analysed below). EMI instructors and the heads of department were informed by the SGU office that the responses to those questions were to be used to determine eligibility for payments provided to EMI instructors. Thus, cooperation was incentivised.

Administration of the questionnaire was through the university's learning management system, since this provided a secure and convenient means of collecting the data. Before commencing the questionnaire itself, respondents were provided with an explanation of the background and aims of the research, advised that completion of the questionnaire would constitute their giving consent for their responses to be used in the research and informed that their responses would be anonymous.

3.2. Participants

The target participants for the questionnaire were students enrolled in EMI courses at Kanazawa University. Target participants were identified and approached via the departments and, in turn, instructors of EMI courses, as described above.

Responses were received from 192 students out of 1,132 students enrolled in the participating courses, a response rate of 17%. Of these, 148 responses were from students enrolled in courses offered by the College of Science and Engineering and 44 from students enrolled in courses offered by the College of Human and Social Sciences. There were, unfortunately, no responses from students enrolled in courses provided by the College of Medical, Pharmaceutical and Health Sciences, perhaps since this college offers a smaller number of EMI courses. The respondents were enrolled in 43 different EMI courses, and while for some courses there was just a single response, for others there were rather more (Max. = 30).

A majority of the respondents (67%) reported that they enrolled in the EMI course since it was a compulsory course for them. Of the remainder, 26% were taking the course as it featured content they were interested in learning, 5% were taking it to improve their English and 1% to develop their academic skills. Interestingly, apart from courses from which there were small numbers of respondents, in most cases there was a mix of "compulsory" and "non-compulsory" students taking each course. The courses themselves cannot then be characterised as "compulsory" and "non-compulsory"; this can only be said of individual respondents. This characteristic of respondents was considered important, potentially influencing their attitudes toward the EMI course, their perceptions of the difficulties faced and their views on the skills, abilities and preparation required for success. Thus, in a number of the analyses reported below, in addition to overall figures, results are given separately for "compulsory" and "non-compulsory" course-takers.

In terms of proficiency, both subjective and objective proficiency data was elicited from participants. The subjective data comprised self-assessed ratings of ability (from 1 = low to 5 = high) in each of the four skills. Students rated their reading ability most highly (mean = 2.7), followed by their listening and writing ability (mean = 2.5 for both) and rated their speaking ability somewhat lower (mean = 2.1). With respect to the number of participants selecting each rating, there was a significant difference across the four skills ($\chi^2(12) = 45.40, p < .001$), with, in comparison with the overall figures, a relatively large number of students rating their speaking as 1, a relatively small number rating their speaking as 4 and a relatively large number rating their reading as 4. More

objectively, students reported their TOEIC scores in terms of 100-point bands. Of the 150 (78%) respondents who completed this question, 37 (25%) reported a score in the 500s and 56 (37%) reported a score in the 600s. Thus, over half the students reported scores in these two bands and there were relatively small numbers of students with lower or higher scores.

3.3. Analyses

Analysis of the questionnaire data for the most part entailed simple tabulation of the responses. However, where possible, statistical tests were used to compare the pattern of responses among different groups.

For the open-ended questions, a content analysis of the data was performed. Following Gillham (2007) and Dörnyei and Taguchi (2010), this involved reviewing each response and highlighting substantive elements within it, deriving an initial set of categories by going through the highlighted statements, reflecting on the initial set of categories, and going through the substantive elements once more to ensure each fit into a category while concurrently modifying the categorisations and category names. In many cases, responses to the open-ended questions were brief and expressed a single substantive point, and in such cases the category counts and the number of respondents coincide. When this was not the case, it is made clear in the Results section.

4. Results

4.1. Skills required for and challenges faced in EMI courses

Several items in the questionnaire were concerned with the skills required for EMI courses and the challenges that students face in EMI courses.

Table 2 presents data on students' perception of which skill was most important for the EMI course they were taking. Listening and reading were clearly considered the most important skills, being selected an almost equal number of times, while speaking was selected by a sizeable minority of students. Writing was selected as most important by only a small fraction of students.

Table 2. Most important skill for EMI course currently enrolled in

Rating	Full sample	
	<i>n</i>	%
Listening	76	39
Reading	67	35
Speaking	40	21
Writing	9	5

Students were also asked to explain why they selected that particular skill as most important. For listening, there were 72 comments, analysed as representing five categories. The most common category of response (27 responses; 38% of the total) was that listening was necessary for understanding the class, with another 13 students (18%) simply explaining that the class featured lectures in English and 12 more (17%) stating the class had a focus on listening. For reading, 65 comments were elicited. These were classified under seven categories, two of which were prominent: 28 students (43% of the comments) stated simply that the class featured materials in English and 17 (26%) reported that reading was important for understanding the class. For speaking, there were 38 comments, placed in four categories: 17 students (45% of the comments) explained that speaking was the most important or useful skill and 11 (29%) described speaking as necessary for communication. In a number of the comments, there were explicit references to future uses of English, both professional and personal, and so it seems that many who selected speaking as the most important skill were thinking in more general terms rather than being focused on the immediate, specific needs of the EMI course itself. Finally, for writing, there were nine comments, the majority of which (7 comments; 78% of the total) explained that writing was useful in the class and/or in the course examinations.

On whether they had experienced difficulties with specific elements of their EMI course, students responded as shown in Figure 1. Understanding the teacher’s expectations and getting used

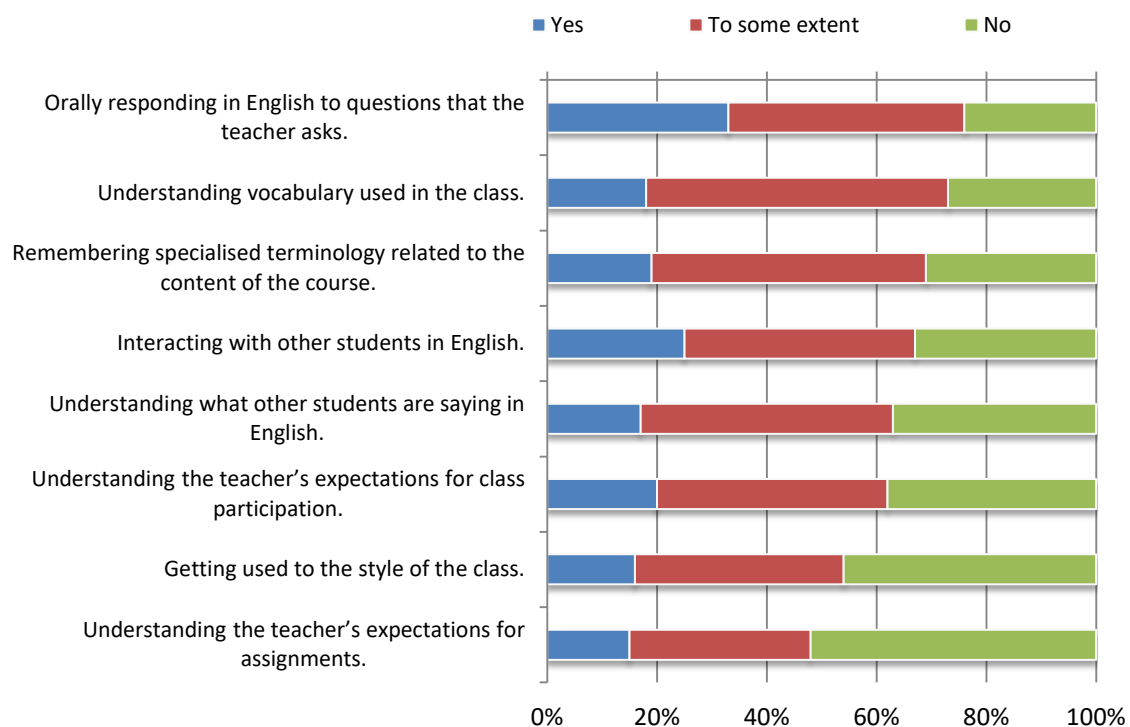


Figure 1. Students’ reports of whether they experienced difficulties in their EMI course with the elements shown

to the style of the class appeared relatively unproblematic for students, understanding and interacting with classmates seemed to pose a moderate challenge, dealing with words used in the class was somewhat more challenging, and the greatest challenge would appear to have been responding to questions from the teacher.

With regard to specific tasks required of students in EMI courses, as Table 3 shows, listening to lectures was reported as the most widespread task, following by taking notes (which may itself be done while listening to lectures) and reading. Student output appears to have been a relatively minor part of these EMI courses, with engaging in discussions, writing essays/reports and presentations each being reported as required by 10–20% of students.

Students also reported how well they were able to do the tasks listed in Table 3. Figure 2 presents the results. As a first analysis, a simple comparison of the number of students reporting few problems versus the number reporting significant problems revealed that listening to lectures, taking notes, reading written materials, watching videos and writing summaries were all generally unproblematic for learners, while in contrast finding sources appears to have been a considerable challenge. In a second analysis, the “some problems” and “significant problems” categories were combined to reveal tasks that pose some level of challenge for students. Under this analysis, finding sources and synthesizing information from multiple sources stood out as challenging for students. Meanwhile, a statistical analysis¹ revealed a significant difference in the pattern of results across the tasks: $\chi^2(16) = 29.91, p = .02$. The standardized residuals showed that a relatively large number of

Table 3. Number and proportion of EMI courses involving different tasks

Task	Number of responses	As percentage of respondents
Listening to lectures given in English	106	55
Taking notes in English	64	33
Reading papers/book chapters/other written materials in English	48	25
Watching videos that present content in English	43	22
Engaging in discussions in English	34	18
Synthesizing information from multiple sources written in English	26	14
Writing essays/reports in English	25	13
Giving presentations in English	21	11
Finding sources in English	12	6
Writing summaries in English of reading materials	10	5
Other	7	4

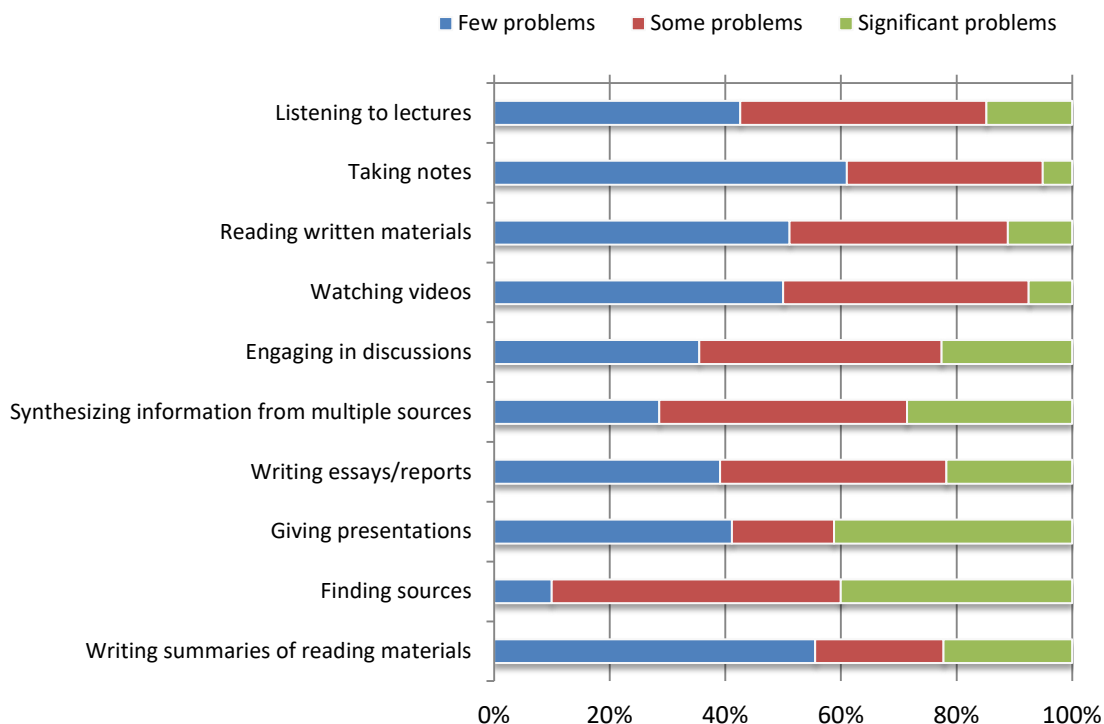


Figure 2. Students’ reports of difficulties with various tasks

students reported significant problems with giving presentations and a relatively small number reported significant problems with taking notes.

Comparing the “compulsory” and “non-compulsory” students, there were very few differences in their perceptions of the relative difficulty of the specific tasks. However, what was noticeable was a significant difference ($\chi^2(2) = 22.38, p < .001$) in the overall number of responses in each category. Specifically, non-compulsory students reported that they experienced “few problems” significantly more often and that they experienced “significant problems” significantly less often than compulsory students.

4.2. EAP courses as preparation for EMI

Regarding whether the compulsory first-year EAP courses served as good preparation for the EMI course they were taking, there was an almost perfectly even split in the responses: 64 (33%) students selected “Yes, the EAP courses were helpful”, 62 (32%) selected “No, the EAP courses were not helpful”, and 66 (35%) chose “Not sure”.

In explaining their choice, for those who answered “No”, there were four prominent explanations. Comments from 13 students (23% of the responses) suggested that the EAP classes were lacking in some way, most often in failing to teach technical terms needed for EMI courses, and there were concerns about the EAP courses being ineffective, the courses being too difficult and

the courses generally lacking relevance for the EMI courses (each of these receiving 9 comments, 16% of the total). Among those who selected "Not sure", there were both positive and negative comments about the EAP courses, but by far the most common response (22 comments; 34% of the total) was that the EAP courses lacked relevance for the EMI courses. From students who stated that the EAP courses were helpful, there was a much narrower range of responses, with two prominent categories. There were 23 comments (53% of the total) describing how the EAP courses had been specifically helpful for them in some way (chiefly writing, listening or vocabulary development) and 15 comments (35%) stating simply that the EAP courses had been good for their English skills/ability.

Finally, students were asked what the focus of the EAP courses should be in order to best prepare students for EMI courses. For this question, quite a number of students made more than one comment, so the total number of suggestions is larger than the number of students. In all there were 201 suggestions, which were coded under 19 categories as shown in Table 4. The most common recommendation was that the EAP courses should give attention to technical terms or specialised language needed for EMI courses. In addition, considerable numbers of students suggested that the EAP courses should focus on listening, speaking and reading. However, what is perhaps most noticeable here is the wide range of suggestions that students made.

5. Discussion

The project reported on in this paper had two principle aims: to clarify the challenges faced by students when taking EMI courses and the skills/types of knowledge students believe are needed, and to consider the extent to which the first-year EAP courses help prepare students for EMI courses.

5.1. Challenges faced in and knowledge/skills needed for EMI courses

The questionnaire data showed first that listening and reading were viewed as the most important skills by learners, selected as such by almost three quarters of respondents. The explanations for these selections made clear that this very much reflected the nature of their EMI courses, which seemingly demand listening and reading skills first and foremost. These results are in accordance with Kırkgöz's (2009) data which showed that reading and in particular listening tasks were the most commonly required tasks in EMI courses. These findings also tally with responses to other items in the questionnaire: regarding the tasks required in EMI courses, the four most common selections by students (Table 3) were listening to lectures, taking notes, reading papers/book chapters/other written materials and watching videos that present content, all of which involve listening and/or reading. Meanwhile, tasks requiring student output (engaging in discussions, writing essays/reports, giving presentations) were reported as being required in relatively few EMI courses. Notably, comparing the students' reports of tasks required in EMI courses and those provided by instructors (reported in

Brown et al., 2019, p. 26), there is no significant difference: $\chi^2(10) = 10.99, p = .36$. That is, students

Table 4. Comment categories and number of comments regarding students' recommendations for

EAP courses		
Category	Number of comments	As percentage of respondents
technical terms/specialised language	43	22
listening	28	15
speaking	22	11
reading	20	10
other	18	9
don't know	15	8
no changes needed	9	5
vocabulary	9	5
discussion	7	4
presentations	4	2
summarising	4	2
expressing oneself in English	4	2
finding/using sources	3	2
grammar	3	2
a greater number of classes	3	2
writing	3	2
academic language	2	1
English study skills	2	1
note-taking	2	1

and instructors are in approximate agreement about the tasks that must be completed in EMI courses.

On the difficulties students face with these tasks, there is also general agreement. Overall, 45% of student responses reported few problems, 39% some problems and 16% significant problems, while in the instructor survey the proportions were 33%, 46% and 21% respectively. There is no significant difference between these figures: $\chi^2(2) = 4.34, p = .11$. Moreover, with respect to the level of difficulty students have with each particular task, there was also no significant difference between the instructor responses and student responses for any of the tasks.

This correspondence between the instructor and student responses suggests that the findings of

this study concerning the tasks required of students in EMI courses and the amount of difficulty experienced are reliable. That is, the EMI courses mostly make receptive demands on students (listening to lectures, taking notes, reading papers/book chapters/other written materials, watching videos that present content) and these tasks pose relatively few problems for students (in comparison with some of the other tasks). Meanwhile, the more challenging tasks are those that require action from students: finding sources, synthesizing information from multiple sources and giving presentations.

Comparisons between students taking an EMI course since it was compulsory and those taking it for other reasons were also revealing. With respect to the challenges of particular tasks in the EMI classroom, few differences were observed between these groups of students. Yet there was a significant difference between them in their overall perception of the difficulty of the tasks, with non-compulsory students reporting that they experienced “few problems” more often and “significant problems” less often than compulsory students. What is most interesting about this is that the two groups were equivalent in English proficiency as judged by TOEIC scores and that when directly compared there were also no differences between the groups in terms of their perceptions of their ability in each skill area (i.e. listening, reading, etc.). It seems then that students who opted to take an EMI course perceived there to be fewer challenges than those who had to take a course compulsorily, even though in terms of proficiency (as judge both by self-assessments and TOEIC scores) there was no difference between the groups. Perhaps then the motivation for taking an EMI course has an impact on how challenging the course appears to students, though it may be noted that one study (Rose et al., 2020) found no relationship between a measure of language learning motivation and success on an EMI course (as defined by course exam grades).

5.2. How well EAP courses prepare students for EMI

Students' views of the current EAP courses, one goal of which is to prepare students for EMI courses, were mixed, with an almost equal division between students who felt the EAP courses were helpful, those who did not and those who were unsure. On the positive side, students reported that the EAP courses supported the overall development of their English skills/ability and that the courses were helpful in various more specific ways, with writing, listening and vocabulary development the most oft-mentioned areas. On the negative side, students commented that the EAP classes were not relevant to the demands of their EMI course, with the lack of inclusion of subject-specific technical terms a particular concern. Further, there were suggestions that the EAP courses were ineffective and that they were too difficult.

Students' recommendations for what the EAP courses should focus on (Table 4) very much reflected their views of the current EAP courses. There were a number of comments suggesting that no changes are needed to the current courses, but also a wide range of suggestions for what the EAP courses should focus on. This may reflect diversity among EMI courses and therefore in perceptions

of what is needed for them and/or diversity among students in their strengths and weaknesses and thus their perceptions of what they need. Nonetheless, the most frequent suggestion from students was for the EAP courses to give attention to technical terms or specialised language needed for EMI courses, and substantial numbers of students recommended a focus on listening, speaking and reading.

Comparing these suggestions with the data regarding the prevalence of different tasks in EMI classes (Table 3) is interesting. The suggestion of a greater focus on listening corresponds with the high prevalence of listening to lectures in EMI classes, and the same might be said about reading. The suggestion of focusing on technical language meanwhile perhaps cuts across all the tasks done in EMI classes. The suggestion for a focus on speaking (in addition, a number of students recommended a focus on discussion) does not, however, match the relatively low prevalence of discussion in the EMI classes (Table 3), but may reflect the fact that students' ratings of their speaking ability were lower than those of the other three skills. Meanwhile, only a couple of students suggested note-taking as a focus for the EAP courses, even though taking notes has high prevalence in the EMI classes. This may be because note-taking is viewed as being subsumed within "listening" for many students or because relatively few students reported struggling with it (Figure 2).

What is also notable among the students' recommendations for the EAP courses is that few mentioned presentations, summarising or writing (Table 4), all of which are current foci of the EAP courses. The significance of this is not, however, clear: it may mean that the current focus on these things means students feel that their needs are well catered for, or it may mean that these things are of limited relevance to EMI courses.

The large number of suggestions for attention to be given to technical terms/specialised language in the EAP courses perhaps suggests a lack of awareness among students regarding what EAP is and the nature of the first-year curriculum. However, at the same time, these suggestions should not simply be dismissed and perhaps consideration should be given to whether some steps could be taken in response to these suggestions.

For example, currently for the EAP III and EAP IV courses, lists of recommended readings are provided to instructors for use in the courses, but in selecting from these lists instructors are not asked to take account of the subjects their students are studying. It may then be useful to first ensure that the lists of recommended readings include a range of topics, some of more relevance to the social sciences/humanities, some more oriented towards science/engineering, and some more towards health/medicine, and to then request that instructors, when possible, choose texts while considering the students' departments.

A second approach could be to put more emphasis in the EAP courses on words in the Academic Word List (Coxhead, 2000) or the New Academic Word List (Gardner & Davies, 2014). These empirically founded lists feature vocabulary items that are common in academic language across all academic fields. Giving attention to such words in the EAP courses may not therefore satisfy the

desire of students for help with technical vocabulary, but may help to some extent in students' transition to dealing with academic language.

Third, the suggestion might be made to the academic departments and/or the SGU office that instructors of EMI courses and/or departments provide students with glossaries of key terms for each subject. It should be noted that for many academic fields there are now research-based word lists available designed to assist L2-English learners taking courses in that field. Examples include word lists for students of medicine (Lei & Liu, 2016), for engineering (Watson Todd, 2017) and for economics (O'Flynn, 2019). Such lists could prove a valuable resource for EMI instructors/departments in preparing subject-specific glossaries.

5.3. Limitations

This study has provided some useful insights into the challenges of EMI courses and how well prepared students feel they are for those challenges, yet there are also two clear limitations that should be borne in mind.

The first is the representativeness of the data. Unfortunately, the response rate, at 17% of students enrolled in the EMI courses, was rather low. Web-based surveys of students are known to often have rather low responses rates. For example, Porter and Umbach (2006) report that in the US response rates for the National Survey of Student Engagement range from 14% to 70% (mean = 43%) at different institutions, and Williams et al. (2008, as cited in Laguilles et al., 2011) state that response rates for 24 web-based student surveys at one university ranged from 20% to 61% (mean = 42%). The response rate for our survey was then at the low end of these ranges. Moreover, responses were only received from students in two of the university's three colleges, there being no responses from students enrolled in courses provided by the College of Medical, Pharmaceutical and Health Sciences.

A second limitation with the study is that the responses to open-ended questions tended to be very brief and hence not as informative as had been hoped. This may reflect some reluctance or lack of enthusiasm among respondents to engage with the questionnaire. Had time and resources been available, piloting of the questionnaire may have revealed this issue and allowed adjustments to have been made. Alternatively, it may be that the relatively anonymous, depersonalised nature of a web-based survey might be the primary issue and thus in any future work, interview-based data collection may be more appropriate. If this course is taken, however, careful consideration would be needed of the trade-offs between time taken and the number of respondents it would be possible to include (De Leeuw, 2008).

6. Conclusion

In order to consider how effectively the current EAP programme serves as preparation for EMI

courses, the study reported in this paper sought a better understanding of the challenges faced by students in EMI and how well they manage those challenges. The study found, in agreement with our previous study (Brown et al., 2019) of EMI instructors, that the EMI courses primarily require receptive skills, which are relatively less challenging for students, but when the courses do require active skills, students find this a much greater challenge. The study also found that students have a wide range of suggestions for how the EAP courses can best prepare students for EMI, and that there is a particular wish for attention to be given to technical terms and specialised language that feature in EMI courses as well as focused attention on listening, speaking and reading skills.

How then should the EAP courses move forward? This study's findings might be seen as suggesting that the courses should put more emphasis on listening and reading skills and perhaps de-emphasize to some extent writing skills, which currently have a central place in the programme. However, a number of other factors should be taken into account. First, the limitations of this research project must be recalled and accordingly the results of the research viewed cautiously. Equally, it must be remembered that the EAP courses are not solely devoted to preparing students for EMI courses at the institution; the courses also have a role in developing the general academic skills of students applicable in courses throughout their university studies, whether English-medium or otherwise, and beyond. At the same time, it must be borne in mind that curriculum development should not only consider the destinations of learners, but also take account of where learners have come from (i.e. in this case, the nature of high school English education in Japan). Taking account of all of these factors, evolution of the EAP programme, rather than revolution, would seem more appropriate as the EAP Course Management Committee seeks to develop and enhance the EAP programme.

Notes

1. The number of responses for Finding sources and Writing summaries were too small to allow the analysis to be run and thus these two were combined to form an "Other" category.

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Appendix

英語による授業（EMI）学生アンケート

これは、「英語による授業」を履修している学生さんを対象としたアンケート調査です。
問いに対する答えを選択肢から選んで下さい。

I

Students' perspectives on the challenges of EMI

1. あなたの母語は何語ですか？

日本語 日本語以外: _____ 語 (よろしければ書いてください)

2. この科目を履修することにした理由は何ですか？ (一つ選んで下さい。)

必修科目だから

英語上達のため

アカデミックスキル (プレゼンテーションやリサーチ) 向上のため

学びたい内容だから

その他 (_____)

3. 今までに、他にも英語による授業を履修しましたか？

(一つ選んで下さい)

他には履修していない

1 科目履修

2 科目履修

3 科目履修

4 科目履修

5 科目以上履修

4. 今学期、他にも英語による授業を履修していますか？

(一つ選んで下さい。)

履修していない

1 科目履修

2 科目履修

3 科目以上履修

5. あなたの英語 4 技能の能力を自己評価してください。

	低い				高い
リスニング	1	2	3	4	5
リーディング	1	2	3	4	5
スピーキング	1	2	3	4	5
ライティング	1	2	3	4	5

6. あなたは過去 2 年間に英語の試験 (TOEFL、IELTS、英検など)を受けたことがありますか。

受けたテスト名とスコアを選んで下さい。記載されていない試験の場合は文字で記入して下さい。

TOEIC	TOEFL (iBT)	IELTS	英検	その他 (点)
400 以下	40 以下		準 2 級以下	
401-500	41-60	4.0 より低い		
501-600	61-70	4.0-4.5	2 級	
601-700	71-80	5.0-5.5		

701-800	81-90	5.5-6.0	準1級	
801-900	91-100	6.5-7.0		
901-990	101-110	7.5-8.0	1級	
スコアを忘れた	111-120	8.5-9.0		
	スコアを忘れた	スコアを忘れた		

II

1. この授業では、英語でどんなことをする必要がありますか。該当するものをすべて選んで下さい。

英語でプレゼンテーションを行う

英語で議論をする

英語による講義を聞く

英語による動画を見る

英語でノートをとる

英語による論文や本のチャプター、その他の資料を読む

リーディング資料の要約を英語で書く

英語で書かれた資料を探す

英語で書かれた複数の資料からの情報をまとめる

英語でエッセイやレポートを書く

その他 ()

2. あなたは、次のことをどの程度できますか。IIの1. で選んだ事項についてのみ答えて下さい。(それ以外の活動は、「該当しない」を選んで下さい。)

	該当しない	あまり問題 ない	多少問題が ある	非常に問題が ある
英語でプレゼンテーションを行う				
英語で議論をする				
英語による講義を聞く				
英語による動画を見る				
英語でノートをとる				
英語による論文や本のチャプター、その他の資料を読む				

