

# Students' Experience of English Medium Instruction Classes in Medical School in Japan

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In the last few decades, the number of universities offering English medium instruction (EMI) in Japan has increased rapidly. Yet, studies on the EMI experiences of Japanese university students are limited in number. Few studies have examined the EMI experiences of students in medical school, who tend to have high English proficiency given the intense preparation required for the entrance exam. To fill this knowledge gap, I investigated medical students' views on their experiences of elective medical and non-medical EMI courses that they were required to take. An analysis of 93 survey and 7 interview responses revealed that the majority of them found the level of their EMI classes to be reasonable, while approximately 30% found it to be difficult, especially in terms of speaking, listening, and vocabulary. Most of the students who experienced these problems did not do anything to solve them, revealing the presence of unmet support needs.

ここ数十年間の日本のEMI（英語による専門科目の授業）の増加は著しい。一方、EMIの急速な普及により実践が研究を先回っている現状があり、日本人の大学生のEMI経験を深く調査した研究は少ない。例えば、入試への集中的な準備期間により比較的英語能力の高い医学部生のEMI経験を調査した研究は稀である。この知識の欠落を埋めることに貢献するため、本研究では93名分の質問紙調査の結果と7名分のインタビュー調査の結果を用いて、日本の医学部生のEMIの授業における経験を調査分析した。結果、回答者のうち大多数の学生が授業レベルを丁度よいと評価し、極めて困難であると評価した学生は3割程度であった。困難を感じた学生は特にスピーキング、リスニング、語彙の側面を困難であると評価している。困難を経験した学生の多くは問題を解決するために何もしなかったと回答しており、少数派ながら一定の学生の満たされていない学習支援ニーズの存在が明らかになった。

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Universities in non-English-speaking countries are increasingly offering English medium instruction (EMI), that is, the “use of English to teach academic subjects (other than English itself) in countries or jurisdictions where the first language of the majority of the population is not English” (Dearden, 2015, p.2). In 2014, Dearden (2015) conducted a global survey of 55 non-English-speaking countries to find that 52 of them offered EMI courses in higher education, and 64% of the respondents predicted that EMI usage will increase. Japan is no exception to this trend. In the last decade, the number of universities offering EMI in undergraduate and graduate courses in Japan has increased steadily. According to surveys of approximately 770 universities in Japan (MEXT, 2017), the number of universities offering EMI courses at the undergraduate level increased by approximately 60% (from 190 to 305 universities) during 2008–2015. Although a study demonstrated that many EMI courses tended to serve relatively small percentages of students, it confirmed a trend in the increase of the number of EMI courses in universities (Brown, 2017).

The reasons for this increased use of EMI in higher education in Japan have been discussed elsewhere (e.g., Hashimoto, 2018). The most commonly mentioned rationales include the belief that EMI will improve students’ and teachers’ English proficiency (Hanami, 2012; Manakul, 2004; Yamamoto, 2011) and the assumption that EMI is efficient for simultaneously learning the subject matter and the language (Fukuda et al., 2011). It also includes the belief that it will contribute to students’ employability (Chapple, 2015), benefit Japanese students preparing to study abroad (Yamamoto, 2011), attract international students to supplement the falling number of domestic students (Bradford, 2015; Haswell, 2018), and potentially enhance Japanese universities’ presence worldwide (as reflected, for example, in world university rankings) (Brown, 2017; Yonezawa, 2011 cited by Bradford, 2015). Therefore, Japanese policymakers and university executives have strongly promoted EMI.

Given the largely top-down nature of this decision, which was made at the managerial level instead of being derived from pedagogical needs in the classroom (Yonezawa & Yonezawa, 2016), many university instructors have expressed their reservations about its implementation (Sugimoto, 2016). A major concern is that students lack the English proficiency required to succeed in EMI courses (Hanami, 2011, 2012; Nakamura, 2003). The instructors

claimed that EMI would burden students and prevent them from learning the subject effectively. Although these claims sound somewhat persuasive, they should be treated cautiously. According to Kriukow and Galloway (2018), many of these claims are based on anecdotal evidence, and studies investigating stakeholders' experiences in Japanese universities are scarce compared to the empirical evidence gathered from overseas universities. In particular, the voices of students on this matter have not yet been addressed thoroughly in EMI research in Japan. For example, few studies have examined the EMI experiences of medical students, who tend to have higher English proficiency levels than other university students in Japan because of the intense preparation required for the competitive medical entrance exam. Their experiences may differ from those of EMI students belonging to other disciplines. Such possible differences have not been examined thoroughly hitherto, and therefore, to fill this knowledge gap, I investigated medical students' experiences of EMI classes in Japan.

## Literature Review

### Reasons for Enrolling in EMI Courses

As mentioned earlier, EMI involves teaching an academic subject in English as opposed to teaching the English language itself. The definition implies that EMI instructors are expected to teach their respective specializations, or at least that should be the focus of their courses. However, studies have indicated that many students register for EMI courses with the hope of improving their English skills. Studies conducted in Japan (Chapple, 2015) and overseas (e.g., Bozdoğan & Karlıdağ, 2013; Ellili-Cherif & Alkhateeb, 2015) have consistently found that improving English proficiency was the most common reason for students to enroll in EMI courses. For instance, Chapple (2015) found that the majority of Japanese students enrolled in EMI courses to "improve English ability," followed by "to make foreign friends," "experience 'real' English," and "a course requirement" (p. 4). Other sources of motivation reported in overseas studies include increased job opportunities (Al-Masheikhi et al., 2014; Bozdoğan & Karlıdağ, 2013; Ellili-Cherif & Alkhateeb, 2015), preparation for graduate studies at foreign universities (Al-Masheikhi et al., 2014), and instructors' expertise in the subject matter and their teaching methods (Yeh, 2014). Although the defined purpose of EMI is teaching an academic subject, students enroll in EMI courses with various expectations, including and most commonly, improvement of English skills.

## **Student Experiences**

Studies on student experiences conducted in Japan and overseas have reported the difficulties experienced by students attending EMI classes. Except for a few cases (Maíz-Arévalo & Domínguez-Romero, 2013; Yeh, 2014), students have consistently struggled to thrive in EMI classes because of their limited English proficiency. Doi's (2017) study of 2,359 undergraduate students from 10 departments found that their average TOEFL PBT test was 461. According to Doi, this is close to the average TOEFL PBT score of university students in Japan: 467. Most studies that have examined EMI students' experiences do not provide detailed descriptions of their respondents' English proficiency levels, and thus, the English proficiency level required to attend EMI classes is still unclear. However, studies conducted to date have almost consistently reported the struggles of students enrolled in EMI classes. For instance, Chapple (2015) revealed that 72.4% of the Japanese students enrolled in EMI classes found the classes to be more difficult than they expected owing to their insufficient English skills, and 34% of the registered students failed to complete the courses. Moreover, overseas studies have revealed that students perceived insufficient English proficiency as a major barrier to benefiting from EMI courses (Belhiah & Elhami, 2014; Byun et al., 2013). In South Korea, students felt the need to improve their English, especially in terms of listening and speaking, to succeed in EMI classes (Byun et al., 2013).

The challenges experienced by EMI students are not necessarily limited to linguistic problems. A longitudinal study in Qatar found that students' main challenges arose from limited vocabulary and background knowledge, as well as from difficulty in maintaining concentration (Pessoa et al., 2014). In addition, a few students found it difficult to understand the genre expectations and writing styles associated with academic English, which are different from those associated with their first language (Pessoa et al., 2014). A study conducted in Oman identified students' lack of confidence as a major obstacle, reporting that 60% of students "avoided expressing opinions in class discussion because they were afraid of making mistakes" (Al-Masheikhi et al., 2014, p.107). Thus, students can experience diverse linguistic, disciplinary, and psychological challenges in EMI classes.

## **Coping Strategies**

Several studies have investigated how students manage the challenges they face in EMI classes. Chapple (2015) revealed that Japanese students employed various strategies, such as "note comparison with foreign students,

downloading lecture slides, recording and listening to the lectures again, keeping vocabulary logs and asking Japanese classmates” (p. 5). In Spain, students sought help from teachers, looked for translations, used dictionaries and examples, and sought peer support (Maíz-Arévalo & Domínguez-Romero, 2013). In Saudi Arabia, students engaged in “positive reappraisal, planful problem-solving, self-controlling, and seeking social support” at the beginning of the semester and “[c]onfrontive coping and distancing” toward the end of the semester (Suliman & Tadros, 2011, p. 406). Students in Hong Kong sought clarifications from lecturers, spent more time reading before and after class, and tried to concentrate harder (Flowerdew & Miller, 1992). These studies indicate that EMI students attempt to cope with EMI-related challenges by using various resources, including class materials and support from classmates and instructors.

### **Provision of Support**

Potentially, the quality of learning experience in EMI courses depends on the availability of support during and outside classes. In the United Arab Emirates, more than 80% of students stated that they faced problems in class, such as understanding lectures and reading course materials, but they were able to overcome them owing to sufficient support from instructors in terms of the provision of supplementary information and explanations in simplified language (Belhiah & Elhami, 2014). By contrast, several studies in South Korea addressed the lack of support for EMI students, leading to failure in the creation of a beneficial learning environment for them (Byun et al., 2010; Williams, 2015). These overseas studies suggest that the provision of support is vital for ensuring the success of EMI implementation. However, neither studies conducted in Japan nor those conducted overseas have comprehensively revealed the nature and types of support required by EMI students to succeed in their classes.

To create a supportive learning environment, a few studies have explored the use of L1 in EMI classrooms. However, opinions on this idea are divided. In Turkey, the L1 proved to be vital to help students understand the subject being taught (Karabinar, 2008). However, in South Korea, students strongly opposed the use of L1 and preferred all-English instruction in EMI courses to maximize the opportunity to improve their English skills (Kim et al., 2009). After examining the opinions of 500 students and 100 instructors in the Gulf, Belhiah and Elhami (2014) proposed the idea of using both English and L1 to increase students’ language and biliteracy skills. These studies indicate that the appropriateness of L1 usage depends on various factors

that are specific to the context in which EMI is administered, such as class goals, students' motivations and expectations, and students' level of English proficiency.

## **Knowledge Gap**

Although EMI is a growing trend in Japan, its practice and research are in developmental stages. A nationwide survey of 258 universities in Japan revealed that a typical undergraduate EMI program is “a peripheral, ad-hoc program” (Brown, 2017, p.17) that tends to be positioned as a supplement to the curriculum. These EMI courses tend to cover topics in the humanities or social sciences, regardless of the students' majors (Brown, 2017). Moreover, EMI research in Japan is scarce compared to EMI research conducted in overseas contexts. The latest systematic review on EMI articles published in English (Macaro et al., 2018) identified three EMI studies conducted in Japan (Brown, 2013; Chapple, 2015; Iyobe & Li, 2013). Since then, more empirical studies have been conducted (Haswell, 2018; Heigham, 2018; Iyobe & Li, 2018; Kriukow & Galloway, 2018; Shimauchi, 2018), but these studies have focused on other aspects of EMI courses, such as instructors' teaching practices (Brown, 2013; Iyobe & Li, 2013), success factors of EMI programs (Iyobe & Li, 2018), development of an EMI attitude scale (Curle, 2018), gender differences among EMI students (Shimauchi, 2018), and EMI students' opinions of non-native English instructors (Haswell, 2018). Although Heigham (2018) and Kriukow and Galloway (2018) have focused on student experiences, their studies are limited in terms of both scope and method. Heigham (2018) focused only on international EMI students' experiences, while Kriukow and Galloway (2018) examined the experiences of three PhD students enrolled in EMI courses. Chapple (2015) is the only comprehensive qualitative and quantitative investigation of Japanese university students' EMI experiences. However, his study focused on the motivations and challenges of students, without addressing their strategies or support needs. Therefore, a similar mixed-methods study that covers the aforementioned unexplored areas would be beneficial for developing a more comprehensive view of Japanese students' experiences of EMI courses.

## **Research Purpose**

In the present study, I aim to contribute to the efforts to fill the above-described knowledge gap. I investigate why students enroll in EMI courses, how they perceive the degree of difficulty of their classes, which strategies

they use to manage difficulties (if they encounter any), and what types of support they wish to receive. An understanding of these aspects would not only improve our knowledge of students' views on their experiences of EMI courses but also yield practical insights to help EMI instructors support their students effectively. Thus, I aim to find answers to the following research questions:

- RQ1. Why do students enroll in EMI courses?
- RQ2. How do students perceive the degree of difficulty of their EMI classes?
- RQ3. Which strategies do students use to overcome possible difficulties?
- RQ4. Which types of learning support do students wish to receive?

Considering the scarcity of studies that have examined students' experiences of EMI in Japan, this study does not aim to produce findings that are representative of all undergraduate students in Japan. Rather, it aims to present a case from an institution as a first step toward representing the under-studied area.

## Method

### Overview

To answer the research questions listed in the previous section, I employed a mixed-methods approach in two phases. First, I conducted a survey with close- and open-ended questions among 131 first-year undergraduate students who were enrolled in EMI courses in a private medical school in Tokyo during 2016–17. Second, I conducted semi-structured interviews with a smaller group of survey respondents to enrich the survey findings. I employed a maximum-variation sampling method in the interviews to elicit diverse responses from the participants.

I selected medical students as the study participants for two reasons. First, studies have rarely explored the EMI experiences of students with high levels of English proficiency. The participants in this study have higher levels of English proficiency than average university students, probably owing to their intense preparation for competitive entrance exams. By focusing on this under-studied population, I aim to enrich our understanding of EMI students' experiences. Second, studies have rarely examined the experiences of medical students in EMI courses. Their curriculum is different from the curricula of other disciplines in terms of course density and training offered to ensure that graduates have the knowledge, skills, and attitudes needed to practice as doctors. In this unique context, it is worthwhile to examine how

such students experience EMI courses. This study will not only yield valuable data from an unexplored field but also provide data that are potentially comparable with the findings of future studies on the EMI experiences of students from the same field.

## **Research Context**

The selected university has been striving to develop an internationally competitive medical school, in part by providing students with a curriculum that stresses enhancing their English proficiency. Students are required to take the TOEFL at the beginning and end of their first year, and the department strongly encourages students to score better on the latter exam. During the first year, students are required to take at least one of the following seven elective EMI courses in diverse areas: photography, cinema, origins of medicine, survey of human culture, health informatics, motivation, and language testing. In addition to the EMI course(s), all first-year students are required to take multiple English-language courses that aim to improve their general English proficiency; general non-medical courses in L1, such as chemistry and physics; and introductory medical courses. Similar to other universities in Japan, the provision of EMI courses in this university department is rather peripheral, and these courses are positioned as supplements to the curriculum.

## **Questionnaire**

A questionnaire with close- and open-ended questions was used to examine students' views of their experiences of EMI courses. The survey questions used in previous studies (Chapple, 2015; Yeh, 2014) were referred to and modified to suit the specificities of my research context. The first section of the questionnaire queried why students enrolled in a specific EMI course and their expected learning outcomes. The second section examined which aspects of EMI courses students found challenging and asked how they managed these challenges. The third section examined the types of learning support desired by students before, during, and after classes. The fourth section collected information about the respondents, including their experiences of studying abroad, latest TOEFL ITP scores, and willingness to participate in subsequent interviews. The questionnaire was pre-tested and revised several times before it was distributed to the respondents.



## Semi-Structured Interview

To generate additional insights into the questionnaire results, semi-structured interviews were conducted with the students who expressed willingness to be interviewed. They were asked to explain why they selected a specific answer in response to a question in the questionnaire. With the interviewees' permission, all interviews were recorded and transcribed for qualitative analysis using NVivo 11 Plus software (OSR International Pty Ltd.). Pseudonyms were used to protect the interviewees' privacy.

## Results

The questionnaire was administered to 131 registered students (male = 90, female = 41). Of them, 93 (male = 56, female = 37) responded to the questionnaire. The average TOEFL ITP score of the respondents was 547, with a high of 673 and low of 460. The numbers of students registered in each course were as follows. Photography: 6, Cinema: 23, Origins of Medicine: 17, Survey of Human Culture: 17, Health Informatics: 13, Motivation: 7, and Language Testing: 10. Seven of the 93 respondents agreed to participate in subsequent interviews. Table 1 summarizes the interviewees' characteristics.

**Table 1**  
*Characteristics of the Interviewees*

Student	Gender	Nationality	TOEFL ITP	Experience of living abroad
A	F	Japan	507	No
B	M	Japan	520	No
C	M	Japan	533	No
D	M	Japan	553	No
E	M	Other	580	
F	F	Japan	593	Lived in China for 15 years
G	M	Japan	663	Lived in the U.S. for 15 years

## Motivation for Taking EMI Course

Table 2 presents students' reasons for selecting a specific EMI course. The most common reason was interest in the subject, followed by native-English-speaking instructor. A few students selected "Other," and their reasons were "I knew and liked the instructor," "I wanted to improve my English skills," "I wanted to take an all-English class," and "I thought it would help me prepare for the TOEFL."

**Table 2**

*Reasons for Selecting a Specific EMI Course*

Reason	Frequency	% (N = 93)
I was interested in the subject	71	76.3
I like courses taught by native-English speakers	35	37.6
I like courses taught by native-Japanese speakers	5	5.4
The course and assignments seemed easy	4	4.3
No other time slots were available	3	3.2
Other	4	4.3

The number of respondents who preferred a native-English-speaking instructor was seven-fold higher than that of the students who preferred a native-Japanese-speaking instructor. Multiple interview participants explained why they preferred native-English-speaking instructors. Student B argued that a native-English speaker's English is more "correct" and closer to that heard in a "real" English-speaking environment and that Japanese instructors' English pronunciation is not "authentic." Similarly, Student E felt that a native-English speaker's English is clearer and easier to understand than a native-Japanese speaker's English and, thus, is more helpful to students preparing for standardized exams such as the TOEFL. Additionally, Student G shared a unique observation that native-English speakers tend to allow students to study independently, but Japanese instructors tend to give students detailed instructions and supervise them. Student G preferred independent learning and thus preferred courses taught by native-English speakers.

### Expected Learning Outcomes

Table 3 lists the expected learning outcomes of the students from their EMI courses at the time of enrollment. One in three students expected to improve their listening skills, and about a quarter of the students expected to improve their speaking skills.

**Table 3**  
*Expected Learning Outcomes*

Types of expectations	Frequency	% (N = 93)
Improved listening skills	32	34.4
Improved speaking skills	25	26.9
Increased content knowledge	16	17.2
Improved TOEFL score	10	10.8
Improved writing skills	9	9.7
Improved reading skills	5	5.4
Become well-prepared to study abroad	3	3.2
Other	2	2.2

### Types of Difficulty Experienced in EMI

Figure 1 illustrates the types of difficulty experienced by students when attending EMI classes. For all five aspects of EMI classes, more than half of the students felt the level of difficulty was “reasonable.” The aspect found challenging by the largest number of students was speaking, followed by vocabulary and listening. By contrast, most students found the level of reading activities to be “reasonable.”

The interview participants explained why speaking and listening were especially difficult. Many stated that they could manage the activities relatively well given adequate preparation time, but they struggled with the activities that required instant responses. For example, students felt comfortable managing presentations but struggled with classroom discussions. Student E attributed his struggles to insufficient training or preparation for EMI both before and after he entered university:

Listening skills weren't really required to pass the entrance exam or to enter medical school. You know, there is a listening

section in the “Center Exam,” but it is so easy that one can get a perfect score without much effort. After entering school, there was no opportunity to practice listening. Understanding the EMI instructor’s English was, therefore, really difficult.

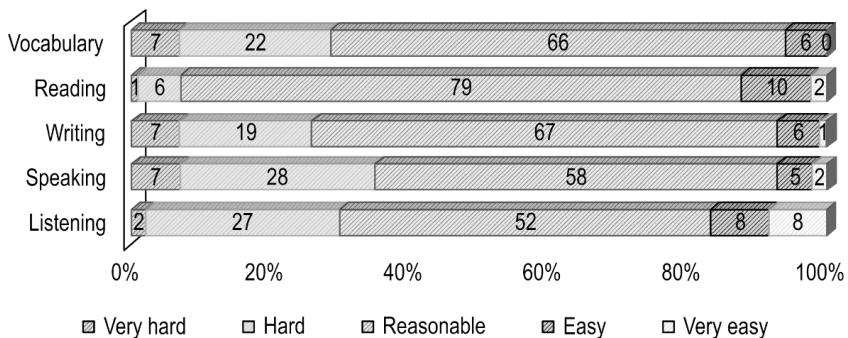
The above comment highlights a gap in the students’ language training. EMI seems to be a big leap from what they were trained for, and this gap makes it difficult for the students to thrive in their EMI classes.

In terms of vocabulary, several interviewees consistently stated that it was difficult for them to understand the technical terms used in lectures. Students often encountered hitherto unheard words in lectures, which left them feeling confused or lost in the class. Student A explained:

I would hear explanations about, for example, “stops” or “shutter speed,” which were unfamiliar terms to me. I wouldn’t have known the meanings of those words even if they were explained to me in Japanese. So, these terms are actually far more confusing in English.

This comment indicated that the difficulty arose not only from the English language itself but also from the subject matter, which highlights the need for additional explanation or support from the instructor.

**Figure 1**  
*Types and Levels of Difficulty Students Experienced in EMI Classes*



**Strategies Students Used to Manage Difficulties**

Table 4 lists the strategies employed by the students to manage the difficulties they experienced in their classes. Among the students who ex-

perienced challenges with some aspect(s) of their EMI classes, the largest number responded that they “did nothing” to overcome the challenges. Student C explained that he did not seek help because of a lack of motivation. He explained that because the EMI course was elective, he would rather focus on the mandatory English courses. Similarly, Student F explained that although he found it difficult to cope with the vocabulary used in the lecture, he felt it unimportant to learn this vocabulary that he would never use in the future, so he did not do anything about his difficulty.

**Table 4***Strategies Used by Students to Manage Difficulties*

Strategy	Frequency	% (N = 93)
Did nothing	28	30.1
Asked classmates for help	23	24.7
Asked instructor for help	17	18.3
Spent more time on review	16	17.2
Read relevant literature	6	6.5
Used ESL textbook	5	5.4
Spent more time on preparation	2	2.2
Other	1	1.1

Classmates turned out to be the most popular source of support, followed by the instructor. Student F explained that this was a matter of convenience: “I would always sit beside classmates with higher English proficiency, and I simply asked them what the instructor said.” Other coping strategies included individual activities, such as reading relevant literature, using ESL textbooks, and spending more time on preparation. The respondents who selected “Other” explained that “[al]though speaking was particularly challenging, it was not completely ‘impossible.’ So, I just tried. I tried speaking English as much as I could, even if my speech might have not made sense” (Student E).

**Types of Support Desired by Students**

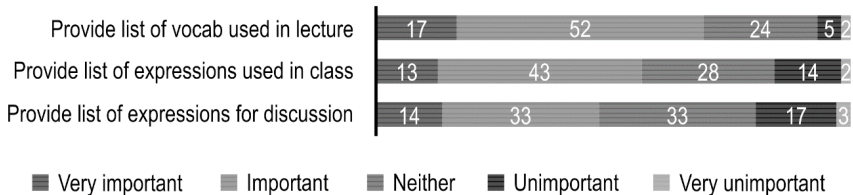
Figures 2–5 display the types of learning support that students stated that they could receive during and after the class, along with the degrees of importance they assigned to these supports.

### Language Support

Figure 2 presents a list of the types of support available for aiding students' understanding and use of English during classes. Relatively high percentages of the survey respondents positively evaluated the idea of receiving a list of words or expressions that are used frequently by the instructor in the class. A few interviewees explained that such lists would be useful for understanding lectures, reviewing lecture content, preparing for exams, and writing term papers (Students A, E, D, and F). Student E explained that by studying the aforementioned lists, he could have learned not only the meanings of the words in the lists but also how to use said words in the right contexts. Similarly, Student A wished for a list of frequently used terms when writing her final reports. Because she could not remember the words being used in the class, she struggled to find the right vocabulary and expressions when writing the final assignment.

### Figure 2

#### *Types of Language Support and Students' Evaluations of Them*



Moreover, many students were in favor of receiving a list of expressions that they could use in classroom discussions. Student A, for example, recalled:

[S]ince we had many opportunities to speak English, I became better [at speaking] than I was at the beginning. However, I always felt I was using the same words repeatedly without knowing how else I could express myself. Then, the semester ended. This is not about technical vocabulary but everyday expressions. I wanted to know what expressions other people would use. (Student A)

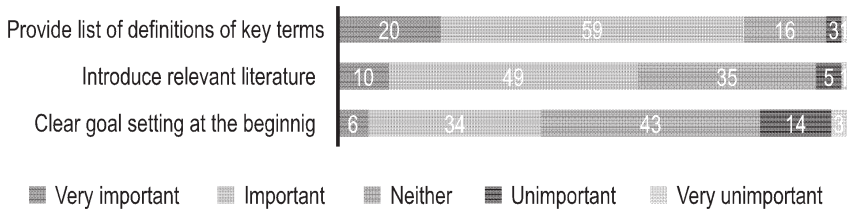
For the same reason, Student D strongly supported the idea of receiving a list of expressions that could be used in classroom discussions. He, in fact, had attended a class that offered such a list and was impressed upon realizing "how it enriched communication in the class."

### Content Support

Figure 3 lists the types of support intended to aid students' understanding of the subjects covered in EMI courses. The largest percentage of students regarded a list of definitions of key terms as important. Moreover, more than half of the respondents regarded the introduction of relevant literature as important. A student explained that reference lists are helpful during self-study after class. "If I search the Internet by myself, for example, I could consume inaccurate or wrong information. But if the instructor could provide references, I can trust that information to be correct" (Student D). The interviewees consistently and strongly supported the idea of clear goal-setting because it "worked like a manifesto, always telling us what we should do in class" (Student E). "By clearly setting goals and working on them one by one, both instructors and students can better focus their energy on the goals. Moreover, the students can concentrate better" (Student D).

**Figure 3**

*Types of Content Support and Students' Evaluations of Such Support.*

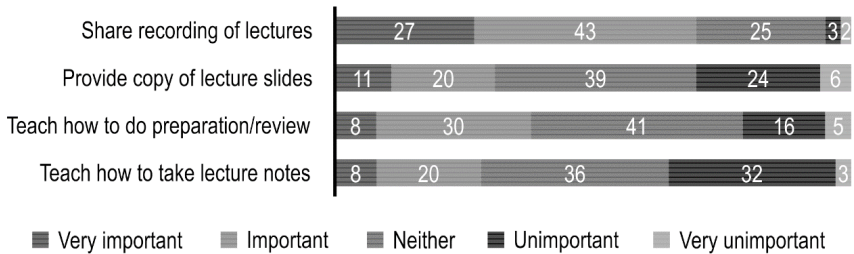


### Material or Instructional Support

Figure 4 depicts the types of support that can help students improve their independent learning skills through the provision of materials or instructions. A significant number of students (70%) agreed that "sharing lecture recordings" is important. According to a few interviewees, watching lecture recordings multiple times would help them understand the content more thoroughly. "It would be convenient if I could watch the recording when I felt I couldn't understand the class at all or when the class was slightly difficult" (Student E). By contrast, a few interviewees felt that they would not appreciate this because they would rather complete all the work in the class (Student F), they would not have time to re-listen to the lectures (Student B), or the recordings would make the act of attending the lecture redundant (Student D).

**Figure 4**

*Types of Material or Instructional Support and Students' Evaluations of Them*



Opinions on the provision of lecture slides were divided. On the one hand, students felt that sharing lecture slides was important because they would forget the lecture content otherwise and would be unable to review the lectures or prepare for exams (Students B and D). On the other hand, student E stated that “I don’t review lecture slides even if I receive them, unless the words used in the slides will appear in the exams.” Nevertheless, he appreciated the use of PowerPoint slides during lectures because he said that they functioned as a listening aid that helped him understand the lecture content. Student G, too, argued for the provision of slides, stating:

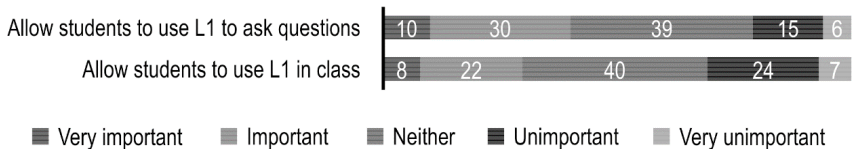
[S]tudents should be able to access the information and knowledge covered in the course, whether directly through lectures in the class or indirectly through lecture slides. [...] The slides should be provided as an option, and the decision to use [them] should be left to the students. (Student G)

*Support via First Language*

Figure 5 shows students’ opinion toward the use of L1 during and after class. The students’ opinions are clearly divided, with similar percentages of respondents supporting and opposing the usage of L1 during class (Figure 6).

**Figure 5**

*Types of L1 Support and Students' Evaluations of Them*





Opinions were quite divided in the interviews as well. The students with higher levels of English proficiency mildly tended to prefer the prohibition of L1 usage, whereas those with lower levels of English proficiency tended to insist on the benefits of allowing L1 usage. For instance, Students E and F preferred that English be used exclusively to maximize the opportunities to expose themselves to English, as shown in Student E's comments below:

For me, merely listening to their English could serve as really good practice. So, during group tasks, especially when talking with returnees, I often felt they should speak in English. I felt there was a need to create an atmosphere in which students could not speak Japanese. (Student E)

In addition, those who were against the use of Japanese commonly felt that allowing L1 usage would undermine the purpose of EMI because students would use Japanese all the time once it was permitted (Students A and D). Student A, for instance, stated that:

Particularly, students with lower levels of English proficiency would speak only in Japanese once it is permitted, as I have observed and experienced. If it is an EMI course, an all-English rule would help improve our English. [...] When I was observing students in an advanced English course, I noticed that they spoke fluent English because they had many opportunities to use English. So, I felt that I must make more efforts too. (Student A)

By contrast, students with intermediate and basic levels of English proficiency strongly supported the use of Japanese during class. Although they acknowledged its possible disadvantages, they believed that permitting the use of both English and Japanese was a more effective teaching method than limiting students to one language. For instance, Student C stated that:

I understand that once the use of Japanese is permitted, students could use it too often, which can be a problem. However, in an English-only environment, I couldn't express what I wanted to say at all. I believe that students could first say what they want to in Japanese and then translate it into English. Then, the instructor could correct them if their expressions are incorrect. (Student C)

Students C, F, and G suggested the flexible use of Japanese and English based on the proficiency of the students in the class. According to Student F, an English-only policy would be harsh for students with lower levels of English proficiency, and instructors would become unpopular if they were to enforce such a rule. In terms of when to use L1, interviewees suggested clear setting of rules and expectations at the start of the semester. For instance, Students E and F argued that for disseminating important administrative information, such as exam dates and instructions for assignments, instructors should use L1 to avoid confusion and prevent unfairness in evaluation.

A higher proportion of students supported the use of L1 *after* and outside the class to obtain required information efficiently without affecting classroom interactions. Several interviewees supported this idea because it would allow L1 to work as an effective safety net for students who could not follow the lecture (Students A, D, F, and G). Student C explained that:

[I]f I ever decide to go to my instructor's office to ask a question, it means I definitely want the answer, so Japanese would be better. It doesn't make sense and simply increases my frustration if I have to ask questions in English and cannot understand the responses because they are in English (Student C).

By contrast, Student E favored the principle of "all English" inside and outside the class, stating that "[i]f I study abroad, I would have to speak English in any situation. In fact, I never had any problem in communicating with my instructor in English. So why not." Student B, who selected "neither," explained that this question did not appear important to him because he preferred solving all problems in class and would not visit his instructor's office owing to a lack of time to do so.

## Discussion

This study examined medical students' experiences of EMI courses based on samples of survey and interview results. In terms of motivation, the overall findings highlight the respondents' desire to improve their English skills by learning a subject of interest in English. Surprisingly, there was a gap between the motivation for choosing a specific EMI course and the outcomes that the respondents expected from that course. Although most of the students reported that they selected a specific EMI course because they were interested in the subject (Table 1), fewer than 20% of them expected "increased content knowledge" as a learning outcome (Table 3). This

discrepancy can possibly be ascribed to the fact that the students were interested in “enjoying” learning English through an EMI course that seemed “enjoyable” but were not necessarily interested in increasing their subject knowledge because the subject may not necessarily be related to their field of specialization, that is, medicine. Another possible intervening factor might be the fact that all respondents had to take a TOEFL ITP exam at the end of the academic year as a departmental requirement and score higher than they did at the beginning of the year. This TOEFL requirement possibly influenced the students’ responses, raising their expectations of improving their English skills.

In addition to the subjects covered in course, EMI instructors’ status affected the respondents’ course selection. Specifically, the respondents tended to prefer native-English speakers over native-Japanese speakers. This bias toward native-English speakers was reported in a previous study conducted in China, in which approximately half of the EMI students preferred native-English-speaking instructors, but only a small percentage of students preferred native-Chinese-speaking instructors (Yeh, 2014). Students’ preference for native-English speakers might be related to their expected outcomes from EMI courses. I found that the majority of the students expected to improve their listening and speaking skills. According to Liaw (2012), students tend to prefer native-English speakers when learning speaking and listening and non-native-English speakers when learning reading and writing skills. The students’ preference for native-English speakers seemed to reflect the gap between the formal definition of EMI and students’ perceptions and expectations of EMI. Although EMI does not aim to teach the English language, students expect to improve their English skills through EMI, and thus, some of them prefer native-English speakers.

The interview results, however, revealed that their preference is not only related to the aspects of English proficiency they wished to improve but is also connected to their tendency toward “native speakerism”; they considered native-English speakers’ pronunciation more “correct” and “real” than those of non-native English speakers. The notion of which or whose English is being referred to in discussing “EMI” is a controversial issue that has been addressed by several researchers (e.g., Jenkins, 2013; Kirkpatrick, 2014). The language used in EMI courses could be British or American English, as well as English as a lingua franca and global Englishes. Dearden’s (2015) definition of EMI does not, in fact, define which type of “English” EMI refers to. Moreover, there is no single global standard for implementing EMI (Pennycook, 2012), and many university policies lack

specifications in this regard (Walkinshaw et al., 2017). Interestingly, though, the respondents' views were clearly biased toward the "native-speaker" norm, which ironically motivated them to enroll in EMI courses.

The most notable discovery of this study pertains to the relatively low degrees of difficulty experienced by students in their EMI courses. Most respondents found the difficulty of all aspects of their EMI classes (vocabulary, listening, speaking, writing, and reading) to be "reasonable." This contrasts sharply with the findings of previous studies (Belhiah & Elhami, 2014; Byun et al., 2011; Chapple, 2015; Pessoa et al., 2014) and the concerns expressed in many opinion papers published in Japan (Hanami, 2011, 2012; Nakamura, 2003). This contrast can most likely be ascribed to the fact that the respondents' English proficiency levels were adequate for EMI. As reported in the Results section, their average TOEFL ITP score was 547, but the average TOEFL ITP score of undergraduate students in Japan is 461 (Doi, 2017). The respondents' average score is close to or higher than the scores required to apply for undergraduate programs in many English-speaking countries. From this perspective, unsurprisingly, many respondents felt EMI to be manageable. Alternatively, they may have developed strong problem-solving skills during pre-med training; they may have found EMI difficult initially but might have gradually found ways to manage the difficulty and were confident when the questionnaire was administered to them.

Concerningly, most students did not employ specific measures when faced with the challenges of EMI. A minority of the students reported experiencing difficulties in terms of conversation, vocabulary, and listening. These areas have been identified in previous studies as challenging aspects of EMI for many students (Byun et al., 2013; Chapple, 2015; Pessoa et al., 2014). This study revealed that even in a classroom composed of students with relatively high levels of English proficiency, a few students experienced difficulties with English and needed additional support. However, they rarely sought support. In general, medical students have tighter class schedules compared to students from other disciplines. Thus, the lack of time to solve problems might have influenced their behavior. Alternatively, because the EMI course was elective and was less related to their main program, the students did not accord it high priority. Overall, the survey and interview responses suggested that the students tended to leave the problems they encountered in class or solve them with minimum time or effort.

The findings demonstrated that a few students used diverse strategies to cope with the challenges that emerged in EMI classes. Compared to those who did not seek help, the number of students who sought help was small.

Nonetheless, knowledge of the strategies employed by these students provided EMI instructors with insights into students' behaviors and helped with devising ways to assist their students. Students used strategies such as asking classmates for help, asking the instructor for help, spending more time on preparation or review, and reading relevant literature. Based on the findings reported in the literature, instructors and peers are popular sources of support for students (Chapple, 2015; Flowerdew & Miller, 1992; Maíz-Arévalo & Domínguez-Romero, 2013; Suliman & Tadros, 2011). The curriculum of the respondents in this study is densely packed with mandatory courses in addition to EMI courses. Moreover, a few of their classmates have high levels of English proficiency. With the limited amount of time available for EMI, they understandably relied on their classmates, the most closely accessible source of support.

The second most notable finding of this study was that many students expressed interest in receiving diverse forms of support, including language support, content support, material or instructional support, and support through L1, even though most of them considered the challenges of EMI manageable. Specifically, the students expressed interest in obtaining support that could help them participate in class more actively and comprehend the content more thoroughly. Although EMI, by definition, focuses on teaching an academic subject, students found appealing the idea of having some language support to help them communicate better in the classroom. Students expressed the second-highest interest in language support, such as receiving a list of words or expressions that can be useful in class, indicating they were more interested in polishing their English skills than focusing on the conventional definition of EMI. Moreover, the students evaluated the types of support that could solidify their understanding of the lectures, such as definitions of key terms and access to lecture recordings. This is almost certainly related to the fact that 29% of the students experienced difficulty with listening comprehension in EMI classes. Paradoxically, their interest in lecture recordings, which points to their belief that they can understand the lecture more thoroughly or can clear problem areas if they listen to the recordings repeatedly, indicates a degree of self-confidence in their own comprehension skills.

In terms of L1 usage, the students had conflicting opinions. This contrasts with the more homogeneous opinions *within* previous studies but perhaps reflects the differences of opinion *among* them. For instance, a study in Korea found that students' satisfaction would increase if the entire class was conducted without L1 usage (Kim et al., 2009), whereas other studies

have found that students consider L1 usage necessary (Eillili-Cherif & Alkhateeb, 2015; Karabinar, 2008). The present study included students of various English proficiency levels (with the lowest and highest TOEFL scores of 460 and 673, respectively), which might have caused the mixed opinions. The interviewees' opinions suggest that for students with higher levels of English proficiency, the exclusive use of English may be effective, but for students with lower levels of English proficiency, the use of both L1 and English may be effective from the viewpoint of maintaining reasonable levels of comprehension and motivation among them. However, these hypotheses need to be tested both quantitatively and qualitatively in more university contexts in future studies.

### **Limitations**

There are four major limitations of the data collected and examined in this study. First, the findings were generated from the data collected in one round of data collection, and thus, the study has limited ability to capture how the respondents' opinions might have changed over time. Future studies should consider collecting data at multiple points of time to not only minimize the effect of the respondents' memory bias but also capture the complex and fluid nature of the respondents' opinions more thoroughly. Second, the degrees of difficulty reported in this study are based on students' perceptions. Thus, the data are subjective and do not necessarily reflect the respondents' academic performance or behaviors in general. The students who experienced and reported high degrees of difficulty might nevertheless perform well in the exam by studying hard after class. The subjective nature of the collected data might have limited the validity of the findings because this study has limited ability to measure the respondents' actual behaviors. Third, detailed quantitative information on classroom activities in each EMI course was not gathered in this study. Consequently, the amounts of listening, writing, reading, and speaking activities performed in each class remain unknown. Although some information about these aspects was collected during the interviews, the interview sample size was small, and the data may not be representative. In addition, previous studies reported a problematic tendency among EMI instructors to reduce or simplify the content covered in class (Byun et al., 2010), and this tendency might have been present in my study as well. Future studies should consider the nature of classroom activities to assess students' experiences of EMI more accurately. Especially, ethnographic studies that qualitatively examine students' behaviors and educational practices in the classroom would generate valuable insights.

Placing the findings of the present study within such qualitative data would help obtain a more accurate and thorough understanding of EMI students' experiences and behaviors. Lastly, the present study is based on the survey and interview results of respondents from a single institution. Thus, the findings are not representative of all medical students' experiences across Japan. Despite these limitations, this study presented a case from an institution as a first step toward representing this under-studied group. Even if the findings cannot guarantee representativeness, the present study has value because it has produced results that challenge common assumptions and the findings of existing studies, such as those assuming that students find it difficult to succeed in EMI classes because of their limited English proficiency.

### Conclusion

In this study, I examined the EMI experiences of medical students in a private university in Japan. The findings demonstrated why students enroll in EMI courses, what challenges they experience in such courses, how they manage these challenges, and what types of learning support they desire to succeed in EMI courses. This study makes four major contributions toward improving our understanding of student experiences in EMI courses. Most notably, this is the first examination of the EMI experiences of students with high levels of English proficiency. The findings challenge the assumptions of most previous studies that considered EMI a "burden" for students. The majority of the students in this study found the challenges of EMI to be reasonable, although nearly one in three students found speaking, listening, and vocabulary to be difficult. Considering the high average TOEFL scores of the students, the results were unsurprising. Surprisingly though, the respondents were interested in receiving diverse forms of support, including support related to the English language. This is the second major contribution of my study. Previous studies reported how EMI students manage difficulties (Chapple, 2015) but did not examine the types of support they wished to receive to manage those difficulties. This is the first study that revealed the diverse support needs of EMI students in Japan. The findings revealed that students are interested in receiving English language support, content support, material support, and support via L1, which reflects their desire to improve their English skills and comprehend EMI lectures more thoroughly. The third contribution of my study is the finding that students do not necessarily seek support, even when they experience difficulty. Although the majority of the respondents expressed interest in receiving di-

verse forms of learning support, they did not necessarily seek such support assertively, implying that EMI instructors should actively engage with their students to discover their support needs and wants. Finally, I highlighted the gap between the conventional definition of EMI and students' expectations from EMI classes. Studies have found that students take EMI courses to improve their English rather than their content knowledge. The results of this study partially support this tendency, and the data suggest that improving both English and content knowledge are the major reasons for enrolling in EMI courses and that students wished to receive the types of support that are useful for fulfilling both objectives. In light of these findings, clearly, students' expectations are broader than the definition of EMI, and their learning support needs are more diverse than what EMI instructors are prepared to offer. Therefore, EMI instructors should possibly collaborate with English instructors, language specialists, academic librarians, and others to better meet the needs and expectations of students enrolled in EMI courses.

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