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Motivation in English-Medium Instruction in a Japanese University: Exploring Better Pedagogical Practices from the Perspective of Self-Determination Theory

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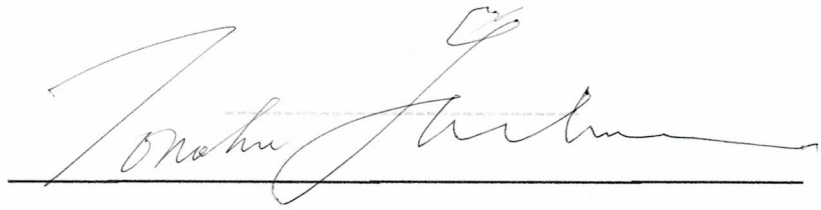

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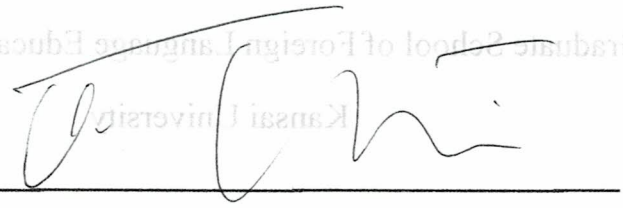

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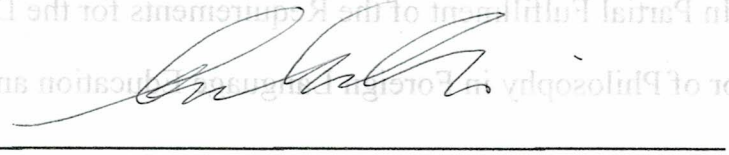

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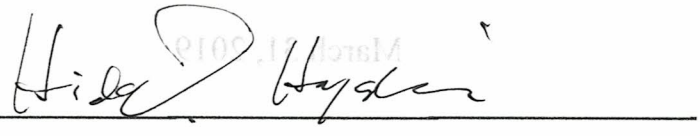

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論文要旨

高等教育の国際化の必要性が叫ばれる中、英語を媒体言語とした一般・専門科目（English-Medium Instruction, 以下 EMI）が 2000 年頃から世界中で急速に広まっている。多くの大学は学生が興味のある内容を英語で学ぶことで自然とその理解に必要な英語力が身に付き、一つの授業で「英語」と「科目」学習の両方が可能になることを期待した。EMI の急増に研究は追いついておらず、EMI の教育的効果についてはまだ明らかになっていない。

筆者は EMI を全学的に取り入れている本調査実施場所（以下 A 大学）において EMI の授業視察を重ねるうちに、実態は大学の期待しているような状況とは程遠いことに気づき、また、本研究全体の示唆を得るために実施した予備調査（4 章）を通して EMI が深刻な動機づけの問題に直面していることを確認した。そして 1) 動機づけの視点から現状と問題点の把握、2) より効果的な指導方法の模索の 2 点を目的に本研究を開始するに至った。

本博士論文はこれらの目的を達成するために行った 4 つの実証研究を中核とした 4 つのパート（全 10 章）から構成されている。

パート 1 は 第 1－3 章で構成される導入部である。

第 1 章では、まず、世界規模で展開する EMI の現状の把握、日本における状況やその問題点を提示している。世界の潮流となっている一方で研究が進んでおらず、特に学習者の観点からこの問題をとらえた研究がほぼ皆無に等しい状況を示している。そこで、日本の EMI の現状把握と改善のために、動機づけの観点から研究を行う必要性を唱え、本論の目的の説明に至る。

第 2 章では、先行研究の文献調査とそれに基づく問題点の指摘を行い、本博士論文の研究課題を提示している。具体的には、まず EMI とコンテント重視型の外国語教育（Content-based Learning, Content and Language Integrated Learning）との関連から入

り、両者の違いを述べた上で、EMI の国内外における国際的な研究について概観している。そして、EMI における動機づけ研究の必要性を限られた研究調査に基づき示唆している。

次に動機づけの観点から行う調査であるため、応用言語学分野で行われた学習動機づけ研究を歴史的に概観したうえで、本論の理論的基盤である自己決定理論（Self-determination theory, SDT）について概要と先行研究をまとめている。SDT についてはその理論の概要、内発的動機づけと外発的動機づけ、および、その発達を促す 3 つの心理的欲求（自律性、有能感、関係性）について説明している。

第 3 章では、A 大学について、全体の特徴、英語教育及び EMI の概要について説明している。さらに、筆者の A 大学における英語教員としての言語教育および EMI における教育経験について述べている。さらに、本調査実施時の筆者の立場や役割について述べられている。そして、ジェンダースタディーズとカルチュラルスタディーズの EMI において教育的介入調査を実施するに至った経緯を説明した上で、データ収集時に行った倫理的配慮が示されている。

続くパート 2 は 第 4－6 章で構成される学習者の視点から現状と問題点の把握を目指す研究群から成り立っている。

まず、予備的調査（第 4 章）は、先行研究の少ない EMI で調査を開始する上で、研究の方向性と理論的基盤の選定を目的として行った予備調査である。記述的な質問紙と有志を面接した結果、学習者の動機づけの状況の把握と変化を見ていくために SDT が妥当であること、また学習者が英語を使う将来のビジョンを持ちながら EMI を履修するため、The L2 motivational self system の理想 L2 自己及び義務 L2 自己を鍵概念として使う決定をした経緯を示している。

次に第 5 章では、量的調査 Study1 について報告している。SDT や理想 L2 自己などの理論をベースに外国語学習動機と EMI 動機の両方について尋ねる質問紙を作成し、220 名の学生にその質問紙を実施した。その結果、英語学習に対する態度がより

肯定的で、L2 理想自己がより明確で科目学習意欲の高い学生ほど EMI 内発的動機づけも高いことがわかった。また、SDT の理論的中核である 3 つの心理的欲求については、EMI 内発的動機づけには有能感の欲求の充足が、EMI 同一視的調整には有能感と関係性の欲求の充足がより重要であることがわかった。さらに、EMI 学習意欲が高い学生ほど、授業理解度も高く、授業外における自主勉強時間も長いことがわかった。Study 1 では日本人学生は英語学習と科目学習の双方を目的に EMI を履修していること、EMI のコンテクストにおいても SDT における心理的 3 欲求（自律性・有能感・関係性）の充足が重要であることを報告している。

第 6 章では前章の結果を受け行った質的調査 Study 2 について報告している。Study 2 では、面接を通して心理的 3 欲求の充足度について学生の語りの分析を通してその心理を探った。ここでは、まず理論に戻り、SDT の心理的欲求が満たされる又は、満たされない状況とはどういう心理状況にあるのかについて、Deci & Ryan の原著と教育心理学分野の先行研究から吟味した。そのうえで、自律性、有能感、関係性の欲求が満たされていないという心理が、どのように対象の語りの中で表れているかを、丁寧に読み解くという作業をしている。その結果、現在の EMI では面接対象の学生について、3 欲求が充足されていない様子が浮き彫りにされた。Study1 からからも示唆されている有能感の不足に加えて、周囲の学生と信頼関係が構築できていない様子が報告された。さらに、面接を通して自分の声が届かず、存在が価値のあるものとして受け入れられていないという自律性の欲求が満たされない状況を描いている。
以上の調査から授業理解度を上げ、SDT の枠組みおける心理的 3 欲求を満たすことで学生の EMI 内発的動機づけを高め、外発的動機づけをより内在化させるための教育的介入の必要性が明らかとなり、第 7－9 章から構成される介入研究、パート 3 へと進んでいく。

第 7 章は介入をデザインするための具体的なアイデアを収集するために行った予備調査について報告した。この調査では、Study2 の質的データを再分析し、学生のつ

まずきやEMIに期待している教育的アプローチについて探った。その結果、留学生とコミュニケーションを取りたい、ライティング指導が欲しい、語彙リストが欲しいなどの具体案が浮かび上がった。これらの結果を参考にして計画した介入について詳細に説明し第7章を締めくくっている。

第8章では、教育介入を量的に検証したStudy 3について報告している。量的研究の結果、介入の前後で平均値は統計的に有意な水準で向上しなかった。しかし、介入前後の動機づけの変化によって、上昇群、維持群、下降群に分けて、詳細を見ていくと、当初EMI内発的動機づけが低かった40%の学生の動機づけが向上したことを確認している。彼らはコースの後半になっても授業理解度が下がっておらず、EMIにおける授業理解度の重要性と7週間という短い期間でグループ全体の動機づけを有意に向上させる難しさが明らかとなった。

第9章では、比較群の欠如を補うために行った質的調査について報告している（Study 4）。6名に対する半構造化面接のうち4名をケーススタディとして報告し、留学生との小グループ（自律性、有能感、関係性の欲求の充足への貢献）、日本語のオンライン掲示板（自律性、有能感、関係性の欲求の充足への貢献）そして、英語のオンライン掲示板（有能感の欲求の充足への貢献）の3つの取り組みが特に有効であったことを示した。一方で、理想L2自己と現在のL2自己との乖離も報告された。つまり、介入は英語で学ぶ難しさを取り除ききることはできなかったものの、Study 3、4の結果及び先行研究との比較などを鑑みると、介入は学生の心理的3欲求を充足させEMI動機づけを維持・向上させることに一定度貢献したことが示されている。

本博士論文の最終章である第10章（パート4）では、本論文で報告された4つの調査の結果の要約と、限界点が記述されている。それによると、本研究はEMIにおける日本人学生の苦しい学習の現状を描き、その解決策として教育的介入を提案・実施し、その効果を検証した。 EMIという新しいコンテクストにおける 英語学習動機

づけ特に理想 L2 自己というビジョンを持つことの重要性及び SDT の理論的枠組みにおいては心理的 3 欲求を充足させることの重要性を明らかにした。数量解析でも示された、有能感充足の重要性だけでなく、コミュニティ創生の重要性、つまり関係性充足の重要性を示した。さらに、自律性の充足の根幹に焦点を当て、学生の声を聞く重要性を主張している。

筆者は、現場の混乱とは裏腹に、EMI はもはや止められない世界的な現象であり、「EMI を行うかどうか」ではなく「EMI をどう教えていくか」を議論していかなくてはならない時期であるという認識から、最後に EMI の改善の重要性を論じている。特に、EMI に備えて英語力を向上するのみならず、EMI の授業内においても英語学習指導を積極的に取り入れていくことの必要性を唱え、本論文を締めくくっている。

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Part 1

Part 2

1. Introduction

"Why do Japanese students give up so quickly?" "It seems like there are two campuses on one university. The first campus has a good group of international students, and the other one has a less smart group of Japanese students who have no intention to learn." These were some comments about Japanese students made by their instructors in English-medium instruction (hereafter EMI) courses at the site of this research (hereafter A University). It was quite disappointing for me as an English instructor at that time to hear their terribly low evaluation of the Japanese students. It made me wonder who would challenge themselves and persevere with demanding courses if their own instructors did not believe in their potential. After hearing more critical comments on Japanese students in EMI courses from several other EMI content specialists there, I decided to find out what was happening to the Japanese students in EMI and explore ways to support them. I am hoping that this project will help Japanese students not only at A University, but also at other universities in Japan because EMI is becoming an unstoppable phenomenon and will soon be the "new normal" in tertiary education (Walkinshaw, Fenton-Smith, & Humphreys, 2017, p. 2). EMI rapidly gained popularity when internationalization on campus became a top priority at institutions of higher education in this globalized world. As English has become the global language, it has been used as a medium of instruction as an effort to promote internationalization in non-English speaking countries. Therefore, since around 2000, EMI has become a worldwide trend and is becoming a necessity for universities to survive (Coleman, 2006).

EMI was first introduced in the Netherlands in the 1980s to help prepare domestic students for the world in which English is used as a common language (Barnard, 2018). Soon, universities realized that EMI could attract not only domestic students but also international students who wanted to study in the Netherlands but were not fluent enough to study in Dutch. A decade later, the Bologna Declaration or Bologna Process—a formal agreement to establish

a common framework of higher education qualification among EU countries and remove student mobility barriers—was concluded (European Higher Education Area, 2013). This boosted the number of institutes implementing EMI horizontally (private universities to public universities) and vertically (higher education to secondary schools to prepare pupils for EMI universities). In addition to the Bologna Declaration, European universities have also recognized that EMI is necessary to attract international students and to internationalize their campuses. In fact, there were approximately 800 EMI programs in Europe in 2002, which increased to 2,400 by 2008 (Barnard, 2018, p.4).

Meanwhile, EMI was also gaining popularity in South Korea, China, and Japan. The main reasons for these countries to implement EMI were the same as those for Dutch universities, (i.e., to attract international students and help domestic students be competitive in the globalized world). Compared to South Korea and China, Japan did not wish to promote EMI and Western thoughts in its educational system at this time (Hashimoro, 2018). In fact, there was no government intervention in Japan, and there were only eight universities and nine departments that offered EMI until 2008. In 2008, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) finally intervened and launched the "Global 30" project, aiming to host 300,000 international students by 2020. Thirteen universities were appointed to develop EMI programs, which did not require Japanese language proficiency in order to obtain a degree. At the end of the Global 30 project, MEXT finally started to offer EMI benefits for domestic students. In 2012, the "Go Global Japan" initiative was launched, and 42 universities were selected to promote EMI for both international and Japanese students. As a consequence of these initiatives, the number of EMI programs increased rapidly. In fact, 262 or around 30 % of 781 Japanese universities began to offer EMI by 2013 (Mulvey, 2018, p. 33). However, as they failed to attract as many international students as they had hoped, in 2014 MEXT launched another initiative called the "Top Global University Project" (TGUP, 2014) in 37

universities (Hashimoto, 2018). The focus of this initiative is educational reform to advance internationalization at tertiary education. The evaluation criteria for this initiative included the percentage of EMI courses offered and the percentage of students who have high language proficiency in English as well as the number of international students (MEXT, 2015a). Now, almost 38 % of the universities in Japan have introduced EMI (MEXT, 2015b; Mulvey, 2018, p. 33). It is evident that EMI is being actively promoted in Japanese higher education (Ota, 2011).

As we can see, EMI in Japanese universities is implemented not only for recruiting international students but also for increasing domestic students' international competitiveness. Specifically, universities have assumed that domestic students will improve their English proficiency naturalistically while learning the content of the courses in EMI (Macaro, Curle, Pun, An, & Dearden, 2018). However, as of now, there is not enough evidence to prove these dual benefits of EMI (Macaro, 2018).

As a language teacher, I was quite skeptical about these dual benefits from the beginning. As such, I began to observe EMI classrooms in 2011 when I was a language instructor at A University. I also wanted to know how Japanese students were doing in EMI after completing their compulsory English courses. It was quite shocking to see that EMI was conducted in a big lecture hall with a couple hundred students including both international and Japanese students. The lecture included a significant amount of technical terminology, and most of the EMI content specialists were conducting the lecture in a one way-communication style during the entire class. Needless to say, Japanese students who had only completed the mandatory language courses were unable to follow the lectures. Most Japanese students were sitting at the back of the classrooms, and I observed looks of desperation on some of the good students from my English language classes. I feared that students were learning neither English nor course content through this kind of EMI.

In addition to observing several EMI classes, I spoke with some EMI content specialists afterwards. Many of them felt that, compared to the international students, Japanese students were not eager to learn, or their English was not good enough to undertake EMI as I mentioned in the beginning of this chapter. The fact that Japanese students lack the requisite English proficiency to take EMI courses was also expressed by an education researcher Kuwahara (2018). He expressed the idea that students need a high English proficiency in order to follow the content in EMI, which few Japanese students possess when entering universities. He also mentioned that EMI content specialists struggle with having two groups of students with very different English proficiency. If the instruction focuses on international students, it is too fast for domestic students. On the other hand, it is too slow for the international students when the EMI content specialists focus on the Japanese students. In Hino's case study (2017) aiming to explore the significance of EMI in higher education in Japan, EMI content specialists stated that Japanese students were dropping out because of their lack of English proficiency. The actual reasons of them dropping out of the courses were not investigated because listening to Japanese students' stories was not a focus of the study. In fact, little research has been conducted that spotlights Japanese students in EMI, so we still do not know much about their learning experience in EMI classrooms (Yamamoto & Ishikura, 2018).

The previous research makes me wonder if the low performance and/or high dropout rate of Japanese students is not only because of their limited language proficiency but has a more complicated underlying problem that includes various issues. This idea lead to the following questions:

Why are Japanese students failing in EMI? What are the expected outcomes of EMI in content learning and language learning? What is the proficiency level of English that Japanese students need in order to undertake EMI? What kind of language training should Japanese students have before taking EMI? What kind of teaching skills do EMI content specialists need

to help students achieve these goals and do they have them? How fluent should EMI content specialists be in English to teach EMI?

To my knowledge, there are no standard goals or achievement criteria for Japanese students, so the level of English proficiency required for EMI and the workload depend on the course. Also, many EMI content specialists are native or near-native English speakers, but do not have the appropriate training to teach English language learners, or even teach in general. In other words, they are experts in their research fields but may not be equipped to teach non-native English speakers. Moreover, at least at A University, I observed that the language curriculum and disciplinary curriculum were separate, and EMI content specialists and language teachers typically do not communicate with each other. Thus, they do not know how each other's courses were designed and taught. This means that students can be asked to complete assignments in English even though they have not received the appropriate training to do so in their English language courses. I have seen Japanese students blame their failure in EMI on their lack of language proficiency. Nevertheless, the failure could also be caused by the fact that they have not received the relevant scaffoldings to perform successfully. Furthermore, it is frustrating to see that EMI content specialists—who may have failed to teach EMI in an accessible and/or a motivating way—were not aware of their failures, and instead underestimate the achievement capacity of the students. This is the reason why, although it is extremely demanding, I continue to seek ways to voice the opinion of Japanese students and find pedagogical approaches to motivate them. In reality, taking EMI is becoming unavoidable for Japanese students since the number of EMI courses continues to increase worldwide, including in Japan under the encouragement of MEXT. This indicates that if EMI content specialists keep ignoring the voice of Japanese students, universities are going to be at the risk of depriving students of the motivation to learn English or/and will be limiting intellectual curiosity. This means that finding better EMI-related pedagogical practices is an issue that

requires urgent attention. My experiences, which I have described in this chapter, and the wave of globalization, have led me to conduct this research.

This dissertation is divided into four parts. Part 1 consists of this chapter (Chapter 1), and the next chapter (Chapter 2) which includes a review of previous research and the research objectives. In addition, a description of the research context is described (Chapter 3). Part 2 consists of the next three chapters (Chapter 4-6), which include empirical studies that explore the current situation of EMI and challenges faced from the motivational perspective. In Part 3, interventional studies that were conducted to examine the effectiveness of possible solutions are described (Chapters 7-9) before moving on to Part 4, which concludes the research (Chapter 10).

2. Literature Review

As mentioned in the previous chapter, English-Medium Instruction (EMI) has become a worldwide trend; however, because of its rapid growth, research, especially in the classroom setting, has not caught up yet. Due to the lack of research on EMI, the current research is concerned with conducting preliminary research (see Chapter 4) aiming to obtain the implications of which could be useful in guiding future research. Its results, along with those from the few prior studies, suggest that language learners struggle with understanding lectures and maintaining their self-efficacy as well as motivation in EMI.

Motivation is crucial in learning, and thus, has been attracting many researchers and practitioners in Second Language Acquisition (SLA). Their focus began by aiming to understand what defines motivation, followed by varied research topics, such as identifying factors that influence motivation, exploring motivational trajectories, and seeking better pedagogical approaches to enhance motivation. In truth, in the field of SLA, over 400 studies on motivation were conducted between 2005 and 2010, and more than a quarter of them were conducted in Asian contexts (Boo, Dörnyei, & Ryan, 2015). Among motivational theories, self-determination theory (SDT) has been one of the most commonly used theoretical frameworks, especially in the Japanese context. SDT was applied as the main framework of this research as well for the following reasons. First of all, it has been applied in thousands of studies, including educational contexts (e.g., Kaplan, 2018; Niemiec & Ryan, 2009; Rawsthorne & Elliot, 1999; Reeve, 2002; Ryan & Powelson, 1991; Skinner & Edge, 2002). To be more specific, SDT has been employed in language classrooms in Japanese universities, especially in interventional studies (e.g., Agawa & Takeuchi, 2017; Hiromori, 2006; Hiromori & Tanaka, 2006; Maekawa & Yashima, 2012; Tanaka, 2010). Since this research also focuses on Japanese students and includes interventional studies to suggest better pedagogical practices, utilizing SDT appears beneficial. In addition, the preliminary study, which will be

introduced in Chapter 4, suggested that EMI motivation moves backwards from the perspective of self-determination continuum as the course progressed. Data implied that Japanese students registered for an EMI preparatory course because they felt it would be beneficial for them to take regular EMI in the future as well as obtaining a prerequisite for graduation. However, as the course progressed, nearly half of the students dropped out, which means they lost motivation. More than half of those who attended until the end of the course also thought about dropping out at some point, mostly because they felt it was impossible to follow the lectures. The results of this preliminary study confirmed that utilizing SDT for this research is beneficial.

In addition to SDT, the L2 motivational self system (Dörnyei, 2005) could be useful to measure motivation to learn English in EMI contexts where students are asked to express themselves in English while acquiring new knowledge. In such contexts, the degree of vividness of their ideal L2 self could affect how hard they try to be successful. That is why the ideal L2 self and ought-to L2 self of the L2 motivational self system were applied as the factors to assess motivation to learn English, in this project.

This chapter is divided into four parts: 1) definition of EMI, description of its applications and aims in Japanese higher education, and introduction of prior research on EMI and its limitations; 2) discussion of the historical background and previous research on language learning motivation; 3) introduction of the theoretical framework, SDT, and the L2 motivational self system; and 4) the research gap, research objectives, and overview of this dissertation.

2.1 From Content-Based Instruction/Content and Language Integrated Learning to EMI

EMI has been widely used in Europe since the 1990s; however, in language education, using the target language (hereafter TL) as a medium of instruction has already been applied since the 1960s, which includes content-based instruction (hereafter CBI), and the more recent content and language integrated learning (hereafter CLIL) (Arribas, 2016).

CBI was implemented earlier than CLIL mostly in immersion programs in Canada, and was defined as "the concurrent study of language and subject matter, with the form and sequence of language presentation dictated by content material" (Brinton, Snow, & Wesche, 1989, p. vii). It has been applied widely from preschool to higher education (Cenoz, 2015; Wesche, 2010).

CLIL, which developed in Europe, also focuses on the double benefit of acquiring subject knowledge and language proficiency in one course (Coyle, Hood, & Marsh, 2010). It rapidly gained popularity starting in 1995 when the EU's educational policy came into effect requiring that citizens have competence in their mother tongue plus two additional languages (Llinares, Morton, & Whittaker, 2012; Watanabe, Ikeda, & Izumi, 2011). To achieve this educational goal, CLIL, which can teach language and content at the same time in one classroom, was considered highly "cost-effective" (Bruton, 2013, p.588).

Many studies have discussed whether CBI and CLIL need to be considered separately (e.g., Cenoz, 2015; Howard & Bradford, 2017; Tedick & Cammarata, 2012; Watanabe, Ikeda, & Izumi, 2011). Paran (2013) expressed that differences between CBI and CLIL are not seen in pedagogical practices, but in historical background. Also, Howard and Bradford (2016) mentioned that CBI and CLIL are used as synonyms in Japan. Since historical background is not the focus of this dissertation, and all of the studies were conducted in Japan, I decided to treat CBI and CLIL together in this research; the details of both will mainly serve as a

comparison with EMI. Five of the key characteristics of CBI/CLIL are described below in this regard.

a) have a curriculum based on language and content, so teaching practices are conducted based on these aspects
b) are for TL learners
c) are usually taught by language teachers in Japan
d) include English and other languages as TLs (e.g., German, French)
e) have been applied at different education levels

In terms of pedagogical effectiveness, research on CBI has been conducted long enough to conclude that CBI has a positive impact on both language learning and content learning (e.g., Dary, 2006; Kasper, 1994; Macaro, 2018; Tsai & Shang, 2010; Winter, 2004). However, more recent studies on CLIL argue that the pedagogical effectiveness of having dual objective is open to debate. Some studies reported the positive learning outcomes of CLIL, especially in language learning (Lorenzo, Casal, & Moore, 2010). For example, Lasagabaster (2008, 2011) reported that learners in CLIL performed better in language proficiency testing than students in non-CLIL courses, since it can create an authentic situation for using the TL. On the contrary, some research shows that simply comparing students in CLIL and non-CLIL does not prove the pedagogical effectiveness of CLIL. Sylvén and Thompson (2015) argued that students in CLIL already had higher motivation to learn English and willingness to communicate when entering a CLIL program. Moreover, some literature expressed even negative aspects of CLIL (Dalton-Puffer, 2007; Hoare, 2010). Dalton-Puffer (2007) pointed out that CLIL is not a good place for content learning because subject teachers struggle with teaching content in L2, and language teachers have a limited amount of knowledge (Hoare, 2010). As described above it is a bit too early to conclude that CLIL is more cost-effective than using L1 as a medium of instruction of content.

EMI is different from CLIL, yet it shares some similarities. The biggest similarity is that they are both expected to improve students' language proficiency and content learning in one course. In the next section, I will define EMI as discussed in this dissertation, and will review previous studies on EMI.

2.2 English-Medium Instruction

As mentioned in Chapter 1, EMI is "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. 4). Unlike CLIL, EMI's rise is not because of any language policies; EMI has become necessary in higher education as English has become the predominant international language (Coleman, 2006; Crystal, 2003; Keeling, 2006), which was briefly mentioned in Chapter 1. The five major characteristics of EMI, which are important to define in this research, are described below.

a) uses only English as the medium of instruction
b) its main objective is content learning, so a language learning curriculum does not exist
c) is taught mostly by content specialists who have little or no experience teaching language learners, or have not had any professional training to teach language learners
d) is applied mostly at the higher education level
e) includes some students who are native or near-native speakers of English

Although the number of universities which implement EMI increased drastically, not enough research has been conducted to determine its pedagogical effectiveness. The following section will review the previous research on EMI.

2.3 Previous Research on EMI Abroad

Similar to CLIL, the dual benefits of EMI have not yet been proven (Chang, 2010; Macaro, 2018; Macaro, Curle, Pum, An, & Dearden, 2017; Wilkinson, 2005). As I mentioned at the end of the earlier section, EMI is expected to have dual pedagogical effectiveness—improving students' English competency while they acquire new knowledge—even though language instruction is rarely provided, unlike with CLIL. Therefore, it is easy to imagine that EMI is facing similar and even more severe challenges than CLIL to achieve positive outcomes in both students' language learning and content learning.

Although EMI's pedagogical effectiveness has not yet been confirmed, some research has shown students' positive attitudes toward EMI assuming its dual benefits, which will give them more career options (Chang, 2010; Flowerdew, Li, & Miller, 1998; Malcom, 2011, 2013; Wu, 2006). Gao's (2008) on Chinese participants who studied abroad in Hong Kong and took EMI classes showed that students' intrinsic motivation to learn English increased as they continued to take EMI. It indicates that EMI is effective at least for learning English

However, other research has highlighted EMI's limited pedagogical effectiveness and even its drawbacks (Byun et al., 2011; Chang, 2010; Flowerdew et al., 1998; Joe & Lee, 2013; Malcom, 2013; Sert, 2008; Wu, 2006). For example, a study in Turkey reported its narrow effects on both language and content learning (Sert, 2008). Sert's quantitative study, which Turkish university students participated in, showed that they felt EMI was only beneficial in improving their speaking proficiency, but not proficiency in listening, reading, or writing. Moreover, they did not think EMI motivated them to study English further. She also interviewed EMI content specialists in the same study, which expressed their critical attitude toward EMI. Most of the participants in the interviews preferred using Turkish as a medium of instruction, not English. Furthermore, concerns were raised about extremely brilliant students who have limited language proficiency and who try, blindly, to survive in EMI, which was one

of the reasons why they felt teaching in Turkish was more effective. A study in Italy also revealed that many EMI content specialists felt their English was not good enough to teach in English. They worried that students were confused and that their use of English negatively influenced students' language learning (Campagna, 2016; Pulcini & Campagna, 2015). Likewise, a study in Korea showed that many EMI content specialists teach their classes in English, not by choice, but by university request (Cho, 2012). Those studies suggested that EMI content specialists want to use their L1, but teach their courses in English only because they are assigned to do so. Thus, it is easy to imagine that teachers are not motivated or passionate about teaching EMI.

Besides Sert's (2008) study, some research in Korea also shed light on students' perspectives. Kang & Park (2005) described that high English competence is essential in reducing the anxiety of EMI learning. In their studies, students with lower English proficiency feel that English is a barrier to learning, and avoid EMI, as compared to students with higher English proficiency. However, Joe and Lee (2013) reported that even for students with TOEFL ITP scores around 590, they felt less satisfied and had a harder time understanding classes in English compared to the lectures in Korean. Their study did not have a control group, but used only one group of participants to compare EMI and Korean-medium Instruction. Therefore, reliability of the results is not enough as a scientific research study. Nevertheless, the studies discussed above still indicate that high English proficiency is necessary to encourage them to take EMI, but does not guarantee their success in these courses.

The EMI research in this section has focused on the advantages and disadvantages of EMI. Chang (2012), Malcom (2011) and Wu (2006) suggested that teachers, students and even parents assumed that EMI had dual pedagogical benefits. However, in reality, as Cho (2010), Campagna (2016), Joe and Lee (2013), Pulcini and Campagna (2015), and Sert (2008) argue,

EMI content specialists and students seemed to struggle with identifying the significance of EMI; thus, it is difficult for them to motivate themselves to teach EMI or study in EMI courses.

As discussed in Chapter 1, compared to other parts of the world, Japan is still behind in EMI application and research. In fact, Macaro et al. (2018) conducted a systematic review on global EMI research and reported that only three empirical studies existed in Japan (p. 45). The following section discusses how EMI is applied and the previous research in Japanese higher education.

2.4 EMI in Japanese Universities

In Japan, EMI has grown rapidly since 2000 with the aim of achieving the following three goals (Shimauchi, 2016, p. 65).

a) Promote internationalization on campus in order to improve international and domestic competitiveness of universities
b) Recruit more international students from prestigious universities
c) Increase domestic students' competitiveness in the international market (i.e., transforming domestic students into global citizens)

Due to its hasty expansion, EMI's application at Japanese universities has been rather uncoordinated (Bradford & Howard, 2018). Thus, Shimauchi (2016) conducted a survey study including all Japanese four-year universities (N=760), and explored how EMI has been implemented at some of the leading universities. The results revealed 78 universities and 292 programs offered EMI, which is more than the 241 reported by MEXT in 2014 (see Chapter 1). She also described that approximately 85% of EMI in Japan were at the graduate level, and that offering EMI at the graduate level is common especially in science programs at national or public universities. At private universities, more EMI were offered in arts programs. In total,

60% of EMI were offered in science majors (e.g., medicine, engineering, and ecology), and 40% in arts majors (e.g., business, global studies, and international studies). Forms of EMI also vary: some universities offer almost all courses in English, some offer EMI across the entire department in certain department, but not the entire university, while others offer EMI as a part of the curriculum but Japanese is the main medium of instruction in the major or course. Shimauchi also categorized EMI in Japanese universities into the following three types: 1) the "Global Citizen Model," the majority (90%) of the students are Japanese, and EMI is used to help transform students into global citizens; 2) the "Crossroad Model," domestic and international students share the learning environment (about 30–70% of the students are international students); 3) the "Dejima Model," most students (90%) are international students in which they study in an isolated environment. Shimauchi (2016) and Brown and Iyobe (2014) reported that many EMI programs in Japan are the first type.

As mentioned, few EMI studies have been conducted in Japan and most were conducted to understand obstructs of EMI from the perspectives of universities and international students (e.g., Bradford, 2013; Shimauchi, 2013; Tsuneyoshi, 2005). As a consequence of the lack of classroom research focusing on Japanese students, we have scant knowledge about the EMI experiences of domestic students and kinds of supports that university should provide to them (Yamamoto & Ishikura, 2018). Although research has been limited, it does indicate that students care less about learning content than learning English, because improving their English proficiency is their priority (Chapple, 2015; Shimauchi, 2018). Shimauchi (2018) reported that students believe EMI helps improve their English, especially academic speaking skills (e.g., presentation skills, being able to express one's opinions), even if the course does not include any international students. In line with her study, Chapples' (2015) study on both Japanese and international students revealed that the reason of taking EMI for Japanese students are mostly related to English learning. To illustrate, 83% of the Japanese participants

took EMI for language learning such as to improve English ability (38.9 %), make international friends (25.7 %) and experience authentic English (18.4 %). Unfortunately, what kind of English proficiency they wanted to improve was not explored in his study, however, these two studies suggest that English learning is one of the objectives of taking EMI from students' perspective.

Chapple (2015) also observed Japanese students dropped out of EMI. In his study, 34 % of the Japanese students who registered in the beginning withdraw from the course. Although he could not interview the students who dropped out to find out the reasons, some the participants who attended till the end of the course expressed that listening to the EMI lectures were a lot more challenging than they expected at the interview. Thus, he suggested that language support be provided to scaffold language learners in order to foster their understanding and stop them from dropping out. Similar situation was presented in Hino's case study (2017) to explore the value of EMI at Japanese universities, which reported many Japanese students stopped attending class as the semester progressed. Again, the reasons why students dropped out were not explored in this study either. Nevertheless, the EMI content specialists thought it was because students felt their English was not good enough to follow the lectures. Of course, we cannot draw any conclusion based on the few exploratory studies above, but it seems that students take EMI in order to improve their English, but they find EMI too demanding to understand and maintain their initial motivation.

Taking into consideration all of the previous studies conducted abroad and in Japan, EMI's pedagogical effectiveness has remained unknown. However, students and EMI content specialists believe that EMI will at least help students acquire higher English proficiency. Nevertheless, in reality, it is extremely challenging for them to comprehend lectures with limited English proficiency and/or little experience learning entirely in English. Having difficulty following EMI lectures has been indicated as a cause of motivation loss and negative

attitudes toward EMI, even leading some students to drop out. It means that EMI is facing serious motivational problems. Therefore, this research will investigate the current situations and problems related to EMI from a motivational perspective and suggest some possible solutions. The following section will define motivation and introduce the historical background of and previous studies on motivation.

2.5 Motivation in Second Language Acquisition (SLA)

2.5.1 Definition of Motivation

Dörnyei (2011, p. 4) describes motivation as a concept related to "why people decide to do something," "how long they are willing to sustain the activity," and "how hard they are going to pursue it." It also "provides the primary impetus to initiate L2 learning and later the driving force to sustain the long, often tedious learning process" (Dörnyei & Ryan, 2015, p. 72). According to Gardner (1985), motivation is crucial in learning because it is at least as important as one's aptitude, learning environment, or IQ.

Motivation research has attracted many researchers' interest in SLA since the 1960s and was categorized into three periods (Dörnyei, 2005; Dörnyei & Ryan, 2015; Dörnyei & Ushioda, 2011): 1) social-psychological period (1959–1990), 2) cognitive-situated period (during the 1990s), 3) from process-oriented period to socio-dynamic period (2000–present). Each period will be explained in the following section.

2.5.2 Historical Overview of Motivation in SLA

The Social-Psychological Period (1959–1990). The initial research on motivation in SLA was mostly conducted by the social psychologists, Wallace Lambert, Robert Gardner, and their associates, in the Canadian bilingual context where Anglophone and Francophone communities coexist. In their earlier work (Gardner, 1985; Gardner & Lambert, 1972), they

expressed that language learning is different from other subjects, such as science or mathematics, and that students' performance and achievements are influenced by social-psychological factors. This is because language is a mediator to communicate with the TL community. Therefore, they claimed that researchers must pay attention to not only the ability to learn or language aptitude, but also to affective factors, such as motivation, attitude, and anxiety, to predict the success of language learners. Later, they developed the concept called "integrative motive," which is a "motivation to learn a second language because of positive feelings towards the community that speaks the language" (Gardner, 1985, p. 82-83). This concept consists of integrativeness, which comprises three components. The first component is integrative orientation, that is, an interest in foreign languages and the L2 community. The second element is attitude towards the learning situation, and the third is motivation, which means a reflection of effort, desire, and attitude towards learning.

During this period of time in SLA, Gardner developed the following two types of motivation, which strongly impacted theories in SLA and became the central perspectives of research on motivation for 30 years. The first one is integrative motivation/orientation, which focuses on the interpersonal/affective dimension, and the second is instrumental motivation/orientation, which focuses on the practical dimension. However, what he actually attempted was to conceptualize the complex nature of motivation. Based on the concepts of integrative and instrumental motivation, students with higher integrative motivation were expected to achieve higher proficiency through stronger intention of interacting with TL communities. In contrast, students with instrumental motivation, study a TL with more pragmatic reasons, such as getting a better grade or a higher-paid job, which Gardner and his associates reported based on research, does not help achieve as high language proficiency as integrative motivation.

However, most of his work was in the bilingual context in Canada as mentioned earlier, and Au (1988) criticized and pointed out the limitations of applying integrative motivation in non-bilingual contexts. By the early 1990s, the important role that instrumental motivation played in the second and foreign language learning environments was recognized, especially in the foreign language learning (hereafter EFL) context, which has limited contact with the TL community (Clément, Dörnyei, & Noels, 1994; Dörnyei, 1990). These notions inspired SLA researchers, and later, Yashima (2000) introduced the concept of international posture, which expressed that language learners in EFL contexts do not have a particular L2 community in mind when studying L2. Therefore, international posture states, instead of integrativeness, one's openness towards dissimilar others, willingness to approach them, and interest in working and/or volunteering abroad influence one's motivation in language learning. The next section will discuss the subsequent period of motivation, which is the cognitive-situated period.

Cognitive-situated period of motivation (1990s). Originally, research on motivation in SLA was distant from educational psychology. Crookes and Schmidt (1991) drew attention to this gap, and highlighted the urgency of investigating the language learning context to understand L2 motivation, as well as the necessity of showing direct pedagogical implications based on empirical studies. Hence, research involved the following two trends during this period (Dörnyei & Ryan, 2015).

The first trend concerned applying motivational theories from educational psychology to SLA (e.g., goal theory, attribution theory, and SDT). Just as research in educational psychology, studies on SLA also focused on a variety of cognitive perspectives to determine influential factors on motivation (e.g., such as one's perceptions of his or her abilities, possible potential, limitations, and past performance, perspectives of tasks and/or goals to achieve).

The second movement involved focusing on students' motivation in actual classrooms rather than exploring the broader view of language learners' motivational disposition (e.g.,

attitude toward a target language community). Studies in language classrooms were conducted to understand situated motivation and find connections between individuals and social contexts, such as teacher, classroom materials, and peers. The studies during this period also reported that these factors could promote, maintain, or/and hinder one's language learning.

As described above, theories in educational psychology were utilized to research on motivation in SLA. Among others, attribution theory and SDT contributed significantly to the development of research in SLA (Dörnyei & Ryan, 2015), so I will introduce attribution theory below. SDT will be introduced later in this chapter since it is the main framework of this dissertation.

Attribution theory was a dominant theory in educational psychology during the 1980s. It also gained popularity in language learning because of the nature of language learning, which involves constant failures (Dörnyei & Ryan, 2015). Attribution theory posits that one's motivation depends on how s/he recognizes her or his success and failure (Weiner, 1992). To illustrate, if one believes that a failure was due to lack of ability, s/he tends not to try the activity again. On the other hand, if one attributes failure to insufficient effort or inappropriate learning strategies, s/he will probably keep trying. According to Ushioda (1997, 2001), one who believes his or her success is a result of effort and internal factors and that failure is due to temporary and external factors (such as learning environment or health conditions on that day) will have positive motivation to language learning. Attribution theory and SDT also suggested two perspectives for further development of L2 motivation research—temporal nature of motivation and limitation of survey studies—and introduced the importance of qualitative methods in motivation research. These ideas led to the next phase of research on motivation, the process-oriented period to the socio-dynamic period.

From process-oriented to socio-dynamic perspectives (2000-present). As mentioned earlier, by the end of the cognitive-situated period around 2000, researchers realized the

dynamic nature of motivation, and the focus of their interest turned to motivation as a process (Dörnyei, Henry, & Muir, 2017; Dörnyei & Ushioda, 2011). However, in a short period of time, researchers realized the need to capture motivation from even broader perspectives, called socio-dynamic perspectives. Therefore, the process-oriented period is now considered a transitional phase to the socio-dynamic period. I shall introduce some longitudinal studies focused on motivational trajectories and theories that represent this period (i.e., process model, person-in-context, and the L2 motivational self system).

As mentioned above, investigating motivational trajectories over time attracted more researchers' interests than before. Some longitudinal studies in this period often reported motivational decline over time. In a study done in a related field, Davies and Brember (2001) investigated primary school students' motivation in general (not specifically in language learning) and observed pupils' motivational decline over four years in a European context. Moreover, Williams, Burden, and Lanvers (2002) conducted surveys to assess pupils' foreign language learning motivation in grades 7-9 and compared the differences across grades. The results indicated that students in the lower grades had higher motivation. Woodrow (2013) investigated motivational shift of international students in Australia. Her survey study was done to assess both language learning motivation and academic motivation in general. The same questionnaire was conducted three times over a year with semi-structured interviews following each questionnaire. The results revealed that students' intrinsic motivation declined as they faced the challenge of taking undergraduate courses in English. The participants, mostly from China, struggled and lost their self-efficacy especially when trying to express and discuss their opinions.

In Japan, Koizumi and Matsuno (1993) and Yamamori (2004) examined first-year junior high school students' motivational trajectories over a year; both studies showed students experienced motivational loss in English classes. Yamamori (2004) found a decrease in

motivation for 40% of the participants due to multiple reasons, such as lack of preparation for exams, decreased self-efficacy after exams, and dissatisfaction in performance. Other studies focused on Japanese university students also showed them losing motivation while learning English. For example, using retrospective interviews, Hayashi (2012) investigated Japanese students' motivational trajectories to learn English. His study, from the perspective of SDT, uncovered that students' motivation dropped when they entered university after the entrance exam, and their motivation decreased further during the second year. Johnson (2013) found that university students' motivation decreased in the second year due to multiple reasons, such as classes being more difficult, and that they lost self-efficacy. They especially lacked confidence in using English in an authentic situation. Moreover, when they became sophomores, the excitement of learning as a university student had diminished, and their lives became busier with other classes and activities, such as part-time jobs or clubs, which caused motivational decline.

The paradigm shift in this period also led to some theorization to capture the temporal and dynamic characteristics of motivation, including Dörnyei and Otto's (1998) process model, person-in-context (Ushioda, 2009), and the L2 motivational self-system (Dörnyei, 2005).

An early attempt to understand L2 motivation as a process was Dörnyei and Otto's (1998) process model, which described three stages of motivation: before an action (pre-actional stage), during an action (actional stage), and after an action (post-actional stage). They expressed that motivation was a complex phenomenon whose three stages influenced one another. However, the overall linear nature of the concept was doubtful (Dörnyei & Ryan, 2015).

Ushioda (2009) pointed out the limitations of the cognitive psycholinguistic approaches applied to assess motivation, such as cause and effect and linear views. She postulated the idea of person-in-context, which proposes the importance of non-linear perspectives in research on

motivation in SLA. In person-in-context, value is placed on "the agency of the individual person as a thinking, feeling human being, with an identity, a personality, a unique history and background, a person with goals, motives and interactions" (Ushioda, 2009, p. 220). Thus, she suggested that researchers investigate motivation as a complex organic process that changes through interactions and relations with multiple elements that a learner is living in.

Finally, Dörnyei's (2005) L2 motivational self system, one of the most influential works of this period, will be introduced briefly here. It will be carefully discussed later in this chapter because its concepts of ideal L2 self and ought-to L2 self are applied to evaluate motivation to learn English in this dissertation. The L2 motivational self system consists of ideal L2 self, ought-to L2 self, and L2 learning experiences, which was based on Higgins' (1987) self-discrepancy theory and Markus and Nurius' (1986) possible selves. It is important to note that the system was postulated specifically for language learning contexts, and since the theorization of its concept in 2005, it has been used in numerous studies in this field worldwide (e.g., Al-Shehri, 2009; Maekawa & Yashima, 2012; Ryan, 2009; Taguchi, Magid, & Papi, 2009) and has more recently led to the concept of vision (Dörnyei & Kubanyiova, 2014).

The essential paradigm shift of this period is that researchers came to realize the limitation of understanding real-world motivation from static perspectives. They started by focusing on time and examining motivation as a process, but soon realized that motivational trajectories are not that linear and, therefore, shifted their focus to the "dynamic characteristic and temporal variation" of motivation (Dörnyei & Ryan, 2015, p. 84). From this socio-dynamic perspective, L2 motivation continuously fluctuates through interaction with multiple elements of the context in which learners are living. This shift drastically increased the number of studies in the field applying mixed or qualitative methods. In addition, based on these beliefs, Dörnyei and his colleagues introduced the complex dynamic system (CDS) theory (Dörnyei, 2009;

Dörnyei, MacIntyre, & Henry, 2015) and dynamic motivational currents (DMC) in language learning even more recently (Dörnyei, Henry, & Muir, 2016).

2.6 Language Anxiety

In addition to motivation, there are several characteristics and traits that differ among individuals, such as anxiety, self-esteem, and willingness to communicate (WTC). Among them, anxiety could be related to motivation in EMI. High anxiety deteriorates one's ability to comprehend and overall performance in an L2. An EMI context—for example, in a big lecture hall with hundreds of students, listening to a one-way lecture in English—could be intimidating for L2 learners. That is why language anxiety, which will be touched upon in this section, was measured in Study 1 (Chapter 5).

Foreign language anxiety was conceptualized by Horwitz, Horwitz, and Cope (1986) and constantly attracted researchers in SLA (Dörnyei & Ryan, 2015). According to MacIntyre (1999), it is "worry and negative emotional reaction aroused when learning or using a second language" (p.27). Horwitz (2001) also concluded that foreign language anxiety is a unique factor, which has little connection with general trait anxiety. It can be heightened when one is taking an important exam, a teacher calls on a student, or a language learner is presenting in front of others, which could hinder one's performance and/or comprehension of L2 (Horwitz et al., 1986; MacIntyre & Gregersen, 2012). To assess foreign language anxiety, the Foreign Language Classroom Anxiety Scale (FLCAS), developed by Horwitz et al. (1986), with a 33-item, 5-point Likert-scale, has been applied in many empirical studies. Aida (1994) confirmed that FLCAS is applicable to learners of the Japanese language. In a Japanese context, Yashima et al., (2009) explored Japanese students' anxiety and relationship between motivation and different dimensions of anxiety, as well as gender differences in it. They found that students'

intrinsic motivation decreased when their lack of confidence in speaking English in class increased.

2.7 Theoretical Frameworks

Among the theories on motivation in SLA introduced in this section, SDT is considered suitable for this project. As I explained earlier, SDT was applied as the main theoretical framework for the following three reasons. 1) SDT has been widely applied in educational settings worldwide, and 2) it is one of the most frequently used theories in interventional studies in Japanese universities because it focuses development of motivation. Furthermore, 3) data from the preliminary study, which will be discussed in Chapter 4, suggest that applying SDT is useful in understanding EMI motivation (i.e., initially took EMI for future learning and for prerequisite to graduate, but considering dropping out because it is too demanding.). Furthermore, ideal L2 self and ought-to L2 self of the motivational L2 self system are used to assess motivation to learn English. This is because one of the reasons why Japanese tertiary education offers EMI is to improve domestic students' English proficiency through learning content. This means that they are expected to speak and write in English in actual classrooms, based on the knowledge that they acquire in EMI. In this kind of learning environment, if students are able to vividly imagine themselves learning alongside international students in the same classroom successfully, and working with them both in and outside of the classroom, their motivation could be boosted. In addition, as will be mentioned in Chapter 4, data in the preliminary study suggest that students who have clear future goals as English speakers could persevere in EMI. That means their ideal L2 self and ought-to L2 self are in some way related to motivation toward EMI. That is why the ideal L2 self and ought-to L2 self of the motivational L2 self system are applied as factors to evaluate motivation to learn English this

research. In the following section, the two frameworks of this dissertation, SDT and the L2 motivational self system are discussed.

2.7.1 Self-Determination Theory

SDT (Deci & Ryan, 1985, 2002; Ryan & Deci, 2000) hypothesizes that people have an innate tendency to self-regulate their behavior and engage with others for intellectual growth. However, this tendency can be enhanced or diminished depending on the environment. Within SDT, human motivation can be broadly categorized into intrinsic and extrinsic motivation (Deci & Ryan, 1985). When one is intrinsically motivated, s/he is performing an activity because it is exciting and enjoyable (e.g., I am taking EMI because it is fun). In contrast, when one is extrinsically motivated, one is performing the activity to achieve a separate goal (e.g., I am taking EMI because I want to get a higher TOEFL score). According to Deci and Ryan (1985, 2002) and Ryan and Deci (2000), fulfilling the three psychological needs—the need for competence, the need for autonomy, and the need for relatedness—are essential for human beings to be motivated. To illustrate, the need for autonomy is a sense of self-governance, which means one needs to see the value in doing an activity. It does not mean one must be independent or completely free to do anything, but rather, one recognizes the importance of doing an activity by choice. The need for competence is a sense of growth and achievement so that one knows s/he is gaining skills. Finally, the need for relatedness is a sense of having secure and trustworthy relationships with others because people need to feel connected and engage in caring relationships to be motivated. Ryan and Deci (2000) expressed that the three psychological needs are universal and essential for one's well-being.

Deci and Ryan (1985) also introduced a second sub-theory called organismic integration theory (OIT). Within the OIT, they presented four different forms of extrinsic motivation—external regulation, introjected regulation, identified regulation, and integrated regulation—

which have different degrees of self-determination in addition to amotivation (see Figure 2-1). Amotivation is the state of lacking the intention to carry out an activity, because one does not value the activity or feels unable to do so. In terms of extrinsic motivation, the least self-determined form is external regulation, which involves performing an action for a reward or to avoid punishment, such as attending a class to gain necessary credits. The next level of extrinsic motivation is introjected regulation, which is more internalized than external regulation. It entails carrying out an activity with the hope of receiving compliments from others or to avoid feeling guilty for not performing a certain task. Identified regulation is a more mature form of extrinsic motivation, involving the individual's recognition of an activity's value to achieve key goals. Finally, integrated regulation is the most internalized form of extrinsic motivation, and entails the performance of activities that are in harmony with one's identity (Deci & Ryan, 2002).

Amotivation	Extrinsic motivation				Intrinsic motivation
	External regulation	Introjected regulation	Identified regulation	Integrated regulation	Intrinsic regulation
Non self-determined	⟷				Self-determined

Figure 2-1. The self-determination continuum with types of motivation and regulation (Deci & Ryan, 2002; Ryan & Deci, 2000).

SDT first inspired SLA researchers in Canada (Noels, 2001; Noels, Clément, & Pelletier, 1999; Noels, Pelletier, Clément, & Vallerand, 2000; Vallerand & Bissonnette, 1992), and much research has been conducted using SDT. In Japan, Hiromori (2003) first examined applicability of SDT in Japanese English classrooms (see also Yashima et al., 2009). Since then, many researchers have employed SDT in a variety of contexts. For example, Hiromori (2005) found that the three psychological needs within SDT were interrelated: the needs for competence and for relatedness are vital in order to enhance university students' intrinsic motivation to learn

English. Hayashi (2012) investigated Japanese students' motivational trajectories to learn English, by conducting retrospective interviews from the viewpoint of SDT. The participants were asked to share their past nine years of learning experiences and how their motivation changed. As a result, as mentioned earlier in this section, their intrinsic motivation decreased especially after entering universities. In the Japanese context, SDT has been one of the most commonly used theoretical frameworks in interventional studies aiming to enhance student intrinsic motivation or internalize extrinsic motivation by trying to fulfill the three psychological needs mentioned earlier (e.g., Agawa & Takeuchi, 2017; Hiromori, 2006; Hiromori & Tanaka, 2006; Maekawa & Yashima, 2012; Tanaka, 2010; Tanaka & Hiromori, 2007). I will introduce three interventional studies, which not only conducted an intervention, but also examined their data closely enough to identify whose motivation was increased. First of all, Hiromori (2006) applied creative writing activities to advance satisfaction of the three psychological needs and enhance intrinsic motivation, and succeeded in motivating 68% of the participants with a group activity. The percentage of participants who increased their motivation was exceptionally high compared to the other studies, which will be introduced later. However, even in this study, students who already had high intrinsic motivation from the beginning did not increase theirs, but sustained it. In Tanaka and Hiromori's (2007) study, group presentation activities were utilized aiming to boost the satisfaction of the three psychological needs and increase intrinsic motivation to learn English of Japanese students. They succeeded in fulfilling the three psychological needs. In terms of the change in intrinsic motivation, they found that 26% of the participants who were not motivated in the beginning increased their intrinsic motivation. However, students who were already motivated in the beginning did not experience a change in motivation. Finally, Maekawa and Yashima's (2012) study on Japanese engineering students was conducted and also succeeded fulfilling the three psychological needs by designing a presentation-based course. Although they did not observe a

significant change in students' intrinsic motivation as a whole, their project succeeded in enhancing motivation in 22% of the participants, who had showed lower intrinsic motivation at the beginning of the study.

These studies have revealed that it is especially challenging to increase intrinsic motivation amongst students who are already motivated. Also, they have noted the importance of categorizing students based on their motivational profiles, because effective teaching approaches differ accordingly. As we have observed, SDT has been employed in numerous studies to understand the development of and decline in motivation among students. In the Japanese English classrooms, it has been applied in interventional studies. These interventional studies have reported that satisfying the three psychological needs will increase intrinsic motivation. Some previous studies (Hiromori, 2003, 2006) have investigated the roles of these three needs in educational settings because the roles of each psychological need differ depending on the context (Deci & Ryan, 1985). Hiromori's (2003, 2005) studies suggested that fulfilling the needs for competence and the need for relatedness is more important than doing so for autonomy. However, this does not mean satisfying the need for autonomy is not essential since they are all interconnected (Hiromori, 2005) and since the need for autonomy and the need for competence influence each other (Hiromori, 2003).

2.7.2 The L2 Motivational Self System

The L2 motivational self system was conceptualized by Dörnyei (2005) based on two psychological theories, namely the theory of possible selves (Markus & Nurius, 1986) and the self-discrepancy theory (Higgins, 1987). According to Markus and Nurius (1986), possible selves include what one would like to become, could become, and is afraid of becoming. Self-discrepancy theory (Higgins, 1987) proposes the ideal self as a representation of the qualities that one ideally possesses and the ought self as a representation of the attributes one believes

one should possess. The ideal and/or ought self each works as a self-guide when one is trying to reduce the discrepancy between one's actual self and one's ideal or ought self.

Dörnyei (2005) applied these theories and postulated the L2 motivational self system as a motivational theory in SLA that comprises three components, namely the ideal L2 self, ought-to L2 self, and L2 learning experience. The ideal L2 self is the representation of one's ideal self as an L2 speaker. Dörnyei (2009) suggested that if one's ideal self speaks the L2, that image could be a great motivator in learning a language, as one attempted to minimize the distance between one's ideal and actual selves as an L2 speaker. Therefore, learners who can clearly and vividly imagine their ideal selves as L2 users are more motivated in language learning. On the other hand, the ought-to L2 self is "the representation of the attributes that one believes one should possess to meet expectations or to avoid negative outcomes" (Dörnyei & Ryan, 2015, p. 87). Compared to the ideal L2 self, short-term goals, such as getting a better grade, tend to be a motivator for the ought-to L2 self. Finally, the third component of the theory is L2 learning experience, whereby the immediate language learning experience and learning context to some extent affect students' motivation in language classrooms (Dörnyei, 2005).

The L2 motivational self system has remained popular among SLA researchers worldwide since its inception in 2005 (e.g., Csizér & Kormos, 2009; Maekawa & Yashima, 2012; Ryan, 2009; Taguchi, Magid, & Papi, 2009). Csizér & Kormos (2009) compared university students and secondary school students in Hungary. The results showed that for university students, both ideal L2 self and ought-to L2 self are predictors of motivation to learn English. However, ought-to L2 self is a much weaker motivator than ideal L2 self, and it was not a predictor at the secondary level. Cross-cultural study (in Japan, China, and Iran) was conducted by Taguchi et al. (2009), who found that ideal L2 self influences motivation more strongly than ought-to L2 self. Prior research focusing specifically on Japanese learners has revealed these concepts as useful in understanding learners' motivation and intended effort to

learn English (Maekawa & Yashima, 2012; Nishida; 2013b; Ryan, 2009; Yashima, 2009; Yashima, Nishida, & Mizumoto, 2017). Ryan (2009) conducted a survey study across Japan and revealed that vivid one's ideal L2 self is a powerful motivator to learn English. Yashima's study (2009) on high school students showed interrelation between ideal L2 self and highly internalized forms of extrinsic motivation (identified and integrated regulations), as well as intrinsic motivation to a lesser degree. Moreover, Yashima et al. (2017) investigated if 1) ideal L2 self and ought-to L2 self could be predictors of motivation to learn English and English proficiency, as well as 2) influence learner beliefs about one's ideal L2 self and ought-to L2 self. They also investigated 3) if they could observe gender differences in the first and second research objectives. The results uncovered that ideal L2 self is a stronger motivator, that communication orientation influences ideal L2 self, and that grammar-translation orientation influences ought-to L2 self. Finally, female students had a stronger belief than male students that communicating with others is essential to improving their English proficiency. The results suggest that creating communication-orientated classrooms could help students clearly imagine their ideal L2 selves, which can help foster their learning, especially for female students. They analyzed the gender differences in results from a socio-cultural perspective; and claimed that English empowered female students, and consequently allowed them to participate in "an imagined international community" (p.705). The L2 motivational self system has also been applied in interventional studies in Japan. Maekawa and Yashima (2012) designed a year-long presentation-based course and succeeded in enhancing the ideal L2 self of Japanese engineering students who had low motivation. Although the statistical correlation between the ideal L2 self and intrinsic motivation was not explored in the study, the data suggested that students who have clearer images of their ideal L2 selves possess higher intrinsic motivation to learn English.

As we can see, previous research claimed that ideal L2 self is especially important when it comes to predicting who will make a greater effort to learn English. Ought-to L2 self is less influential compared to ideal L2 self. In the Japanese context, some research (Konno, 2011; Nishida, 2013b; Yashima, 2009) suggests that ideal L2 self even enhances intrinsic motivation, and, furthermore, helps internalizes extrinsic motivation to learn English. In addition, the results of the preliminary study in this research indicates that ideal L2 self could be an important motivator in an EMI context as well. To illustrate this point, the data in the preliminary study suggests that students who have a clear image of a person who s/he wants to become as an English speaker might show stronger perseverance (see Chapter 4 for more details). Therefore, this research will apply ideal L2 self and ought-to L2 self from the L2 motivational self system as variables to assess motivation to learn English.

2.8 Research Objectives

This research was conducted in an EMI context in which both international and domestic students learn together which has the following objectives.

1. To understand the current situations and challenges that EMI is facing from the perspectives of Japanese students' motivation (Chapters 4, 5, and 6); and
2. To examine the effectiveness of pedagogical interventions as possible solutions to the problems explored in the first half of this research (Chapters 7, 8, and 9).

To achieve these objectives, the following studies were conducted focusing on Japanese students. The objectives of each study are described below.

1. To understand the current situations and challenges that EMI is facing from the perspectives of Japanese students' motivation

Preliminary study (survey and interview)

- To gain indications of the current situation and challenges that EMI is facing from a motivational perspective
- To confirm SDT as the main framework for the project (survey and interview)

Study 1 (survey)

- To confirm the results of the preliminary study
- To investigate students' motivation more scientifically by applying SDT and other motivational factors, including ideal L2 self and ought-to L2 self from the L2 motivational self-system (i.e., to identify predictors of EMI intrinsic motivation
- To identify groups of students who have different motivational profiles

Study 2 (interview)

- To explore how the three psychological needs of SDT are fulfilled or not from Japanese students' perspectives

2. To examine the effectiveness of pedagogical interventions as possible solutions to the problems explored in the first half of the dissertation

Preliminary study for designing the intervention (interview)

- To get concrete ideas for the intervention through understanding Japanese students' preferred teaching approaches and setbacks in EMI

Study 3 (survey)

- To examine whether the interventions were effective or not

Study 4 (interview)

- To explore how interventions were effective or not effective from the participants' perspectives

As Figure 2-2 shows, this dissertation consists of 10 chapters, which are divided into four parts. Part 1 includes the introduction, literature review and study context. Part 2 (preliminary study, Study 1, and Study 2) focuses on understanding the current situations and problems in EMI from a motivational perspective. The preliminary study was conducted to explore some possible directions for the current project in response to the lack of previous studies, and to confirm if SDT was the best fit for this research project. Study 1 aimed to identify important factors for identifying EMI motivation using quantitative methods. Specifically, the survey assessed students' EMI intrinsic motivation, and identified regulation, introjected regulation, and external regulation, as well as the three psychological needs within SDT (i.e., the needs for autonomy, competence, and relatedness). In addition, intended effort to learn English, ideal L2 self, ought-to L2 self, and intended effort to learn content were evaluated. In Study 2, interview data were collected to explore how the participants' three psychological needs were fulfilled or not. Part 3, interventional studies (preliminary study for designing the intervention, Study 3, and Study 4), were conducted in response to the study results of Part 2. A preliminary study for designing the intervention was done to gain solid ideas to plan the intervention. Study 3 was conducted to examine the effectiveness of the intervention using quantitative methods. Finally, Study 4 investigated the contributions and limitations of the interventions, as well as ascertaining, using students' stories, which intervention was more beneficial than the others and how. Finally, conclusions are offered in Part 4 (Chapter 10). A description of the content of each chapter follows.

Part 1:

Chapter 1 is an introduction to the research and describes EMI's rapid growth.

Chapter 2 defines EMI as well as motivation. Then, it reviews the historical background and previous research related to EMI and motivation in SLA both in Japan and elsewhere. It also introduces the framework applied in this dissertation.

Chapter 3 describes the study context, which includes the participants' learning environment and curriculum. Research methodologies and ethical considerations are explained.

Part 2:

Chapter 4 presents the preliminary study using surveys and interviews to explore students' learning experiences from the perspective of their motivation toward EMI, to obtain some indications of the direction of the current research project.

Chapter 5 discusses the quantitative study was conducted applying SDT based on the implications of Study (in Chapter 4). It aims to confirm the results of the preliminary study in addition to identifying the predictors of EMI intrinsic motivation. In addition, it was carried out in order to identify a group of students who have different motivational profiles and determine how they are different.

Chapter 6 explores how three psychological needs are fulfilled or not fulfilled using qualitative data.

Part 3:

Chapter 7 reports the results of a preliminary study for designing the intervention. The interview data from Study 2 was reanalyzed to explore students' struggles with EMI, and what kind of teaching approaches overcome those setbacks and foster learning. These ideas from students are referred to in the planning of the intervention.

Chapter 8 examines the effectiveness of the pedagogical interventions using quantitative data collected from surveys.

Chapter 9 investigates the contributions and limitations of the intervention using qualitative data. It also determines which pedagogical approaches contributed to motivating the students more than the other approaches in the intervention, and how beneficial they were.

Part 4:

Chapter 10 summarizes the results of the series of empirical studies included in this research. It discusses the findings, contributions to the research field, and limitations, in addition to pedagogical implications.

The following chapter will explain details of the research site, as well as participants' characteristics and ethical considerations, before introducing the empirical studies.

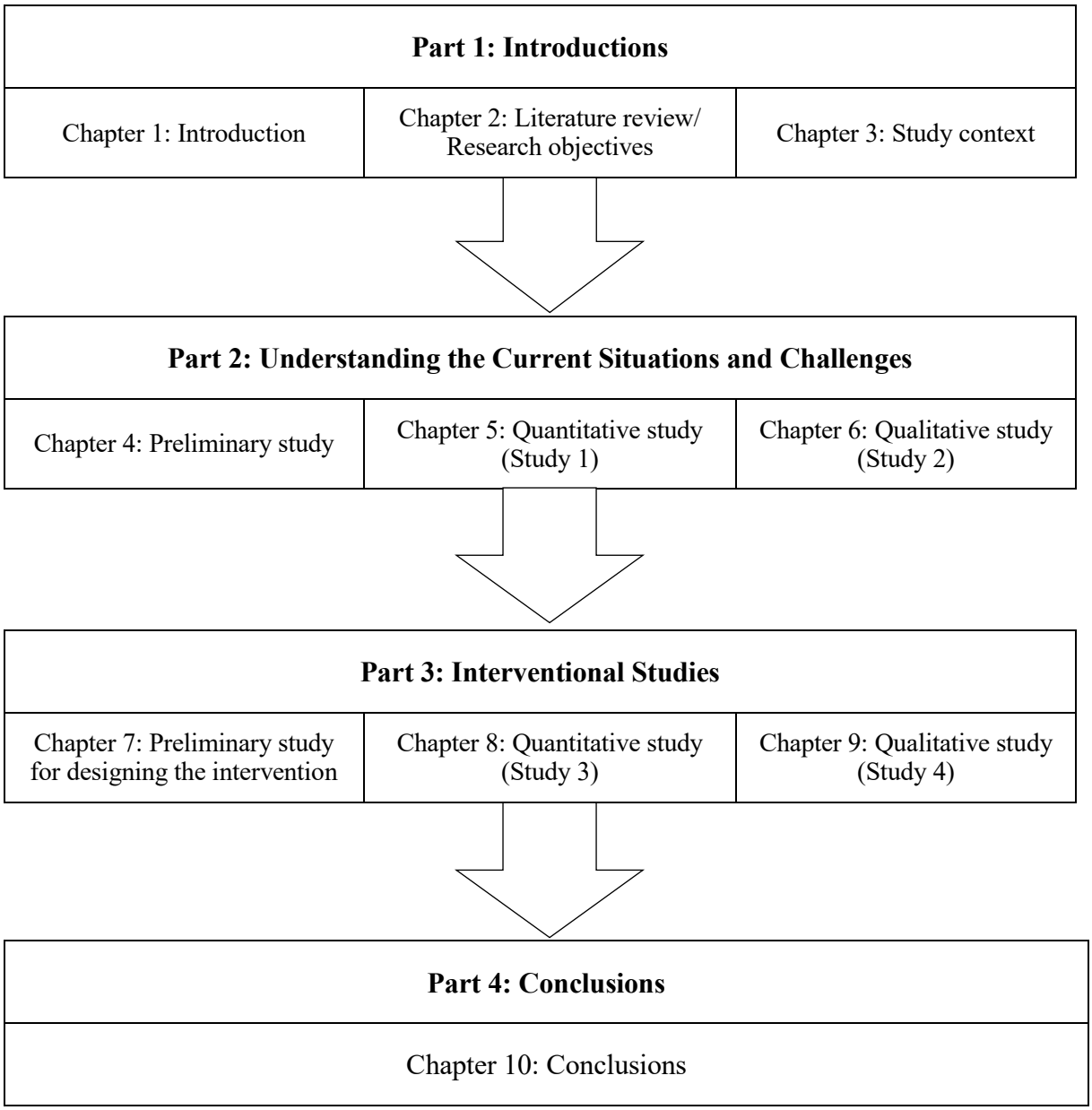

Figure 2-2. Study design.

3. The Study Context

Before introducing the studies, the context of English as a medium of instruction (EMI) needs to be described. The Ministry of Education, Culture, Sports, Science and Technology (MEXT) described EMI as courses in English whose main objectives are not to teach the English language. This definition is vague, so the universities had developed individual EMI policies and courses for the 2014 to 2016 academic years (when this research was conducted). The universities provided EMI across various disciplines, such as international relations, business, and science, mostly were taught by non-language teachers. In addition, although the main EMI audience comprised Japanese students, as discussed in Chapter 2, many courses were trying to attract international students (see Chapter 2 for an overview of EMI in Japan). On the other hand, at some universities, international students already were the majority of their student bodies, such as the university where all of the studies in this research were conducted (A University). The details on the research context are explained in the following section.

3.1 A University

A University is a private university in the Kyushu area of Japan that opened in 2000 as one of Japan's first Japanese-English bilingual universities. Since then, it has been a driving force for the internationalization of higher education in Japan. More than 50% of its fulltime professors are not Japanese, and about half of the students are international students mainly from Asia, such as Vietnam, Korea, and China. To recruit this international student population, A University offers its entrance exam in English or Japanese. Students who take the exam in Japanese are categorized as "Japanese-based students," and those who take it in English are categorized as "English-based students." In addition, 90% of the university's undergraduate courses are offered in Japanese and English so that students can choose the language in which

they want to learn. The structure of A University's academic year also is unique because it offers a quarter system, comprising 95-minute class periods twice per week for seven weeks plus a final exam, and it offers a semester system, comprising 95-minute class periods once per week for 14 weeks plus a final exam. Most of the EMI courses are offered in the quarter system, whereas most language-learning courses are offered in the semester system. The following section describes the English language program at A University.

3.2 The English Language Program

All Japanese-based students at A University (hereafter "Japanese students" because the majority is Japanese) must undergo a placement test (the TOEFL ITP) soon after they enroll. Students scoring less than 500 are registered for a compulsory English language course. The students are assigned to one of four levels based on their test scores: Upper Intermediate (TOEFL ITP 500–480), Intermediate (479–460), Pre-intermediate (459–420), and Elementary (419 or less). All students must take two types of courses (A courses and B courses) at their placement levels. The A courses comprise four 95-minute class periods per week and the B courses comprise two 95-minute class periods per week. Thus, students attend six 95-minute class sessions per week every semester until they finish the Upper Intermediate level. When they pass the Upper Intermediate level, they are expected to have achieved English competence equivalent to a TOEFL ITP score of 500. To graduate, Japanese students must take 20 EMI credits in addition to the language-learning courses. EMI at A University is explained in detail in the following section.

3.3 EMI as a Prerequisite to Graduate

A University offers EMI preparatory courses and regular EMI courses. The EMI preparatory courses are exclusively for Japanese students, who must complete the Pre-

intermediate English language course as a prerequisite. The EMI preparatory courses mostly are taught by non-native English speakers specializing in EMI content. Regular EMI courses aim at Japanese and international students. In order to take regular EMI courses, the Japanese students must complete the Intermediate level English-language course first. Students can earn a maximum of six of the required 20 credits from EMI preparatory courses, and the remaining 14 credits must be earned by taking regular EMI courses. In this research, both the regular and preparatory EMI courses were considered the same from pedagogical perspectives for the following four reasons. First, both types of course were taught by content specialists with little or no training regarding teaching non-native English-speaking students. Second, because of that, language instruction was rarely provided in either of them. Third, both types were large lecture classes with a maximum of 250 students. For example, the EMI courses in which the intervention studies were conducted (Chapters 8 and 9) included more than 200 students in the Gender Studies course and more than 100 students in the Cultural Studies course. Finally, there were no standard curricula, and the content specialists determined their objectives and their courses' levels of difficulty. Therefore, the EMI preparatory courses and the regular EMI courses were considered in the same category in this research. The preliminary study (Chapter 4) was conducted in an EMI preparatory course (the International Relations course), some of the data collected in Study 1 were from another EMI preparatory course (the Communication Studies course), and the rest of the studies were conducted in regular EMI courses.

3.4 My Teaching Experience and Role in the Study Field

I was an English teacher at A University during academic years 2011 and 2012. I observed several EMI courses in Fall 2011, and, then, I team-taught one International Relations EMI preparatory course with an EMI content specialist and another language instructor in Fall 2012. At that time, I thoroughly read the textbook, *Japan in Dynamic in Asia* (Sato, 2006) and

analyzed all of the vocabulary in the text. Then, the other language instructor and I created a reading guide and vocabulary lists for the students' reading assignments. Moreover, we observed all class sessions during the semester to support the Japanese students in the class (see Kojima, Sato, & Hamciuc, 2013, for details). However, more than half of the students dropped out, suggesting that, despite our hard work, the intervention had not been as effective as we had hoped.

I was almost burnt out by the previous intervention in 2012, which is why my goal in this research was to design a practical and sustainable way to help Japanese students in EMI. I focused my intervention to be non-specific regarding course content. Therefore, the intervention easily could be applied to other EMI courses in the future without a language instructor constantly needing to learn new content whenever they supported EMI courses. Considering these things, the interventions developed in this research focused on learning supports rather than course content.

Between 2014 and 2016, I was a visiting researcher so that I retained access to an online learning system and other university resources although I no longer was teaching at A University. In my research role, I submitted a report at the end of each academic year or presented my research findings to faculty and staff. During the three years in which I conducted this research, I worked with and collected data from several EMI courses. During the first year, I conducted a preliminary study on an EMI preparatory course (Chapter 4), and, in 2015, I collected data from nine EMI courses (Chapters 5 and 6). In 2016, I worked with an EMI instructor to conduct the current interventional study (Chapters 7, 8, and 9).

To obtain the data, I first contacted a couple of EMI content specialists with whom I was acquainted while I was working at A University. They introduced me to some of their colleagues. I personally met with most of the EMI content specialists or, at least, met with them via Skype. In the meetings, I explained what and why I was doing the research and its

objectives. I scheduled my data collection at their convenience if they allowed me to collect data from their students. Many of the EMI content specialists were concerned about their Japanese students' learning experiences in their EMI courses because of the large sizes of the lecture classes. However, they did not know why a large proportion of them dropped their courses or how to encourage them to remain. Thus, some of the EMI content specialists who were willing to support my research also were interested in the results to improve their students' performances. The following section describes the intervention that I conducted in Part 3 (Chapters 7 to 9).

3.5 The Intervention

In fall 2016, I conducted an intervention study in two EMI courses during two academic quarters. During the first quarter, the study was conducted in the Gender Studies course, and, in the second quarter, it was in the Cultural Studies course. As previously explained, both courses were offered during a quarter system, comprising two 95-minute class periods per week for seven weeks and a final exam. One Japanese professor in Area Studies taught both courses. She was willing to collaborate with me because she knew the importance of faculty development in pedagogy, particularly in classrooms with diverse needs. She was also aware of Japanese students' lower pass rates and performances compared to the international students. Therefore, when I asked her to collaborate with me, she decided to join my project in March 2016.

We met in person many times, communicated with each other via Skype when we could not meet in person, and exchanged uncountable emails before and during fall of 2016. My role was to plan and conduct the intervention study and to explain the purpose of the intervention to the Japanese and international students. In the beginning, the instructor was concerned about the international students' reactions to the intervention. She predicted that some of them might negatively react if they thought that only the Japanese students would be getting extra help. To

proactively address this concern, I described the objectives of the project and explained the details of the intervention in the syllabi and orally at the beginning of each course. Moreover, my email address was made available to all students inviting them to contact me with their concerns. In reality, she told me that there were no complaints related to the intervention from the international students.

3.6 Ethical Considerations

Another one of my responsibilities while the studies were being conducted was to communicate with the research office at A University to ensure that the participants were not experiencing any difficulties because of their participation. I stressed in the surveys and interviews that participation in the study was voluntary and that their course grades would not be influenced by their answers. The participants in the survey also were informed that their answers would be statistically analyzed, and so their answers would remain anonymous. Additionally, the goals of the study and how the data would be used and kept were carefully explained on the survey form and orally. I also provided my affiliations and contact information. During the process of writing the consent forms, the research office suggested some changes to the wording, and I revised them accordingly.

In each survey, the students were asked to participate in interviews. Those who agreed to be interviewed provided their contact information, and I contacted them to set the time and place for the interviews (Preliminary study, Study 2, and Study 4). In the interviews, the aims and goals of the study were explained again, and the interviewees were asked to sign the consent form if they agreed to participate. The procedural details on each study are explained in later chapters.

3.7 Summary

This chapter describes the study context and structure of EMI and English language-learning curricula at A University. Then, my teaching experiences in English language classrooms and in EMI at A University are illustrated. Finally, the current intervention and ethical conditions in this current research are touched upon. The next chapter discusses the preliminary study conducted for this dissertation, which investigated the current situations, the challenges of EMI in a university setting from a motivational perspective, and to decide a theoretical framework for the studies in this dissertation.

4. Preliminary Study

As mentioned in Chapter 2, EMI has become a growing phenomenon since around 2000. Because it is expanding rapidly, enough research is yet to be conducted to understand what happens in EMI classrooms. In particular, we do not know about the learning experiences of Japanese students or the kinds of support they want (Yamamoto & Ishikuda, 2018). Hino (2017) briefly mentioned in his case study on identifying meanings of EMI in Japanese tertiary education that Japanese students gradually dropped out from EMI courses. I observed a similar situation in EMI classrooms before I started this research at A University. Due to the lack of previous research, I conducted this preliminary study to achieve the following objectives.

4.1 Objectives of the Preliminary Study

The main objectives of the study described in this chapter were (1) to explore the present situation and challenges in EMI classrooms from students' motivational perspectives, and subsequently, (2) to explore and determine a theoretical basis for assessing EMI motivation and to evaluate motivation to learn English in an EMI context. In order to achieve these objectives, students were asked in a survey and interviews to share their learning experiences, particularly about things that motivated and/or demotivated them.

4.2 Method

4.2.1 Participants

Forty-four Japanese students in an EMI preparation course for the International Relations course focusing on terrorism participated in the first study survey. Five semi-structured interviews were conducted for participants who agreed to participate in further data collection when the survey was administered. The survey was anonymous and during both the survey and

the interviews, I explained that participation in the studies would be voluntary and their responses would not influence their grades in any manner.

4.2.2 Materials

Interviews before the Survey. Due to lack of previous research on motivation in EMI classrooms, I had to conduct three interviews (two with EMI content specialists and one with a student) to prepare a questionnaire for this preliminary study. The aim of the interviews was to obtain some possible answers as to (1) why students take EMI courses, (2) how they choose certain EMI courses, and (3) why they drop out of EMI courses. The questions and choices for the multiple-choice questions in the survey were prepared based on the answers provided in the interviews.

Survey. The survey consisted of 11 questions, including multiple-choice questions, 3 Likert-scale questions, and open-ended questions. Some questions were designed to examine why students registered themselves in an EMI preparation course. In addition, some questions were asked to investigate how much they understood the lectures and how much effort they were putting in class. Moreover, some questions were asked to understand whether they had ever considered dropping out of the course (See Appendix A).

4.2.3 Procedure

The survey was administered during the last class of the EMI preparation course with the cooperation of the EMI content specialist from Taiwan in July 2014. The five semi-structured interviews to students who agreed to participate it on the survey were conducted in August 2014 and each interview lasted for 20 to 50 minutes (See Appendix B).

4.2.4 Data Analysis

With regard to open-ended questions in the survey, answers that consisted of the same ideas were grouped and labeled with the word that represented their common idea. I then counted the number of the times each idea was mentioned in each category.

All the interviews were recorded and transcribed with participants' consent. Then, the ideas were categorized based on participants' positive and negative experiences in the EMI preparation course.

4.3 Results and Discussion

In this section, the research objectives of this preliminary study, those are, (1) to explore the present situation and challenges in EMI classrooms from students' motivational perspectives and (2) to choose a framework for this dissertation, will be discussed along with the results of the survey and interviews.

Participants at the interviews were asked to provide some specific information, including their year of enrollment at the university, TOEFL ITP scores, and experiences of studying abroad. In addition, they were asked about their positive and negative experiences in EMI classrooms (see Table 4-4). All students were identified by pseudonyms to maintain confidentiality.

The obtained data revealed that students' comprehensions of the lectures were quite low (M = 46.63%, *SD* = 18.67). Moreover, it showed that students were attending the class merely as their prerequisite to graduate at the end of the course. According to the survey results, students initially took the course not only because it was a prerequisite to graduate (80% of the participants answered that they took the class because "it was a part of the 20 credits required for graduation") but also because it would be beneficial for them to take regular EMI courses in the future (66% of the participants answered that "it would help them prepare for a regular EMI

course") (Table 4-1). Nevertheless, 59% of the participants considered dropping out of the EMI course at some point, mainly because the class was nearly too demanding for them to continue attending it (Table 4-2). Most of them continued to attend the class till the end of their course merely to obtain their required credits (Table 4-3). In fact, only 56% of the registered students took the final exam. In one of the interviews, Wakana vividly described her loss of motivation during the course. She had obtained a TOEFL ITP score of over 550 and was intending to study abroad as an exchange student. She took the EMI preparation course due to her interests in criminology and to get accustomed to taking classes that would be conducted entirely in English. However, she did not understand the textbook or lectures at all. She eventually realized that studying for EMI was a waste of time. Although she wanted to drop out of the course, she stayed back simply because receiving an "F" grade would have been a disadvantage in order to study abroad. The survey data and Wakana's example suggested that students initially took an EMI preparatory course because they thought it would be beneficial for them in taking a regular EMI or studying abroad as well as because of their interests in the content of the course. Of course, it is important for them that the EMI preparation course would be a part of the prerequisite to graduate, although it was not the only reason for them to enroll in the course. However, not being able to understand the course made them feel incompetent, which in turn caused a significant decline in motivation. At the end of the semester, it seemed that the students either dropped out of the course or stayed back for the credits. In other words, taking an EMI preparation course was somehow important initially for their future study, and therefore, they chose to take it. However, they constantly felt incompetent for the EMI course, and consequently they felt obligated to attend it or decided to drop out.

Again, considering the result described above, their choice turned into obligation, and many of them even dropped out. In other words, Japanese students' EMI motivation is moving backward from perspective of SDT (i.e., autonomous types of motivation, such as EMI

identified regulation, became controlled types of motivation, such as introjected and external regulations, or even amotivation). To illustrate this point, in the beginning, their EMI motivation was a combination of autonomous type of motivation, such as EMI identified regulation and controlled type of motivation, such as external regulation, as we could see with students who were taking EMI for their future learning. However, they lost their self-efficacy because they continuously had trouble understanding the lectures. As a consequence, their external regulation became predominant, as the data showed that many of them were coming to the class at the end of the semester merely to complete their prerequisite. In addition, some of them experienced amotivation (e.g., Wakana did not see the value of putting effort into the EMI course), or even did not have any motivation at all (i.e., many of them dropped out of the course). As described above, the type of EMI motivation changed from self-determined to less self-determined as the course progressed. Thus, self-determination theory, which categorizes human motivation based on the degree of self-determination, is beneficial for exploring EMI motivation further in an EMI context. In addition, numerous empirical studies have applied SDT in the educational context, especially interventional studies in Japanese English classrooms (e.g., Agawa & Takeuchi, 2017; Hiromori, 2006, Maekawa & Yashima, 2012). Therefore, SDT (Deci & Ryan, 1985) will be applied as the main framework of this dissertation.

In addition to SDT, as explained earlier, 66% of the participants took an EMI preparatory course as a step to take regular EMI courses. Also, Wakana, who experienced motivational loss, initially took it as a preparation for studying abroad. Furthermore, another participant in the interview, Shinji, studied hard (four hours per week) because he believed that taking the EMI preparation course was an important step for him to achieve his career goal of becoming an interpreter. Therefore, he wanted to improve his English, obtain a higher GPA, and study abroad. It means that his clear future goal to become a fluent English speaker made him

persistent in completing the course. As evident, students were taking an EMI preparatory course in order to shorten the discrepancy between what they would like to do with English and what they can do at that time (e.g., learning with international students in regular EMI courses, studying abroad, and a successful career). In fact, EMI is originally implemented for content learning in English and not for language learning, implying that in EMI, students were supposed to use their English in order to express their ideas and gain new knowledge. Therefore, aligning the educational environment of EMI with the results of this preliminary study suggests that one's ideal self as an English speaker seems to play an important role in EMI classrooms. Thus, the ideal L2 self and ought-to L2 self of Dörnyei's L2 motivational self system (2005) was applied to assess their intended effort to learn English in EMI contexts.

Table 4-1
Reasons for Taking an EMI Preparation Course

	It was a prerequisite to graduate	It looked easier than other EMI courses	It would help in preparing to take regular EMI courses
Important	80%	41%	66%
Neutral	5%	34%	18%
Not important	15%	25%	16%

Table 4-2
Reasons for Considering to Drop Out of the Course

Reasons	Number of times each idea was mentioned
The lectures were difficult	24
The first period began too early	2

Table 4-3
Reasons for Attending the Course

Reasons	Number of times each idea was mentioned
To gain credits toward graduation	23
Did not want to give up on a challenging class	6
Lectures were interesting	5
Wanted to improve their English	2

Table 4-4

Students' Responses to Questions Addressed to Everyone at the Interviews

	Shinji	Ikuko	Orie	Wakana	Yoshiki
Gender	Male	Female	Female	Female	Male
Grade	2	2	2	1	3
TOEFL ITP	483	490	510	557	470
Self-study time per week	4 hours	4 hours	1 hour	None	1 hour
Study abroad experience	None	Two months to learn English	A week of homestay	About two months to learn English	A year to learn English
Reason(s) for taking an EMI preparation course	For prerequisite credits As preparation for taking regular EMI courses	As preparation for taking regular EMI	To acquire specific knowledge of the field To reduce anxiety about taking regular EMI courses	As preparation for taking regular EMI courses Interested in the content	For prerequisite credits To improve English
Positive experience(s) in the EMI preparation course	Obtaining a good score in a quiz by putting in effort	Studying with friends Improvement in English ability	Being able to acquire specific knowledge The instructor rephrased difficult terminologies	Compliments from the instructor	Obtaining a good score in a quiz Being able to practice writing Performing lots of group work
Negative experience(s) in the EMI preparation course	Did not see any improvement in the quiz score despite studying hard Lots of vocabulary was difficult	Did not understand half of the lecture Did not understand the lecture better after studying hard	Lack of motivation among other students Did not understand the lecture at all	Did not understand the lecture after studying hard Did not even know how to try to understand the lectures Classroom atmosphere was always tense	Contents were too specific Memorizing was all that was required, and forgot the purpose of taking the course

4.4 Summary

This chapter described a preliminary study in order to explore the present situation and challenges in EMI classrooms from students' motivational perspectives, and, subsequently, to determine theories to be used in the research.

The results of this preliminary study suggest that students took EMI because they wanted to improve their English through EMI that covered a course topic that matched their interests for future study or careers using English. However, in reality, students struggled to understand lectures delivered entirely in English, and many of them considered dropping out of the course because of the overly demanding lectures. In other words, students' self-determined type of motivation became more externalized as the semester progressed. This displays that SDT, which categories human motivation based on the degree of self-determination, is useful as the main framework to elucidate and understand motivation in this particular context. Finally, it was observed that English is used for intellectual learning in EMI contexts, and, in fact, students took an EMI preparatory course with the intention to improve their English in order to take regular EMI courses with international students, or to study abroad. Thus, ideal L2 self and ought-to L2 self of the L2 motivational self system should be applied as factors for evaluating the intended effort to learn English in EMI classrooms.

This current study provides some indications that EMI motivation and intended effort to learn English, in addition to intended effort to learn content, play important roles in EMI classrooms. There is still a need to examine motivation in EMI contexts more scientifically in order to determine the relationships among those three kinds of motivation (EMI motivation, intended effort to learn English, and intended effort to learn content), as well as which factors influence EMI intrinsic motivation, and EMI identified regulation within the framework of SDT. Furthermore, we need to investigate if there are groups of students who have different motivational profiles and if so, how they differ. In order to explore those topics, the following

chapter will discuss a quantitative study to confirm the results of this current preliminary study and more scientifically explore the motivation in EMI courses.

Note

[1] The class was first period, which started at 8:45 a.m.

5. Study 1

The preliminary study in the previous chapter indicated that students take EMI because they want to learn English as well as the content of the EMI course. However, students struggle with understanding the lecture and gradually lose their confidence and self-efficacy, which causes a loss of motivation. Nevertheless, we still do not know which factors maintain their motivation, and help them enjoy EMI or internalize its value. In addition, a preliminary study implied that some students' motivation was sustained, while that of others was not. Thus, we need to explore if there are students who have different motivational profiles, and if so, how they are different. Therefore, the quantitative study in this chapter will examine the current situations of EMI classrooms from motivational perspectives more scientifically by applying self-determination theory (SDT) as the primary framework. Study 1 has the following specific research questions.

5.1 Research Questions

1. Which factors influence students' highly self-determined types of motivation, namely EMI intrinsic motivation and EMI identified regulation?
2. Which psychological needs in the framework of SDT (i.e. the needs for autonomy, competence, and relatedness) should be satisfied for EMI intrinsic motivation and EMI identified regulation to be enhanced?
3. Are there groups of students who have different motivational profiles? If so, how are they different?

5.2 Method

5.2.1 Participants

The participants were 221 Japanese students (138 females, 80 males, 3 unknown) majoring in social studies or management at A University in Southwest Japan. Their grades varied: 16 were freshmen, 59 were sophomores, 75 were juniors, 60 were seniors, and 6 were in their fifth year of university. All participants had taken the TOEFL ITP at least once as a placement test (See Chapter 3 for details). In addition, taking it was mandatory for the Japanese students who were in compulsory English language courses. Thus, students were asked to self-report their latest score of TOEFL ITP in the survey. The mean score was 474.59 (*SD* = 42.15), with 600 being the highest score and 310 the lowest.

5.2.2 Procedure

Surveys were conducted on students in nine courses taught by seven different EMI content specialists, between late April and early July 2015. The surveys were administered halfway through the course, either during or after class. Due to the semester and quarter system employed by the university (see Chapter 3 for details), the timing of the surveys varied. Specifically, four surveys were completed in late April and early May, during the first-quarter courses, one survey was carried out in late May, during the spring semester, and the remaining four surveys were administrated in late June and early July, during the second quarter.

The contents of the courses also varied, including topics such as cultural studies, international sociology, international relations (four different classes on the same topic), international issues and policy, Japanese culture and society, media and culture, and communication studies. All the courses in this study were presented in the form of lectures, with a maximum class size of 250 students. Some classes had more than 200 students, while some had only approximately 50 students. I observed the classes whenever I conducted the

survey and realized that some courses had relatively smaller number of students. However, the pedagogical approach was quite similar to EMI with 200 students. In other words, all the classes observed were taught in the one-way lecture style. Hence, students' answers would not be affected by the size of the class. All the class materials were written and lectures were conducted in English. In terms of reading assignments, some used articles and/or book chapters in English, while others tried to cover a whole book during the course.

As the survey was carried out as per the EMI content specialist's convenience as described in Chapter 3 (See 3.4), there were some time clashes with my work at a different university. Therefore, I was only able to conduct six out of the nine surveys. The remaining three surveys—for media and culture, communication studies, and one of the international relations courses—were conducted by the content specialists in my absence.

5.2.3 Materials

For the purpose of the present study, several measures were either adopted or adapted from previous research (See Appendix C). Most of the survey items and how they are rated are explained below, with the exception of participants' self-reporting of their understanding of the EMI lectures, average weekly self-study time for the relevant EMI, and self-reported TOEFL ITP scores, which were rated using six-point Likert scales.

Motivational regulations toward EMI based on self-determination theory. To investigate the types of motivational regulation that students exhibit in EMI, Japanese versions of the items used to assess intrinsic motivation, extrinsic motivation, and amotivation were used, based on research conducted in language classrooms by Noels et al. (2000). The items were adapted from Hiromori and Tanaka (2006) and Yashima et al. (2009) and minor changes were made to adapt them to the EMI context (e.g., "English" was replaced with "EMI"). Integrated regulation was not included when the survey for educational contexts was originally

developed because it was difficult to distinguish from identified regulation (Noels et al., 2000; Vallerand, Blais, Briére, & Pelletier, 1989). Moreover, a study conducted by Noels et al. (2000), in which university students were asked to participate, did not include integrated regulation either since the participants could be too young to have developed an integrated sense of self in school. Since this study was also conducted at a university, integrated regulation was not included either.

Amotivation, intrinsic motivation, and extrinsic motivation. To assess the level of self-regulation in EMI, three items (Cronbach's α = .81) served to assess amotivation (e.g., "I don't understand why I have to study EMI"); two items (r = .56) were used to measure intrinsic motivation (e.g., "EMI is exciting"); two items (r = .65) were used to measure external regulation (e.g., "I am taking EMI because I want to get enough credits to graduate"): and three items (Cronbach's α = .80) were adapted for identified regulation (e.g., "I want to acquire disciplinary knowledge in English for use in the future"). Items that attempted to measure introjected regulation were deleted because of a low Cronbach's α (Cronbach's α = .45).

Needs for autonomy, competence, and relatedness. Three items in each subscale served to measure the degree of satisfaction of the three psychological needs that influence intrinsic motivation. Three items (Cronbach's α = .76) were used to measure satisfaction of the need for autonomy (e.g., "Teachers in EMI ask for the students' opinions about the content and/or procedure of the class"); three items (Cronbach's α = .70) assessed satisfaction of the need for competence (e.g., "I feel a sense of accomplishment in EMI"); and three items (Cronbach's α = .75) assessed satisfaction of the need for relatedness (e.g., "I get along with my classmates in EMI").

Motivational intensity (Intended effort) to learn English. Motivational intensity was measured with six items (Cronbach's α = .79) that Ryan (2008) and Yashima (2002) applied in their research to assess intended effort to learn English (e.g., "If English were not taught in

school, I would try to go to English classes somewhere else"). Participants were required to indicate the degree to which each statement matched their state of mind.

Attitude toward learning English. Four items (Cronbach's α = .80) reflected participants' attitudes toward learning English (e.g., "I really enjoy learning English"). These items were adopted from Ryan (2008).

Ideal L2 self. Six items (Cronbach's α = .85) were taken from Ryan (2008) to assess how vividly a participant could visualize his/her future ideal self as an English speaker (e.g., "I often imagine myself as someone who is able to speak English").

Ought-to L2 self. Four items (Cronbach's α = .64) were taken from Ryan (2008) to measure participants' beliefs about what they could become (e.g., "Hardly anybody really cares whether I learn English or not").

English anxiety. Four items (Cronbach's α = .68) were applied from Ryan (2008) to assess students' degree of English anxiety in a classroom (e.g., "I get nervous and confused when I am speaking in my English class").

Motivational intensity (Intended effort) to learn content. Motivational intensity to learn content was measured with six items (Cronbach's α = .79). These items were adapted from the items that Ryan (2008) and Yashima (2002) used to assess intended effort to learn English. To illustrate, "English" was replaced with "this subject," as in "I often think about this subject or the content that I learned from this class".

Self-evaluation of background knowledge. Two items (r = .47) were used to assess participants' background knowledge concerning the content that they were studying when the survey was conducted. I created these items based on preliminary research (e.g., "I already had a lot of knowledge related to this subject before taking this course"). Pilot surveys were administered to five participants and subsequently revised according to their feedback.

In addition to the above, based on what was found from the preliminary study, such as the possible effects of students' poor understanding of EMI lectures on student motivation, I also recorded participants' self-reporting of their understanding of the EMI lectures, average weekly self-study time for the relevant EMI, and self-reported TOEFL ITP scores. Participants were asked to report their latest TOEFL ITP score, and 200 of the 221 participants complied (see 5.2.1 for results).

5.3 Analysis

The statistical analyses were performed using SPSS Statistics 23. Before answering the research questions, descriptive statistics were calculated and correlation analyses between the aforementioned factors were conducted. Regression analyses were then performed to investigate and answer the first and second research questions, while a hierarchical cluster analysis was conducted to investigate the third research question.

5.4 Results

Before analyzing the data, Kolmogorov-Smirnov tests were performed to test the normality of the data (Table 5-1). The test revealed that the data for intended effort to learn English, attitude toward learning English, intended effort to learn content, and score on TOEFL ITP were normally distributed, but the other factors such as ideal L2 self, ought-to L2 self, EMI amotivation, external regulation, identified regulation, intrinsic motivation, EMI needs for autonomy, need for competence, need for relatedness, and self-evaluation of background knowledge were not. Additionally, self-reported understanding of EMI lectures and weekly self-study time were not normally distributed either. Although some of the data were not normally distributed, with large sample sizes which are over 30, violation of normal distribution should not cause major problems[2] (see Pallant, 2001).

Descriptive statistics and correlation analyses were conducted to investigate the potential relationships between various factors in this study, as well as to confirm the results of the previous research (see Tables 5-1, 5-2, and 5-3). As indicated in Table 5-2, the motivational variables for learning English (i.e., intended effort to learn English, ideal L2 self, ought-to L2 self, attitude toward learning English) correlated either highly positively or positively with each other. A positive correlation was also found between intended effort to learn both English and to learn the content (of the respective course) ($r = .37$, $p < .001$), although the association was not strong. Moreover, positive correlations between intended effort to learn the content and self-evaluation of background knowledge were also found ($r = .39$, $p < .001$). Regarding the correlation between intended effort to learn English and EMI motivation (e.g., EMI intrinsic motivation, EMI identified regulation), Table 5-3 shows that intended effort to learn English correlated positively with EMI intrinsic motivation ($r = .53$, $p < .001$) and EMI identified regulation ($r = .53$, $p < .001$). The ideal L2 self also correlated positively with EMI intrinsic motivation ($r = .56$, $p < .001$), and strongly correlated positively with EMI identified regulation ($r = .69$, $p < .001$). Finally, attitude toward learning English correlated positively with EMI intrinsic motivation ($r = .54$, $p < .001$).

Table 5-1
Descriptive Statistics for Each Variable in Study 1

	Variables	Mean	*SD*	*Sig* Kolmogorov-Smirnov test	Skewness	Kurtosis
Motivational regulations for EMI	Amotivation	2.56	1.16	.002	.60	.36
	External regulation	4.10	1.43	.000	-.39	-.61
	Identified regulation	4.09	1.23	.001	-.47	.05
	Intrinsic motivation	3.79	1.26	.000	-.05	-.36
Three psychological needs[1]	Need for autonomy	3.37	.09	.005	-.08	-.38
	Need for competence	3.23	.09	.012	.07	-.337
	Need for relatedness	4.00	.09	.000	-.10	-.54
Motivational variables for learning English	Intended effort to learn English	4.02	.89	.200	-.02	-.21
	Attitude toward learning English	4.34	1.00	.095	-.31	-.14
	Ideal L2 self	4.54	1.05	.006	-.76	.34
	Ought-to L2 self	4.41	.96	.000	-.70	.46
	English anxiety	4.06	1.09	.000	-.54	-.14
Motivational variable for learning content	Intended effort to learn content	3.14	1.06	.054	.13	-.40
Self-evaluation of background knowledge	Self-evaluation of background knowledge	2.36	1.06	.000	.30	-.67
Understanding of the lectures[2] (%)	Understanding of the lectures	52.27	20.10	.000	-.23	-.74
Weekly self-study time (min)	Weekly self-study time	88.40	111.63	.000	4.53	27.63
TOEFL ITP	TOEFL ITP	475.70	3.54	.200	-.29	.84

Note.
1. "Three psychological needs" represents the fulfillment of the three psychological needs within SDT.
2. "Understanding of the lectures" represents participants' self-perception of their understanding of the lectures.

Table 5-2

Correlations between Motivational Variables for Learning English, Motivational Variables for Learning Content, and Self-Evaluation of Background Knowledge

		Intended effort to learn English	Attitude toward learning English	Ideal L2 self	Ought-to L2 self	Intended effort to learn content
Motivational variables for learning English	Intended effort to learn English					
	Attitude toward learning English	.72**				
	Ideal L2 self	.68**	.64**			
	Ought-to L2 self	.30**	.35**	.54**		
	English anxiety	-.10	-.16*	-.03	.18**	.01
Motivational variables for learning content	Intended effort to learn content	.37**	.23**	.27**	.10	-.01
Self-evaluation of background knowledge	Self-evaluation of background knowledge	.13	-.04	.02	-.13	.39**

Note.

** $p < .001$, * $p < .01$

Table 5-3
Correlations between Motivational Regulations of EMI, Motivational Variables for Learning English, and Motivational Variables for Learning Content

		Motivational regulations of EMI			
		Intrinsic motivation	Identified regulation	External regulation	Amotivation
Motivational variables for learning English	Intended effort to learn English	.53**	.53**	-.24**	-.39**
	Attitude toward learning English	.54**	.49**	-.25**	-.30**
	Ideal L2 self	.56**	.69**	-.20**	-.33**
	Ought-to L2 self	.30**	.41**	.01	-.05
	English anxiety	-.08	-.06	.15*	.21*
Motivational variables for learning content	Intended effort to learn content	.39**	.38**	-.12	-.15*
	Self-evaluation of background knowledge	.11	.05	-.04	.20**

Note.
** $p < .001$, * $p < .01$

To answer the first research question (i.e., What are the factors that influence students' highly self-determined types of motivation, namely EMI intrinsic motivation and EMI identified regulation?), two stepwise multiple regression analyses were conducted[3] (see Tables 5-4 and 5-5).

In the first analysis, the dependent variable was EMI intrinsic motivation, and the independent variables were intended effort to learn English, ideal L2 self, ought-to L2 self, attitude toward learning English, TOEFL ITP score, motivation to learn content, participants' self-reporting of their understanding of the EMI lectures, and average weekly self-study time. In the second analysis, the dependent variable was EMI identified regulation, and the independent variables were the same as for the first analysis. The regression model for predictors for EMI intrinsic motivation was found to be significant (F [3,177] = 40.46, p < .001, η^2= .41). The three significant predictors of EMI intrinsic motivation were as follows: attitude toward learning English, β = .31 (p < .001), ideal L2 self, β = .30 (p < .001), and intended effort to learn content, β = .22 (p < .001). Variation inflation factors (VIF) were assessed to detect multicollinearity, and no problem was found. The scores were as follows: attitude toward learning English, 1.58, ideal L2 self, 1.63, and intended effort to learn content, 1.08.

A multiple regression analysis was conducted to identify the predictors of EMI identified regulation (F [2, 179] = 94.51, p < .001, η^2 = .52). The results indicated that ideal L2 self (β = .63, p < .001) and intended effort to learn content (β = .22, p < .001) influence EMI identified regulation. The VIFs once again revealed no problem of multicollinearity. The scores for ideal L2 self and intended effort to learn content were both 1.08.

Table 5-4
Results of Multiple Regression Analysis Predicting EMI Intrinsic Motivation

Variable	*B*	*SE B*	β
Attitude toward learning English	.39	.09	.31***
Ideal L2 self	.36	.09	.30***
Intended effort to learn content	.26	.07	.22***

R^2= .41***

*p < .05, **p < .01, ***p < .001

Table 5-5
Results of Multiple Regression Analysis Predicting EMI Identified Regulation

Variable	*B*	*SE B*	β
Ideal L2 self	.74	.06	.63***
Intended effort to learn content	.25	.06	.22***

R^2= .52***

*p < .05, **p < .01, ***p < .001

To answer the second research question (i.e., Which psychological needs in the framework of SDT should be satisfied for intrinsic motivation to be enhanced?), a multiple regression analysis was conducted (see Table 5-6). The results showed that the need for competence is a predictor of EMI intrinsic motivation (F [1, 210] = 84.94, p < .001, η^2 =. 29). The VIF score for need for competence was 1.00, indicating no problem of multicollinearity. Another multiple regression analysis was conducted to identify the predictor of EMI within the framework of SDT. Results showed that the degrees of satisfaction of the needs for competence and relatedness affected EMI identified regulation (F [1, 210] =30.25, p < .001, η^2 =. 29). The VIF scores for both needs for competence and relatedness were 1.40, indicating no problem of multicollinearity. The results responding to the first and second research questions are summarized in Figure 5-1.

Table 5-6
Results of Multiple Regression Analysis Predicting EMI Intrinsic Motivation

Variable	*B*	*SE B*	β
Need for competence	.66	.07	.54***

R^2= .29***

*p < .05, **p < .01, ***p < .001

Table 5-7
Results of Multiple Regression Analysis Predicting EMI Identified regulation

Variable	*B*	*SE B*	β
Need for competence	.43	.08	.36***
Need for relatedness	.19	.08	.17*

R^2= .22**

*p < .05, **p < .01, ***p < .001

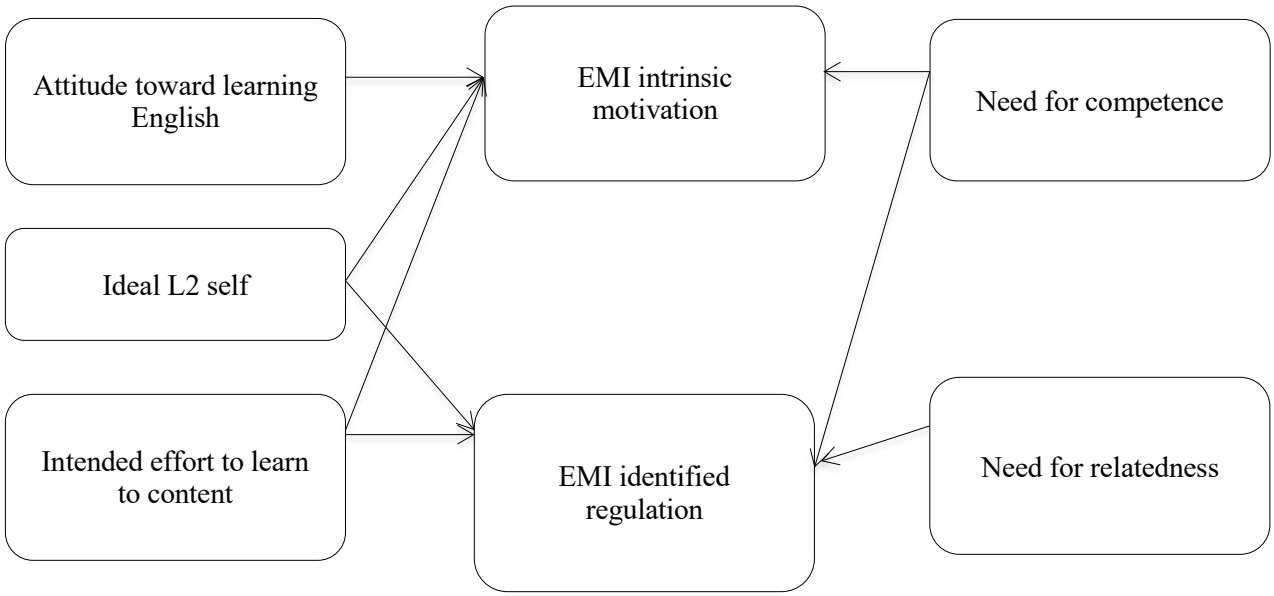

Figure 5-1. Summary of regression analyses.

A hierarchical cluster analysis was employed to answer the third research question (i.e., Are there different motivational profiles among the students? If so, how are they different?).

The analysis was conducted based on two factors: intended effort to learn English and intended effort to learn content. The hierarchical clustering was applied using Euclidean distance. A dendrogram indicating the hierarchical clustering structure was used to determine cutoff points. Three clusters were subsequently identified: Cluster 1 (119 participants), Cluster 2 (58 participants), and Cluster 3 (44 participants). An ANOVA confirmed that there were significant differences in intended effort to learn English and intended effort to learn content between the clusters. The ANOVA was also used to identify statistical differences between the clusters (see Table 5-8 and Figures 5-1 and 5-2). As shown in Table 5-8, significant differences were found, particularly for EMI intrinsic motivation (F [2, 216] = 15.36, $p < .001$, $\eta^2 = .13$), need for competency (F [2, 214] = 18.18, $p < .001$, $\eta^2 = .05$), need for autonomy (F [2, 214] = 13.55, $p < .001$, $\eta^2 = .11$), and self-evaluation of background knowledge (F [2, 218] = 13.10, $p < .001$, $\eta^2 = .11$).

Statistical differences between Cluster 3 (see Figure 5-2), the group with the highest motivation, and Cluster 2, the group with the lowest motivation, were found for attitude toward learning English (F [2, 218] = 7.24, $p < .01$, $\eta^2 = .06$), ideal L2 self (F [2, 214] = 10.48, $p < .001$, $\eta^2 = .09$), EMI identified regulation (F [2, 217] = 17.39, $p < .001$, $\eta^2 = .14$), and need for relatedness (F [2, 217] = 5.21, $p < .01$, $\eta^2 = .05$) (see Table 5-8, Figures 5-1 and 5-2).

Furthermore, as Table 5-9 and Figure 5-4 show, significant differences were revealed among the clusters for participants' self-reporting of their understanding of the EMI lectures, (F [2, 208] = 7.36, $p < .01$, $\eta^2 = .07$), and weekly self-study time for EMI, (F [2, 208] = 15.01, $p < 001$, $\eta^2 = .13$). Considering the data in Tables 5-8 and 5-9, and Figures 5-2 and 5-3, the results of the cluster analysis are in line with Vallerand and Bissonnette's (1993) study, which demonstrated that self-determined types of extrinsic motivation, such as identified regulation, correlate positively with persistent behavior. However, there was no significant difference in TOEFL ITP scores among the three clusters (Table 5-9).

Table 5-8
Comparisons of Descriptive Statistics for Intrinsic/Extrinsic Motivation and Psychological Factors among the Clusters

		Cluster 1 Average motivation		Cluster 2 Low motivation		Cluster 3 High motivation		Post-hoc (Tukey)
		Mean	*SD*	Mean	*SD*	Mean	*SD*	
Motivational variables for learning English	Intended effort to learn English	3.99	.76	3.59	.97	4.69	.73	1 > 2, 1 < 3, 2 < 3
	Attitude toward learning English	4.38	.87	3.98	1.14	4.70	.98	1 > 2, 2 < 3
	Ideal L2 self	4.67	.88	4.03	1.22	4.87	1.04	1 > 2, 2 < 3
	Ought-to L2 self	4.47	.85	4.19	1.09	4.54	1.02	
	English anxiety	4.04	1.04	4.01	1.20	4.19	1.08	Ns
Motivational variable for learning content	Intended effort to learn content	3.22	.46	1.85	.46	4.65	.56	1 > 2, 1 < 3, 2 < 3
Motivational regulations for EMI	Amotivation	2.52	1.00	2.82	1.30	2.31	1.35	Ns
	External regulation	4.23	1.29	4.10	1.45	3.80	1.70	Ns
	Identified regulation	4.21	.92	3.40	1.51	4.69	1.13	1 > 2, 2 < 3
	Intrinsic motivation	3.80	1.10	3.20	1.35	4.52	1.21	1 > 2, 1 < 3, 2 < 3
Three psychological needs	Need for Competence	3.31	.88	2.60	1.05	3.74	1.07	1 > 2, 1 < 3, 2 < 3
	Need for Autonomy	3.38	.95	2.86	1.19	3.98	1.18	1 > 2, 1 <3, 2 < 3
	Need for Relatedness	3.95	.91	3.67	1.27	4.36	1.13	2 < 3

Note. "Three psychological needs" means the fulfillment of the three psychological needs within the framework of SDT

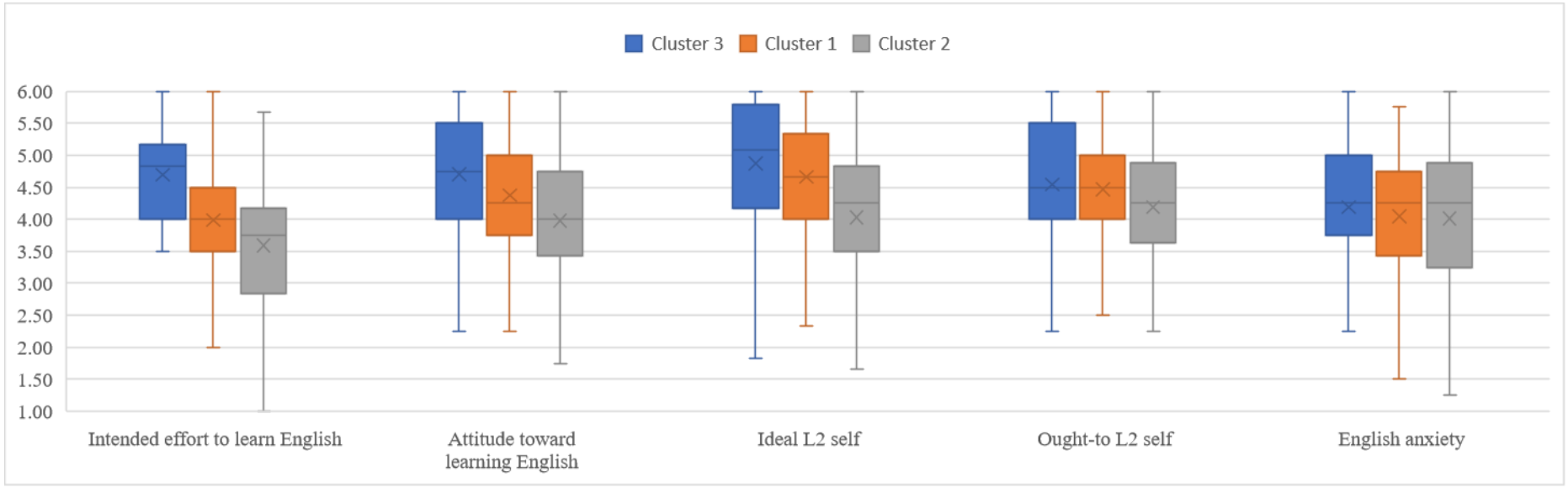

Figure 5-2. Motivational variables for learning English for each cluster.

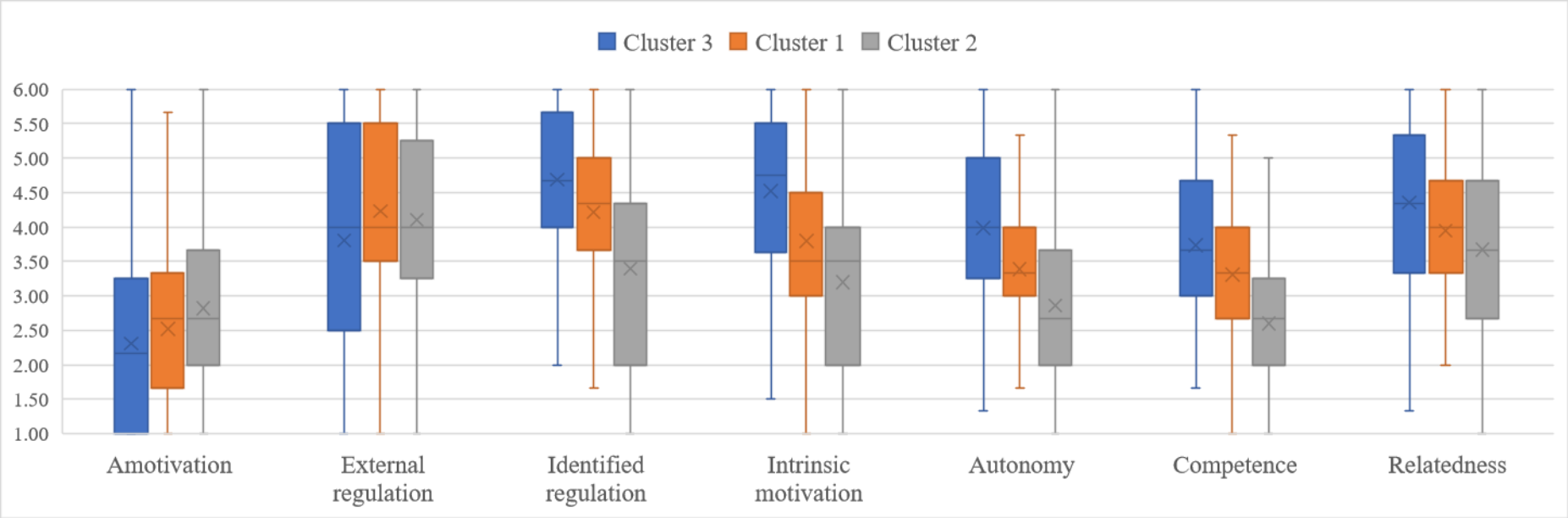

Figure 5-3. EMI motivational profiles for each cluster.

Table 5-9
Descriptive Statistics for Self-reporting of Understanding of the EMI Lectures and Self-Study Time for Each Cluster

	Cluster 1 Average motivation		Cluster 2 Low motivation		Cluster 3 High motivation		Post-hoc (Tukey)
	Mean	*SD*	Mean	*SD*	Mean	*SD*	
Understanding of the lectures (%)	51.92	19.91	48.6	20.31	63.21	17.17	1< 3, 2 < 3
Weekly self-study time (min)	77.28	74.46	51.89	55.75	163.72	188.71	1 < 3, 2 < 3
TOEFL ITP score	471	40.65	470	42.52	489	43.55	Ns

Note. "Understanding of the lectures" represents participants' self-perception of their understanding of the lectures.

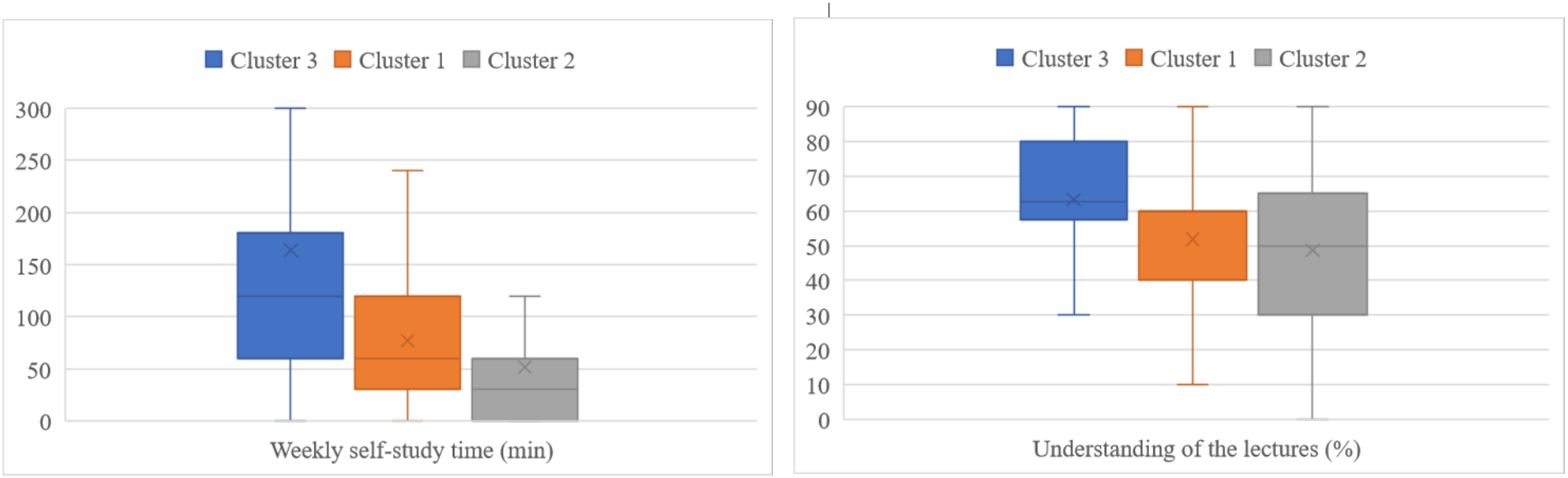

Figure 5-4. Self-reporting of understanding of the EMI lectures and self-study time for each cluster.

5.5 Discussion

This quantitative study was conducted in order to explore student EMI motivation using SDT as a framework. The results confirmed the findings of previous research in language classrooms. Specifically, students who had a positive attitude toward learning English and visualized their ideal L2 self clearly had stronger intended effort to learn English (Nishida, 2013b; Ryan, 2008; Taguchi et al., 2009).

Regarding EMI motivation, students enjoy EMI when they have a positive attitude toward learning English and a vivid image of their ideal self as English speakers as well as interest in the content of the EMI course. They also feel that EMI is intrinsically enjoyable when they have a successful learning experience and feel a sense of growth. In terms of EMI identified regulation, a student who has a vivid image of him/herself as an English speaker and is interested in the content of the EMI lectures internalizes the value of taking EMI. In addition, students think that EMI is valuable for their future study or career when they feel a sense of accomplishment and belonging as a member of the class-room community. This means that even in EMI, in which language learning is not a primary objective of the course, students were taking the course because they wanted to improve their proficiency in English.

Concerning the three psychological needs within the framework of SDT, Deci and Ryan (1985) claimed that all of the needs must be fulfilled in order to enhance intrinsic motivation and to internalize self-determination. However, they state how essential each need depends on contexts. This study also displayed that students' intellectual enjoyment and whether they consider EMI as an important step for their future study or not depended on the degree of the fulfillment of these three psychological needs. Findings also revealed that the need for competence and relatedness have a strong influence in EMI contexts in Japan, which is in-line with the results of an earlier study in an English classroom (Hiromori, 2005).

These results imply that EMI content specialists need to make sure that students understand the lectures and maintain their self-efficacy. It is also necessary to build a trustworthy relationship with students in order to increase their personal value for EMI. The data in this study shows that students who are more motivated dedicate more time for EMI, and have greater comprehension of the EMI lectures.

Satisfaction of all of the three needs is essential because they are interrelated from a theoretical point of view as well through the data of this study[4]. However, we still do not know whether the three psychological needs that must be satisfied in order to have a more autonomous kind of extrinsic motivation (namely, identified regulation and intrinsic motivation) were fulfilled in current EMI classrooms. Therefore, the next chapter will explore it using qualitative data.

5.6 Summary

This chapter reported on a quantitative study in order to identify factors that influence EMI intrinsic motivation and identified regulation as well as differences between students who are motivated and those who are not. The survey data were collected from Japanese students in EMI courses (e.g., International Relations, Communication Studies, and Cultural Studies). The answers of 220 students were then analyzed. The results of multiple regression analyses revealed that, although EMI is not designed for language learning, students take it to develop their English proficiency and gain knowledge of the course content. In addition, students' engagement is facilitated when they feel competent and experience a sense of belonging. The results of cluster analysis and ANOVA demonstrated that students who are more motivated understand the EMI lectures more and dedicate longer time to EMI courses. Furthermore, this study revealed that students who had a positive attitude toward learning English, and had a vivid image of a person who they wanted to become as an English speaker were more

intrinsically motivated in EMI. Finally, if students understand EMI lectures more, they will enjoy EMI and find personal value in taking EMI, which will lead to motivated behavior and even higher comprehension of the lectures as a consequence. However, we still do not know whether the three psychological needs (i.e., the needs for autonomy, competence, and relatedness) for EMI intrinsic motivation and identified regulation have been satisfied in current EMI classrooms. Therefore, the next chapter will discuss a qualitative study that examines this topic.

Notes

1. This means the extent to which three psychological needs are satisfied.
2. Participants' self-reporting of their understanding of the EMI lectures and average weekly self-study time were not normally distributed, regardless of the sample size. Therefore, I refer to the results of these factors in this study in order to have a deeper understanding of students' motivation in EMI. Regarding other psychological factors in this survey, I checked if the factors had a bell-shaped distribution with histograms, and, to some degree, they did. In addition, the factors in this study have been widely used in many empirical studies in language classrooms (e.g., Agawa & Takeuchi, 2017; Hiromori, 2006; Maekawa & Yashima, 2012; Nishida, 2013b; Ryan, 2008; Yashima et al., 2008). In those studies, parametric tests were applied. Therefore, the reliability of the items in this current study should also be sufficient to conduct parametric tests. In particular with regard to multiple regression analyses, the results of the analyses would not be strongly influenced by a violation of normal distribution in this type of case (i.e., factors are assumed for normal distribution to some degree based on the histograms), and non-parametric tests were not recommended (Mizumoto, personal communication, March 6, 2019; see also https://stats.stackexchange.com/questions/268213/non-parametric-alternative-to-multiple-

linear-regression for a reference). For these reasons, parametric tests were applied in this current study.

3. Multiple regression analyses assume that when one factor moves, another one is not going move. In other words, the analysis has a premise that there is no correlation at all among factors. However, there are correlations among factors to some degree in an empirical study, including this one.
4. VIF were low enough to perform a multiple regression analysis although there are some interrelations between the three psychological needs.

6. Study 2

Study 1 suggested that the fulfillment of needs for competence and relatedness has a stronger influence than the need for autonomy on autonomous types of extrinsic motivation and intrinsic motivation in EMI. Nevertheless, we still do not know ~~if~~ to what extent the three psychological needs of students are actually fulfilled in EMI classrooms. Before presenting the results of this qualitative study (Study 2), I will re-visit literature discussing the three psychological needs within ~~of~~ SDT aiming to understand what the fulfillment of the three psychological needs means in educational settings.

6.1 Three Psychological Needs within the Framework of SDT

6.1.1 Need for Autonomy

Reeve (2002) expressed that fulfillment of the need for autonomy is a key to increasing one's intrinsic motivation and making one's extrinsic motivation more autonomous in education at any level, because autonomy-supportive teaching practices will lead to greater engagement, positive emotions, appropriate social functioning, and greater conceptual learning. Consequently, it will foster students' learning and wellbeing (Niemiec & Ryan, 2009; Reeve, 2002). Reeve (2002) added that applying autonomy-supportive teaching approaches actually helps satisfy teachers' sense of autonomy as well (Cheon, et al., 2018). The question is, how can teachers fulfill learners' need for autonomy?

Teachers can be responsive, supportive, and flexible to make their class more autonomy-supportive (Reeve, 2002). Although allowing choices is the most popular way to satisfy students' sense of autonomy in English classrooms in Japan (e.g., Hiromori, 2006; Makekawa & Yashima, 2012), research has been demonstrating various ways to fulfill the needs for perceived autonomy (e.g., spending time in listening to their students, involving students in the learning process, explaining the value or relevance of the studied materials, letting students

express negative feelings about contents and teaching approaches applied in lessons, allowing students to work at their own pace, and taking students' perspectives) (Kaplan, 2018; Reeve, 2002). On the other hand, using commands, giving answers, criticizing, and motivating through pressure could decrease one's need for perceived autonomy, and thus, suppress the quality and strength of one's motivation and cause negative outcomes (Reeve, 2002). To sum up, accepting and acknowledge students and their opinions with non-judgmental attitude can enhance their need for autonomy (Skinner & Edge, 2002). Next, I will describe the state when the need for perceived competence is enhanced.

6.1.2 Need for Competence

The need for competence is a desire to be competent in terms of one's actions, skills, and abilities (Deci & Ryan, 2002). It will be fulfilled when one has successful learning experiences, receives positive feedback on a task that s/he values, and experiences a sense of growth. In other words, it is satisfied to a greater extent when one feels a sense of achievement and self-efficacy. Rawsthorne and Elliot (1999) reported that positive feedback was important in fulfilling one's need for competence because it could increase his/her satisfaction and eliminate his/her external and introjected regulation. Consequently, it would create strong engagement in further tasks. On the other hand, negative feedback makes one feel that they are not good enough and unworthy. This would undermine one's intrinsic motivation and increase more controlled types of external motivation, such as external and introjected regulation. In order to enhance one's intrinsic motivation and increase autonomous types of extrinsic motivation, namely identified regulation in actual classrooms, tasks must include an optimal challenge with effective feedback so that one can experience success and feel a sense of growth. In fact, individuals would feel bored if the task is too easy, but would lose self-efficacy, which causes amotivation, if it is too demanding for him/her.

6.1.3 Need for Relatedness

Finally, the need for relatedness, which is a desire to belong with other individuals and a community, facilitates the process of internalization of extrinsic motivation and fosters intrinsic motivation (Deci & Ryan, 2002; Niemiec & Ryan, 2009). It is developed when people feel connected and supported by significant others. Deci and Ryan (2002) stated that compared to the needs for autonomy and competence, relatedness has a weaker relationship with intrinsic motivation. On the contrary, Ryan and Powelson (1991) suggested that the need for relatedness plays an integral role along with the need for autonomy in educational contexts for engagement in school activities and high academic achievement. In fact, satisfaction of the need for relatedness would lead to motivated behaviors, such as persistence, exerting more effort, and being more confident. On the other hand, unfulfillment of the need for relatedness causes negative emotions, such as fear, anxiety, and boredom. All of these feelings lead to burnout and a sense of being ignored, and turn people away from learning opportunities (Furrer & Skinner, 2003; Niemiec & Ryan, 2009). Furrer and Skinner (2003) stated that the need for relatedness between teachers and students is critically important for high engagement and academic achievement although a trustworthy relationship between students is still essential. Their studies described that when students felt that their teachers appreciated them, they were more engaged, had fun, and were interested in the classroom activities.

As we have seen, the needs for autonomy, competence, and relatedness are interconnected yet different. Deci and Ryan (2002) explicitly stated that fulfillment of all these needs is essential to develop intrinsic motivation and/or autonomous types of extrinsic motivation.

6.2 The Study

6.2.1 Research Objective

This qualitative study is carried out in order to investigate students' perspectives on whether the needs for autonomy, competence, and relatedness are fulfilled or not.

6.2.2 Participants

Six participants who agreed to be interviewed during Study 1 were also invited to participate in Study 2. In order to hear various student voices, variation sampling was applied. Therefore, two participants from each motivational group (high, average, and low) were interviewed, based on the results of Study 1. Some of the demographic information that had already been collected in Study 1, and was also important in Study 2, such as participants' self-reported TOEFL ITP scores and experiences of studying abroad, are summarized for each participant in Table 6-1 below. All names used in this study are pseudonyms.

Table 6-1

Demographic Information from Survey Data of Study 1

Motivational Group	High		Average		Low	
Name	Michiko	Asa	Kaori	Yasuhiko	Ryoko	Hana
Grade	Senior	Junior	Senior	Junior	Junior	Freshman
Gender	Female	Female	Female	Male	Female	Female
TOEFL ITP	520	487	500	450	Over 550	460
Study abroad experience	No	Yes	Yes	No	Returnee Yes	Yes
Understanding of the lectures (%)	80	60	30	20	70	50
Self-study time (hours)	3	20	20	0	1	2
Intended effort to learn English	5.33	4.00	4.33	3.17	4.17	4.17
Intended effort to learn content	5.33	4.00	2.67	3.83	2.33	2.50
EMI intrinsic motivation	6.00	3.50	6.00	3.00	4.50	4.00

As explained in Chapter 3, at the research site, getting 20 credits from EMI was a requirement (see Chapter 3 for details). When the interview was conducted, Hana, who was a freshman, only had experience in taking EMI preparation courses, which are reserved solely for Japanese students, while the others had taken regular EMI courses with the international students. Therefore, Hana's data were based on her experiences in EMI preparation courses, and those of the others were from regular EMI courses.

6.2.3 Procedure

Data were collected from six semi-structured interviews that lasted 45 minutes to 90 minutes each and were conducted by the author. Five of the interviews were conducted between the end of July and August 2015. Hana's interview was conducted in November 2015 since she was away during summer break. Asa was studying abroad, so her interview was conducted via Skype and the consent form was sent, signed, and submitted via e-mail. The form was written entirely in Japanese, which was the first language for all participants and me, and it included the aims of the project, and a statement that their grades would not be negatively influenced due to their participation in the study (see Appendix D). The participants signed the form if they agreed, and all of the interviews were recorded with their agreement. Some of the specific questions asked in the interview were as follows: 1) What kind of learning experience helps you try harder for EMI? 2) Is there any learning experience that made you happy? 3) Is there anything that you feel you have gained through taking EMI? 4) What kind of learning experience decreases your motivation in EMI? 5) Are there any EMI courses that you have dropped out of? If there is any, why?

6.2.4 Data Analysis

To analyze the interview data, grounded theory approach (Corbin & Strauss, 2008; Strauss & Corbin, 1998) was partially employed. The study did not intend to develop a theory, so only some of the steps for the coding process in grounded theory were followed. The specific procedures for analysis are described below.

(1) Spoken data were transcribed and reread. Data were then coded sentence-by-sentence or based on units of meaning.

(2) Creating concepts: The transcripts were read through again, and concepts were created to describe each code. During this process, I made notes regarding interesting narratives and those relevant to SDT, the framework of the current study. Furthermore, concepts that were not directly related to the aim of this study, such as the participants' favorite stationery or their personal opinions about the relationship between Japan and the USA, were omitted.

(3) Creating categories: concepts with a similar meaning were grouped and developed into categories. Then, categories in all participants' data were compared and combined.

Steps 2 and 3 were then repeated throughout the process of analysis. The results of the study are described in the next section. In this chapter, categories are enclosed in << >>, concepts in [ ], and in-vivo codes in " ".

6.2.5 Results and Discussion

Results of the data analysis explained in the previous section yielded 150 concepts, which were developed into 10 categories (Table 6-2).

Table 6-2
List of Categories and Concepts

Category #1 English as a barrier to learning (80)
English as a barrier to voicing opinions (4)
Gaining less knowledge from EMI courses than courses conducted in Japanese (1)
Understanding a part of a lecture that was not included in the course materials or textbooks as a challenge (2)
International students' speech being too fast to comprehend (4)
Not experiencing a sense of improvement in English language abilities even after getting good grades in EMI (1)
Writing in English as a challenge (6)
Lectures being too demanding to comprehend (7)
Reading in English as a challenge (6)
Understanding instructions in English as a challenge (2)
Regretting taking a challenging EMI course (3)
EMI from certain content specialists as a challenge even after studying abroad (2)
EMI as a harsh learning experience because of being unable to understand despite trying so hard (1)
Gaining new knowledge in English as a challenge (3)
Learning academic vocabulary as a challenge (6)
Dropping out of EMI because of inability to understand EMI content specialists' lectures (2)
Writing essay in English as a challenge because of inability to understand expectations of the teacher (1)
Taking notes in English as a challenge (5)
More focus required in EMI than lectures in Japanese (1)
Critical attitude towards EMI content specialists who do not talk clearly (2)
Difficulty retaining content learned in EMI (2)
Does not know which parts of the lectures are important unless they are emphasized by the EMI content specialist emphasis (1)
Loss of interest in media studies while postponing taking it due to lack of self-efficacy (1)
Giving up the EMI course that one really wanted to take due to lack of confidence in writing in English (1)
Refusing to take a challenging EMI for fear of being evaluated the same way as native speakers of English (1)
Withdrawing from the class if there was a high possibility of not being able to get credits (1)
Nothing to gain from EMI due to lack of comprehension of the lectures (3)
Necessity of high English proficiency in order to enjoy EMI (1)
Group work with international students being exhausting due to difficulty in communicating in English with them (10)

Category #2 English as a barrier to belonging (7)
Feeling left out when everyone else is laughing at a teacher's joke (1)
High anxiety regarding learning with international students due to a sense of being inferior to them (1)
A sense of being inferior to Tas (1)
Feeling inferior to international students (4)
Category #3 Need for autonomy unfulfilled (23)
Finding it unfair to be graded in the same way as international students (10)
Dissatisfaction with lectures lacking substantial content (not seeing the value of the course) (1)
Trying to get an A+ is not cost-effective considering the required effort (1)
Critical attitude towards EMI which only evaluates through exams (3)
Knowledge from EMI not being beneficial in the real world (3)
Not seeing the reason for learning about a poet while studying about International Relations (1)
Dropping the course that did not seem relevant (1)
Critical attitude towards EMI content specialists whose lectures were boring (1)
Critical attitude towards course contents not following the syllabus (1)
Noticing there is a limit to copying others and a need to find one's own way to study in EMI (1)
Category #4 Need for relatedness unfulfilled (11)
Fear of asking questions due to an EMI content specialist appearing unapproachable (2)
TA not being sympathetic (1)
Need to be brave enough to express opinions in English because of feeling that one's English is being judged by other Japanese students (4)
Collaboration with seniors as a challenge (1)
Group work with seniors as the most stressful task in an EMI preparation course (1)
Difficulty in expressing opinions in group work with seniors (1)
Critical attitude towards EMI content specialists who do not know how to communicate with their students (1)
Category #5 Heavy workload of EMI (12)
Need to find a balance with other classes in Japanese when taking EMI (2)
High physical and psychological energy required to take EMI (1)
Being able to take a maximum of one or two challenging EMI courses for a maximum of one semester (1)
Selecting only those EMI courses that one really wants to take due to one's heavy workload (1)
Hesitating to take EMI due to the heavy workload (2)
Heavier workload required in EMI than courses in Japanese (2)
EMI being demanding (1)
Giving up the EMI course, which one really wanted to take, due to the expected overwhelming workload (1)
Giving up the EMI course, which one really wanted to take, as it seemed too demanding (1)

Category #6 EMI as a burden (3)
EMI being extremely demanding for Japanese students (2)
EMI as a burden for many Japanese students (1)
Category #7 Lack of self-efficacy (6)
Not having an efficient personality (5)
Low evaluation of Japanese students including self (1)
Category #8 Awareness of lack of interactions in EMI at A University (1)
Realizing that EMI at A University was not as interactive as the classes in the USA (1)
Category #9 Importance of autonomy-supportive teaching approaches in EMI (5)
EMI courses at A University will be more valuable for the students if it becomes more interactive (1)
Teacher's attitudes decide how much students voice their opinions (1)
Teachers can create an environment which is easy for Japanese students to express their opinions (1)
Non-judgmental attitude towards how students talk in English lets students voice their opinions (1)
Important role of teacher's autonomy-supportive approach for stimulating students' intellectual interests (1)
Category #10 Large class size as a barrier to learning (2)
Voicing their opinions as a challenge in a big lecture hall (2)

The numbers in parentheses are the times that the concepts were mentioned. The numbers are usually not counted in qualitative data analyses; however, in order to identify challenges that the participants were facing, we wrote the numbers as references.

Data revealed that the three psychological needs of students are not fulfilled in the current EMI contexts. I will discuss dissatisfaction of the needs for competence, relatedness, and autonomy. Further, interrelationship of the three needs will be described.

It was clear that unfulfillment of the need for competence is severe because it was repeatedly mentioned by everyone except Ryoko, who was a returnee from the U.S.A. In fact, 98 of the concepts were related to dissatisfaction in the need for competence such as <<English as a barrier to learning>>, <<heavy workload of EMI>> and <<lack of self-efficacy>>. It revealed how demanding EMI courses are for Japanese students. They expressed that the need for competence was unfulfilled through several concepts such as [English as a barrier to

voicing their opinion], [understanding instructions in English as a challenge], and [lectures being too demanding to comprehend]. In addition, even Michiko, who was highly motivated, was [not experiencing a sense of improvement in English abilities even after getting good grades in EMI]. She also felt that [EMI is a burden to Japanese students].

Hana and Michiko's stories expressed a dissatisfaction of the need for competence that was serious enough to cause amotivation. Although they had some EMI courses that they were eager to take, they did not take them due to feelings of incompetence. Sadly, Hana experienced a loss in intellectual interest because of persistently feeling incompetent. When she entered the university, she was only postponing taking media studies in English, which she was extremely interested in. However, experiencing dissatisfaction of the need for competence repeatedly in EMI led her to feel that her academic interest in media studies was almost gone when the interview was conducted. As we can see, English seems a barrier to learning for Japanese students; this is a major problem as it causes a loss of intellectual interest in the students.

Next, I will elaborate on Japanese students' dissatisfaction in the need for relatedness, which was expressed under the categories of <<need for relatedness unfulfilled>> and <<English as a barrier to belonging>>. Concepts under these categories displayed feelings of stress and anxiety in communicating with not only the authorities, but also peers including other Japanese students. Kaori, Hana, and Michiko were [feeling inferior to international students], which categorized under <<English as a barrier to belonging>>, and Hana was consequently experiencing high anxiety regarding learning with international students. In addition, Michiko reported [group work with international students to be exhausting due to difficulty in communicating in English with them]. Michiko's comment categorized under <<English as a barrier to learning>> shows that feeling incompetent leads to feeling disconnected with others in class. Other concepts grouped into the category named <<need for relatedness unfulfilled>> expressed that students had a difficult time understanding the lectures

due to a lack of trustworthy relationship with others. For example, Kaori did not ask questions although she wanted to because she thought the EMI content specialist was a "frightening person." This indicated that she did not feel safe or connected with the EMI content specialist, so she could not ask questions to foster understanding in the coursework. Hana also expressed a strong sense of dissatisfaction in the need for relatedness with her peers and TAs, which suppressed her self-efficacy categorized as <<need for relatedness unfulfilled>>. Interestingly, this indicated a complicated power balance among Japanese students in EMI. She said that she [needed to be brave to express opinions in English as she felt that her English was being judged by other Japanese students]. Her anxiety about being judged was strong enough to stop her from answering questions voluntarily in EMI. In addition, she mentioned that [group work with her seniors was the most stressful task in an EMI preparation course], because they tried to "fix" her opinions whenever she voiced them. Therefore, she gradually came to have difficulty in expressing her opinions in front of her seniors. She had another difficulty while working with them. When a senior had English competence lower than hers, she wanted to help him/her present in English. Nevertheless, she could not correct his/her mistakes in English due to the age difference even though his/her English did not make sense. This meant that not having a trustworthy relationship with others in EMI takes opportunities away from her to experience a sense of achievement.

In addition, she complained about a TA who was neither sympathetic nor helpful. Examples of Hana not feeling supported follow.

Excerpt 1

"People who can exceed in everything (like the TA) may not be able to understand why other people cannot."

Excerpt 2

"The TA said that it was easy, but it might not be easy for me. S/he suggested study techniques, but I realized that at the end of the day, I needed to discover my own study techniques."

The data showed that Japanese students did not feel comfortable or supported in EMI. They felt lonely, nervous, and judged not only by the EMI content specialists or TAs, but also by their international and Japanese peers. Due to unfulfillment of the need for relatedness, they did not ask questions or express themselves, although some of them were competent enough in academic English communication.

Finally, dissatisfaction in the need for autonomy was found under the categories of <<need for autonomy unfulfilled>>. Furthermore, some concepts reveled autonomy support is essential in EMI which are under the category named <<importance of autonomy-supportive teaching approaches in EMI>>. The most frequent complaints related to the need for autonomy were about how they were assessed and evaluated. Michiko repeatedly mentioned [finding it unfair to be graded in the same way as international students]. She said that it was because international students were already fluent in English, whereas, Japanese students were still in the process of learning English. Therefore, she believed that those two groups needed to be graded differently. Ryoko and Yasuhiro also expressed a [critical attitude towards EMI, which only evaluates through exams]. They felt that the content specialists did not value their effort or participation during the courses. These concepts represent that teachers seem unwilling to listen to the students' opinions or do not treat them as important individuals in class.

In addition to that, students feel EMI content specialists are not providing decent explanations of why they are teaching what they teach. Kaori, Ryoko, and Yasuhiro found [knowledge from EMI not being beneficial in the real world], and so they did not see value in

pushing themselves to understand the contents of EMI. In fact, Kaori had previously dropped out of an EMI course because the content specialist did not explain the aim of the course and she eventually did not see the value in taking the course. Yasuhiro also felt that many EMI courses offered no value apart from credits. He found no benefit in taking EMI and realized that [trying to get an A+ is not cost-effective considering the required effort] to get it. It seems that EMI content specialists did not spend enough time to clarify the value or relevance of their courses to their students. Moreover, they did not give adequate opportunities to the students to express their doubts or concerns about what was taught or how the class was conducted. In other words, an autonomy-supportive environment is not created in the current EMI classrooms.

Furthermore, Asa, who was studying in the USA during the interview reported that [realizing that EMI courses at A University were not as interactive as classes in the USA]. Through her experiences of studying abroad, she came to believe in the <<importance of autonomy-supportive teaching approaches in EMI>> to make EMI more interactive at A University. This can be illustrated by the story she shared at the interview. She was attending a class by non-native speakers of English in the USA and the content specialist told the students that everyone makes grammar mistakes, including himself, although he was a teacher. He did not care about students making grammar mistakes, because he liked to hear the minorities' perspectives from international students. In fact, he thought native speakers should push themselves to understand what the international students were trying to say. The belief that it was acceptable to not be perfect encouraged her tremendously in expressing her opinions in class. She attended his class before the interview and enthusiastically mentioned that she volunteered to answer a question that day as well. She insisted that students could be more proactive when they knew that their teachers would accept answers and value their input, even if they were not perfect or different from the teachers' expectations. She reported that the

[teacher's attitude decides how much students voice their opinions]. Her stories confirmed the importance of teachers accepting students' perspectives to fulfill one's need for autonomy and, thus, enhance students' motivation. Nevertheless, EMI classrooms at A University were not autonomy-supportive learning environments for the Japanese students.

Before summarizing Study 2, I would like to mention that satisfaction of the three psychological needs influence each other. As mentioned earlier in this section, dissatisfaction in the need for competence causes the need for relatedness to be unfulfilled (e.g., [Group work with international students being exhausting due to difficulty in communicating in English with them]) or the other way around (e.g., [Fear of asking questions due to an EMI content specialist appearing unapproachable]). Moreover, the concept under the category of <<English as a barrier to belonging>> indicated that dissatisfaction in the need for competence does not allow the needs of autonomy and relatedness to be fulfilled. Yasuhiko was [feeling left out when everyone else was laughing at a teacher's joke], because he had no idea what was going on. He felt alienated and ignored by his teacher and peers when he did not understand the joke.

As we have seen, in the EMI context, English is currently a barrier to learning for the Japanese students (dissatisfaction of the need for perceived competence). Moreover, they did not feel accepted or heard as important individuals (dissatisfaction of the need for perceived autonomy), in addition to not having a sense of community or feeling connected to others (dissatisfaction of the need for perceived relatedness). In such an unsatisfying learning environment, it is natural that students' motivation and learning are not fostered.

In order to save the Japanese students from such a harsh situation, a pedagogical intervention aiming to help them comprehend the lectures, fulfill the needs for the three psychological needs, and thus, enhance their EMI intrinsic motivation, and develop their extrinsic motivation into a more autonomous one, needs to be conducted.

6.3 Summary

This chapter reported a qualitative study conducted to determine if Japanese students' three psychological needs are being satisfied in EMI classrooms. Six semi-structured interviews were conducted; results demonstrated that none of the needs were being fulfilled. There is serious dissatisfaction regarding the needs for autonomy, competence, and relatedness. Japanese students feel that their English proficiency is not high enough to take EMI, they are not members of an EMI community, or do not feel acknowledged as important individuals of the community. Taking the results of this current study into consideration, in this kind of learning environment that is not comprehensive, or autonomously supportive, it is natural that students act passively and are unable to try their best. The results of this study sheds light on the necessity of interventional studies to find ways to enhance students' comprehension of the lectures, satisfy three psychological needs in EMI classrooms, and, as a result, motivate the students. Now, I will move on to Part 3 (i.e., interventional studies), which begin with an elaboration of how I designed the intervention.

7. Introduction to Part 3

Studies in Part 2 reveals the necessity of pedagogical intervention to fulfill the three psychological needs. Part 3 (Chapters 7 to 9) focuses on the interventional study aiming to improve this harsh EMI learning environment for Japanese students using SDT as a framework. This chapter reports a preliminary study, which explores pedagogical approaches and supports that students desire to receive in EMI courses, in order to design the intervention. Then, procedural timeline of the intervention will be outlined in Section 7.2. Finally, the following chapters will report quantitative (Chapter 8) and qualitative (Chapter 9) studies, which were conducted in order to examine the effectiveness of the intervention.

7.1 Preliminary Study for Designing the Intervention

7.1.1 Objective

This study was carried out in order to obtain concrete ideas to design the intervention. Of course, the intervention could not include all of their opinions because their preferred teaching approaches were not always effective from a pedagogical viewpoint. On the other hand, it was also true that the students could see what the researchers or instructors could not, so listening to their opinions and referring to them while planning the intervention was considered beneficial. Therefore, some students' stories about when they were happy /enjoyed EMI and faced setbacks in EMI classrooms will be introduced in the following section.

7.1.2 Participants

This current study involved the same six participants as Study 2 in Chapter 6 (See 6.2.2 for details).

7.1.3 Data Analysis

The transcriptions from Study 2 were reanalyzed. The student utterances that seemed helpful for designing the intervention were taken from the transcriptions, categorized, and listed. The list was revised several times while the data were analyzed.

7.1.4 Results and Discussion

Twenty-one student utterances were categorized into eight requests for the intervention. The requests were extracted from the interviews and coded are shown below with excerpts.

1. Desire to communicate with international students

Excerpt 1

Kaori	**Taking the EMI course (peace studies) was extremely interesting because the international students voiced some opinions that were different from my expectations. I think it (learning what is happening in the world today from real life stories) happened only in EMI, which had a diverse student body, or because—I would say—the class had students from different countries. There were many things that I learned [in this way] from the EMI course about the topic.**

Excerpt 2

Kaori	**Well, [with regard to] learning in English… maybe… there are many international students at A University, so I can learn about life situations that I would never have even imagined. That was something I found most interesting in EMI classrooms.**

Excerpt 3

Kaori	**Well… I took many EMI courses because I found learning with international students incredible from my experience in previous EMI courses that I had taken.**

Excerpt 4

Kaori	**[Taking EMI] with international students [,] …well [,] … I was happy to get to know more international students.**

Excerpt 5

Yasuhiko	**I was happy when I received an opportunity to communicate in EMI courses after all.**
RSC[1]	**Communicate with the teacher? Or…?**
Yasuhiko	**Communicate with the students. Several EMI courses have often involved some group work. During the group work, I had to communicate as I had expected with the international students. Actually, it was more than I had expected [,] … well, the opportunities to talk to international students at A University were only available in the dormitory and in the class… I think…and during some circle activities. Because of this situation, speaking to someone for the first time in English is not something I have experienced very often. Therefore, becoming friends with them, conversing with them about various things, and learning from them there [in EMI courses] was good for me.**

Excerpt 6

Asa	**EMI courses are extremely active [compared to the courses conducted in Japanese]. In addition, at A University, the students come from different countries, so I am able to listen to opinions from different perspectives. I find EMI tremendously fun.**

2. Desire to receive academic writing instruction

Excerpt 7

Asa	**The teacher not only told us our scores, but also firmly provided us with useful comments.**

Excerpt 8

Asa	**When we submitted our outline one week before we had to submit our mid-term essay assignment, he provided us with feedback about it. Thus, I knew where and how I would have to improve my writing while working on my essay.**

Excerpt 9

Michiko	**Well [,] … I would love to take EMI courses with high academic standards. [Regarding to] writing an essay in English [,] … I am still not at all confident about writing an essay, so I have avoided taking these EMIs.**

Excerpt 10

Hana	**Well [,] … [speaking about] writing an essay [,] … I know that I should have started working on it earlier. I did it at the last minute, so it was extremely hard for me. Well [,] … I had to choose a topic; then, I had to make some connections between the topic and my experiences, and write about it. However, I did not know what how to do it. In order to complete the assignment, I approached the teacher, seniors, and friends, who spoke better English, than me for advice.**

3. Desire for interactive EMI

Excerpt 11

Asa	**In EMI, the teacher often asked the students for their opinions. Well, the EMI classes did not have a one-way lecture style. The teacher asked questions, and the students answered them. Then, he responded to the students' opinions.**

Excerpt 12

Asa	**Well, after all, expressing my opinions in EMI made me happy although volunteering to voice my opinions took courage. Not only that, it was also important for me to properly convey my meaning.**

4. Desire to access PowerPoint slides for study at home

Excerpt 13

Michiko	**Well [,] … I looked up [the vocabulary in a dictionary] when I did not understand the English text on the PowerPoint slides before the class.**

Excerpt 14

Michiko	**When I can access the PowerPoint slides in advance, I can study at home before the class, but if they are not available, there is no other way to prepare for the lecture.**

Excerpt 15

Asa	**The instructor uploaded the PowerPoint slides the day before each class. Therefore, I scanned them briefly, and reread some parts of the textbook that I found difficult to understand.**

5. Desire for access to a Teaching Assistant (TA)

Excerpt 16

Michiko	**The TAs explained the course content carefully. This greatly increased my understanding of it.**

6. Desire to obtain glossaries for reading

Excerpt 17

Hana	**Vocabulary that I did not know [,] … well, I thought I should try to look up all the new vocabulary words in a dictionary, so I did; however, I then thought, oh… one sentence is too long. I could not comprehend the content of the textbook at all. Well [,] … the homework required us to fill in the blanks provided on a worksheet based on [information from] the textbook. Therefore, I just read what I had to read in order to complete the assignment. Anyway, for me, reading the textbook was a demanding experience.**

Excerpt 18

Yasuhiko	**When I take a course like EMI, I find learning too many new words was overwhelmingly demanding.**

Excerpt 19

Michiko	**I knew that I would have to read the reading assignments thoroughly [in order to take the final exam], but I couldn't… [.] After all, this task was too demanding for me to accomplish because of my poor English proficiency.**

7. Desire to ask questions in Japanese

Excerpt 20

Yasuhiko	**I thought that I could ask questions in Japanese—to some degree—because the instructor was Japanese. That is why I took this course.**

8. Desire to receive instruction on note-taking in English

Excerpt 21

Hana	**Well, in the beginning, I did not know how to take notes at all. Thus, I wrote down the things I considered to be important, referring to the PowerPoint slides that the teacher showed in class—just writing seemingly important information down. Therefore, when I did not know which information was important, I wrote down everything. Consequently, I was unable to write everything down in time. I panicked when I saw that the teacher was about to leave the classroom. I thought that this class was exhausting especially for my hands [;] … yeah, I thought that this was the case in the beginning.**
RSC[1]	**Okay, did it change during the course?**
Hana	**Mid-way through the course, well, the teacher taught us how to take notes in class. Therefore, I kind of followed her instructions, but still, I felt that it was hard for me [to take notes in English].**

Those requests mentioned above were referred to when designing the intervention. In fact, except for the last few, most of them were applied in some form in the intervention. The rest of this section will discuss how each suggestion was adopted.

First of all, as many excerpts illustrate, it was clear that the students wanted to communicate with the international students in EMI. Hence, I decided to ensure that every Japanese student would have such interaction opportunities by creating fixed small groups that had international students. Also, writing an essay seemed a demanding task, so a final exam preparatory tutorial session was provided for writing support.

Students also pointed out that good EMI is interactive. Therefore, I decided to use an online discussion board to communicate with them.

Furthermore, the data revealed that, for self-study, students used PowerPoint slides that EMI content specialists had created for their lectures. However, the EMI content specialist that I worked with during the intervention preferred not to use it in class. Thus, some comprehension check questions every week was posted to let the students know the focus of the lecture and

consequently foster their studies at home, in order to compensate for PowerPoint slides not being distributed. Finally, TAs were provided by the university since university policy states that they will provide a TA when more than 100 students enroll.

Regarding the distribution of a glossary and letting them communicate with each other in Japanese, those requests were only adopted in Cultural Studies. This is because, based on my experience, a glossary created by someone who is not the instructor of the course has limited effectiveness, as discussed in Chapter 3. On the other hand, the reading assignment for Cultural Studies had a good amount of technical terminology, so I could expect that students would struggle with understanding it. Thus, glossaries were made and provided for that course. In addition, the use of Japanese was not encouraged in EMI because the EMI content specialist was concerned about international students' possible complaints about the intervention described in Chapter 3 (see Section 3.5 for details). Nevertheless, during Gender Studies, only a few students could post their opinions in online discussion forums in English. This meant that extra scaffolding was required in order to help Japanese students be more active. Hence, online discussion forums in Japanese were created to support their learning further.

Although I applied most of their ideas in some way during the intervention, I could not teach note-taking skills in this research. In fact, I had tried to teach this skill when I helped another EMI content specialist in 2012 as mentioned in Chapter 3 (see Section 3.4 for details). However, the students were unable to take any notes because their understanding of the lectures was too limited. This is why my main priority was to help them comprehend the course content in this intervention. Therefore, I did not provide any instructions with regard to note-taking.

The next section will elaborate on the intervention from the perspectives of the three psychological needs in SDT.

7.2 The Intervention

My intervention included various formats employed at different times during the course, which consisted of 14 classes over seven weeks (See Table 7-2 for the overview of the intervention). The goal of the intervention was not only helping students in the Gender Studies course, but also designing an intervention that would be flexible enough to apply to any EMI course in the future. I set this goal because of my previous experience providing teaching intervention in another EMI course, as I described in Chapter 3. Based on that experience, pedagogical interventions that directly connected with the content of the course were burdensome for language instructors. However, I found that I could expect only limited effectiveness from the materials, which were not developed by the EMI content specialists themselves. Thus, my purpose this time was to explore sustainable and practical ways to support Japanese students. Therefore, my intervention in this current project was focused on learning support rather than involving direct teaching content in class.

The interventions were conducted in the gender studies and the cultural studies courses. As I described in Chapter 3, a Japanese professor in area studies taught both courses. She was willing to collaborate with me because she was aware of the importance of faculty development in pedagogy, especially in a classroom with diverse needs. She also knew that Japanese students had a lower passing rate and lower performance than international students did. On the other hand, she was concerned about the international students who might feel that providing extra support only to Japanese students was unfair. Thus, she agreed to conduct my project as long as the intervention involved everyone in the class, including international students.

The intervention will now be described from the perspectives of the three psychological needs in SDT that I am attempting to fulfill (i.e., the needs for autonomy, competence, and relatedness).

7.2.1 Need for Autonomy

Fulfilling the need for autonomy is critical in educational contexts (Reeve, 2002), which can be achieved by teachers understanding the classrooms from the students' perspective. This means that this intervention itself, which is trying to listen to students' stories and helping them based on their opinions, is already, in a way, autonomously supportive.

In addition, 1) an orientation for the intervention, 2) a student evaluation session, 3) an online discussion forum in English and 4) an online discussion forum in Japanese are applied in order specifically to fulfill the need for autonomy.

1) An orientation for the intervention

The orientation lasted about 10 minutes and was presented in a lecture-style format. It included the explanations of the aims of the intervention and the reasons why the intervention helps deepen the learning of the entire class, not just that of the Japanese students. Sharing the ways in which the intervention was valuable for their learning helped them see the importance of the intervention as well.

2) Student course-evaluation session

After the midterm test during lesson 7, the EMI content specialist left the classroom. Then, the students, the TAs and I discussed what the students liked about the course and things that they wanted the content specialist to change. Some of the repeatedly mentioned compliments and suggestions for further classes were shared with the content specialist by me and the TAs afterward. The purpose of this session was to create a place where students could express their doubt or negative feelings about the course without pressure.

3) Online discussion forum in English

Students were welcome to ask any questions, make suggestions about the course and share what they knew about the course content at any time. In order to encourage them to post their comments and in the hope of promoting their interest in the course content, I always showed my appreciation to the students by replying to most of the comments individually. Furthermore, I shared some supplemental websites. Again, the goal was to create a place for the students where they could be honest with their opinions and emotions, even negative ones. In addition to this, my contact information was on the syllabus, so that they could contact me (in either Japanese or English) at any time. I set it up this way because I thought some students might prefer to share their thoughts privately.

4) Online discussion forum in Japanese

In Cultural Studies, an online discussion forum in Japanese was created in addition to an online discussion forum in English. I decided to create it because I found posting comments in English was challenging for the Japanese students when I noticed very few of them actually made comments on in the English discussion forum during the Gender Studies course. On the online discussion forum in Japanese, they were asked to share their anxiety and worries as well as things that they could not follow in the lectures. I clearly stated that comments that were not directly related to the course content were also welcome (e.g., communication problems with their classmates, concerns about their English). This was intended to boost their need for perceived autonomy by letting them be who they were as well as to enhance their need for perceived relatedness, which will be mentioned later in this chapter.

7.2.2 Need for Competence

As mentioned in the previous chapter, the Japanese students' dissatisfaction of the need for competence appeared to be a serious issue in EMI. In order to foster their understanding and let them experience a sense of growth and accomplishment, I utilized 1) a session for developing reading skills in English, 2) a preparatory tutorial session before tests, 3) assigning them into small groups with international students and 4) an online discussion forum in English. Furthermore, in Cultural Studies, a vocabulary sheet for each unit was provided.

1) A session for developing reading skills in English

In order to help the students tackle the reading assignments for the course, skills for effective reading in English were presented for approximately five minutes during the first lesson. It included encouraging reading the title, topic and concluding sentences first, researching technical terminologies and acquiring background knowledge in their L1 as well as in English. It was also suggested to the students that they should share what they did and did not understand with their friends because it would advance their comprehension of the lectures.

2) Final exam preparatory tutorial session

The preliminary study for designing the intervention in this chapter revealed that students need feedback and support to develop essay writing skills and tackle with writing assignments in EMI. Therefore, in order to help them write and thus fulfill their need for competence, an optional final exam preparatory tutorial session was offered. Its duration lasted for about one class period (95 minutes); this extra class was held the day before the final exam (between Lessons 14 and 15), and the TAs and I provided writing instructions to the students in individually.

During the final exam preparatory tutorial session, oral instructions were primarily provided in Japanese while the handouts I created were written in English. In order to enhance the session's effectiveness, I had an hour-long meeting with the content specialist and the TAs before the tutorial session. This allowed us to discuss how best to improve students' grades on the exam, thus ensuring better overall grades for the course since the final exam comprised 50% of their grade.

3) Small group with international students

Everyone was assigned into fixed groups of three or four throughout the quarter. Having students in small groups was expected to encourage asking each other questions, which would promote their understanding of the lectures, and to develop their need for perceived relatedness, which will be discussed later in this section.

4) Online discussion forum in English

Either a comprehension check question or a task based on the week's lecture was posted each week to increase the students' self-study time, thus fostering their learning. Additionally, in this current preliminary study for designing the intervention, students expressed a desire to access PowerPoint slides for study at home. Nevertheless, the EMI content specialist for the intervention preferred not to use PowerPoint slides or did not have time to create reading guides for the students. Therefore, posting comprehension check questions was suggested, and she agreed. I replied to each student with informational rewards (e.g., showing my appreciation for sharing their thoughts, praising their comments) and positive feedback. In addition to communicating with individuals, I gave advice to the whole class, with informational rewards, on improving their writing whenever I could not participate in a lesson.

5) Vocabulary sheet

Students expressed that the vocabulary of reading assignments in EMI was challenging. However, I did not make a glossary for Gender Studies, because I wanted to focus on learning support and not on teaching the content of the course in order to make it applicable to any EMI courses in the future. On the other hand, the content of the reading assignments would be less familiar to students than that in Gender Studies, so it would be challenging for the Japanese students to understand it without vocabulary sheets, as discussed in the previous section. Therefore, I conducted vocabulary analyses and created glossaries for each unit for Cultural Studies. I asked the content specialist for advice in order to minimize the amount of vocabulary listed when the drafts were made. After that, they were shared with everyone via the online learning system before classes began.

7.2.3 Need for Relatedness

As described in the previous chapter, satisfaction of the need for relatedness is crucial in an educational context (Ryan & Powelson, 1991). In order to fulfill the need for relatedness, 1) small groups with international students, and 2) an online discussion forum in Japanese were utilized.

1) Small groups with international students

As described in the section on the need for competence, everyone was assigned into fixed groups of three or four throughout the quarter. This was done to create a community for everyone to belong to and rely on so that they could feel connected to others in the classroom in addition to fulfilling their need for competence.

2) Online discussion forum in Japanese

The online discussion forum in Japanese was already mentioned in the section on the need for autonomy, but it was also designed for enhancement of the need for relatedness. Using students' L1, we asked them to voice thoughts as a way to show empathy and to acknowledge their emotions. The Japanese TAs and I shared our experiences as language learners and tried to make personal connections with the students hoping to let them know we cared about them.

Table 7-2

Overview of Class Schedule, Intervention, and Data Collection

Lesson	1	2–6	7	8–13	14	15
Class lessons by the content specialist	Course orientation	Lecture	Midterm test	Lecture	Student presentations	Final examination
Intervention	An orientation of the intervention A session for developing reading skills in English An orientation for online discussion forum		Student evaluation session (20 minutes) with TAs			Final exam preparatory tutorial session (95 minutes) with TAs
	Small group with international students Online discussion forum					
Data collection	Pre-questionnaire Participants' Self-reporting of their understanding of the lecture (Time 1)		Participants' Self-reporting of their understanding of the lecture, and self-study time (Time 2)		Post-questionnaire Participants' Self-reporting of their understanding of the lecture, and self-study time (Time 3)	Evaluation sheet

Note

1. RSC stands for researcher.

8. Study 3

8.1 Research Questions

This study aims to investigate motivational changes through pedagogical intervention using quantitative methods. The specific research questions are as follows:

1. Is it possible to enhance EMI intrinsic motivation, decrease amotivation and internalize extrinsic motivation in Japanese students through an education intervention intended to fulfill the three psychology needs of self-determination theory (SDT) in the EMI context?
2. Is it possible to enhance motivational intensity (intended effort) to learn English and intended effort to learn content, which influence their EMI intrinsic motivation through the pedagogical intervention?
3. Is it possible to increase students' comprehension of the lectures and promote their self-study time through the intervention?
4. Are there students who developed different motivational trajectories during the course wherein the intervention was implemented? If so, how did students experience the course differently?

8.2 Method

8.2.1 Research Site

This study was conducted at the same university as the preliminary study, studies 1, and 2. Similar to other EMI courses at A University, both Japanese and international students took the course in which the intervention was conducted. Creating a control group in an interventional study would have been ideal; however, as the EMI content specialist was offering only one Gender Studies/Cultural Studies course in each academic year, this was impossible. The qualitative study in Chapter 9 was conducted to compensate for this limitation of the current study, and more than half of the lessons were observed by me. Many previous

interventional SLA studies also do not have a control group (e.g., Hiromori, 2006; Hiromori & Tanaka, 2006; Maekawa & Yashima, 2012; Nishida, 2013a).

The teaching intervention in this chapter (Study 3) was implemented in a gender studies course. The course had two 95-minute lessons per week over one quarter.[1] This was an elective course for sophomores or upper-level undergraduates in the social studies department. In total, 234 students enrolled in the course, of which 60 were Japanese. A content specialist (not me), three TAs (one Vietnamese and two Japanese), and I were involved in this intervention. The EMI content specialist, who obtained her Ph.D. in area studies from a Japanese university, provided all the class lessons. While I was not involved in planning or providing lessons, I planned and conducted the entirety of the intervention. One of the TAs was Vietnamese and was hired by the university, while the other two were Japanese, who were the content specialist's seminar students, and participated voluntarily. All of them were fluent in both English and Japanese and were familiar with the gender studies course content.

All of the lessons were conducted and class materials were written in English. In addition, students communicated with the EMI content specialist, the TAs and me in English both in the classroom and outside the scheduled class time. Five of us held debriefings each week, which were conducted both in English and in Japanese.

8.2.2 Participants

The pedagogical intervention and quantitative data collection were performed in both Gender Studies during the first quarter and Cultural Studies during the second quarter. However, there were only 21 Japanese students left in Cultural Studies after the students who enrolled in both courses were eliminated. Of the 21 students, only 15 students answered both pre- and post- surveys in the cultural studies course. Consequently, quantitative research in Study 3 only includes the data from the gender studies course.

Two hundred and thirty-four students registered for the gender studies course, 60 of whom were Japanese; of these, six students never attended. Fifty-five Japanese students took the pre-survey, and then 38 of them took the post-survey (seven males and 31 females). This fact means that 30% of the students dropped out at some point during the course. In addition, 14 students attended the final exam preparatory tutorial session described earlier (see 7.2), and 11 of them were among the 38 participants who answered both the pre- and post-survey. The responses of the 38 students were then analyzed. The mean score of the self-reported TOEFL ITP was 483 (*SD* = 40.84), the highest score was 550 and the lowest was 410. Observations and interviews were conducted in order to compensate for the lack of a control group.

8.3 Data Collection Procedure

Two questionnaires were administrated during the quarter[1] (at Time 1 and Time 3 shown Table 7-2). In addition, students reported their average percentage of understanding of the EMI lectures (at Time 1, Time 2 and Time 3 shown) and their average self-study time per week (at Time 2 and Time 3 shown) during the quarter. The pre-questionnaire was conducted during Lesson 1 (at Time 1), and the post-questionnaire was conducted during Lesson 14 (at Time 3). All of the data were collected during class time. Given university restrictions, I could not conduct the questionnaire during the final examination. Therefore, the post-questionnaire was administered during Lesson 14, the last lesson before the final examination. Doing so meant that the post-questionnaire was conducted before the final exam preparatory tutorial session and its influence, if any, was, therefore, not reflected in the questionnaire results. To compensate, students who participated in the tutorial session were asked to complete an evaluation sheet of it at the end.

I explained that participation in the study, which included answering the questionnaires and attending the final exam preparatory tutorial session, would be voluntary and that

quantitative data would be analyzed statistically, so no individual would be identified. In addition, students were told that their answers and feedback would not influence their grades in any way when the data were collected.

8.4 Materials

8.4.1 Questionnaire

Several measures from prior research were applied in this study. All of the items explained below were rated using a six-point Likert scale (See Appendix F.). Except for items referring to intervention evaluation, all of the items were adapted from Hiromori (2006) and Yashima et al. (2008), with minor changes made to fit the EMI context, such as replacing the word "English" with "EMI." In addition, self-reported TOEFL ITP scores were requested in the pre-questionnaire, and the intervention evaluation was included in the post-questionnaire.

Variables of self-determination theory. All of the items in this section were adopted from Hiromori (2006) or Yashima et al. (2008), Japanese versions of research conducted by Noels et al. (2000). The first Cronbach's α is for the pre-questionnaire, and the second is for the post-questionnaire.

EMI intrinsic motivation. Four items were applied to assess students' EMI intrinsic motivation (e.g., "EMI lectures are exciting") (Cronbach's α = .88, .80).

EMI extrinsic motivation. Four items for each regulation were adopted to assess extrinsic motivation. The regulations included EMI identified regulation (e.g., I want to acquire disciplinary knowledge in English for use in the future) (Cronbach's α=.78, .78), EMI introjected regulation (e.g., I would feel guilty if I did not take EMI) (Cronbach's α=.73, .73) and EMI external regulation (e.g., I am taking EMI courses because I want to get enough credits to graduate) (Cronbach's α=.72, .60). As explained in Chapter 5, integrated regulation was not included when the survey for educational contexts was originally developed because it

was difficult to distinguish from identified regulation (Vallerand et al., 1989). Moreover, a study conducted by Noels et al. (2000), in which university students were asked to participate, did not include it either, since the participants were considered too young to have developed an integrated sense of self in school. Because this study was also conducted at a university, integrated regulation was excluded here as well.

EMI amotivation. Four more items were applied in order to evaluate the degree of amotivation (e.g., "I don't understand why I have to study in EMI courses.") (Cronbach's α=.80, .85).

Need for autonomy, competence, and relatedness. Three items from each category measured the degree of fulfillment of the three psychological needs influencing EMI intrinsic motivation. Items such as "Teachers in EMI courses ask for the students' opinions about the content and/or procedure of the class" were used to measure the degree of fulfillment of the need for autonomy (Cronbach's α = .63, .77). Items such as "I feel a sense of accomplishment in EMI classes" were used to assess the degree of satisfaction of the need for competence (Cronbach's α = .75, .67). Finally, items such as "I get along with my classmates in EMI courses" reflected the degree of satisfaction of the need for relatedness (Cronbach's α = .75, .74).

Motivational intensity (Intended effort) to learn English. Motivational intensity to learn English was measured with four items (Cronbach's α = .68, 74) adopted from Ryan's (2008) and Yashima's (2002) research (e.g., "If English were not taught in school, I would try to go to English classes somewhere else."). Participants were required to indicate the degree to which each statement matched their state of mind.

Attitude toward learning English. Four items reflected students' attitudes toward learning English (Cronbach's α=.81, 86), such as "I really enjoy learning English." These were taken from Ryan (2009).

The L2 motivational self system.

Ideal L2 self. Four items were used to assess how vividly one visualizes his/her future ideal self as an English speaker (Cronbach's α=.80, .90), such as "I often imagine myself as someone who is able to speak English."

Ought-to L2 self. Three items measured one's beliefs of what one thinks he/she ought to become (Cronbach's α=.62, .71), such as "Hardly anyone really cares whether I learn English or not."

The items for ideal L2 self and ought-to L2 self were taken from Ryan (2009). One item of ought-to L2 self was omitted in order to get a higher Cronbach's α.

English anxiety. Four items (Cronbach's α =.80, .86) were applied from Ryan (2008) to assess students' degree of English anxiety in a classroom (e.g., "I get nervous and confused when I am speaking in my English class").

Motivational intensity (Intended effort) to learn content. Motivational intensity to learn content was measured with three items (Cronbach's α = .76, .92). These items were adapted from the items that Ryan (2009) and Yashima (2002) utilized to assess intended effort to learn English. To illustrate, "English" was replaced with "this subject," as in "I often think about this subject or the content that I learned from this class."

Intervention evaluation. In the post-questionnaire, students were asked to evaluate the intervention conducted in class on a six-point Likert scale (1: it was not useful at all; 6: it was very useful). There were three items to assess each intervention approach: conducting the feedback session in Lesson 7, assigning everyone to small groups, and providing discussion forums throughout the quarter. Students could also select "I do not know" because they may have been absent when a specific intervention was conducted.

Participants' self-reporting of their understanding of the EMI lectures and self-study time. Students reported their average percentage of understanding of the EMI lecture three

times (at Time 1, Time 2, and Time 3), as well as the average self-study time per week in minutes (at Time 2 and Time 3).

8.4.2 Final Exam Preparatory Tutorial Session Evaluation Sheet

At the end of the tutorial session, each student reported his/her evaluation of the session. The same six-point Likert scale as the intervention evaluation in the post-questionnaire was applied (see Appendix G).

8.5 Data Analysis

The data were analyzed using SPSS 23. Before examining whether the intervention enhanced the students' EMI intrinsic motivation, for each variable, kolmogorov-smirnov tests were conducted to assess normal distribution, skewness, and kurtosis (see Tables 8-1, 8-2, 8-3, and 8-4). The results of Time 1 indicated normal distribution for EMI amotivation, EMI introjected regulation, EMI identified regulation, need for competence, need for relatedness, attitude toward learning English, English anxiety, ideal L2 self, ought-to L2 self, and intended effort to learn content; on the other hand, the violation of normal distribution was indicated by EMI external regulation, EMI intrinsic motivation, need for autonomy, and the intended effort to learn English. The results of Time 3 indicated normal distribution for EMI amotivation, EMI introjected regulation, EMI identified regulation, EMI intrinsic motivation, need for autonomy, need for relatedness, attitude toward learning English, intended effort to learn English, English anxiety, ought-to L2 self, and intended effort to learn content. On the other hand, violation of normal distribution was found in EMI external regulation, need for competence, and ideal L2 self. Since some factors violated assumption of normality, both t-tests and wilcoxon rank-sum tests were conducted for the first, second, and third research questions. The results of paired t-

tests will be discussed here because parametric and non-parametric tests showed the same results.

Paired t-tests were conducted to answer the first, second, and third research questions (i.e., 1. Is it possible to enhance EMI intrinsic motivation, decrease amotivation, and internalize extrinsic motivation in Japanese students through an education intervention intended to fulfill the three psychology needs of SDT in the EMI context? 2. Is it possible to enhance motivational intensity (intended effort) to learn English and intended effort to learn content, which influence their EMI intrinsic motivation through the pedagogical intervention? 3. Is it possible to increase students' comprehension of the lectures through intervention?). In addition, student evaluations of the intervention in the post-questionnaire were analyzed with descriptive statistics. Two-way repeated measures analyses of variance (ANOVA) were conducted to answer the fourth research question (i.e., Are there students who developed different motivational trajectories during the course wherein the intervention was implemented? If so, how did students experience the course differently?). Because it is also important to take a closer look at the data, I divided students based on their EMI intrinsic motivation trajectories, and created three groups as explained below (i.e., an ascent group, a descent group, and a stable group). A two-way ANOVA was then conducted to examine the statistical differences of their EMI intrinsic motivation among the groups in both the pre- and post-questionnaires. The analysis confirmed that there are three types of motivational trajectories among the participants: students whose EMI intrinsic motivation scores rose (ascent group), those whose scores fell (descent group), and those whose scores did not change (stable group). This process was aiming to understand participants in a similar way to the cluster analyses conducted in previous research in language classrooms (e.g., Hiromori, 2006; Maekawa & Yashima, 2012; Tanaka & Hiromori, 2007).

8.6 Results and Discussion

8.6.1 Results

Before the questions were answered, the descriptive statistics were conducted in the following pages (see Tables 8-1, 8-2, 8-3, and 8-4).

Table 8-1
Descriptive Statistics for Each factor at Time 1 (Pre-survey)

	Variable	Mean	*SD*	*Sig* Kolmogorov-Smirnov test	Skewness	Kurtosis
Motivational regulations for EMI	Amotivation	2.62	1.15	.200	.57	.15
	External regulation	3.83	1.16	.000	-1.07	1.16
	Introjected regulation	3.42	1.15	.105	-.08	.31
	Identified regulation	4.22	1.03	.200	-.53	.50
	Intrinsic motivation	3.70	1.13	.032	.46	.16
Three psychological needs	Need for autonomy	3.32	1.03	.000	.43	.00
	Need for competence	3.59	1.09	.200	-.01	-.16
	Need for relatedness	3.98	1.21	.200	-.03	-.75
Motivational variables for learning English	Attitude toward learning English	4.29	1.06	.200	-.46	.83
	Intended effort to learn English	3.59	.97	.028	.74	1.00
	English anxiety	3.65	1.17	.200	-.57	-.11
	Ideal L2 self	4.11	1.17	.200	-.15	-.61
	Ought-to L2 self	4.46	.94	.178	-.14	-.37
Motivational variable for learning content	Intended effort to learn content	4.37	1.06	.065	-.40	-.22

Note.
"Three psychological needs" represents the fulfillment of the three psychological needs within SDT.

Table 8-2
Descriptive Statistics for Each factor at Time 3 (Post-survey)

	Variable	Mean	*SD*	*Sig* Kolmogorov-Smirnov test	Skewness	Kurtosis
Motivational regulations for EMI	Amotivation	2.91	1.10	.086	-.17	-.44
	External regulation	4.02	1.14	.004	-1.03	1.17
	Introjected regulation	3.51	1.23	.104	-.40	-.58
	Identified regulation	4.06	1.03	.200	-.48	-.09
	Intrinsic motivation	3.74	1.01	.200	-.16	1.02
Three psychological needs	Need for autonomy	3.58	1.14	.200	-.07	-.52
	Need for competence	3.37	.97	.040	.30	.36
	Need for relatedness	4.02	1.11	.071	-.22	-.40
Motivational variables for learning English	Attitude toward learning English	4.32	1.09	.200	-.30	-.48
	Intended effort to learn English	3.54	1.06	.200	.30	-.25
	English anxiety	3.76	1.20	.200	-.12	-.50
	Ideal L2 self	4.16	1.30	.049	-.17	-1.13
	Ought-to L2 self	3.94	1.17	.200	-.31	-.18
Motivational variable for learning content	Intended effort to learn content	3.97	1.32	.200	-.18	-.75

Note.
"Three psychological needs" represents the fulfillment of the three psychological needs within SDT.

Table 8-3

Descriptive Statistics for Participants' Self-reporting of Their Understanding of the EMI Lectures

Variable		Mean	*SD*	*Sig* Kolmogorov-Smirnov test	Skewness	Kurtosis
Self-reporting of the understanding of the lectures (%)	Time 1	74.19	14.38	.004	.18	.12
	Time 2	68.87	16.32	.019	-.17	-.52
	Time 3	66.13	13.65	.000	-.48	-.56

Table 8-4

Descriptive Statistics for Self-study Time per Week

Variable		Mean	*SD*	*Sig* Kolmogorov-Smirnov test	Skewness	Kurtosis
Self-study time per week (minutes)	Time 2	78.87	59.37	.000	1.01	.54
	Time 3	55.81	53.54	.001	1.35	1.55

Paired t-tests were conducted to investigate the intervention's effectiveness. After Bonferroni correction, unfortunately, it was found that intended effort to learn content (t (37) =.14, p<.05, η^2 =.14) declined. No significant change was found in any other variables between Time 1 and Time3. For the third research question (i.e., Is it possible to increase students' comprehension of the lectures and promote their self-study time through the intervention?), one-way ANOVA was conducted. There was a significant decrease between Times 1 and 3 (F [2, 64] = 4.46, p < .05, η^2 =.12) in terms of their self-reporting of their understanding of the lectures. There was no significant change between Times 1 and 2 or between Times 2 and 3 in terms of participants' self-reporting of their understanding of the lectures. Average self-study time per week dropped between Time 2 and Time 3 (t[34] = 3.46, p < .01, η^2 = .26).

Although the analyses did not indicate any positive changes on average before and after the intervention, the intervention evaluation indicated that students perceived that the intervention was beneficial to their learning. The results of the descriptive statistics revealed that 84% of the participants answered that belonging to a fixed small group with international students was either somewhat supportive or very supportive for their learning. Additionally, 67% of the participants thought that having a discussion forum was beneficial, and 66% expressed that the feedback session in Lesson 7 was useful. Although only 11 of the participants joined the tutorial, everyone answered that it was somewhat to very valuable in preparing them for the final exam.

In order to answer the fourth research question, students were divided into an ascent group (n = 15), a descent group (n = 14) and a stable group (n = 8) based on their EMI intrinsic motivation trajectories between Time 1 and Time 3 (see Table 7-6 and Figure 7-1). A two-way repeated measures ANOVA confirmed that a simple main effect of time was significant for both the ascent group (F [1,34] = 29.07, p < .001, η^2 = .50) and the descent group (F [1,34] = 22.50, p < .001, η^2 = .79). The results also revealed a significant group difference at Time 1 (F

[2,34] = 4.92, $p < .05$, $\eta^2 = .23$). The interaction of group by time was also statistically significant (F [2, 34] = 25.65, $p < .001$, $\eta^2 = .44$). A Bonferroni multiple comparison was conducted, and it was found that, compared to both the descent ($p < .05$) and the stable ($p < .05$) groups at Time 1, the ascent group had statistically lower EMI intrinsic motivation. There was no significant difference in the EMI intrinsic motivation among the groups at Time 3. This implies that students who had low EMI intrinsic motivation in the beginning demonstrated an increase, and that some who were already highly motivated initially were able to sustain their EMI intrinsic motivation, while others displayed a decrease in motivation.

Table 8-5
Score of EMI Intrinsic Motivation for Each Group

	Ascent group (n = 15)		Descent group (n = 14)		Stable group (n = 8)		Total	
	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*
Time 1	3.07	0.68	4.11	1.30	4.19	0.99	3.70	1.13
Time 3	3.73	0.70	3.50	1.25	4.19	0.99	3.74	1.01

Note. Standard deviations are indicated in parentheses.

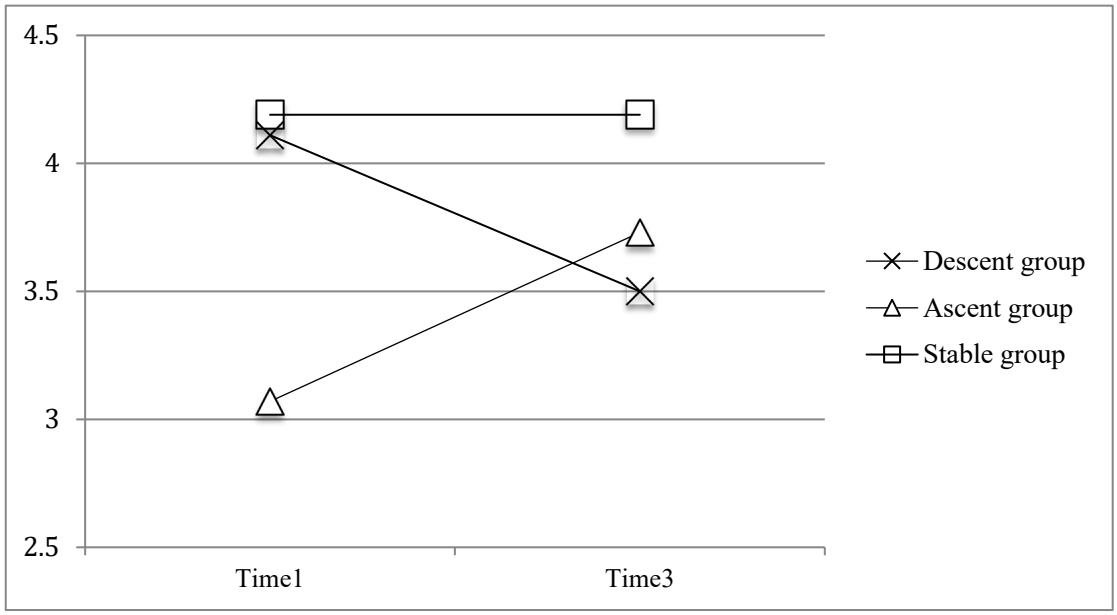

Figure 8-1. EMI intrinsic motivation for each group at Time 1 and Time 3.

In order to understand differences among the groups of students with different motivational trajectories in other variables, a two-way repeated measures ANOVA was conducted. The results revealed a significant difference in the descent group between Time 1 and Time 2 regarding participants' self-reporting of their understanding of the EMI lectures (F [2,58] = 8.61, $p < .01$, $\eta^2 = .13$). Their mean score for their self-reporting of their understanding of the EMI lectures at Time 1 was 80% (SD = 15.49), while at Time 2 it was 68.00% (SD = 22.12). This indicated that the descent group students' understanding at Time 2 was statistically lower than at Time 1. Moreover, the results revealed a significant difference for the stable group between Time 1 and Time 3 in their self-reporting of their understanding of the EMI lectures (F [2,58] = 9.76, $p < .01$, $\eta^2 = .14$). Their mean score for their self-reporting of their understanding of the EMI lectures at Time 1 was 71.88% (SD = 13.08), while at Time 3 it was 56.25% (SD = 14.20). This indicates that the stable group students' self-reporting of their comprehension of the EMI lectures at Time 3 was significantly lower than at Time 1. In contrast, no significant difference was found for the ascent group, emphasizing the importance of a sense of understanding in enhancing EMI intrinsic motivation.

8.6.2 Discussion

Based on the results noted in the previous section, I can conclude that the average scores for EMI intrinsic motivation, EMI extrinsic motivation and EMI amotivation as well as the three psychological needs did not change. Satisfaction of the needs for autonomy and relatedness did not change while fulfillment of the need for competence decreased slightly, although there was no significant difference. Most of the average scores for the other motivational variables did not change, but intended effort to learn content decreased even with carefully planned intervention.

However, it is possible that students' motivation would have declined drastically without the intervention. Prior research in English language classrooms indicates that students lose their motivation as they continue studying English, with the initial excitement of learning English diminishing over time. In addition to that, there are several reasons why they might lose their motivation to learn English (e.g., Hayashi, 2012; Johnson, 2012; Koizumi and Matsuo, 1993; Yamamori, 2004). In Hayashi's study (2012), students' intrinsic motivation to learn English decreased when classes were too difficult. Not knowing how to study also heightened their amotivation. Johnson (2012) reported that one of the reasons why students' intended effort to learn English declines during the course of university studies is a lack of self-efficacy in their English ability. These studies expressed the importance of satisfaction of the need for competence and self-confidence in learning. As described in previous studies in this research (Chapters 4, 5, and 6), EMI is extremely challenging and demanding for Japanese students to comprehend. Thus, the results could imply that the intervention at least maintained the average score for EMI intrinsic motivation and the three psychological needs (i.e., the needs for autonomy, competence, and relatedness).

Conversely, there is also room to argue that the intervention was probably not as effective as I had expected since the average score for intended effort to learn content

decreased and the EMI intrinsic motivation and the satisfaction of the three psychological needs stayed the same. There are several possible explanations for this. First, the content of the first class (Time 1) was class orientation, such as explaining the syllabus, and did not include any gender studies content, which made it easier for the students to understand. Naturally, however, as the quarter progressed, the content of the lectures became more detailed and complex, resulting in the considerable decrease of student need for competence in the questionnaires. Another reason why the intervention was not as influential as had been hoped was that I did not teach the course and, thus, did not control lesson plans or classroom materials, unlike numerous previous studies in language classrooms (Agawa & Takeuchi, 2017; Hiromori, 2006; Maekawa & Yashima, 2012; Nishida, 2013a; Tanaka & Hiromori, 2007).

Although comparing the average scores of each factor between the pre- and post-surveys seems to give negative results, exploring the trajectories of individuals shows that 40% of the participants increased their EMI intrinsic motivation and 20% of them maintained their high EMI intrinsic motivation. In fact, previous interventional studies in language classrooms only succeeded in enhancing approximately 20% of the participants' motivation. For example, in Tanaka and Hiromori's (2007) study, 26% of the participants increased their intrinsic motivation to learn English. In Maekawa and Yashima's (2012) study, 22% of the participants increased theirs. The exception is Hiromori's (2006) study, which saw increased intrinsic motivation in 68% of the participants. Even in his study, students who were already intrinsically motivated maintained the same level of their intrinsic motivation. Comparing these results with this current study, with 234 students in one classroom, enhancing EMI intrinsic motivation in 40% of the participants can be perceived as evidence of the intervention's success.

In addition, the period of time over which the intervention and data collection were carried out was very short. Previous intervention studies in language classrooms have taken longer period of time to complete intervention and data collection such as Yashima et al, (2016) took 15 weeks, and Hiromori (2006) took 12 weeks. Some other interventional studies took even one full academic year (Agawa & Takeuchi, 2017; Maekawa & Yashima, 2012) to complete their studies. In contrast, for this intervention study, I only had seven weeks to complete the intervention and data collection. This time restriction made seeing the statistical change by which to measure the intervention's effectiveness extremely challenging.

8.7 Summary

This chapter discussed a quantitative study aiming to examine the effectiveness of an interventional study conducted in EMI. The intervention was in response to Japanese university students' limited understanding of EMI lectures and low EMI motivation, which had resulted from unfulfillment of the three psychological needs of SDT. Although the average score of EMI intrinsic motivation did not change after the intervention, the results revealed that participants who were not motivated initially demonstrated an increase in their EMI intrinsic motivation. In addition, others who had an initial high level of EMI intrinsic motivation maintained it; however, some participants displayed a decline in their EMI intrinsic motivation, even after the intervention. In addition, the results showed that students who increased their EMI intrinsic motivation sustained their understanding of the EMI lectures during the course, while others felt that lectures were becoming more demanding as the course progressed. Thus, this study confirmed the importance of comprehending the lectures in order to motivate students in EMI. The overall results of this study could be interpreted positively compared to previous interventional studies in language classrooms, but this cannot be decisively concluded

due to the lack of a control group. To help compensate for this limitation, a qualitative study was conducted, which will be discussed in the following chapter.

Note

1. This university uses both a quarter and a semester system. Courses on the quarter system have 15 lessons, including the final exam, over a period of seven and a half weeks.

9. Study 4

The quantitative study (Study 3) in the previous chapter showed that the average score of EMI intrinsic motivation remained the same over the quarter even with pedagogical intervention. On the other hand, closer inspection of the data indicated that the intervention succeeded in enhancing EMI intrinsic motivation in 40% of the participants who were not motivated at the beginning. Also, high EMI intrinsic motivation was maintained in 20% of the participants. However, Study 3 did not have a control group as explained in Chapter 8, so this qualitative study was conducted to compensate for the lack of a control group in the previous study.

9.1 Research Questions

How did the intervention help to increase, decrease, or maintain students' EMI intrinsic motivation from the learners' perspective? What are the contributions and limitations of the pedagogical intervention?

9.2 Method

9.2.1 Participants

Study 3 only includes participants from Gender Studies course because of the number of the participants available as mentioned in Chapter 8. In contrast, the participants of this study were from both Gender Studies and Cultural Studies.

Six Japanese students (one from Gender Studies and the others from Cultural Studies), who participated in the survey conducted for Study 3, agreed to participate in the current study and were invited to interviews. In fact, seven semi-structured interviews were conducted. However, it should be noted that one of the interviewees' stories was influenced by factors unrelated to the intervention because of his situation at the time when the interview was

conducted. In order to focus on achieving the research objectives, his data were excluded from the analysis.

9.2.2 Procedure

Interviews were conducted between December 2016 and March 2017. The reason for this time interval was the course timetable at A University – Gender Studies was scheduled in the first quarter (from October until the end of November 2016) and Cultural Studies in the second quarter (from December 2016 until the beginning of February 2017). Each interview lasted between 20 and 60 minutes approximately and was conducted in Japanese. I was able to meet Jiro, Shun, and Ikumi in person, but it was difficult to meet Kai, Sae, and Wakako because of the two-month spring break immediately after the Cultural Studies' final examination. Thus, three interviews were conducted via Skype during the break. All interviews were recorded with the interviewees' prior consent.

9.2.3 Data Analysis

The coding process to analyze the data was inspired by grounded theory (Corbin & Strauss, 2008; Strauss & Corbin, 1998). The aim of this research was not to develop a theory, but adopting some steps of the approach was beneficial when coding in order to make this study as data-driven as possible. The procedure for data analysis was as follows: (1) I transcribed spoken data and reread them. After that, (2) data were coded sentence by sentence or based on units of meaning in order to create concepts, which represent the segments. As SDT is a central framework for this research, I kept SDT in mind and used the appropriate terminology where relevant. Next, (3) concepts with similar meanings were grouped into categories. (4) Steps 2 and 3 were then repeated. Because the current study does not aim to build a theory, the data were not combined. In this chapter, categories will be enclosed in <<

>>, concepts in [ ], and in-vivo codes in “ ” (see Appendix H for everyone’s categories and concepts).

For example, Kai’s following utterance was divided into two concepts. “During the midterm exam, I did not clearly understand the course content. When I was done with the exam, I became aware of how little I understood the EMI lectures (during half of the course). The content of the course gradually made sense when I started to talk to my friends about it in a small group.” The first half of the story, “During the midterm exam, I did not clearly understand the course content. When I was done with the exam, I became aware of how little I understood the EMI lectures (during half of the course)” was labeled as [self-awareness of low performance when taking the midterm exam]. It is under the category named <<dissatisfaction of the need for competence>>, which includes other concepts such as [taking Cultural Studies reinforced difficulties learning in English], [vocabulary was challenging] and [had anxiety due to not being able to understand what was going on in class]. In the latter half of his utterance, “The content of the course gradually made sense when I started to talk to my friends about it in a small group” was labeled as [international students helped me understand the lectures]. It is under the category << fulfillment of the need for competence>>, which includes other concepts such as [group work fostered an understanding of the lectures], [understanding of the course content was boosted due to the support of other group members] and [course content seemed approachable].

Another example could be Shun’s following utterance, “When international students are already close to each other from the beginning, Japanese students fall out of the loop, and there is no chance that we can join a group. That is why I was relieved that I was assigned to a group that the teachers had decided in advance.” It was divided into two concepts which are [could not join group discussions in EMI taken before] and [being assigned into a group saved from being isolated]. The first concept [could not join group discussions in EMI taken before] is

under the category of <<harsh learning experience in EMI taken before>>. The category has other concepts such as [dropping out of EMI due to not standing to be out of the loop] and [dropping out of EMI due to not being able to understand course content]. The second concept [being assigned into a group saved from being isolated] is under the category << fulfillment of the need for relatedness>> which include other concepts such as [everyone in a group being friends] and [small group as a community to belong].

9.3 Results and Discussion

First, some individual information collected in the survey for Study 3, which is also important in this study, is summarized in Table 9-1. In the following section, I will discuss the overall results of the interview first. Then, the following cases will be discussed: Jiro, who gave extremely positive feedback about the intervention, Kai and Shun who gave positive feedback about the intervention, and finally, Sae, who did not have positive learning experiences in Cultural Studies.

Table 9-1
Individual Information from Study 3

	Jiro	Kai	Shun	Sae	Wakako	Ikumi
Study abroad experience	None (Returnee)	None	One year	Twice, one year each time	One year	None
TOEFL ITP	520	450	552	540	557	500
Grades	2	4	4	3	3	2
Gender	Male	Male	Male	Female	Female	Female
Final grades[1]	90 (A+)	79 (B)	79 (B)	78.5 (B)	63.5 (C)	82 (A)
Self-study time per week (min)	90	60→45	30	60	30	20
Understanding of the lectures[2] (%)	70→80→80	80→70→70	80→60→90	80→90→80	80→70[3]	50→30[3]
Intended effort to learn English	5.75→4.67	3.25→3.33	4.00→3.00	4.25→4.00	3.00→3.67	4.25→2.75
Intended effort to learn content	6→6	4.33→5.00	4.33→3.67	4→3	3.33→4.00	4.67→2.67
EMI Intrinsic Motivation	5.50→5.25	3.25→4.5	5.50→3.75	4.75→4.5	3.75→4.25	3.50→4.33

Notes:
1. Final grade means the final grades that they got from the course.
2. "Understanding of the lectures" represents participants' self-perception of their understanding of the lectures.
3. Wakako and Ikumi was absent for lesson 1. Thus, their self-perceptions of the understanding of the lectures were assessed only for Lessons 7 and 14.

9.3.1 Overall discussion

All participants except Kai scored above 500 in their TOEFL ITP, and everyone passed the course. Jiro attained the highest final grade (A+) in Cultural Studies, and Ikumi got an A in Gender Studies although her perception of the comprehension of the lecture was the lowest. Kai, Shun, and Sae got B grades, and Wakako received the lowest grade (C) among the participants. She expected her final grade to be higher than C, so she complained about it during the interview. Kai, on the other hand, almost achieved an A (79%) though his TOEFL ITP score was the lowest among the participants (TOEFL ITP 450).

Time allotted for self-study per week varied among the participants, as evident from Table 9-1. The evaluation for the intervention for each pedagogical approach also varied. To illustrate, Jiro, Shun, and Wakako thought online discussion forums in English was beneficial for self-study, but Kai considered it a waste of time because he could read others' comments, copy what they said, and post it as if it were his idea. Most of them enjoyed small group discussions with international students, except Sae, who did not enjoy them because of not having as many opportunities for speaking English as she had expected.

In the next section, I will discuss four participants – Jiro, Kai, Shun, and Sae – individually. I will first discuss Jiro's positive attitude toward the intervention, followed by the analysis of Kai's positive attitude. Shun had a positive attitude toward the intervention as well, but he experienced a loss of EMI intrinsic motivation, which will be examined below. Finally, Sae's negative attitude toward intervention will be addressed.

9.3.2 Case 1 Jiro: Very Positive Feedback toward the Intervention

Jiro was the most proactive Japanese student during the interventions. For instance, he spent the longest time for self-study among all the participants in this study (i.e., 90 minutes per week), and was the only Japanese student who volunteered for the group presentation

assignment. In addition, he asked questions in person after class and via e-mail. He achieved an A+ as his final grade in Cultural Studies.

The following comments in the survey conducted in Study 3 represent his high <<EMI intrinsic motivation>>. The following quote reports how he came to enjoy Cultural Studies as the course progressed.

Excerpt 1

> **"To be honest, at the beginning, I felt that posting my comments on the discussion forums every week was tiring. However, I realized that participating in the discussion forums fostered my comprehension of the lectures and increased my motivation. From the second or third week of the quarter, I realized that I was looking forward to coming to class."**

In addition, he said that compared to other EMIs that he took before, "I can only find better things in Cultural Studies." He evaluated the intervention in an extremely positive manner.

A detailed discussion is provided below in the following order: (1) Fulfillment of the need for competence and relatedness in a small group; (2) Online discussion forums in English helped to fulfill the need for competence; (3) Online discussion forums in Japanese helped to sustain EMI intrinsic motivation; and (4) <<Importance of Japanese TAs>>.

1. Fulfillment of the need for competence and relatedness in a small group

Jiro repeatedly expressed positive comments on his valuable experiences in a small group with international students, which fulfilled his need for competence and relatedness. This was observed in the concepts [group members were close enough to collaborate for the group

presentation] and [discovered and connected with the personalities of the international students] under the category << fulfillment of the need for relatedness>>. Also, some concepts such as [a sense of accomplishment through group presentation] and [learned a new way of doing a group work through the group presentation assignment] under the category <<fulfillment of the need for competence>> represent that he felt a sense of growth through the assignment with the international students. To illustrate, he described that everyone became quickly close in his group, so they agreed to volunteer for the presentation assignment together naturally.[1] He also talked about his intercultural experiences through the group presentation assignment. At first, he wanted to prepare for the presentation together with his group members, but they preferred working individually and being responsible for their parts. He was uncomfortable and worried about how it would work because he had never done a group assignment in that manner before. However, he realized that he learned that there was more than one way to effectively do group work when the presentation turned out to be successful. In other words, he felt a sense of accomplishment, which led to [a sense of accomplishment through group presentation]. The following utterance showed his shift of feelings from negative to positive when preparing for the presentation assignment.

Excerpt 2

> **"In the beginning, I thought we have different preferences of how to prepare for the presentation. However, each of us did good work when we put everything together in the end, and the overall quality of the presentation was not bad. I have learned that group work could work that way too."**

2. Online discussion forums in English helped fulfill the need for competence

Jiro had a very positive attitude toward the online discussion forum that promoted reviewing the lectures, as we could see from his concepts, such as [learning was improved by reviewing the lessons] on online discussion forums in English, [online discussion forums in English raised awareness of the value of reviewing] and [online discussion forums in English fostered reviewing] which are under the categories << fulfillment of the need for competence>> and <<positive feedback on the intervention>>. As mentioned earlier, at first, he felt it was tiring to post on the online discussion forums. However, he realized that he remembered his new knowledge from the lectures until the end of the course. He believed that posting comments on the online discussion forums helped him reviewed the content of the lectures more than other courses that he took before. It indicates that the online discussion forums increased his self-study time, thus developing his comprehension of the lectures.

3. Online discussion forums in Japanese helped to sustain EMI motivation

The interview results showed that students lost their self-efficacy and EMI motivation when feeling that they were the only ones who did not understand the EMI lectures. Jiro said that sharing his negative feelings and anxiety in the online discussion forums in Japanese made him realize that everyone struggled with understanding the lectures. Knowing it prevented his self-efficacy and motivation from declining further, as we could see from the concepts such as [knowing that the lectures were difficult for everyone helped maintain motivation] and [a relief to know everyone struggled with understanding the lectures] under the category <<maintain self-efficacy>>. He considered the online discussion forums as a Japanese community to which he could belong during the course. His utterance showed that satisfying the need for relatedness is vital in order to maintain their self-efficacy, EMI intrinsic motivation, and EMI identified

regulation as a result. The following story is an example of how online discussion forums in Japanese contributed to sustaining his self-efficacy and motivation.

Excerpt 3

> **"I sometimes felt that a lecture was very difficult. Then, I saw others' posts about how much others understood about the lecture, and I was relieved to know that their understanding was not much better."**

Excerpt 4

> **"I would be disappointed if I were the only one who did not understand the lecture, but if it was really difficult (for everyone), I thought that I should review it again. (Knowing that everyone is struggling with EMI) helped maintain my motivation."**

4. Importance of Japanese TAs

Jiro said that TAs in EMI were usually non-Japanese, so it was challenging for him to ask questions. However, as we could see in the following utterance and concepts such as [Japanese TAs were approachable and could be asked questions], [Japanese TAs were extremely helpful in EMI] and [International TAs were not approachable and could not be asked questions], hiring two Japanese TAs in Cultural Studies made asking questions much more comfortable for him.[2]

Excerpt 5

> **"There were some Japanese TAs even though it was an EMI so that I could ask questions. I hesitated to ask questions in most EMIs that had only international TAs."**

Based on his utterances, concepts, and categories, it could be interpreted that Jiro felt safe enough to be proactive in Cultural Studies. He felt connected with the members of his small group, other Japanese students, and even with Japanese TAs. That strong sense of belonging to multiple communities in and out of class motivated him to take on the challenge of the group presentation assignment and enjoy the learning process in Cultural Studies.

9.3.3 Case 2 Kai: Positive Attitude toward the Intervention

Kai could be considered as a successful case of the intervention because despite having the lowest TOEFL ITP score (450) among the participants, he received a B as his final grade. His grade was the same as Shun and Sae, who had studied abroad and had much higher TOEFL ITP scores. During his interview, Kai shared his harsh learning experiencing in EMI taken before which is represented by the name of the category, << strong sense of loneliness in EMI taken before >>. On the other hand, in Cultural Studies, the interview showed that a small group with the international students and online discussion forums in Japanese satisfied the need for relatedness. Another interesting point of his interview was that he expressed a <<negative attitude toward using Japanese>> in EMI even though his English proficiency was considered not high enough to undertake EMI. Although it was demanding for him to understand the lectures in English, he considered EMI as a platform for Japanese and international students to learn in the same arena. Therefore, he believed that the Japanese language should not be used as a medium of instruction to teach the content.

In the next section, his interview will be discussed with regard to, (1) his <<strong sense of loneliness in EMI taken before>>, (2) the importance of a Japanese community, (3) a small group fulfilling the needs for relatedness and competence, and (4) a [negative attitude toward using Japanese in EMI] to comprehend the content.

1. Strong sense of loneliness

Kai repeatedly mentioned his strong sense of loneliness when he began to take EMI as a sophomore. He felt taking EMI was like going to "someone else's house" as an uninvited guest. At the time the interview was conducted, he was about to graduate, but even during his last semester, he occasionally felt isolated in other EMI courses. Although he had accepted feeling a strong sense of loneliness as a part of EMI, he said he cried when he felt he was the only one who did not understand the lecture. The following quote concerns a passage in which he was sharing his feeling of loneliness when he was in EMI.

Excerpt 6

> **"When I first started to take EMI, I felt like I was a guest who was not welcomed in class (…)**
>
> **It was at the end of my sophomore year that I was finally able to start taking EMI, but it was like being in someone else's house uninvited, so I tended to be passive in class."**

The concepts such as ['being' a guest in someone else's house], [crying because of strong feelings of loneliness and alienation] and [passive learning behaviors due to 'being' a guest in EMI] are under the category of <<strong sense of loneliness in EMI taken before>> which is described above.

As we can see, a student who has already spent two years on campus in his home country still finds the EMI environment extremely uncomfortable and alienating, which showed the seriousness of the motivational problem in this context. On the contrary, as I will describe in the followings, he felt he could relate to other Japanese students via the online discussion forum in Japanese. In addition, he was able to seek help in his small group when he struggled with understanding the lectures in the cultural studies course. In other words, the intervention safeguarded him from the intimidating learning environment.

2. Importance of a Japanese community

Kai felt online discussion forums in Japanese as a community to belong to and thought that it should be applied in other EMI courses as well. The following utterances displayed his positive evaluation of applying online discussion forums in Japanese in EMI.

Excerpt 7

> **"It was quite comfortable for me to have a Japanese discussion forum where I could reflect on my learning in EMI. (I knew I had a place to go) when I was anxious about the class. Many Japanese students seemed to be sharing their experiences and feelings there, so I think the online discussion forum in Japanese was responding well to our needs in EMI."**

The concepts which are related to the story above are [feeling comfortable to have a place to reflect on learning in Japanese], [feeling safe to have a place to share one's anxiety and be vulnerable in Japanese] and [discussion forums in Japanese saved from loneliness and alienation], which are under the category of <<fulfillment of the needs for autonomy and relatedness>>. His interview demonstrated that the online discussion forum in Japanese was a

community to which he could belong. Also, he did not need to be worried about being judged, which means that it enhanced his needs for autonomy, and relatedness, while decreased his loneliness dramatically.

3. A small group fulfilling the needs for relatedness and competence

Kai talked about [feeling comfortable in a small group], which contributed to the enhancement of the need for perceived competence. For instance, his score on his midterm was worse than he had expected, and it made him realize that he did not quite understand the lectures. Therefore, he started to ask questions to the international students in his group to catch up. After a while, he could tell that his understanding of the course content had improved, and eventually came to enjoy the lectures, which developed his positive attitude toward Cultural Studies. It claimed that his small group worked as a learning community and contributed to the <<fulfillment of the need for competence>> and heightened EMI intrinsic motivation.

4. Negative attitude toward using Japanese in EMI

Communicating with the international students in his group satisfied the need for competence in some degree. Nevertheless, the category named <<dissatisfaction of the need for competence>> includes the concepts such as [taking Cultural Studies reinforced difficulties in learning in English], [challenging vocabulary] and [self-awareness of low performance when taking the midterm exam] found that he still struggles with understanding the EMI lectures. Interestingly, although he struggled to comprehend the lectures in English, he felt it would be unfair to the international students if Japanese were used to teach the contents of the course in EMI. He believed that the use of Japanese should be limited to sharing students' feelings and creating a better community – much like what this intervention tried. He suggested that

students take EMI preparation courses if they want conceptual learning in Japanese. The reason why the Japanese should not be used to learn the course content in EMI is described below.

Excerpt 8

> **"Taking EMI means that Japanese and international students learn in the same arena, so we should be treated equally. I would not agree about giving Japanese students an advantage by using Japanese in class."**

9.3.4 Case 3 Shun: Positive Attitude to the Intervention but Lost EMI Intrinsic Motivation

Like Kai, Shun also had <<harsh learning experiences in EMI taken before>> and felt a strong sense of loneliness in those EMI courses, but his small group with international students saved him from the alienation in Cultural Studies. In addition, he found the meaning of learning in English through group discussions. However, his initial EMI intrinsic motivation shifted to EMI external regulation because he became <<too busy to focus on EMI>>. The following section describes Shun's (1) strong sense of loneliness, (2) <<EMI as a place to communicate with international students>> (3) anger at being unable to show real abilities, and (4) loss of motivation.

1. Strong sense of loneliness

Shun dropped out from an EMI course in the past because he could not withstand the strong sense of loneliness in class when he was a sophomore. Before studying abroad, he could not initiate a conversation in English with the international students, so he did not have anyone to talk to while everyone else was in a discussion in an EMI course. We could see his <<harsh learning experiences in EMI taken before>> from the concepts such as [could not join group

discussions in EMI taken before] and [dropping out of EMI due to not standing to be out of the loop]. Eventually, he decided to withdraw from the course. In Cultural Studies, however, he had a small group where he could belong to, and, therefore, did not feel left out. The intervention saved him from feeling alienated or rejected as he had experienced before. The following story from his interview was the time when he compared other EMI courses he had taken before with Cultural Studies in order to explain having a small group made an EMI classroom safe enough for him to study.

Excerpt 9

> **"When international students are already close to each other from the beginning, Japanese students fall out of the loop, and there is no chance that we can join a group. That is why I was relieved at being assigned a group that the teachers had prepared in advance."**

Excerpt 10

> **"In another EMI course I attended, in a huge class, the teacher told us to talk with our neighbors, but I could not do that when I was a sophomore. I thought it was going to be overwhelming for me if that was how the class discussions would be conducted over the semester, so I ran away."**

2. EMI as a place to communicate with international students

He expressed that discussions with international students let him see the value of EMI. Also, most of the concepts, which are under the category <<EMI intrinsic motivation>> are related to discussions with them such as [an increase of EMI intrinsic motivation through group discussion], [excitement through group discussions with international students] and [excitement

of gaining new perspectives through group discussions]. He said that group discussions or even only listening to others talk in the small group were interesting because they always gave him new perspectives.

In addition, the interview displayed that discussions with the international students even changed his view of EMI courses in general from the concepts [learning in EMI is valuable when there are interactions with international students], [recognizing the value of learning in English through group work], but [do not see the value on EMI when there is no interaction with international students] under the category <<EMI as a place to communicate with the international students>>. Before taking Cultural Studies, he had thought that using Japanese as a medium of instruction was better since it was a faster means to learn. Specifically, there were no group discussions or group activities with international students in most EMI courses he had taken at A University before. That is why he did not see the value of pushing himself to learn in EMI. However, in Cultural Studies, he felt that communicating with the international students in his group broadened his mind, and recommended that everyone take Cultural Studies in English rather than in Japanese. The following utterance showed that the three psychological needs of SDT were satisfied in group discussions and felt enjoyment and found the value of EMI.

Excerpt 11

"Cultural Studies was good. I would like to recommend to others that they take the course in English, not Japanese.

Excerpt 12

"They (the Indonesian girls in his group) analyzed texts from very different perspectives from mine, and it was always very fresh and interesting."

Excerpt 13

> **"They listened to my opinions very carefully. They were also honest in telling me when they did not understand my opinions. Everyone was close in my group, and it was fun."**

As described above, small group discussions motivated him intrinsically, even changed his initial negative attitude toward EMI into a positive one. Although Shun enjoyed Cultural Studies, he still faced the challenge of expressing his opinions in English.

3. Frustration/ Anger at being unable to show real abilities

Shun felt frustrated that he could not show his actual abilities, such as being able to contribute to discussions actively, when the medium of instruction was English. He said that he could have expressed his ideas in a class discussion and taken on the challenge of presenting at the group presentation if the medium of instruction was Japanese. It shows that participating actively in EMI is demanding even for a student like him who has studied abroad and is adequately proficient in English. The following utterance illustrated that his expectations about his performance in EMI were as high as for courses conducted in Japanese.

Excerpt 14

> **"When I think about myself taking classes in Japanese, I would not be that quiet. (…) I feel my ability (to discuss) in English is 60% or 70% of its equivalent in Japanese. That is why I feel irritated with myself in EMI because I know I can do more.**

Excerpt 15

“To be honest, I am angry at myself that my performance gets worse in EMI than in courses conducted in Japanese.”

The struggles could be observed also in the category <<discrepancy between ideal L2 self and present L2 self>>, which includes concepts such as [anger for being unable to show one’s real abilities in discussions in EMI], [anger due to not being able to voice one’s mind unlike in Japanese] and [wanted to lead group discussions like in discussions in Japanese].

Finally, I have to mention that he experienced declining of his EMI intrinsic motivation and was aware of his external regulation increased during the course.

4. Loss of motivation

Shun took Cultural Studies because he was interested in the course content. However, his initial EMI intrinsic motivation gradually became extrinsic as the semester progressed because he became <<too busy to focus on EMI>>. For example, he was busy with his graduation thesis, and the company he was going to work for gave him lots of assignments even though he was still a student and not working there yet. He was supposed to pass 2nd grade for bookkeeping and get a TOEIC score of 900 before starting to work for the company in April 2017 (Cultural Studies was offered from November 2016 to February 2017). Furthermore, he was already missing his university life, and therefore, his time for other things on campus, and studying for the exams that he had to take (i.e., bookkeeping and TOEIC) took priority over his study time for Cultural Studies. Consequently, eventually, he lost his focus on Cultural Studies and stopped putting effort into the course. The following story explains his motivational shift from intrinsic motivation to external regulation as the course progressed.

Excerpt 16

> **"To be honest, at first, I took Cultural Studies for gaining new knowledge and for a new learning experience. (Nevertheless), my goal for this course shifted to getting credits very quickly. (…) I spent my time and put my effort into other things for my growth and learning instead. (…) It was not only because of writing a graduation thesis, but also a part-time job and assignments from a company, which I would work for."**

Based on his stories, EMI motivation could be influenced by variable factors including students' lives outside of the classroom as well.

9.3.5 Case 4 Sae: Negative Attitude toward Intervention

Sae complained a lot about the intervention. She considered <<EMI as a place to practice speaking English>>, but did not have opportunities as she wanted to in Cultural Studies. It was because she was placed with a Japanese friend of hers and a Korean student who wanted to use Japanese in-group discussions. In addition, understanding the content of the course was more challenging than what she thought, which increased her frustration because the content specialist, the TAs, or I did not help her to comprehend the lectures in Japanese.

Her experience during the intervention will be described under the following sections: (1) <<EMI as a place to practice speaking English>>, (2) disengagement with other members in a small group, and (3) <<request for more active use of Japanese in EMI>>.

1. EMI as a place to practice speaking English

It was clear that EMI is a place for her to improve her English proficiency. She had studied abroad twice; therefore, she was confident in her English proficiency to some degree,

but wanted to improve further. It was explicit from the concepts such as [level of English proficiency not high enough to be a competitive advantage] and [level of English proficiency not high enough to be proud of] under the category named << discrepancy between ideal L2 self and present L2 self>>. She was << taking many EMI courses >> believing that it would help her get closer to her ideal L2 self, which was displayed from the category named << EMI as a place to practice speaking English>> which includes concepts named [taking EMI courses to have sufficient English proficiency for business], [taking many EMI courses to maintain English proficiency after studying abroad] and [taking many EMI courses for opportunities to listen to English]. That is why she was eager to use English in Cultural Studies when she was assigned to a small group.

2. Disengagement with other members in a small group

She was very disappointed when she did not have as many opportunities to speak English as she expected in small group discussions. That was why she did not feel a sense of belonging in her group and had a negative feeling for the intervention. Because of her strong desire to use English in EMI, she did not want to speak in Japanese. However, she had a Japanese friend and an international student who wanted to use Japanese as her group members as mentioned earlier. Also, another international student from Vietnam was not willing to sit with them, so she could not use EMI to minimize the gap between ideal L2 self and present self in Cultural Studies. In fact, during the first three weeks of the course, she was in a different group, where everyone communicated with each other in English and was interested in her opinions as a Japanese student. Thus, she was satisfied with the members of the first group, but repeatedly expressed her <<negative attitude toward the second group>> [3], which includes the concepts namely [wanting instructors to change the second group] and [wanting to switch the second group due to having too many Japanese speakers]. Disagreements over language use in

discussion with the other members, who wanted to use Japanese, made her feel unrelated to them. Thus, she did not feel a sense of belonging in her small group.

3. Request for more active use of Japanese in EMI

As most of the participants felt, Sae also faced difficulties of learning in English as the concepts named [reading in English was challenging], [gaining new knowledge in English was challenging] and [did not understand the course content enough to participate the class actively] under the category named << dissatisfaction of the need for competence>>. The following talk represents her non-fulfillment of the need for competence made her passive in class.

Excerpt 17

"I did not voice my opinions freely in front of everyone or volunteer to take up the group presentation assignment because I was not confident about my understanding of the lectures."

Interestingly, she felt the Japanese language should be used more actively in order to understand the course content although she considered EMI as a place to improve her English. It was due to feeling impossible to learn in English anymore. The following utterance illustrated her frustration at Japanese not being used at all in EMI.

Excerpt 18

"The teacher trying to explain the same thing in English for a couple of times does not help me understand it. I will not understand it anyway. (…) I wanted her to explain it in Japanese at least once."

Her desire to use Japanese in EMI was observed in the category named << request for more active use of Japanese in EMI>> which includes a wide range of concepts on the use of Japanese in EMI such as [requesting summary of main points of the lectures in Japanese], [requesting explanation in Japanese and increasing the speed of the course] and [Japanese translation helps with memorizing English vocabulary].

Her interview again implies that EMI is demanding for a student with rich studied abroad experiences and a high TOEFL ITP score. It was interesting to observe that she was irritated that the EMI content specialist, TAs and I did not use Japanese at all although she was taking EMI aiming to improve her English proficiency. It could be because her focus was more likely to improve verbal communication skills in English not reading English or conceptual learning in English. Besides, it seems that she felt it was too difficult to understand everything in English. That could be the reasons why she was frustrated when she did not have enough opportunities to discuss in English or understand the course content deep enough to participate in the class proactively.

9.4 Summary

This qualitative study was conducted to compensate for lack of a control group in Study 3 in the previous chapter. Further, the quantitative study did not explain which intervention was supportive for the participants and in what way. Therefore, this current qualitative study investigates the intervention from individuals' perspectives. The results of coding and categorizing, the interview data indicated some pedagogical approaches help foster some of the participants' needs for relatedness, autonomy, competence, and relatedness to some degree, while the satisfaction of needs for competence was limited. I shall summarize the results using the three pedagogical approaches that were more beneficial than others in the intervention.

First, assigning Japanese students to a small group with international students was the most influential intervention in this current project because it enhanced their needs for autonomy, competence, and relatedness. To be specific, most of the participants except Sae, felt a sense of belonging and of not being judged, so they could ask questions when they did not understand the lectures. It means they felt their existence was acknowledged in the community and had support for what they needed in order to follow the course.

Then, an online discussion forum in Japanese also helped enhance their needs for relatedness and autonomy. Like Jiro and Kai, their motivation and self-efficacy were undermined when they assumed everyone else understood the lectures but them. However, the online discussion forum in Japanese revealed the reality of how most of the Japanese students were struggling with the lectures. Sharing the anxiety and negative emotions with others gave them a place to belong to and be honest with who they were.

Finally, an online discussion forum in English fulfilled needs for competence. Jiro, Shun, and Wakako mentioned that it increased their self-study time. They also read others' posts, which advanced their comprehension of the lectures.

However, there is a limitation to enhancing their need for competence because <<dissatisfaction of the need for competence>> was mentioned by most of the participants except Jiro. It represents how challenging it is for Japanese students to understand the lectures entirely in English. Further, Shun expressed that in EMI, they suffer <<discrepancy between present L2 self and ideal L2 self>>. He was frustrated that using English was inhibiting his critical thinking and discussion abilities. He believed that he could have performed better if his English competence had been higher. The next chapter will present an overall discussion of this research.

Notes

1. The group presentation assignment was voluntary with bonus points. About four or five topics were announced in class, and students needed to submit their outline and PowerPoint slides two weeks before the presentation. After that, the content specialist selected the best one on each topic for actual presentation.

2. The EMI content specialist consulted the author for the most appropriate TAs for the course; Japanese students who have high English proficiency and are familiar with the course content were suggested so that they could serve as exemplary role models for the Japanese students.

3. There were many Vietnamese students, and some groups had only Vietnamese students. Therefore, everyone was reassigned when the course registration period was over.

10. Conclusions

This research aimed to achieve the following by conducting four empirical studies: 1) understand the current situations and challenges of EMI at Japanese universities from motivational perspectives and 2) examine the effectiveness of pedagogical interventions in a real classroom as possible solutions to the problems. To this end, the research is divided into four parts: Part 1) introduction, literature review, and research context (Chapters 1, 2, and 3); Part 2) preliminary study, quantitative study, and qualitative study for understanding the current situations and challenges (Chapters 4, 5, and 6); Part 3) preliminary study for designing the intervention, quantitative and qualitative study to assess the effectiveness of the intervention (Chapters 7, 8, and 9); and Part 4) conclusions (Chapter 10).

This final chapter will provide an overview of the results of the current research and its implications. The next section, 10.1, will summarize the results of each study; 10.2 will discuss the pedagogical implications for both EMI and English classrooms; and Section 10.3 will examine the studies' contributions to the research fields. Subsequently, 10.4 will describe the limitations of this research, and 10.5 will discuss future research directions. Finally, 10.6 will end the paper with some concluding remarks.

10.1 Summary of the Results

Figure 10-1 shows the themes in each part of the research and the main results of the studies conducted in Parts 2 and 3.

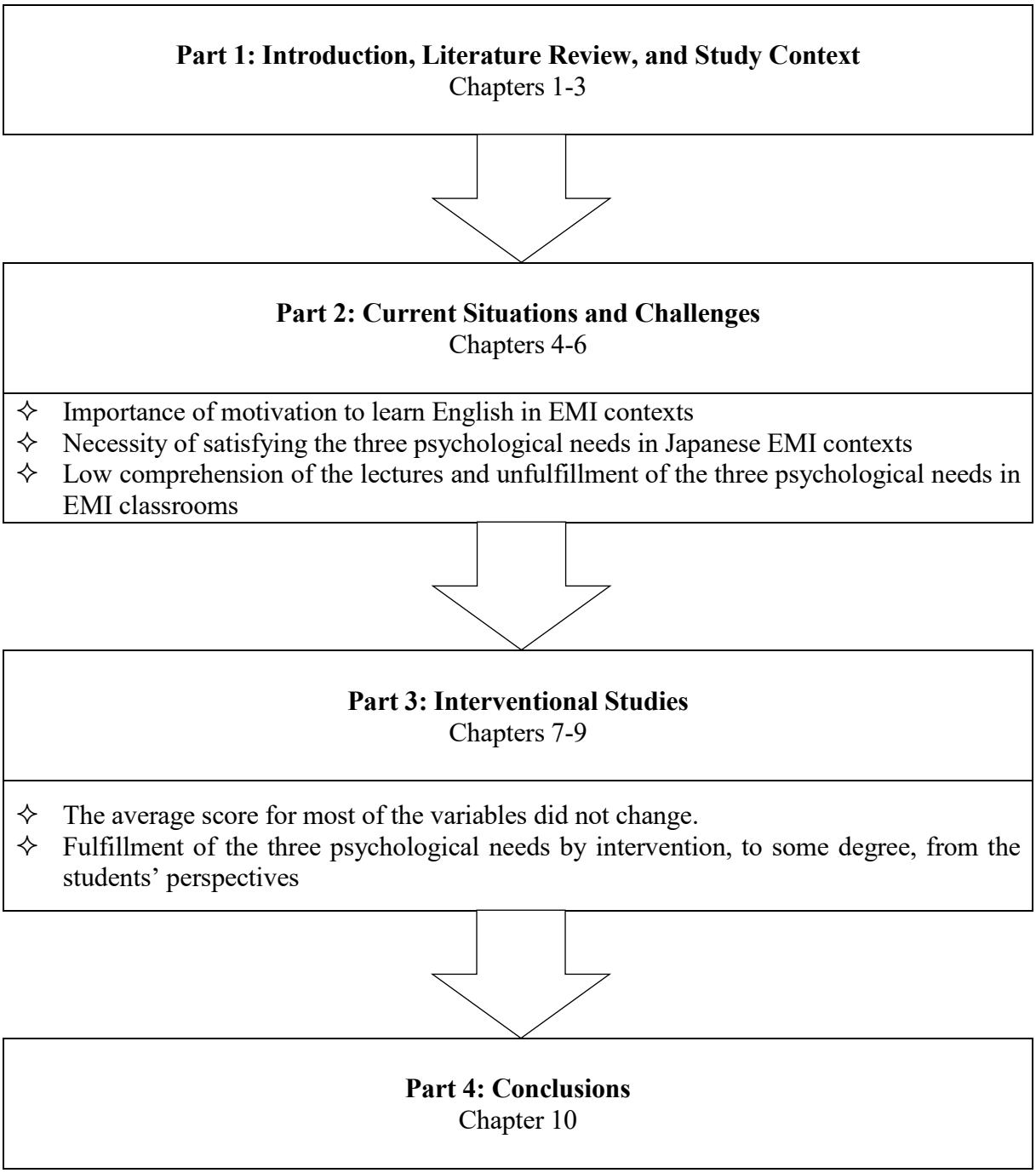

Figure 10-1. The study design and main results of this research.

Chapter 1 introduced my observations and experiences with regard to EMI at A University before this research was conducted. Through those experiences, I came to think that EMI was facing serious motivational problems, which was explored in the preliminary study in Chapter 4. Chapter 2 began with the definition of EMI; then, the differences between EMI and CBI/CLIL, and previous research on EMI were discussed. Subsequently, the definition of motivation and its historical background, as well as previous research in SLA, were described. The literature review focused on SDT as a primary framework, and the L2 motivational self system which was applied to assess motivation to learn English. The review uncovered the lack of empirical studies on motivation in EMI, especially classroom research focusing on Japanese students. This led to the necessity to conduct a preliminary study in order to obtain the implications of this entire research. At the end of Part 1, the research context was elaborated (Chapter 3).

In Part 2, a preliminary study (Chapter 4) was conducted in order to obtain the suggestion for the direction of this current research. The results of this preliminary study implied that the students were finding the lectures hard to understand. It seemed that the students' motivation was moving in the backward direction from the SDT (self-determined to less self-determined) perspective. Study 1 (Chapter 5), a quantitative study, was conducted in order to explore EMI motivation in a more scientific manner by applying SDT as the main framework. It revealed that Japanese students were taking EMI courses because they wanted to improve their English while simultaneously gaining new knowledge about the content of the course. In particular, students who could visualize their ideal L2 self clearly and have positive attitude toward leaning English were more motivated in EMI. Moreover, when taking EMI, satisfaction of the needs for autonomy, competence, and relatedness were essential in order to maintain/improve one's EMI intrinsic motivation and EMI identified regulation. Therefore, a qualitative study was carried out with the aim of finding out whether the current EMI

classrooms could fulfill the three psychological needs or not (Chapter 6). Study 2 revealed that none of these needs were satisfied. As the limited self-perceptions of the understanding the lectures had already revealed in Study 1, it was confirmed that the need for competence had remained unfulfilled. Furthermore, the data showed that the students felt isolated and felt that they had nowhere to go when they did not comprehend the lectures (unsatisfaction of the need for relatedness). Finally, they felt that they were not being treated as important individuals and that they were always being relegated to the shadows in favor of the international students (unsatisfaction of the need for autonomy). The studies in Part 2 showed that students in EMI were locked into a vicious motivational circle. This means that the students were trying to learn English and the course content at the same time when enrolled. However, as they faced the continuous experience of not knowing what was going on in class, feeling left out, and not being respected or valued, they eventually lost their initial motivation to learn. This indicated the necessity for introducing a pedagogical intervention in order to break the vicious circle.

In response to the results of the studies reported in Part 2, the interventional studies were conducted in Gender Studies and Cultural Studies (Chapters 7-9). A preliminary study for designing the intervention (Chapter 7) was carried out in order to gain some concrete ideas for the intervention from the students' perspectives. Some ideas based on the results of this study were actually applied in the intervention; these included creating a fixed small group with international students, providing a final exam preparatory session, and distributing a glossary for Cultural Studies. Quantitative (Chapter 8) and qualitative (Chapter 9) studies were conducted in order to examine the effectiveness of the interventions. The results of Study 3 conducted in Gender Studies showed that the average score of the group for motivational variables stayed the same. Although it seemed negative, taking a closer look at the data revealed that, in fact, 40% of the students who were not motivated at the beginning increased their EMI intrinsic motivation. In some other interventional studies, which were introduced in

Chapter 2, motivation usually improved for approximately 20% of the participants (e.g., Hiromori & Tanaka, 2006; Maekawa & Yashima, 2012). Furthermore, previous studies described the students' loss of motivation as they continued to study English (e.g., Hayashi, 2012; Johnson, 2013; Koizumi & Matsuno, 1993; Yamamori, 2004). When taking these studies into consideration in the analysis, the results of Study 3 could be considered positive one. Another finding of this study was that, although the class contents became more complicated as the semester progressed, students who developed their motivation did not decrease their self-reported understanding of the lectures. Study 3 claimed that the intervention could contribute to maintain or/and increase their EMI intrinsic motivation and help to internalize their EMI extrinsic motivation. Furthermore, it expressed how crucial it was for the students to understand the lectures for keeping their high motivation or increasing it. However, because a control group was absent, I could not draw any conclusions regarding whether the intervention had affected students' motivation positively or not. In order to compensate for this limitation, a qualitative study, Study 4, was conducted (Chapter 9). Its results confirmed that the intervention fulfilled the participants' three psychological needs, although some of them still struggled with the discrepancy between their present L2 self and their ideal L2 self. Also, among the pedagogical approaches implemented in the intervention, fixed small groups with international students, online discussion forums in Japanese, and online discussion forums in English were particularly beneficial. The fixed small groups with international students helped them feel valued during group discussions (satisfaction of the need for autonomy), encouraged them to seek help when they did not understand the lectures (satisfaction of the need for competence), and helped them build good relationships with the other group members through working together during the course (satisfaction of the need for relatedness). Moreover, on online discussion forums in Japanese, they felt safe enough to honestly talk about their experiences in EMI, even though some of these experiences were negative (satisfaction of the

need for autonomy). This was made possible because they discovered that other Japanese students also struggled with understanding the lectures. Realizing this fact stopped them from doubting their own learning abilities but helped them to maintain their self-efficacy (satisfaction of the need for competence). Furthermore, sharing their negative feelings about the EMI courses helped them to identify themselves as members of the Japanese community in the EMI course (satisfaction of the need for relatedness). Finally, online discussion forums in English encourage them to study more at home and therefore, foster their comprehension of the course content (satisfaction of the need for competence).

Taking these results into consideration, one pedagogical implication for the English language classrooms and six pedagogical implications for the EMI courses will be provided in the following section.

10.2 Pedagogical Implications

10.2.1 Pedagogical Implication for English Language Classrooms at Universities

1. Developing English competence for academic purposes

This research has clarified that, for Japanese students, EMI is demanding and requires perseverance—even in cases where there is a solidly planned intervention. It has also shown that it is necessary for the students to improve their overall proficiency in academic English (i.e., reading, listening, writing, and speaking) in order to take EMI. Among these four skills, I suggest that academic English courses that focus on productive skills may help them enjoy EMI more. This is because it was clear that the students particularly struggled with expressing their ideas during discussions and while writing in English in EMI in Studies 2 and 4. Thus, it can be concluded that, while any academic English language courses may prove to be

beneficial for them, focusing on writing and speaking skills could help them have more successful experiences in EMI.

10.2.2 Pedagogical Implications for EMI Classrooms

1. Creating fixed small groups with international students

The data collected in Study 4 revealed that fixed small groups with international students helped Japanese students to feel a sense of belonging (satisfaction of the need for relatedness). Furthermore, it provided them with a sense of being heard and valued (satisfaction of the need for autonomy). Creating a safe learning place allowed the Japanese students to become more active, that would help them gain a better understanding of the lecture (satisfaction of the need for competence) (e.g., asking questions when they had not followed the lecture). In addition, interactions with international students, who are usually more fluent and competent in English than the Japanese students, helped them imagine their ideal L2 selves more vividly. Thus, creating fixed small groups in EMI classrooms could increase language learners' excitement for learning in English and help them internalize the meaning of learning in EMI.

2. Applying online discussion forums in Japanese

Data in Study 4 showed that online discussion forums could create a place where students could belong (satisfaction of the need for relatedness) and let them share their anxiety and negative feelings. These forums became places where they could be honest with each other in their first language (satisfaction of the need for autonomy). Because most of the EMI courses that they had taken previously did not offer any opportunities to connect with one another, the Japanese students assumed that they were the only ones who did not understand the EMI lectures. However, the online discussion forums in Japanese helped them to realize that others, too, were struggling with understanding the EMI lectures. Thus, they attributed their inability

to understand the lectures to the level of the lectures, not to their level of English. This awareness helped them maintain their self-efficacy and perseverance (satisfaction of the need for competence).

3. Applying online discussion forums in English

Study 4 displayed that asking a comprehension check question each week on online discussion forums in English increased their self-study time and thus fostered their understanding of the EMI lectures (satisfaction of the need for competence). They developed their comprehension of the course content not only by answering questions but also by reading other students' posts. This implies that using online discussion forums in English could create more opportunities for students to boost their comprehension outside of class time.

4. Applying CLIL approaches in EMI

This research demonstrated the importance of motivation to learn English especially ideal L2 self in a Japanese EMI context. In other words, it suggests that second language instruction is needed in EMI even though language teaching (learning) is not an aim of its courses. Study 1 showed that Japanese students took EMI courses because they wanted to improve their English in addition to their desire to learn the course content. Furthermore, in order to enhance their need for competence in EMI, it was necessary for these students to comprehend the lectures, which required them to have high English proficiency. Of course, it is essential to develop their English proficiency as much as possible before they take EMI, but it is also vital to offer language instruction in some way in EMI classrooms. This could be done by providing glossaries and/or providing feedback on how to write a good academic paper in English. In other words, EMI pedagogy in Japan should, to some degree, adopt a CLIL approach in order to make EMI courses more fruitful.

5. Making EMI classrooms smaller

Reducing the EMI class size is also critical for improving its pedagogical effectiveness. Study 2 showed that a large class size was a barrier to learning for the Japanese students. Moreover, Study 4 demonstrated that students had to be confident in their own understanding and English abilities in order to actively participate in class. The difficulties of teaching such a big student group could be also discussed by analyzing my experiences during the intervention. Occasionally, I had to give a short (5-10 minute) lecture during the intervention, and it was impossible to stop or adjust my lesson spontaneously even when I noticed that some students were finding it difficult to follow the lesson. As discussed above, in such a large class, making a class autonomous-supportive is extremely demanding. Therefore, EMI classrooms should be the same size as language courses, or at least smaller than 50.

6. Providing (Japanese) TA(s)

Finally, TAs need to be provided by universities so that EMI can become more effective for language learners. Study 2 reveled that a TA helped a participant improve her understanding of the lectures when she was afraid of talking to the EMI content specialist in the course that she was taking. Moreover, Study 4 suggested that Japanese students felt that Japanese TAs were more approachable compared to international ones, so they intentionally chose to ask Japanese TAs questions when they needed help. This means that Japanese TAs contributed to the fulfillment of the need for competence. Thus, although few Japanese universities provide TAs to EMI content specialists, these results suggest that doing so would make EMI less demanding on the content specialists and the students.

10.3 Contributions to the Research Field

10.3.1 Contributions to the L2 Motivational Research Field

The following five points will be discussed as the contributions of this research to the research field on L2 motivation and EMI. The first point especially concerns SDT in the context of EMI in Japan.

This research shows the importance of satisfying the three psychological needs of SDT in the Japanese EMI context. First, the importance of fulfilling the need for autonomy in EMI contexts was expressed. In addition, it was found that current EMI classrooms were not autonomy supportive. According to Agawa (2017), most interventional studies that were conducted in English language classrooms in Japan and that applied SDT as their framework focused on encouraging language learners to study proactively based on their own interests. In order to satisfy this particular need for autonomy, researchers usually provided assignments with options to their students. On the contrary, this current research brings attention to the fundamental concept of the need for autonomy. It claimed that it is important for learners to feel that their human dignity is being protected, and to feel respected as important individuals who have high potential. The satisfaction of the need for autonomy will increase their intrinsic motivation and internalize their extrinsic motivation. Second, as could be expected, students' low self-efficacy of their English proficiency and low perceptions of the understanding of the lectures decreased their EMI motivation. This highlights the importance of satisfaction of the need for competence. Finally, this research demonstrated the importance of creating safe communities in EMI contexts. As discussed in Chapter 9, the intervention safeguarded Japanese students in EMI (e.g., small fixed groups with international students and Japanese online discussion forums). This showed that the satisfaction of the need for relatedness is essential in EMI contexts and necessary for developing students' higher intrinsic motivation and mature types of extrinsic motivation.

Next, this research explored a new context where more L2 motivational research needs to be conducted. Study 2 revealed that motivation to learn English, especially ideal L2 self is important in EMI contexts and that this finding in line with previous L2 research on motivation in language classrooms. This shows that more L2 motivational studies in EMI will help us gain a deeper understanding of such contexts.

Furthermore, this project expressed the importance of language instruction in EMI context. The results of the studies in this research showed Japanese students were taking EMI because they wanted to improve their English proficiency. Moreover, students who had higher motivation to learn English especially who could visualize their ideal L2 self vividly had higher EMI motivation, comprehended the lectures better, and put more effort into EMI. In other words, language instruction is essential for helping students understand the lectures better and for minimizing the discrepancy between their present L2 self and ideal L2 self. As a consequence, providing language instruction would be fundamental to motivate them in EMI.

This research is significant from the viewpoint of methodology. Initially, motivational research in SLA was dominated by quantitative studies (Boo, Dörnyei & Ryan, 2015). Although the number of studies with qualitative or mixed methodologies has been increasing in recent years, researches utilizing quantitative methods continue to form the majority of studies in this research field compared to studies applying qualitative or mixed methods. Thus, this research, which employed both quantitative and qualitative methods, contributed to bridge this research gap. Besides, listening to Japanese students' learning experiences in numerous interviews helped me to put myself in their shoes. Gaining such in-depth perspectives as well as quantitative results furthered understanding of the serious motivational problems that EMI is currently facing.

Finally, although several interventional studies have been conducted at Japanese universities (e.g., Agawa, 2017; Hiromori, 2006; Maekawa & Yashima, 2012), interventional

studies are still a minority of the L2 motivational research conducted worldwide (Boo, Dörnyei & Ryan, 2015). Considering this situation, this research, which focused on motivating students in EMI contexts, made a valuable contribution to this research field.

10.3.2 Contribution to the EMI Research Field

In terms of contribution to the research field of EMI, this project adds more research data to the field. According to the systematic review that Macaro et al. (2018) conducted, research on EMI has been conducted only since around 2005. They also showed that in the six international journals that they reviewed, there were only three empirical studies conducted in Japanese universities. In particular, according to Yamamoto and Ishukura (2018), few studies have been conducted to understand Japanese students' learning experiences. Using a reliable theoretical framework, SDT, this research leads to a better understanding of EMI from Japanese students' motivational perspectives. In short, it moves EMI research forward by exploring the EMI classroom from different perspectives than other studies.

10.4 Limitations

In addition to the pedagogical implications and the research contributions, it is also important to mention the limitations. This research has the following three major limitations.

First, the sample size of Study 3 (N= 38) was not as large as I would have desired. Since students could take any EMI course as a prerequisite for graduation, it was impossible to predict how many students would actually enroll in Gender Studies or Cultural Studies. The results could have had more power in discussion if there had been more participants in Study 3. Second, how international students affected Japanese students was not sufficiently explored. It is easy to imagine that EMI with international students and EMI without them have different dynamics. However, I could not investigate how the international students influenced the

Japanese students' learning and motivation. Finally, the timing of the data collection was not ideal because I was not the instructor in any of the EMI courses in this project. Therefore, the timings for the surveys were decided according to the EMI content specialists' convenience and were not based on the ideal timings for the studies.

10.5 Further Research

Considering the above-mentioned limitations, several opportunities exist for future research. First, this research was conducted at one university in one art faculty. Therefore, a replication study in a different context, for example, a science faculty, could be beneficial to deepen the understanding of motivation in EMI. Furthermore, Shimauchi (2016) observed that in many EMI classes in Japanese universities, the majority of students were Japanese. Thus, motivational studies in EMI in such classroom contexts will be necessary in order to move EMI research on motivation forward. Third, further research is needed to determine the role that English proficiency plays in EMI. In this research, the level of English proficiency required for taking EMI courses was not clearly explored. Last, it is important to investigate the English proficiency and pedagogical skills required for teaching EMI. General English fluency does not indicate whether one has enough English proficiency for teaching language learners. In addition, most EMI teachers do not have the appropriate training required for teaching non-native speakers of English. Therefore, many of them translate what they do in Japanese into English or teach in the same manner as they did at universities in English-speaking countries. However, the educational context is too different to treat EMI in Japan and university courses in English speaking countries in the same way. EMI content specialists need to have certain pedagogical skills in addition to high English proficiency to make EMI interactive and effective in Japanese universities. Thus, studies that will help to identify the pedagogical skills and English proficiency levels necessary for teaching EMI in a motivating way are needed.

10.6 Concluding Remarks

The objective of this research was to investigate the current situation of EMI and the challenges it faces in a Japanese university context from a motivational perspective. It also aimed to conduct pedagogical interventional studies in order to identify the way to overcome these challenges.

While I was working on this research, I constantly questioned myself why EMI should be applied at Japanese universities. The questions came because students seemed to be losing their motivation to learn English and the content while taking EMI courses. I was also frustrated whenever I heard teachers say that EMI was not working in Japan because the Japanese students who took EMI simply did not have enough English proficiency or motivation. I did not know why EMI content specialists could expect Japanese students to work hard even when the students realized their teachers' underestimation of their intelligence, learning ability, and potential.

This research has attempted to demonstrate that changing pedagogies can boost students' motivation and learning from language teaching perspective. I have to accept that many EMI content specialists still believe that lecturing the content and delivering the information automatically implies 'teaching' and that it totally falls to the students to swim or sink. Nevertheless, I am still optimistic enough that I can do something for my students in language classrooms to help them better prepare for taking EMI courses. I also have faith in students' learning abilities and possibilities, as Ryan and Deci (2000) described that people have "inherent growth tendencies" (p.65). Hence, I am eager to help them experience of the excitement of learning in English while helping them to improve their English proficiency. Further research must be conducted since EMI is still a growing phenomenon. However, I hope that EMI will help language learners read more articles from different perspectives, interact with students from different backgrounds, and develop their academic interests. I believe that

when students can experience these in EMI, they can broaden their mind and become competitive in this globalized world. I would be thrilled if this research could somehow contribute to making that happen.

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Appendices

Appendix A. Survey for Preliminary Study

「英語学習とブリッジコースに関する意識調査」

1. 調査の目的

本調査はブリッジコースの現状と履修学生の英語学習に対する意識を調査し、調査責任者が行う以下の研究に使用することを目的とします。このアンケートへの回答は任意であり、成績評価には一切関係ありません。担当の先生があなたの回答を直接読むこともありません。また、回答後のいかなる時点でも本調査への参加を辞退することができます。この調査に関する質問がある場合には調査責任者に連絡して下さい。結果を知りたい場合にも調査責任者に連絡して下さい。データ分析後、お知らせ致します。英語開講講座向上のためにあなたの率直な意見が必要です。ご協力どうぞよろしくお願い致します。

①独立行政法人 日本学術振興会による科学研究費助成事業
研究課題名：英語開講講座支援のための教材と指導モデル開発
研究代表者：小島　直子
研究代表者の所属機関及び職位：同志社大学　全学共通教養教育センター　助教
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②本調査責任者の博士論文
研究内容：英語開講講座が学生の英語学習モティベーションと国際的志向性に及ぼす影響について
本調査責任者の所属機関：関西大学大学院　外国語教育学研究科　博士後期課程

2. 調査責任者

本調査について不明点がある場合は、以下の調査責任者にご連絡ください。

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Part1. あなたの英語学習に関する意識について教えて下さい。

全く自分にはあてはまらない　　完全にあてはまる
全く違う　　そのとおりだ

1. 英語はすすんで勉強している。　　1 ----- 2 ----- 3 ----- 4
2. 自分にとって英語を学ぶことは非常に大切である。
   1 ----- 2 ----- 3 ----- 4
3. もし英語の講座があれば将来的に受講したい。
   1 ----- 2 ----- 3 ----- 4
4. 正直に言って自分は英語をマスターするために本当によく頑張っていると思う。
   1 ----- 2 ----- 3 ----- 4
5. 英語習得のためによく努力するほうだ。
   1 ----- 2 ----- 3 ----- 4
6. 学校で英語の授業がなかったらどこか他に出向いて英語を勉強する。
   1 ----- 2 ----- 3 ----- 4
7. 自分の人生において英語の学習は最も重要な位置を占めている。
   1 ----- 2 ----- 3 ----- 4

Part2. ブリッジコースに対しての意識や意見について教えて下さい。

1. 下記に示すものはブリッジコースを履修した理由としてどの程度重要ですか。あなたの気持ちに最も合うものを選んで〇をしてください。

(a) 卒業のための英語開講の単位の一部となるから。

重要でない --- どちらともいえない ---重要

(b) 通常の英語開講より簡単そうだったから。

重要でない --- どちらともいえない ---重要

(c) 通常の英語開講を履修する準備期間として活かせると思ったから。

重要でない --- どちらともいえない ---重要

(d) 他にもブリッジコースを履修した理由として、あなたにとって重要なものがあれば、記入して下さい。

（　　）

2. 下記に示すものはブリッジコースの中でも Chen 先生の国際関係学を履修した理由としてどの程度重要ですか。あなたの気持ちに最も合うものを選んで〇をして下さい。

(a) 開講時間（時間割）が都合良かったから。

重要でない --- どちらともいえない ---重要

(b) Chen 先生の授業が履修したかったから。

重要でない --- どちらともいえない ---重要

(c) 国際関係学に興味があったから。

重要でない --- どちらともいえない ---重要

(d) 他のブリッジコースより簡単そうだったから。

重要でない --- どちらともいえない ---重要

(e) 他のクラスより英語開講を履修するために役に立ちそうだったから。

重要でない --- どちらともいえない ---重要

(f) 他にもこのブリッジコースを履修した理由として、あなたにとって重要なものがあれば、記入して下さい。

（　　）

3. 毎週この授業のためにどれくらい勉強しましたか。（復習、予習など全て含めて）

一週間　平均 _____ 時間 _____ 分　程度

4. 講義は全体のどれくらい理解できましたか。

0% ___ 10 ___ 20 ___ 30 ___ 40 ___ 50 ___ 60 ___ 70 ___ 80 ___ 90 ___ 100%
全く理解ができない　　完全に理解ができた

5. この授業に来ることを辞めようと思ったことはありますか。

はい　　いいえ

それはなぜですか。

6. 最後まで授業に出席し続けたのは何故ですか。

7. このブリッジコース受講前と比べて自分がどのように変わったと思いますか。当てはまるものを選んで○をして下さい。

a. 国際関係学に対する興味を失った　　変わらない　　国際関係学に対する興味が湧いた

b. 留学生との会話や接触時間が減った　　変わらない　　留学生との会話や接触時間が増えた

c. 英語力に対する自信を失った　　変わらない　　英語力に対する自信がついた

d. 英語学習に対する意欲を失った　　変わらない　　英語学習に対する意欲が湧いた

e. 今後、英語開講の授業を履修していく上での不安が
弱まった　　変わらない　　強まった

8. この授業以外にも今までに他のブリッジコースを履修したまたは履修していますか。

はい　　いいえ

それは何という授業ですか。（科目名/ 教員名）（　　/　　先生）

この授業と比較して異なる点があればどんなことでも記述して下さい。

9. **今後、英語開講を履修する上で心配していることや不安に思っていることはありますか。**

はい　　いいえ

具体的に教えて下さい。

１０. ９で「はい」と答えた方にお聞きします。９の不安を解消するために大学や教員に期待することはありますか。

はい　　いいえ

具体的に教えて下さい。

---

11. この授業を履修していて、感じたこと、考えたことがあれば何でも教えて下さい。

Part3 今後の英語使用に関する意識について教えて下さい。

全く自分にはあてはまらない　　完全にあてはまる
全く違う　　そのとおりだ

1. 将来のやりたいことのためには英語を話すことが必要である。

1 ----- 2 ----- 3 ----- 4

2. 将来英語を使って仕事をしている自分をよく想像する。

1 ----- 2 ----- 3 ----- 4

3. 英語をはなせるようになっている自分をよく想像する。

1 ----- 2 ----- 3 ----- 4

4. 外国の人とコミュニケーションをはかるために英語を使いたい。

1 ----- 2 ----- 3 ----- 4

5. 自分の夢がかなったら英語を自由に使えるようになると思う。

1 ----- 2 ----- 3 ----- 4

ご協力ありがとうございました。

*後日、インタビューに参加してもらえる場合には名前と連絡先を書いて下さい。日程調整のため、こちらからご連絡致します。

名前　　:_____

連絡先(頻繁に使用する e-mail アドレスを記入して下さい。APU のアドレス以外も可)

:_____

Appendix B. Consent Form for Preliminary Study

英語学習とブリッジコースに関する意識調査のインタビューについての説明と同意書

これは、履修学生の視点からブリッジコースの現状とその学生の英語学習に対する意識を知るためのものです。このインタビューへの回答は自由意思であり、あなたの意見はブリッジコースをより効果的なコースとするための資料としてのみ使用します。成績には一切関係ありません。担当の先生があなたのインタビューを直接読んだり聞いたりすることは決してありません。アカデミックオフィスが行っているアンケートとも一切関係がありません。正しい答えも間違った答えもありません。安心して答えて下さい。また回答後のいかなる時点でも参加の辞退及び、全ての情報の破棄を求めることができます。この調査について何か質問がある場合にはいつでも調査責任者まで連絡して下さい。今後のブリッジコース向上のために皆さんの意見が必要です。ご協力どうぞよろしくお願い致します。
(e-mail:naokokojima0308@gmail.com)

以上の内容に同意し、インタビューに協力してもらえる場合には以下に名前と日付（７／１６）を記入して下さい。

名前（署名）　　＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

日付　　＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

調査責任者：調査責任者：立命館アジア太平洋大学 RCAPS　客員研究員　小島直子

注：
尚、本インタビューにより収集されたデータは以下に述べる研究の目的にのみ使用されます。①日本学術振興会より科学研究費助成事業を受け遂行している研究。（代表：小島直子　所属機関及び職位：同志社大学全学共通教養教育センター　助教　研究課題名：英語開講講座支援のための教材と指導モデル開発）②本調査責任者の博士論文のための研究。（所属機関：関西大学大学院　外国語教育学研究科　研究内容：英語開講講座が学生の英語学習モティベーションと国際的志向性に及ぼす影響について）

Appendix C. Survey for Study 1

英語学習と科目学習に関する意識調査

1.　調査の目的

この調査は皆さんの英語学習及び科目学習に関する意識を調査し、以下の研究に使用することを目的とします。このアンケートへの回答は任意です。回答はまとめて統計的に処理をしますので、成績などへの個人的な影響は一切ありません。この調査に関する質問がある場合には調査責任者に連絡して下さい。英語開講講座向上のために学生の皆さんの率直な意見が必要です。ご協力どうぞよろしくお願い致します。

①独立行政法人 日本学術振興会による科学研究費助成事業
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②本調査責任者の博士論文
研究内容：英語開講講座が学生の英語学習モティベーションと国際的志向性に及ぼす影響について
本調査責任者の所属機関：関西大学大学院　外国語教育学研究科　博士後期課程

2.　調査責任者

本調査について不明点がある場合は、以下の調査責任者にご連絡ください。

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立命館アジア太平洋大学　立命館アジア太平洋研究センター　客員研究員

記入日 2015 年_____月_____日　　学生 ID _____

学年　（　1　2　3　4　）　　学部（　APS　/　APM　）　　（男　/　女）

Part1:あなたの今までの海外渡航経験や英語学習経験について教えてください。

1. 現在英語の必修科目を履修している。

（はい　/　すでに終了した　/ その他　具体的に_____）

- <u>はい、と答えた方</u>は当てはまるレベルに○をつけてください。　(初級/ 準中級 / 中級 / 準上級)

2. これまでに海外旅行や滞在の経験はありますか。あてはまるものを全て選んでください。2 週間以上海外に行ったことのある人はその行き先も書いてください。1 年以上の人はその期間も書いてください。(複数回答可)

1. 日本から一歩も出たことはない
2. ２週間以内の旅行経験はある
3. ２週間を超えて３ヶ月以内の滞在をした

   行き先 1_____　　行き先 2 _____
4. ３ヶ月を超えて６ヶ月以内の滞在をした

   行き先 1 _____　　行き先 2　_____
5. ６ヶ月を超えて１年以内の滞在経験がある

   行き先 _____
6. １年以上の滞在経験がある。　　行き先_____　　期間_____

書ききれない場合にはこの中に記述して下さい。

3. 一番最近の TOEFL **義務受験**の得点を教えて下さい。はっきりと覚えていない場合はおおよその点数に○をつけて下さい。（　　点　）

- **はっきりと覚えていないが**、

390 点以下- -400 点- -410- -420- -430- -440- -450- -460- -470- -480- -490- -500- -510- -520- -530- -540- -550 点以上

4. TOEFL 義務受験の得点以外に英語に関する資格を持っていますか
（はい / いいえ）

- **はいと答えた方**は具体的にその資格とレベルを記入してください

TOEFL ITP （ペーパー） (　　点)
TOEFL iBT （コンピューター） (　　点)
TOEIC（　　点）
英検（　　級）
その他（資格名_____レベル_____）

5. 他に外国語に関する資格があれば何でも記入して下さい

外国語_____　　資格名_____　　レベル_____

これから尋ねる質問には正しい答えも間違った答えもありません。正直に自分の気持ちを表しているものを、手早く選んでいってください。成績には全く関係ありませんので正直に答えてください。

Part2:あなたの英語学習に対する意識について教えて下さい。

Part2-A.次のことはあなたにどれくらいあてはまりますか。
「全く自分には当てはまらない、全く違う」という場合には 1 を「自分に完全に当てはまる、その通りだ」という場合には 6 に○をしてください。あるいは、その間であなたの行動や考えを最もよく表すと思う数字に○をしてください。

1	2	3	4	5	6
全くあてはまらない まったく違う	ほぼあてはまらない	あまり当てはまらない	少し当てはまる	ほぼ当てはまる	完全に当てはまる そのとおりだ

例）勉強する前はチョコレートを食べる	1	2	3	4	(5)	6

1. 自分は同級生と比べてよく英語を勉強する	1	2	3	4	5	6
2. 学校で教科として英語がなくても自分で学習したい	1	2	3	4	5	6
3. 英語を学ぶことはとても楽しい	1	2	3	4	5	6
4. 将来のやりたいことのためには英語を話すことが必要である	1	2	3	4	5	6
5. いつも英語の授業を楽しみにしている	1	2	3	4	5	6
6. 英語は国際共通語なので勉強する必要がある	1	2	3	4	5	6
7. 英語の授業で積極的に発言するのは苦手だ	1	2	3	4	5	6

8. 私は英語を学習する気が十分にある	1	2	3	4	5	6
9. 私が英語を学んでも学ばなくてもあまり気にする人はいない	1	2	3	4	5	6
10. 大学卒業後も英語を勉強したり、なんらかの形で英語力の向上に勉めたい	1	2	3	4	5	6
11. クラスメートは自分より英語がうまく話せるような気がする	1	2	3	4	5	6
12. 英語ができればもっと教養のある人になれる	1	2	3	4	5	6
13. 英語を学ぶことはとても素晴らしいことだと思う	1	2	3	4	5	6
14. 将来英語を使って仕事をしている自分をよく想像する	1	2	3	4	5	6
15. 気がつくと英語の本を開いたり、英語の宿題をしたりしている	1	2	3	4	5	6
16. 英語を話せるようになっている自分をよく想像する	1	2	3	4	5	6
17. 自分が英語を学ぶ努力をしなかったら周囲の人はがっかりすると思う	1	2	3	4	5	6
18. 今の私の環境では英語がそんなにできなくても構わない	1	2	3	4	5	6
19. 英語の授業で習ったことや英語についてよく考える	1	2	3	4	5	6
20. 自分の夢が叶ったら英語を自由に使えるようになると思う	1	2	3	4	5	6
21. 英語を勉強するのはとても面白い	1	2	3	4	5	6
22. 英語の授業で発言していると緊張する	1	2	3	4	5	6
23. 将来のことを考えると英語を使う事は重要だと思う	1	2	3	4	5	6
24. 教養を身につけるために英語を習得すべきだ	1	2	3	4	5	6
25. 外国人の友達と英語ではなしているのをよく思い浮かべる	1	2	3	4	5	6
26. 私が英語で話すとクラスメートが笑わないかと心配になる	1	2	3	4	5	6

Part2-B. 以下のことはあなたにどれくらい当てはまりますか。
これまでと同じように自分に当てはまるところに○をしてください。

1. 日本に来ている留学生など外国人と（もっと）友達になりたい	1	2	3	4	5	6
2. 留学生や外国人の学生と寮やアパートなどでルームメイトになってもよいと思う	1	2	3	4	5	6
3. 海外のニュースにはあまり興味がない	1	2	3	4	5	6
4. 地域の外国人を世話するようなボランティア活動に参加してみたい	1	2	3	4	5	6
5. 青年海外協力隊などの途上国でのボランティア活動に興味がある	1	2	3	4	5	6
6. 国連などの国際機関で働いてみたい	1	2	3	4	5	6
7. 故郷の町からあまり出たくない	1	2	3	4	5	6
8. 国際的な問題に強い関心をもっている	1	2	3	4	5	6
9. 外国の人と話すのを避けられれば避ける方だ	1	2	3	4	5	6
10. 外国の情勢や出来事について家族や友人とよく話し合う方だ	1	2	3	4	5	6
11. 外国に関するニュースをよく見たり、読んだりする	1	2	3	4	5	6
12. 海外出張の多い仕事は避けたい	1	2	3	4	5	6
13. 海外の出来事は私たちの日常生活にあまり関係ないと思う	1	2	3	4	5	6
14. 日本以外の国に住んでみたい	1	2	3	4	5	6

15. レストランや駅で言葉が通じずこまっている外国人がいれば進んで助けると思う	1	2	3	4	5	6
16. もし、隣に外国の人が越してきたら困ったなと思う	1	2	3	4	5	6

Part3:あなたのこの科目(*科目名を入れる*)の学習に対する意識について教えて下さい

以下のことはあなたにどの程度当てはまりますか。以下の文を読んであなたの行動を最も良く表している数字に〇をして下さい。

1	2	3	4	5	6
全くあてはまらない まったく違う	ほぼ 当てはまらない	あまり 当てはまらない	少し 当てはまる	ほぼ 当てはまる	完全に当てはまる そのとおりだ

例）勉強する前はチョコレートを食べる	1	2	3	4	5	6

1. この授業で習ったことやこの科目についてよく考える	1	2	3	4	5	6
2. 学校で教科としてこの科目がなくても自分で学習したい	1	2	3	4	5	6
3. 気がつくと、この科目についての本を開いたり勉強したりしている。	1	2	3	4	5	6
4. 私はこの科目を学習する気が十分にある	1	2	3	4	5	6
5. 自分は同級生と比べてよくこの科目を勉強する	1	2	3	4	5	6
6. 大学卒業後もこの科目を勉強したり、なんらかの形で、この科目の知識の向上に勉めたい	1	2	3	4	5	6

Part4:あなたの英語開講科目の学習に対する意識について教えて下さい。
（ブリッジプログラムも英語開講科目に含みます。）

Part4-A.あなたがこの科目を英語開講で履修する理由はなんですか。英語開講の授業で学習することについてどう考えていますか。次の文を読んであなたに一番当てはまる数字に〇をつけて下さい。

1	2	3	4	5	6
全くそうではない	ほぼ当てはまらない	あまりはまらない	少し当てはまる	ほぼ当てはまる	全くそのとおりだ

1. この授業で習ったことやこの科目についてよく考える	1	2	3	4	5	6
2. なぜ英語で専門科目を勉強しなければいけないのかわからない。はっきりいって英語開講の授業なんてどうでもよい	1	2	3	4	5	6
3. 英語で専門科目に関する会話ができると何となく恰好（かっこう）がよいから	1	2	3	4	5	6
4. 英語で専門科目の知識が増えるのは楽しいから	1	2	3	4	5	6
5. 英語開講で勉強しておかないと、あとで後悔すると思うから	1	2	3	4	5	6
6. 英語開講で勉強するのがこの大学の決まりだから	1	2	3	4	5	6
7. 将来使えるような専門科目の知識を英語で身につけたいから	1	2	3	4	5	6
8. 英語開講で勉強するのは将来より高い収入を得られるようになりたいから	1	2	3	4	5	6
9. 英語開講の授業はわくわくするから	1	2	3	4	5	6
10. 英語開講の授業を受けていると、自分はいったい何をしているのだろうと思ってしまう	1	2	3	4	5	6
11. 英語開講を履修していないと罪悪感を感じるから	1	2	3	4	5	6
12. 自分が目指しているグローバル人材になるために役立つと思うから	1	2	3	4	5	6

13. 正直言って、英語開講の授業は時間を無駄にしている気がする	1	2	3	4	5	6
14. 卒業に必要な単位を取りたいから、英語開講の科目を履修している	1	2	3	4	5	6
15. 自分が目指している職業にとって必要なことだから	1	2	3	4	5	6

Part4-B.あなたの英語開講の授業における学習状況について教えて下さい。以下の文を読んで、あなたの気持ちに最もあてはまる数字に〇をつけて下さい。（ブリッジプログラムを含む）

1. 英語開講で卒業必須単位を取りきれるのか強いプレッシャーを感じる	1	2	3	4	5	6
2. 先生の期待に応えられず、不安になる	1	2	3	4	5	6
3. 授業中、先生の言っていることがわからず混乱する	1	2	3	4	5	6
4. 教科書やノートを読んでも理解できないので、つい宿題を後回しにしてしまう	1	2	3	4	5	6
5. 内容が理解できず出席している意味があるのか不安になる	1	2	3	4	5	6

Part5:あなたの英語開講の授業における学習状況について教えて下さい。

Part5-A. あなたが今までに受講した、又は現在受講している英語開講の授業を**いくつか思い浮かべてみてください**。以下の文を読んで、それらの授業におけるあなたの気持ちを最もよく表している数字に〇をつけて下さい。

1	2	3	4	5	6
全くそうではない	ほぼあてはまらない	あまり当てはまらない	少し当てはまる	ほぼ当てはまる	全くそのとおりだ

例）勉強する前はチョコレートを食べる	1	2	3	(4)	5	6

1.	英語開講を担当している先生は授業の進め方などを相談してくれる	**1**	**2**	**3**	**4**	**5**	**6**
2.	英語開講を一緒に受けている学生とは仲が良いと思う	**1**	**2**	**3**	**4**	**5**	**6**
3.	英語開講の授業における自分の頑張りに満足している	**1**	**2**	**3**	**4**	**5**	**6**
4.	英語開講の授業では和気あいあいとした雰囲気がある	**1**	**2**	**3**	**4**	**5**	**6**
5.	英語開講の授業の課題内容には、選択の自由が与えられている	**1**	**2**	**3**	**4**	**5**	**6**
6.	英語開講の授業では友人同士で学び合う雰囲気があると思う	**1**	**2**	**3**	**4**	**5**	**6**
7.	英語開講の授業では達成感を味わうことができる	**1**	**2**	**3**	**4**	**5**	**6**
8.	英語開講の授業ではどんなことを勉強したいか述べる機会がある	**1**	**2**	**3**	**4**	**5**	**6**
9.	英語開講の授業では教師や友人など周囲からほめられる事がある	**1**	**2**	**3**	**4**	**5**	**6**

Part5-B.この科目**(科目名を入れる)**の授業内容についてあなたの気持ちに最も当てはまる数字を選んで〇をつけて下さい。

1.	この科目履修前から、この科目に関する知識がたくさんあった	1	2	3	4	5	6
2.	この科目内容は今までに学んだ内容の繰り返しだ	1	2	3	4	5	6
3.	この科目の内容は日本語であれば易しいと感じる	1	2	3	4	5	6

Part5-C.

1. あなたはこの科目**(科目名を入れる)**の講義を全体のどれくらい理解できていますか。あてはまる数字に丸をつけてください。全く理解できていない場合には 0%に全て理解できている場合には 100%に〇をつけて下さい。

0%– – –10– – –20– – –30– – –40– – –50– – –60– – –70– – –80– – –90– – –100%

全く理解できない　　完全に理解できている

2. 毎週平均してこの授業のためにどれくらい勉強していますか。（予習、復習などすべて含めて）
一週間に平均して_____時間_____ 分

Part6:英語開講の授業（ブリッジコースを含む）を履修する（した）中で役に立ったこと（これから役に立つと思うこと）や役に立たなかったこと（これからも役に立たないと思うこと）があれば、是非教えて下さい。どのような内容でも構いません。素直な気持ちを教えて下さい。

役に立ったこと（これから役に立つと思うこと）

役に立たなかったこと（これからも役に立たないと思うこと）

最後に後日インタビューに参加していただける場合には名前と連絡先を書いてください。後日、日程調整のためにこちらからご連絡します。

名前　　:_____

メールアドレス :_____
（一番頻繁にチェックするパソコンのアドレス、APU 以外のアドレスも可）

ご協力、ありがとうございました。

Appendix D. Consent Form for Study 2 and Study 4

「英語学習と科目学習に関する意識調査」の説明および同意書

本調査を下記の通り実施いたします。調査の目的・実施内容をご理解の上、調査に協力いただける場合は、同意書にご署名をお願いいたします。調査に参加しない、あるいは一度協力を決めた後に途中で辞退することになっても不利益を被ることは一切ありません。調査について質問がある場合には調査責任者に連絡して下さい。データ分析結果が知りたい場合にもデータ分析後、お知らせ致します。英語開講講座向上のためにあなたの率直な意見が必要です。ご協力どうぞよろしくお願い致します。

1. 調査責任者

氏名：小島　直子

同志社大学　全学共通教養教育センター　助教

関西大学大学院　外国語教育学研究科　博士後期課程

立命館アジア太平洋大学　立命館アジア太平洋研究センター　客員研究員

2. 調査の目的

本調査は英語開講科目を履修している学生の英語学習と科目学習に関する意識を調査し、調査責任者が行う以下の研究に使用することを目的とします。成績評価には一切関係ありません。

①独立行政法人 日本学術振興会による科学研究費助成事業

研究課題名：英語開講講座支援のための教材と指導モデル開発

研究代表者：小島　直子

研究代表者の所属機関及び職位：同志社大学　全学共通教養教育センター　助教

研究分担者：佐藤　洋一郎

研究分担者の所属機関及び職位：立命館アジア太平洋大学　アジア太平洋学部　教授

②本調査責任者の博士論文

研究内容：英語開講講座が学生の英語学習モティベーションと国際的志向性に及ぼす影響について

本調査責任者の所属機関：関西大学大学院　外国語教育学研究科　博士後期課程

3. 調査方法

インタビュー: 1 対 1 で行われ、録音されます。インタビューにかかる時間は約３０分間です。録音されたデータは調査責任者のパスワードのついた USB 又はパソコンに保存されます。

4. 調査への協力と辞退について

この調査へ協力は任意です。研究成果を学会発表及び論文に発表するまでの間であれば、回答内容の修正削除はいつでも要求することができます。途中で協力を辞退する場合、それまでに集めたデータの取扱いについて、破棄を希望するのか、研究に使用してよいのかご希望を聞かせていただき、そのご希望にそって取扱いをいたします。

5. 調査結果の公表の可能性

調査結果は調査責任者の博士論文、学術誌での出版及び学会で口頭発表する可能性があります。ただし論文や発表では氏名等の個人情報は公開せず、個人が特定できない表記を行います。

6. 個人情報、調査データの取り扱いについて

個人情報の管理は調査責任者が行います。個人情報保護のため、対象者の名前・所属は符号に置き換えて管理します。個人が特定されない形にしたデータは、最低 5 年間保存しその後は調査に必要な期間保存します。

7. 研究責任者および問い合わせ先

研究内容に関するご質問は、以下の研究責任者の連絡先までご連絡ください。また、研究者の研究倫理等に関する問題が発生した場合は、立命館アジア太平洋大学　リサーチ・オフィス　<email: reo@apu.ac.jp>までご連絡ください。

研究責任者：小島　直子（同志社大学　全学共通教養教育センター　助教）

住所:　京都府京都市上京区新町通今出川上ル　臨光館 420

連絡先　email:　naokokojima0308@gmail.com　　電話番号: 075-352-4918

「英語学習と科目学習に関する意識調査」の同意書

私は「英語学習と科目学習に関する意識調査」について、調査責任者から以上の事項について十分な説明を受けました。調査の目的、方法等について理解し、調査に協力します。

氏名（署名）

日付：　20　年　　月　　日

Appendix E. Syllabus for the Gender Studies Course

Syllabus

Gender Studies (Fall, 1st Q, 2016)

Yufu IGUCHI

Learning Goals

1) Understand the discussion on gender and articulate it with history, capitalism, nationalism, sexuality and culture
2) Analyze cultural texts from the perspective of gender
3) Connect what you learn in this course with your own lives and other social problems

Schedule (Subject to change)

	Date	Period	Topic	Note
1	Oct 6	1	Guidance, Collaborative Learning Project (Prof. Kojima), Quiz	N
2		2	Introduction, I. What is Gender?	
3	Oct 13	1	II. Sexual Division of Labor	Announcement of presentation topics
4		2	III. History of Feminism	
5	Oct 20	1	III. History of Feminism	Presentation Registration
6		2	IV. Gender and Nationalism	
7	Oct 27	1	**Midterm** + Feedback Session (Prof. Kojima)	N
8		2	V. Gender and Sexuality	
9	Nov 3	1	**In-class Assignment**	
10		2	VI. Gender and Culture (Analysis)	
11	Nov 10	1	VI. Gender and Culture (Analysis)	Submission of the PPT. for presentation
12		2	VI. Gender and Culture (Analysis)	
13	Nov 17	1	Presentation 1	N
14		2	Presentation 2	Announcement of the topics of final exam
15			**Final Exam**	N, Academic Office will announce the date

Evaluation
Final Exam: 50%, Mid-term Exam: 30%, In-class Assignments: 20%
Bonus points (presentation, oral comment, bonus assignment)
* Students are allowed to take a make-up exam only when they have an official letter from APU or a medical certificate.

Final Exam (Academic Office will announce the date)
Short essay (300 words plus 300 words)
The topics will be announced beforehand. Non-open-book

Mid-term Exam (Oct 27, 0900-0930)
Multiple-choice test. Non-open-book

In-class Assignment (1st period, Nov 3)
Watch Disney's Cinderella, and note scenes, conversations, plots, narratives, stories, characters and others that are related to gender.

Voluntary Presentation
Only for those students who want to make presentations
1 group: 3 or 4 students, 8 groups,
12 min. presentation plus 5 min. Q and A
Bonus points (PPT. Maximum 3 points, Presentation, Maximum 3 points)

Topics announcement	Oct 13
Registration	Oct 20
Submission of the hard copy of PPT.	Nov. 10
Presentation	Nov. 17

Attendance
Students are required to attend all the class. No attendance points.

Textbooks
This course does not have a textbook. The required reading materials will be distributed in the class. Note that the reading materials do not cover all contents.

Teaching Style
A Combination of lecture, discussion, quiz, and students' presentation
Students are requested to bring a notebook.
This course will use MANABA System. Students are requested to understand how to use it.

The Rule of the Class
Students are not allowed to leave a classroom without an instructor's permission.
5 minutes break: 1st period, 930-935, 2nd period, 1120-1125

About this course
This course is designed for the **2nd year English base** students. For accomplishing the course, students are required to study for at least **2 hours** by themselves at home for each class (**1 koma**).

Office Hour
Thursday 4th period @ BII-273 (Please make an appointment.)
yufuig@apu.ac.jp

Teaching Assistant
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Note
This class is a part of **Collaborative Learning Project** (**CLP**), which is under **Professor Naoko Kojima**'s Kaken project, Developing Teaching Materials and Practices for Supporting Students in EMI Lectures, in order to maximize students' learning experience in English medium lectures. That is why some data collections (i.e. surveys, journals) will be conducted during this quarter for research purposes. Your participation is valuable and much appreciated, but the decision to participate the study is completely voluntary. Also, any of your participation or feedback will not influence any of your grades in this course. Individual participants will not be identifiable when any of the data are published or presented. I appreciate your cooperation in advance.

CLP Project Leader
Professor Naoko Kojima (Doshisha University) kojima1@apu.ac.jp

Appendix F. Survey for Study 3

英語開講に対する意識調査

調査の目的

この調査は皆さんの英語開講に対する意識を調査し、以下の研究に使用することを目的とします。このアンケートへの回答は任意です。回答はまとめて統計的に処理をしますので、成績などへの個人的な影響は一切ありません。この調査に関する質問がある場合には調査責任者に連絡して下さい。英語開講講座向上のために学生の皆さんの率直な意見が必要です。ご協力どうぞよろしくお願い致します。

調査責任者
本調査について不明点がある場合は、以下の調査責任者にご連絡ください。
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記入日：2016 年____月____日

（国内学生 / 国際学生）　　（日本語基準　/　英語基準）

国内学生かつ、日本語基準の方のみ、このアンケートにご回答ください。

学生 ID _____　　性別（男 / 女）　学年 (1　2　3　4)　学部（APS / APM）

Part1: あなたの今までの海外渡航経験や英語学習経験について教えてください。

1. 現在英語の必修科目を履修している。
（はい　/ すでに終了した　/ その他　具体的に_____）

- **はい、と答えた方は**当てはまるレベルに○をつけてください。(準中級 / 中級 / 準上級)

1. これまでに海外旅行や滞在の経験はありますか。あてはまるものを一つ選んでください。2 週間以上海外に行ったことのある人はその行き先も書いてください。1 年以上海外に行ったことのある人はその期間も書いてください。(複数回答可)

1. 日本から一歩も出たことはない。
2. ２週間以内の旅行経験はある。
2. ２週間を超えて３ヶ月以内の滞在をした。　行き先 _____
3. ３ヶ月を超えて６ヶ月以内の滞在をした。　行き先 _____
4. ６ヶ月を超えて１年以内の滞在経験がある。　行き先 _____
5. １年以上の滞在経験がある。行き先_____　期間_____

書ききれない場合にはこの中に記述してください。

3. 一番最近の TOEFL **義務受験**の得点を教えて下さい。はっきりと覚えていない人はおおよその点数に◯をつけて下さい。
   - (　　点)
   - **はっきりと覚えていないが**、

390 点以下- -400 点- -410- -420- -430- -440- -450- -460- -470- -480- -490- -500- -510- -520- -530- -540- -550 点以上

4. TOEFL 義務受験の得点以外に英語に関する資格を持っていますか （はい / いいえ）
   - はいと答えた方は具体的にその資格とレベルを記入してください

   TOEFL ITP （ペーパー） (点)
   TOEFL iBT （コンピューター） (点)
   TOEIC (点)
   英検（ 級）
   その他（資格名_____レベル_____）

これから尋ねる質問には正しい答えも間違った答えもありません。正直に自分の気持ちを表しているものを、手早く選んでいってください。成績には全く関係ありませんので正直に答えてください。

Part2：あなたの英語学習に対する意識について教えて下さい。

Part2-a. 次のことはあなたにどれくらいあてはまりますか。「全く自分には当てはまらない、全く違う」という場合には 1 を「自分に完全に当てはまる、その通りだ」という場合には 6 に○をしてください。あるいは、その間であなたの行動や考えを最もよく表すと思う数字に○をしてください。正解も間違った答えもありません。素直な気持ちを教えて下さい。

1	2	3	4	5	6
全くあてはまらない まったく違う	ほぼあてはまらない	あまり当てはまらない	少し当てはまる	ほぼ当てはまる	完全に当てはまる そのとおりだ

例）勉強する前はチョコレートを食べる	1	2	3	4	5	(6)
1. いつも英語の授業を楽しみにしている	1	2	3	4	5	6
2. 英語ができればもっと教養のある人になれる	1	2	3	4	5	6
3. 英語が母語の人と英語で話すときには不安を感じる	1	2	3	4	5	6
4. 英語の授業で習ったことや英語についてよく考える	1	2	3	4	5	6
5. 努力すれば、ほとんどの外国語の文章を理解できるようになる	1	2	3	4	5	6
6. 英語を話す人と会うときにはドキドキする	1	2	3	4	5	6
7. 英語を話せるようになっている自分をよく想像する	1	2	3	4	5	6
8. 英語を話せる人が自分の英語を聞くと変に思うのではないかと心配である	1	2	3	4	5	6
9. 英語を勉強するのはとても面白い	1	2	3	4	5	6
10. 外国人に英語で道を聞かれると緊張する	1	2	3	4	5	6
11. 外国人の友達と英語で話しているのをよく思い浮かべる	1	2	3	4	5	6
12. 学校で教科として英語がなくても自分で学習したい	1	2	3	4	5	6
13. 気がつくと英語の本を開いたり、英語の宿題をしたりしている	1	2	3	4	5	6
14. 教養を身につけるために英語を習得すべきだ	1	2	3	4	5	6
15. 英語を学ぶことはとても素晴らしいことだと思う	1	2	3	4	5	6
16. 自分は外国語の習得には自信がある	1	2	3	4	5	6
17. 私が英語を学ぶ努力をしなかったら周囲の人はがっかりすると思う	1	2	3	4	5	6
18. 自分は同級生と比べてよく英語を勉強する	1	2	3	4	5	6

19. 将来のやりたいことのためには英語を話すことが必要である	1	2	3	4	5	6
20. 努力すれば楽に英語で書けるようになる	1	2	3	4	5	6
21. 将来英語を使って仕事をしている自分をよく想像する	1	2	3	4	5	6
22. 親しい友人が英語を勉強することは重要だと思っているから私は英語を勉強している	1	2	3	4	5	6
23. 英語を学ぶことはとても楽しい	1	2	3	4	5	6
24. 努力すれば必ず外国語ができるようになる	1	2	3	4	5	6

Part2-b. 以下のことはあなたにどれくらい当てはまりますか。
これまでと同じようにあなたに最も当てはまるところに◯をつけて下さい。

1. 日本以外の国に住んでみたい	1	2	3	4	5	6
2. 海外のニュースにはあまり興味がない	1	2	3	4	5	6
3. 青年海外協力隊などの途上国でのボランティア活動に興味がある	1	2	3	4	5	6
4. 外国に関するニュースをよく見たり、読んだりする	1	2	3	4	5	6
5. 外国の情勢や出来事について家族や友人とよく話し合う方だ	1	2	3	4	5	6
6. 国連などの国際機関で働いてみたい	1	2	3	4	5	6
7. 国際的な問題に強い関心をもっている	1	2	3	4	5	6
8. 海外の出来事は私たちの日常生活にあまり関係ない	1	2	3	4	5	6

Part3. あなたの英語開講に対する意識について教えてください。
（ブリッジプログラムも英語開講に含みます。）
Part3-a.英語開講の授業で勉強することについてどう感じていますか。これまでと同じように、あなたに一番当てはまる数字に◯をつけて下さい。

1	2	3	4	5	6
全く そうではない	ほぼ 当てはまらない	あまり 当てはまらない	少し 当てはまる	ほぼ 当てはまる	全くそのとおりだ

例）勉強する前はチョコレートを食べる	1	2	3	4	5	(6)
1. 英語開講で勉強するのが、この大学の決まりだから	1	2	3	4	5	6
2. なぜ英語で専門科目を勉強しなければならないのかわからない。はっきり言って英語開講の授業なんてどうでも良い	1	2	3	4	5	6
3. 英語で専門科目の知識が増えるのは楽しいから	1	2	3	4	5	6
4. 英語開講で勉強するのは、将来より高い収入を得られるようになりたいから	1	2	3	4	5	6
5. 英語で専門的な会話ができると何となく格好が良いから	1	2	3	4	5	6
6. 英語開講で勉強するのは、TOEFL などで高得点が欲しいから	1	2	3	4	5	6
7. 将来使えるような専門科目の知識を英語で身につけたいから	1	2	3	4	5	6
8. 英語開講で勉強するのは自己の成長や自己啓発につながるから	1	2	3	4	5	6
9. 英語で専門的な話ができると国際人らしく感じられるから	1	2	3	4	5	6
10. 英語開講の授業から何を得ているのか、よくわからない	1	2	3	4	5	6
11. 英語開講の授業で新しい発見があると嬉しいから	1	2	3	4	5	6

12. 外国人の友達と会ったとき英語で専門的な話ができないと恥ずかしいから	1	2	3	4	5	6
13. 自分が目指しているグローバル人材になるために役立つと思うから	1	2	3	4	5	6
14. 英語開講の授業を受けていると、自分はいったい何をしているのだろうと思ってしまう	1	2	3	4	5	6
15. 自分が目指している職業にとって必要なことだから	1	2	3	4	5	6
16. 英語開講の授業はワクワクするから	1	2	3	4	5	6
17. 正直言って、英語開講の授業は時間を無駄にしている気がする	1	2	3	4	5	6
18. 卒業に必要な単位を取りたいから	1	2	3	4	5	6
19. 英語開講を履修しておかないと罪悪感を感じるから	1	2	3	4	5	6
20. 英語開講は自らの限界を超える喜びを得られるから	1	2	3	4	5	6

Part3-b. あなたが今までに受講した、又は現在受講している英語開講の授業をいくつか思い浮かべてみてください。以下の文を読んで、それらの授業におけるあなたの気持ちを最もよく表している数字に◯をつけて下さい。

1. 英語開講の授業ではどんなことを勉強したいか述べる機会がある	1	2	3	4	5	6
2. 英語開講の授業では教師や友人など周囲から褒められることがある	1	2	3	4	5	6
3. 英語開講の授業では友人同士で学び合う雰囲気があると思う	1	2	3	4	5	6
4. 英語開講の授業では達成感を味わうことができる	1	2	3	4	5	6
5. 英語開講を担当している先生は授業の進め方などを相談してくれる	1	2	3	4	5	6
6. 英語開講の授業では友達と協力して勉強できていると思う	1	2	3	4	5	6
7. 英語開講の授業における自分の頑張りに満足している	1	2	3	4	5	6
8. 英語開講の授業には、和気あいあいとした雰囲気があると思う	1	2	3	4	5	6
9. 英語開講の授業の課題内容には、選択の自由が与えられている	1	2	3	4	5	6

Part4.あなたのこの科目（Gender Studies）の学習に対する意識について教えてください。これまでと同じように、あなたに一番当てはまる数字に◯をつけて下さい。

1. 大学卒業後もこの科目を勉強したり、なんらかの形でこの科目の知識の向上に勉めたい	1	2	3	4	5	6
2. 私はこの科目を学習する気が十分にある	1	2	3	4	5	6
3. 学校で教科としてこの科目がなくても自分で学習したい	1	2	3	4	5	6

今後インタビューなどに協力して頂ける方は名前と連絡先を教えて下さい。必要に応じて連絡させて頂きます。

名前: _____ E-mail:_____ (一番頻繁に使用しているアドレス。APU 以外のアドレスも可。)

ご協力ありがとうございました。

Appendix G. Student Evaluation Sheet for the Final Exam Preparatory Session

以下の質問に日本語または英語で答えてください。あなたの回答とあなたの成績は無関係です。

1. あなたについて教えてください

学生 ID_____

国内学生　　/ 国際学生　　日本語基準　　/ 英語基準

2. 今日、この tutorial session に来るまでにどれくらい Gender Studies の期末試験のために勉強しましたか？ 最も当てはまるものに〇をつけてください。

1. **全くしていない**
2. **30 分未満**
3. **30 分以上–1 時間未満**
4. **1 時間以上–1 時間半未満**
5. **1 時間半以上–2 時間未満**
6. **2 時間以上　具体的に（____時間____分程度）**

3. 今日の tutorial session はあなたの期末試験準備にどれくらい役にたちましたか？ あなたの気持ちに最も当てはまるものに〇をつけてください。

1---2---3---4---5---6
全く有意義でなかった　　とても有意義だった

3-b. それはなぜですか？

4. 意見や質問があれば何でも書いてください

ご協力ありがとうございました。Good luck on your final! 頑張って!

Appendix H. Categories and Concepts for Study 4

1. Ikumi

Categories	Concepts
EMI external regulation	EMI as prerequisite to graduate (7)
	Ignore the assignments which are not a part of the grade
	Easy EMI is popular (2)
	Not taking EMI more than the requirement
Utilization of Japanese to comprehend EMI lectures	Taking Gender Studies due to Japanese-Medium Instruction (JMI) being offered in the same quarter
	Observing JMI of Gender Studies from time to time
	Asking friends in JMI of Gender Studies to share their notes
Negative attitude toward EMI	Complaints about EMI requirements for Japanese
	Japanese students being ignored in most EMI courses
	Not being able to fulfill intellectual interests in EMI
	Obtaining credits from EMI courses in specialized subjects is demanding
Dissatisfaction of the need for competence	Understanding the lectures in English is demanding
	Discussion with international students is demanding
	Essay exams in EMI are demanding (3)
	A request for no essay examinations (2)
	A request for multiple choice questions on examinations
Negative feedback on the intervention	Posting on online discussion forums is tiring
Fulfillment of the need for competence	Individual support on essay writing during the final exam preparatory session is very helpful
	The TAs help students understand the content of the course during the final exam preparatory session
Dissatisfaction of the need for autonomy	Complaints about fixed seating by the instructors
English as a tool to make international friends	Desire to study abroad during summer to improve English speaking skills
	English proficiency being necessary to have international friends
	Entering APU in order to make international friends
	It seems fun to speak English with people from around the world

No English needed to make international friends	International students are able to speak Japanese
	Communicating with international students in Japanese
	Having fun with international students without using English

2. Jiro

Category	Concept
Interests in the course content and the content specialists	Wanted to be the content specialist's seminar student
EMI intrinsic motivation	Took cultural studies in English as a challenge
	Enjoyed the group work
Fulfillment of the need for relatedness	Group members were close enough to collaborate for the group presentation
	Built a better relationship with the international students through the group presentation
	Discovered and connected with the personalities of the international students
	Had a good relationship with other members in this group from the beginning
Maintaining self-efficacy	Knowing that the lecture was difficult for everyone helped maintain motivation
	A relief to know everyone struggled with understanding the lectures
Fulfillment of the need for competence	A sense of accomplishment through group presentation (2)
	Learning was embedded improved by reviewing of the lessons
	Learned a new way of doing group work through the group presentation assignment
Positive feedback on the intervention	Online discussion forums in English fostered reviewing (2)
	Online discussion forums in English raised awareness of the value of reviewing
	Cultural studies was better than the other EMI courses taken in the past
Importance of Japanese TAs	Japanese TAs were approachable and could be asked questions
	Japanese TAs were extremely helpful in EMI
	International TAs were not approachable and could not be asked questions

Self-reflection on the group presentation	Regret that we put too many sentences in the PowerPoint slides
	Wish the presentation had been more interesting for the audience to listen to

3. Kai

Categories	Concepts
Initial EMI intrinsic motivation	A desire to take EMI based on one's interest before graduating
	An initial desire to enjoy cultural studies
Dissatisfaction of the need for competence	Taking Cultural Studies reinforced difficulties in learning in English
	Challenging vocabulary
	Self-awareness of low performance when taking the midterm exam
	Had anxiety due to not being able to understand what was going on in class
	Did not understand the course contents during the first half of the course
	Applying conceptual learning in exercises was a challenge
Fulfillment of the need for competence	Course content seemed approachable
	It was easy to follow the lectures due to the lecture style (3)
	Group work fostered an understanding of the lectures
	International students helped understand the lectures
	Understanding of the course content was boosted due to the support of other group members
Fulfillment of the need for relatedness	Liked that everyone talked with a good balance (2)
	Feeling comfortable in a small group (2)
	Liked other members in the group
	Liked that everyone in the group took lessons seriously
	Feeling lucky to have group members who were easy to talk to
	Having a small group was incredibly important in order to avoid being left out
Fulfillment of autonomy and relatedness	Feeling comfortable to have a place to reflect on one's learning in Japanese
	Feeling safe to have a place to share one's anxiety and be vulnerable in Japanese
	Discussion forums in Japanese saved from loneliness and alienation

Fulfillment of the three psychological needs	Supportive group members fostered understanding of the lectures
EMI intrinsic motivation	Enjoyed the class when our understanding of the lectures was boosted
Large class as a barrier to learning	Feeling safe to express one's thoughts only in a small group
	Requiring a presentation from everyone could have fostered more self-study
Strong sense of loneliness in EMI taken before	'Being' a guest in someone else's house
	Feeling alienated by assuming everyone else understood the lecture
	Crying because of strong feelings of loneliness and alienation
	Passive learning behaviors due to 'being' a guest in EMI in the past
	Always talking with Japanese students in EMI courses before in discussions
	Accept loneliness and alienation as a part of EMI
Positive feedback on the intervention	A request for using Japanese discussion forums in other EMI courses
	Positive attitude toward Cultural Studies, where we had opportunities to speak English
Negative attitude toward using Japanese	Japanese language should not be used in EMI because it is unfair to international students
	Students should take EMI preparatory course if they want Japanese as a medium of instruction
EMI as a place to improve English proficiency	Negotiating meanings in group discussions was a great way to practice English (2)
Positive attitude toward using Japanese	The Japanese language should be used to share learning experience and understand students' needs
About a small group	Small group with Korean and Kenyan students

4. Sae

Categories	Concepts
Study abroad experiences	Studied abroad twice
	Studied abroad in New York City to learn English and theater
Confidence in English proficiency	Having enough English proficiency to chat with friends
Taking many EMI courses	Trying to take as many EMI courses as possible
	Already taken enough credits from EMI courses to graduate

Ideal L2 self	Wanting to achieve the same proficiency level of English as Japanese in speaking ability
	Wanting to be a film distributor in an international division
	Wanting to cite high English proficiency when job hunting
Discrepancy between ideal L2 self and present L2 self	Level of English proficiency not high enough to be a competitive advantage
	Level of English proficiency not high enough to be proud of
	Getting a high TOEIC score does not provide me with sufficient confidence in my English proficiency
EMI as a place to practice speaking English	Taking EMI courses to have sufficient English proficiency for business
	Taking many EMI courses to improve English and use as an advantage when job hunting (2)
	Taking many EMI courses to maintain English proficiency after studying abroad
	Taking many EMI courses for opportunities to listen to English
	The first small group experience was excellent because we communicated in English all of the time
	Initial excitement for opportunities to speak in English in the first group
	A desire to have group discussions in English
	Having negative feelings for losing opportunities to speak in English (2)
	Wanting to have a learning environment that forces us to use English in EMI
	Difficult to resist using Japanese when international students want to use it
	Taking EMI courses to determine English proficiency
EMI external regulation	Posting on the discussion forums for bonus points
	EMI courses as prerequisite for graduating
Dissatisfaction of the need for competence	Reading in English was challenging
	Gaining new knowledge in English was challenging
	Earning a poor grade on the mid-term exam due to not being able to understand the lectures
	Text analysis was challenging
	Taking final exam without full understanding of course content

	Did not understand the course content enough to participate the class actively
	Lectures were challenging
	No confidence in understanding the lectures (2)
Importance of TAs	Liked a Japanese TA who answered questions
	A Japanese TA was approachable for asking questions
	Easy to ask questions on online discussion forums in English because of TAs answering the questions not the EMI content specialist (2)
Fulfillment of the need for the relatedness	Studying with other Japanese students when reading the texts
	Developing close relationships to group members through group work
Fulfillment of the need for competence	Other students' posts on online discussion forums in English fostered understanding the course content
Fulfillment of the need for the competence and relatedness	Could catch up with the class content with the support of TAs and other group members (2)
	Being able to ask content and English-related questions to TAs and other group members
Dissatisfaction of the need for autonomy	Wanting to sit with friends and not group members determined by the instructors
EMI intrinsic motivation	Enjoyment of Cultural Studies, which had a lot of group work
	Enjoyment of group work
	Group discussion was fun due to being able to hear different opinions of other members (in the first group) (2)
	Enjoyment of discussion in the first group because everyone was interested in my opinions
About the first small group	The other members were international students who were not fluent in Japanese
	Feeling happy that international students who had little knowledge about Japan were in the first group
About the second small group	Being in a group with students from Korea and Japan
	Vietnamese student was unwilling to sit with the other members of the group
	Half of the communication was in Japanese and half was in English
Negative attitude toward the second small group	Wanting instructors to change the second group

	Wanting to switch the second group due to having too many Japanese speakers
	Feeling disappointed when the small group was changed
Negative feedback on the intervention	Final exam preparatory tutorial session
	Did not use vocabulary sheets because too many words were on the list
Online discussion forums in English fostering self-study	Reading the textbook and notes to post on online discussion forums in English
	Taking 30 to 40 minutes to post on the discussion forums in English
Complaints about functions of the online learning system	Taking too much time to check for a response
	Negative feelings about the online learning system because it was inconvenient
Request for more active use of Japanese in EMI	The Japanese language being beneficial in EMI
	Requesting summary of main points of the lectures in Japanese (5)
	Requesting explanation in Japanese and increasing the speed of the course
	Wanting comprehension check question assignments in Japanese
	Requesting reduction of the pressure to use only English to understand the course content
	Importance of the Japanese language to understand the course content in a short time
	Wanting more help in Japanese in Cultural Studies
	Japanese translation helps with memorizing English vocabulary
	A request for the content specialists to explain technical terms in Japanese
	Wanting to first understand in Japanese to be able to ask questions in English
	Wanting to ask questions related to course content on online discussion forums in Japanese
Complaints about little time to ask questions	Limited class time for asking questions to EMI content specialists and TAs (2)
	Too little time to ask all of the student's questions in class
Low priority of Cultural Studies	Did not volunteer for the presentation assignment due to not wanting to lose time for other courses
	Did not see the value of volunteering for the presentation assignment

Critical attitude towards Cultural Studies	Another course offered by the same content specialist was more fun than Cultural Studies
	Negative feelings toward excessive homework in Cultural Studies (2)
Not interested in course content	Intellectual interests in Cultural Studies not strong enough to voice one's opinions

5. Shun

Categories	Concepts
EMI Intrinsic motivation	An initial desire to take EMI based on one's interest before graduating
	An increase of EMI intrinsic motivation through group discussion
	Excitement through group discussions with international students
	Excitement of gaining new perspectives through group discussions (3)
A shift from EMI intrinsic motivation to EMI external regulation/ EMI external regulation	Posting comments on online discussion forums for bonus points
	A reason of taking Cultural Studies transformed from learning itself to getting credits
Fulfillment of the need for autonomy	Teachers' replies on online discussion forums as a motivator to keep posting one's comments
Fulfillment of the need for competence	International students being an important factor to deepen the learning in EMI
	International students helping one understand the course content with sharing their perspectives
Fulfillment of the need for relatedness	Everyone in a group being friends (3)
	Being assigned into group saved from being isolated
	Small group as a community to belong
Dissatisfaction of the need for competence	Being passive due to not having enough English proficiency in EMI
	Feeling ashamed to voice one's mind due to lack of depth of thoughts
	Feeling inferior to international students who have interesting and deep ideas
Discrepancy between ideal L2 self and present L2 self	Anger at being unable to show one's real abilities in discussions in EMI (4)
	Anger due to not being able to challenge the presentation assignment voluntarily in EMI
	Anger due to not being able to voice one's mind unlike in Japanese

	Wanted to lead group discussions like in discussions in Japanese
	Awareness of shallower ideas and thoughts than its in Japanese
Harsh learning experiences in EMI taken before	Could not join group discussions in EMI taken before
	Dropping out of EMI due to not standing to be out of the loop (2)
	Dropping out of EMI due to not being able to understand the course content
Too busy to focus on EMI	Little self-study time due to busy life (2)
	Lots of assignments to complete from the company, which one was going to work for
	Distracted by sad feelings before graduating from university
EMI as a place to communicate with international students	Excited about group work with international students when registering for Cultural Studies (2)
	Learning in EMI is valuable when there are interactions with international students
	Recognizing the value of learning in English through group work
	Discussions with international students gave an wonderful learning experience
	Do not see the value on EMI when there is no interaction with international students
	Do not see the value on EMI which is one-way lecture style

6. Wakana

Categories	Concepts
EMI to practice/learn English	Taking EMI to maintain one's English proficiency after studying abroad
EMI to communicate with international students	Taking Cultural Studies to interact with international students
	Interactions with international students making EMI interesting
EMI intrinsic motivation	Excitement over gaining new knowledge in Cultural Studies
	Finding text analyses in Cultural Studies interesting
	Finding Cultural Studies fun
	Classes having opportunities to express one's opinions seem interesting
	Learning of different perspectives in group discussions being fun

	Finding EMI interesting when sharing opinions
Fulfillment of the need for competence	Easy vocabulary making lectures easy to understand
	Examples given in the lectures making conceptual learning easy to acquire
	Finding discussions in a small group easy for expressing opinions
	Online discussion forums in English facilitating understanding of the lectures
Fulfillment of the need for relatedness	Group members being friendly and respectful
Fulfillment of the need for autonomy	The feeling of being heard enabling expression of opinions without hesitation
Complaints about a low final grade	Feeling disappointment at getting C as the final grade, which is lower than expected
	Negative feelings toward low evaluation of one's performance
	Rating of one's own performance higher than the final grade
	Complaints about getting a low grade
	A surprise due to a lower final grade than one's expectation
	Getting a grade better than C in the middle of the course
	Frustration of missing an important assignment in class without noticing it
	Wanting attendance to be counted toward the grade (2)
	Wishing to know the tentative grade before the final exam
	A bad grade reducing the desire to take another course from the EMI content specialist
Dissatisfaction of the need for competence	Finding the understanding of English content, which is unfamiliar in Japanese, demanding (3)
	Finding taking notes in English during group discussions challenging
	Fewer voicing of opinions after encountering difficulties to do so in English
	Essays in EMI being worse than those in Japanese
	Taking good notes in group discussions being challenging
	Presenting in English in front of everyone seeming challenging (2)
	Lectures of theories without examples seeming demanding

Big class size a barrier to learning	Not being able to express one's opinions voluntarily in a big class even with preparation
	Not feeling confident enough to join the in-class discussions
Positive feedback on the intervention	Looking at posting a comment on online discussion forums as an opportunity to review notes
	Online discussion forums in English resulting in reviews of the lectures
	Not doing any self-study without online discussion forums in English
	Midterm exam going worse in the absence of online discussion forums in English
	Online discussion forums in English raising awareness on the value of reviews
	Finding student evaluation sessions interesting
Negative feedback on the intervention	Not seeing the value of online discussion forums in Japanese (2)
EMI external regulation	Posting on online discussion forums for bonus points
	Not planning to take any more EMI courses
	Taking EMI only as a prerequisite to graduate
	Coming late since there were no credits for attendance
Positive feedback on Cultural Studies	Finding small quizzes in class beneficial for reviewing the lectures
	Thinking about taking other classes from the EMI content specialist due to clear lectures
Introjected regulation toward study in general	Showing the list of students scoring a GPA of 3.5 or above at the graduation
	Wanting to be on that list to appear cool
	Wanting to study in Japanese Medium Instruction (JMI) to maintain a high GPA
	Getting a better grade being the top priority
Positive attitude toward using Japanese	Japanese language should be used outside of class (2)
	Japanese language could be used at the end of class
Negative attitude toward using Japanese	Using Japanese language in class does not sound right
	Feeling annoyed when a Japanese student speaks in Japanese in class
	Believing that classrooms that allow students to speak in Japanese are not good

	Feeling bad to speak in Japanese in front of international students (2)
Negative attitude toward learning in English	Frustration of not being able to understand everything in English when studying abroad
	Believing that learning in Japanese is more beneficial than EMI
	Believing that EMI hinders a better GPA
	Gaining knowledge in Japanese being more beneficial than EMI
	A strong desire to learn the content of EMI in Japanese
Intent on challenging the presentation assignment	Planning to challenge the presentation assignment voluntarily with international students
	Disconnected with presentation group members
	Loss of motivation due to a disconnect with other members of the presentation assignment
Low motivated learning behavior	Not seeing the need to read the reading assignments because lectures cover the same content (2)
	Not reading the reading assignments
	May not have taken the course if the course required to read the reading assignments
	Not seeing the need to express opinions in class
	Liking lectures that review the reading assignments
	Not being able to spend a lot of time for one course
	Not checking if there was a response on online discussion forums
	Not asking questions on online discussion forums on not getting any notification
Low anxiety toward EMI	Not feeling scared of EMI after studying abroad (2)