ARTICLES

STUDENTS' L1 USE: A STUMBLING BLOCK OR A FACILITATOR IN L2 LEARNING?
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This article explores Japanese university students' use of their first language (L1) in English discussion classes taught by two teachers who share the L1. First, the amount of L1 use in six observed classes was quantified by using a 20-second sampling procedure. Then, turns including Japanese words or phrases were identified and categorized based on various functions: (a) for scaffolded help; (b) for task control; (c) for social purposes; (d) as accidental reactions; (e) as responses to L1 use; and (f) as private speech. The amount of L1 use and its functions were examined in relation to teachers' attitudes toward an English-only policy, which is an institutional requirement. Data from observations and interviews indicated that in general, students were following the English-only rule, in particular, while engaged in Student-Student interactions. The data also revealed the variability in the amount of students' L1 use between the teachers, which ranged from 0% to 14.7%, and this difference seems to have resulted from a contrast in the teachers' interpretations of the language policy and their flexibility in dealing with students' L1 use. Consistent with the findings of previous studies, the L1 played cognitive and social roles in L2 learning, and was most frequently used for social purposes, that is to say, to establish a positive learning environment. Hence, the author argues that before prohibiting any use of L1, teachers should recognize the educational values that L1 holds and decide how much L1 should be accepted, depending on the purpose of the class and the needs of students.

Introduction

Many teachers might intuitively assume that more use of a second language (L2) results in higher proficiency in that language (see Ellis, 1994 for review) and it is a premise on which an English-only policy is based. One of the main theoretical grounds for a monolingual policy is Krashen's (1982) input hypothesis that L2 is acquired by receiving comprehensible input. Among teachers who favor a strict English-only policy, some believe that they should provide students with rich input by using only L2 in the classroom (Ford, 2009). Others understand the English-only environment leads to more negotiation of meaning in L2 (McMillan & Rivers, 2011), which is important for L2 development (Long, 1996).

However, a monolingual approach in the ESL classroom has been criticized as a remnant of the colonial era (Phillipson, 1992), the deprival of "linguistic human rights" (Skutnabb-Kangas, 1999), and social injustice (Auerbach, 1993). Along the lines of these socio-political oppositions, McKay (2012) argues against an English-only policy in EFL contexts. With the spread of English in the world, she calls for reexamining traditional L2 pedagogy, including a monolingual approach, which heavily relies on the native speaker model. Moreover, it has been claimed that the first language (L1) promotes L2 learning by serving pedagogical and social functions in EFL classrooms (Cook, 2001; Fotos, 2001; Levine, 2012). Nevertheless, an English-only policy, often regarded as an essential component of communicative language teaching, has been widely adopted in various contexts (McMillan & Rivers, 2011). There appears to be a conflict between following an English-only policy and acknowledging certain roles L1 plays in the L2 classrooms.

This paper is focused on how and when L1 is used in EFL classrooms in a Japanese university program, where an English-only policy has been institutionally required and how Japanese teachers react to their students' use of their L1. I first introduce previous studies which analyzed the amount of L1 use, and then review existing research on the functions of L1 use. The literature review is followed by a description of this study conducted in an English discussion program. Students' L1 use is quantified and its functions are analyzed based on Anton and DiCamilla's (1999) framework.

Literature review

The amount of L1 use

In the literature concerning students' language choices, several researchers have attempted to quantify the amount of L1 use during communicative tasks (Leeming, 2011; Storch & Aldosari, 2010; Swain & Lapkin, 2000). Swain and Lapkin (2000) examined 22 dyads of French immersion students as they engaged in either a jigsaw or a dictogloss task, which required the students to collaborate on a piece of writing. About 25% of the total turns in the two tasks involved the L1. Based on the language and content ratings of the writing, the researchers distinguished high and low performing pairs and on average, higher performing pairs produced fewer L1 spoken turns than the weaker ones. Similarly, Storch and Aldosari (2010) investigated 15 pairs of college students with different proficiency in a Saudi Arabian context, where pair work is seldom used. The authors concluded that the participants appeared clearly aware that they should not use L1 in L2 classes and that this partly explained their infrequent use of L1, with L1 turns accounting for 16% of the total turns. Compared to these studies, Leeming (2011) conducted a smaller-scale study with four

Japanese high school students. He found that the variability in L1 use between two dyads ranged from 8% to 38%. Analyzing the interview data with his participants, he attributed the difference to contextual factors such as the classroom atmosphere and the attitude of the interlocutor. All three studies above have provided evidence that L1 was used in L2 classrooms to a limited degree, but none of them have indicated clearly at which point L1 use becomes excessive and unacceptable. For Swain and Lapkin (2000), it is not just what percentage of L1 is used, but how the L1 is used that matters, and I thus review functions that L1 serves in the next section.

Functions of L1

Among a growing number of studies on the function of L1 in language classrooms, I introduce four studies which are particularly relevant (Anton & DiCamilla, 1999; Leeming, 2011; Storch & Aldosari, 2010; Swain & Lapkin, 2000). Based on a Vygotskian sociocultural framework, in which language is understood as a tool for thought (Lantolf & Appel, 1994), Anton and DiCamilla (1999) investigated the use of the L1 in the discourse of collaborative dialog of Spanish learners and showed three critical roles of the L1 in L2 writing tasks. First, the L1 was used for scaffolded help: a student helped another to do a task that they could not do independently. For example, students engaged in collaborative writing used the L1 to seek help in accessing lexical items. Second, the L1 served social functions. Using the L1, the students established a degree of "intersubjectivity", a shared perspective on the task. The researchers argued that this resulted in a positive working environment that facilitated task completion. Third, the students used the L1 in private speech to control their cognitive processes. The researchers concluded that L1 use was beneficial for language learning, as it enabled the learners to construct effective collaborative dialog for successful task completion.

The findings of Anton and DiCamillar (1999) are consistent with those of three subsequent studies. Swain and Lapkin (2000) found that the L1 was used most frequently for task management, followed by vocabulary search. Of the students' L1 turns, which consisted of about 25% of the total turns, only 12% was off-task. The researchers argued that the rest of their L1 use played important cognitive and social roles and therefore, the L1 should not be prohibited in immersion programs. Echoing this conclusion, Storch and Aldosari (2010) claimed that the restriction of L1 use deprives students of opportunities to use a tool they possess. Modifying Anton and DiCamilla's framework, Leeming (2011) distinguished inter- and intra-psychological speech and then divided the former into four subcategories: scaffolded help, fluency, task control, and social purposes. He hypothesized that excessive use of Japanese could undermine the effectiveness of the task. After examining the data, however, he argued for potential benefits of using L1 in assisting learners as they work on tasks and creating a collaborative environment crucial to successful interactions.

To sum up, the above studies have shown that in most cases, L1 was not used due to laziness or off-task behavior as some are concerned (McMillan & Rivers, 2011), but that it helped students in various ways: to understand task requirements, to focus on vocabulary, and to establish their collaboration. For this reason, all three studies argue that "judicious" (Swain & Lapkin, 2000) L1 use can support L2 learning. Despite some insights that the studies have provided, none of them have included teachers' reactions to L1 use because

their main focus was to examine L1 use in pairs or small groups of students involved in language learning tasks. A limited number of studies on teachers' beliefs have shown that teachers have mixed attitudes toward English-only rules (Ford, 2009; McMillan & Rivers, 2011). As Leeming (2011) pointed out, students' L1 use is subject to contextual factors such as their interlocutor and the classroom atmosphere. In addition, teachers' approaches toward a monolingual rule can influence students' L1 use. To address the gap, the present study investigates the amount and functions of L1 use in relation to teachers' approaches toward an English-only rule. The research questions are as follows:

1. How much L1 is used in English discussion classes at a Japanese university?
2. What functions does L1 use serve?
3. How do teachers' approaches to an English-only policy influence the amount and functions of L1 use?

Methodology

Context
The present study was conducted in an English discussion program at a large private university in Tokyo. This program is offered as part of compulsory education for first-year students. At the beginning of the academic year, the students are divided into four levels based on their TOEIC scores: levels 1, 2, 3, and 4 indicate advanced, intermediate, low-intermediate, and pre-intermediate. The estimated TOEIC score of level 3 students is from 450 to 550. To maximize talking time, there is an average of eight students per class. The class meets once a week for 90 minutes over the course of 14 weeks during a semester. The classes are taught by about 40 instructors. In this program, consistency of teaching under a unified syllabus is promoted and instructors are expected to follow certain classroom procedures and rules, including an English-only policy, which is explicitly written in a student handbook.

The main goal of the course is for students to participate actively in discussions, using grammatical and lexical knowledge they have accumulated through six years of English education in secondary school. Accordingly, the teaching focus is developing fluency rather than accuracy. As communication strategies, students learn how to ask for help when they do not know a word ("How do you say … in English?") and to ask for clarification requests ("Sorry, but I don't understand.").

Participants
At the outset of the study, there were eight Japanese instructors in the program. Among three relatively new teachers, Kaori and Akira (pseudonyms) were first contacted because informal talks with the teachers had revealed their different approaches toward the English-only policy. Kaori was tolerant of the students' L1 use, while Akira strictly adopted the English-only rule. Both teachers agreed to participate in the study. Kaori and Akira are M.A. holders in TESOL from an overseas university. Before joining the program in April 2012, Kaori had spent a few years teaching in ESL contexts while Akira had taught in a Japanese elementary school and as an adjunct university English instructor.

Data collection and analysis methods

The teachers shared their observation videos taken in spring and fall semester 2012 and spring semester 2013. As part of teacher development, all instructors are required to videotape one of their classes each semester, in either week 3 or 7. Due to the small class size, the use of such videos was thought to be less intrusive than participatory observation. Six videos were collected to explore how the English-only policy was followed in their classrooms.

Since students' L1 use and their classroom atmosphere are related (Leeming, 2011), I share some background information about each class provided by the teachers (see Table 1). All of Kaori's classes were level 3 (low-intermediate), two of Akira's classes were level 3, and one was level 4 (pre-intermediate).

Table 1. *Background information about the six video-taped classes*

	Semester	Week	Level	Major	Gender ratio
Kaori 1	2012 Spring	Week 3	Level 3	Economics	6 boys & 2 girls
Kaori 2	2012 Fall	Week 3	Level 3	Literature	4 boys & 4 girls
Kaori 3	2013 Spring	Week 7	Level 3	Literature	3 boys & 5 girls
Akira 1	2012 Spring	Week 7	Level 3	Law	6 boys & 2 girls
Akira 2	2012 Fall	Week 3	Level 3	Literature	3 boys & 5 girls
Akira 3	2013 Spring	Week 3	Level 4	Science	8 boys

Kaori reflected on her struggle to teach the first observed class (Kaori 1) as the class was "cheerless with few responses". The students functioned in pairs, but they became sensitive to working as groups, with the number of pauses increasing. Her other observations (Kaori 2 & 3) were the opposite of Kaori 1. The students got along well and the atmosphere was energetic, enlivened more by a couple of talkative boys. Akira said he was lucky to have all of his observations in a congenial atmosphere. In his first class (Akira 1), Akira paid extra attention to one student with the lowest listening comprehension in the group. His "poker face" made it difficult for Akira to judge if he understood. It was only when an activity started that the student asked his partner for clarification of Akira's instructions in L1. In his second class (Akira 2), Akira did not hesitate to adopt an English-only policy, saying there was no need for the students to depend on Japanese at all. Compared to his other level 4 classes, his third class (Akira 3) was higher in terms of their ability to understand instructions and more positive in their attitude toward using only English. Despite a few passive students, the atmosphere of the class was conducive to learning.

The analysis of students' L1 use was conducted in two ways. First, the amount of the students' Japanese use was quantified using a 20-second sampling procedure. Previous studies examining L1/L2 ratios used a variety of unit measurements with each unit ranging from five to fifteen seconds (Duff & Polio, 1990; Macaro, 2001; Polio & Duff, 1994). The smaller the sampling segment is, the more sensitive the measurement becomes to L1 use, and consequently, the more likely it is to reflect the actual quantity of L1 used in the classroom. In this study, however, 20-second segments were used because (a) the main purpose of the 20-second sampling technique was to provide an overall picture of each classroom and (b) this approach was complemented by a finer analysis of the L1 functions the students used. As a unit of analysis, turns were chosen over other units such as A-S

units (Foster, Tonkyn, & Wigglesworth, 2000) because turns are relatively easy to identify (Storch & Aldosari, 2010) and have been used in previous studies (Swain & Lapkin, 2000; Storch & Aldosari, 2010). This study followed the procedure used by Duff and Polio (1990). The moment when the teachers addressed the entire class was considered the start of the class. Every twentieth second from that moment was coded into three categories based on student production:

> (a) L2 turn: the utterance completely in the L2
> (b) L1 turn: the utterance including any L1 words or phrases
> (c) Pause: no speech

Additionally, every twentieth second was coded based on classroom activities with different interaction patterns, which enabled me to calculate the ratio of L1 use in various activities. In the discussion program, teachers conduct lessons systematically; classes begin with a five-minute quiz on reading homework, followed by a fluency activity, the presentation and practice of each week's function, and finally two group discussions. The 90-minute lesson was classified into the following categories at every twentieth second.

> (a) T-S: a Teacher-Student interaction in which teachers provide instructions and feedback
> (b) S-S: a Student-Student interaction in pairs or groups
> (c) Q: a quiz to check students' comprehension of homework reading
> (d) S: an individual activity except for Q such as a reading task or thinking time
> (e) O: any activity that does not fit into the above categories, including moving to change seats.

The 20-second sampling does not capture all the instances of Japanese use or provide information as to how Japanese was used in each context. Therefore, to examine the turns that included Japanese more closely, 30 minutes of each lesson were transcribed and analyzed. The starting point of the 30 minutes was when the teachers gave instructions for the first group discussion. This approach ensured that the data included multiple classroom activities.

Before and after the observations, two semi-structured interviews were carried out with each participant in Japanese. The purpose of the first interview was to explore their beliefs in the English-only policy and how such beliefs have been influenced by their previous experiences of learning and teaching English, as suggested in Borg's (2006) model on teacher cognition. The second interview was a stimulated recall, in which the teachers watched the observation videos, reflected on the lessons, and shared their impression about the classroom atmosphere and students. The interviews were audio-recorded, transcribed, and translated into English by the author with fillers and false starts removed. The participants read and verified the interview scripts.

Findings

This section is divided into two parts: the amount and the functions of L1 use. The two teachers' reactions to and perceptions regarding students' L1 use drawn from the observations and interview data, are also discussed in each section.

Quantity of L1 used

Although the primary focus of this study is students' L1 use, I begin this section by discussing teachers' L1 use briefly because teachers' L1 use might influence students' L1 use (Ford, 2009) or vice versa. All six videos revealed that the teachers strictly followed the English-only rule. Akira did not use Japanese in the classroom; he even interacted with the students in English before and after the class. Kaori used Japanese once in class, when she was role-playing to attract students' attention.

Tables 2 & 3 show the breakdown of language used by students. It should be noted that teachers' turns are not included in the tables. During Teacher-Student interactions, when teachers gave instructions and feedback, students responded quickly and made few long turns, resulting in a considerable number of pauses. The percentage of L1 turns in the total turns (i.e., L1 and L2 turns) is also provided in the tables.

Table 2. *Students' L1 and L2 use in Kaori's classes drawn from the 20-second sampling analysis*

Lesson	Activity	The number of 20-second units	Percentage of L1 turns	L1 turns	L2 turns	Pauses
Kaori 1	T-S	94 (33.3%)	100%	4	0	90
2012 Spring	S-S	159 (56.3%)	9.6%	13	122	24
	Q	12 (4.2%)	0%	0	0	12
	S	4 (1.4%)	100%	1	0	3
	O	13 (4.6%)	100%	3	0	10
	Total	282 (100%)	14.7%	21	122	139
Kaori 2	T-S	65 (23.7%)	100%	5	0	60
2012 Fall	S-S	187 (66.3%)	0.5%	1	186	0
	Q	12 (4.4%)	100%	1	0	11
	S	3 (1.1%)	0%	0	0	3
	O	7 (2.6%)	100%	2	0	5
	Total	274 (100%)	4.6%	9	186	79
Kaori 3	T-S	75 (27.6%)	16.7%	1	5	69
2013 Spring	S-S	176 (64.7%)	3.5%	6	167	3
	Q	11 (4.0%)	100%	1	0	10
	S	2 (0.7%)	0%	0	0	2
	O	8 (2.9%)	100%	5	0	3
	Total	272 (100%)	7.0%	13	172	87

Every twentieth second was coded based on student production: L1 turns, L2 turns, and pauses. It was also coded based on activities: T-S (Teacher-Student), S-S (Student-Student), Q (quiz), S (individual work apart from Q) and O (others). The percentage of each activity in the total activities is in brackets. The number of 20-second units is the sum of L1 turns, L2 turns, and pauses. The percentage of L1 turns in the total turns is also provided.

Table 3. *Students' L1 and L2 use in Akira's classes drawn from the 20-second sampling analysis*

Lesson	Activity	The number of 20-second units	Percentage of L1 turns	L1 turns	L2 turns	Pauses
Akira 1 2012 Spring	T-S	74 (27.1%)	0%	0	5	69
	S-S	173 (63.4%)	0%	0	168	5
	Q	14 (5.1%)	0%	0	0	14
	S	8 (2.9%)	0%	0	0	8
	O	4 (1.5%)	0%	0	0	4
	Total	273 (100%)	0%	0	173	100
Akira 2 2012 Fall	T-S	84 (30.9%)	0%	0	6	78
	S-S	163 (59.9%)	0.0%	1	158	4
	Q	15 (5.5%)	0%	0	0	15
	S	0 (0%)	0%	0	0	0
	O	10 (3.7%)	0%	0	1	9
	Total	272 (100%)	0.0%	1	165	106
Akira 3 2013 Spring	T-S	94 (34.6%)	0%	0	5	89
	S-S	153 (56.3%)	0%	0	135	18
	Q	13 (4.8%)	0%	0	0	13
	S	3 (1.1%)	0%	0	0	3
	O	9 (3.3%)	0%	0	0	9
	Total	272 (100%)	0%	0	140	132

Every twentieth second was coded based on student production: L1 turns, L2 turns, and pauses. It was also coded based on activities: T-S (Teacher-Student), S-S (Student-Student), Q (quiz), S (individual work apart from Q) and O (others). The percentage of each activity in the total activities is in brackets. The number of 20-second units is the sum of L1 turns, L2 turns, and pauses. The percentage of L1 turns in the total turns is also provided.

Overall, a majority of classroom activities were completed in the L2. The most frequent interaction pattern was Student-Student, which accounted for about 60% of the classroom activities and was completed predominantly in the L2. Less than 10% of the turns categorized as Student-Student were in the L1 in all six classes. However, Tables 2 and 3 reveal a considerable range in the percentage of L1 turns, from 0% in Akira 1 and 3, to 14.7% in Kaori 1. The highest ratio of L1 use in Kaori 1 did not seem related to their proficiency so much as the overall class attitude toward discussing in groups. In each observation except for this class, examples of students self-monitoring or checking others' use of Japanese were observed; they took the form of quick self-corrections or explicit warnings ("No Japanese!"). Such students seemed to be constantly aware of the English-only policy, and they made an effort to maintain the rule as active agents while the students in Kaori 1 did not display a positive attitude toward working in groups or to obeying the English-only rule. I did not differentiate L1 turns based on the amount of Japanese each turn contained, but those in Kaori 1 tended to produce, what Storch and Aldosari (2010) called, "total / predominant L1 turns"; when they spoke Japanese, their whole turns were in Japanese or contained more Japanese than English. Kaori described her struggle with this class, saying that after the class, she always reflected on the lesson, wondering why it did not go well (Interview 2, July, 2013).

Even among the five classes with a positive atmosphere, the difference in L1 quantity between Kaori's and Akira's classes still existed. The students in Kaori 2 and 3 used Japanese infrequently in Student-Student interactions, but they used the L1 more often

between activities. For example, they used it immediately after the timer marked the end of a quiz, pair or group work, or when moving to change seats or taking their textbook out of their bag, all of which were categorized as "others". In such cases, Kaori never gave negative feedback, but let the students use Japanese for a while and waited for them to shift back to English again. Kaori's lenient approach can be explained by her belief regarding the English-only policy; for her, small talk in L1 during transitions was acceptable because she thinks that students sometimes deserve 'a break' (Interview 1, December, 2012).

On the other hand, the 20-second sampling technique recorded only one L1 mixed turn for Akira's students. Though the coding system is efficient and useful in providing a broad picture of each lesson (Duff & Polio, 1990), sampling every 20 seconds did not perfectly reflect the actual quantity of L1 used in the classroom. Even in Akira 1 and 3, where no L1 turns were identified with the sampling technique, there were a few Japanese comments which did not happen to fall within every twentieth second. The limitation of this sampling technique is complemented by a more detailed analysis of the transcriptions below. The low proficiency of the level 4 students in Akira 3 did not necessarily lead to a larger amount of L1 use, but more pauses. There were 18 pauses during the Student-Student interactions, slightly higher than that of his other two classes. This result is consistent with Akira's reflection that the students, including the least motivated one, tried to avoid using the L1 so much that they ended up speaking less in class. In contrast to Kaori's lessons, when his students stood up to change seats, they did not chat, which resulted in no L1 use as seen under "others" in Table 3. The observance of the English-only rule in Akira's classes, regardless of the level, was enforced by his strict approach. With constant monitoring, he identified, responded to, and provided feedback on L1 use promptly because he did not want it to become 'habitual' (Interview 1, December, 2014).

L1 functions
Using a turn as a unit of analysis, I quantified and transcribed all instances of Japanese use during 30 minutes of all six videos to examine what functions they served and Table 4 shows the results. First, a typological analysis was conducted based on Leeming's (2011) framework with five categories: (1) for scaffolded help; (2) for task control; (3) for social purposes; (4) as private speech; and (5) to maintain fluency. The fifth was an extra category added to Anton and DiCamilla's (1999) original framework. Several examples of L1 words inserted into English sentences were identified in the present study. Such instances were labeled together under the first category (i.e., for scaffolded help) because it was not possible to conclude that their purpose was to maintain fluency without conducting follow-up interviews with the students (Leeming, 2011). Two new categories, emerging from iterative listening to the videos and reading of the transcripts, were added to the framework: accidental reactions and responses to L1 use initiated by others. One limitation in collecting data was that a single camera did not capture all the utterances clearly, especially when multiple students spoke simultaneously. Some turns were intelligible enough to identify if they contained L1 use, but not clear enough to judge what functions they served. These utterances were categorized as "unintelligible" (see Table 4).

Table 4. *The number of L1 turns for six functions*

	Kaori 1	Kaori 2	Kaori 3	Akira 1	Akira 2	Akira 3	Total
(a) Scaffolded help	3	2	5	0	0	1	11
(b) Task control	7	4	7	0	1	0	19
(c) Social purposes	12	6	19	0	0	1	38
(d) Accidental reactions	0	1	4	0	0	0	5
(e) Responses to others' L1	6	2	7	1	1	0	17
(f) Private speech	1	1	0	1	2	1	6
Unintelligible	3	6	9	0	0	0	18
Total	32	22	51	2	4	3	114

The L1 was used most frequently for social purposes, with over 30% of the total L1 turns (38/114) in this category. The second most used function was for task control (16.7%), followed by responses to L1 use initiated by others (15.0%). Consistent with the findings from the 20-second sampling analysis, there was a noticeable gap between the two teachers. In the six videos, the majority of the total L1 turns (105/114, 92.1%) were produced in Kaori's classes, while only nine examples of L1 use were identified in Akira's classes. Although L1 turns for interactional purposes in Kaori's classes heavily outnumbered those in Akira's, L1 turns for private speech in Kaori's classes were not significantly different from those in Akira's. This indicates that intra-psychological speech in the L1 was neither promoted nor restricted by the teachers' different approaches concerning L1 use.

In the following sections, each category is explained with excerpts of the transcripts. The transcription key for this study (Appendix) was largely based on Leeming (2011), with reference to keys used for conversation analysis (Wong & Waring, 2010). Japanese was romanized according to the Hepburn system and italicized in the excerpts below.

L1 for scaffolded help
This function is used to ask for and provide linguistic items. To compensate for their limited vocabulary and repair communication breakdowns in English, students are encouraged to use various strategies, for example, asking for unknown words (e.g., "How do you say … in English?") or explaining the words using simple English. Nevertheless, it is not uncommon to find L1 use for scaffolded help because the students forget to use the strategy or they do not bother to stop the flow of discussion to ask about lexis. Students also use Japanese words as substitutes for English words. In Excerpt 1, students are practicing using turn-taking phrases. Student B is ready to take his turn, but forgot the phrase to join a discussion and asks for it in L1. Excerpt 2 took place while students were discussing the topic of friendship. Student C, instead of asking for the English words for "*keion sākuru*" (light music club), inserted the words without marked hesitation. Neither of the excerpts was followed by teachers' feedback on their L1 use.

> Excerpt 1 (Kaori 2)
> 1 SA: Does anyone want to comment?
> 2 SB: *Aa…*[raising his right hand to indicate he wants to speak next]
> 3 SB: *nante iun dakke*
>   (how do you say)
> 4 SA: = Can I make a comment /

5   SB: Can I make a comment?

Excerpt 2 (Akira 3)
1   SC: I belong to *keion sākuru* …
          (light music club)
2   SC: *keion .. aa* …
3   SC: I can't play … one person //

L1 as a tool to control the task
Students used Japanese to proceed with tasks and complete them successfully. One example of L1 use for this function was when students tried to encourage one another to use function phrases, on which they were weekly graded. In Excerpt 3, students were instructed to use function phrase cards during discussion. White cards were for joining a discussion (e.g., Can I say something?) while black ones were for asking others to comment (e.g., Does anyone want to comment?). Student E, after giving his opinion, forgot to use a black card to ask others to join the discussion, so Student D was prompting him to use one of the black cards. E's response to the feedback (line 2) was an L1 reaction, whereas L1 use in line 3 was a further push to make E use the function successfully. Kaori, monitoring the interaction carefully, did not interrupt or make any comments, but let the group keep working.

    Excerpt 3 (Kaori 3)
    1   SD: Use black card //
    2   SE: *Aa sokka sokka* //
          (Oh, I see I see)
    3   SD: *Doreka tsukatte* /
          (Use whichever card)

L1 for social purposes
Japanese is often used to establish and maintain a positive learning environment, that is to say, for social purposes. This includes making personal comments on tasks, expressing frustration, joking, and cheering up others. In Kaori's classes, L1 use for this function was frequently observed in a transition from one activity to another, for instance, when students stood up to form two lines for a fluency activity as seen in Excerpt 4. Four boys lined up first and were impatiently waiting for girls to pair up. Student F jokes about the situation in L1, and his classmate chuckles at his words. This also brings a smile to Kaori's face, which can be interpreted as a sign of her recognizing certain values of L1.

    Excerpt 4 (Kaori 2)
    1   SF: *Nanka erabarete ru yōde yada na* //
          (Feel like we're being chosen by girls, I don't like it)
    2   SG: [laughing]
    3   SF: *Nanka orera erabarete ru kanji* //
          (Feel like we're being chosen by girls)

L1 turns categorized into this function were mostly task-related while a few of them were off-topic. Excerpt 5 captured a task-unrelated interaction which occurred between activities, when students changed groups for the final discussion and had just got seated. Student H

noticed a mosquito in the room and shared the information in Japanese. Kaori's lenient approach to the monolingual rule is evidenced in this excerpt; she did not interrupt their L1 interaction, but instead provided an English word, "mosquito" in line 7. This interaction, although it appears to be off-topic, is an example of a collaborative dialog between an expert (Kaori) and novices (students), in which students learn a new word "mosquito" with the help of the teacher.

> Excerpt 5 (Kaori 3)
> 1   SH: *Ka ga iru //*
>   (There's a mosquito)
> 2   SI: *Ka ga iru?*
>   (Is there a mosquito)
> 3   SH: *Asoko asoko /*
>   (There there)
> 4   SI: *Ka ga iru?*
>   (Is there a mosquito)
> 5   SJ, SK [waving their hands to the camera put at the back of the classroom]
> 6   SH: *Kankei nai to omou //*
>   (That's nothing to do with the mosquito)
> 7   T : There's a mosquito?
> 8   SI, SJ, SK: Mosquito=
> 9   SH: = Yes {[nods]} / yes / mosquito //

Accidental reactions

Although students learn how to give English reactions, it is natural that they react in L1, not deliberately but subconsciously or accidentally. Such L1 use, if students have good self-monitoring skills, is normally followed by self-correction as shown in Excerpt 6.

> Excerpt 6 (Kaori 2)
> 1   SL: Can I start?
> 2   SM: *Iiyo iiyo /*
>   (Sure sure)
> 3   SM: Sure //

Responses to L1 used by others

Along with accidental reactions, this is also a new function added to the original framework adopted in Anton and DiCamilla (1999). When students are spoken to by their classmates in the L1, they tend to code-switch quickly, reacting or making a quick comment in Japanese. This function differs from the other functions in that such students would not use Japanese without the L1 prompt. In Excerpt 7, students read a discussion question ("Do you think you are a good friend?") and are having trouble understanding what it means. Student N uses the L1 to clarify the meaning, followed by an agreement by Student O (line 2) and a Japanese reaction by Student P (line 3).

> Excerpt 7 (Kaori 1)
> 1   SN: *Jibun ga iiyatsu ka douka tte koto desho?*
>   (This is asking whether I am a good guy or not, right)
> 2   SO: [nods]

    3   SP: *Un sou*
       (Yes that's right)

Intra-psychological speech

In contrast to the interactional functions above, this is considered as private speech. Students used the L1 as a tool to direct their own thinking especially when engaged in cognitively demanding tasks. There were only six examples of L1 use for this function and they were identified among linguistically weaker students. In Excerpt 8, Student Q is trying to explain which situation is better-suited to emails or face-to-face communication. She starts smoothly (line 1), but struggles to come up with a subordinate clause to complete the sentence.

Excerpt 8 (Akira 1)
    1   SQ: When I ask something /
    2   SQ: *Eeh*, I use /
    3   SQ: *Chigau* … face-to-face is good /
      (I made a mistake)

Discussion and implications

This study investigated how much L1, if any, was used in "English-only" classrooms and what purposes it served in the classrooms. The 20-second sampling analysis found that despite great variability in the amount of L1 use across classes, ranging from 0% (Akira 1 and 3) to 14.7% (Kaori 1), the average percentage of L1 turns in all six classes accounted for only 4.4% of the total turns, which is lower than what previous studies have found (Leeming, 2011; Storch & Aldosari, 2010; Swain & Lapkin, 2000). Similar to the students in Storch and Aldosari (2010), most of the students were aware that they should not use the L1 under the English-only rule. Moreover, as Brooks, Donato, and McGlone (1997) found, repetition of similar activities over time might have contributed to less L1 use than previous studies, especially, for task management. Consistent with the findings of studies on L1 functions (Anton & DiCamilla, 1999; Leeming, 2011; Storch & Aldosari, 2010; Swain & Lapkin, 2000), the L1 played various roles to facilitate, rather than hinder L2 learning. Students used the L1 most frequently to establish and maintain a positive learning environment (i.e. for social purposes) and only a few examples of L1 use for social purposes were off-topic.

Different approaches to the English-only rule

When I analyzed the data from Kaori and Akira, what stood out was a sharp contrast between the instructors in their interpretations of the English-only policy and their flexibility in dealing with students' L1 use. This explains the different amount of L1 use between Kaori's and Akira's classes. As Ford (2009) pointed out, the teachers seem to make decisions about how to adopt an English-only rule based on their beliefs, experiences, and practical consideration.

Both teachers clearly understand the English-only rule, but Kaori regards it as a goal, not a means. Even when her students switched into the L1, she did not give negative feedback because she "can wait until they get ready" to speak English again. If they overused the L1,

she said she would intervene eventually (Interview 1, December, 2012), yet such a situation was not found in her classes. Instead, she provided positive feedback on effective use of strategies, for example, when a student explained a difficult word in simple English without depending on the L1.

On the other hand, Akira does not just aim at the English-only classroom, but implements it from the beginning of the course because he believes it is achievable with any level of students. He did not hesitate to give negative feedback on students' L1 use. For instance, once in the videos, he jokingly warned students about their L1 use by saying "Did I hear any Japanese? Minus point?" In his eyes, two elements are vital in adopting the language policy: giving clear instructions and teaching strategies. With the lowest proficiency group, in particular, he made efforts to simplify his instructions by slowing down his speaking speed and using visual cues. Similarly to Kaori, Akira repeatedly reminded students of the importance of using simple English without using the L1.

What functions are the teachers tolerant of?
With excerpts from the observation videos, I explained six functions L1 served: (1) for scaffolded help; (2) to control the task; (3) for social purposes; (4) as accidental reactions; (5) as responses to others; and (6) as private speech. Despite their different approaches toward students' L1 use, both Kaori and Akira urged them to use various strategies to avoid the L1 for scaffolded help. Kaori is tolerant of L1 use for task control to some degree, saying that students use it not because they are unmotivated but because they actually need it for task completion (Interview 1, December, 2012). Akira's approach is much stricter because with instructions given clearly, he believes that there is no room for L1 use. Kaori is most tolerant of L1 use for social functions, whether they are task-related or not. She let students interact in Japanese briefly between activities, and interestingly, she contributed to further the interaction by smiling (Kaori 2) or giving an English word, as seen in the case where she supplied the word "mosquito" (Kaori 3). Her acceptance of L1 use for these functions led to the highest number of L1 turns occurring in Kaori's classes.

What was common between Kaori and Akira was that they never explicitly forbade students' L1 use for the other three functions (accidental reactions, responses to others, and private speech) in their lessons. From the interview data, it was revealed that Kaori regarded accidental L1 use such as "*wakaranai* (I don't know)" unavoidable, and that similarly, Akira did not worry about students giving reactions in Japanese. L1 use as a response can be partly explained by a Japanese concept of *"awaseru"*, meaning "to fit in with your surroundings" as Leeming (2011) pointed out. He argues that students' choice of language varies depending on their interlocutor and the classroom attitude toward English learning. It is beyond the scope of this study to see whether this concept influenced students' L1 use in the data. However, it seems plausible that even if students successfully keep self-control over their own use of Japanese, when they are spoken to in the L1, often unexpectedly, it might be much more difficult to maintain the English-only rule and they instead reply in the L1. Although neither of the teachers provided feedback on L1 use for these two functions, it was found that L1 turns for reactions and responses to others in Kaori's classes greatly outnumbered those in Akira's. This seems to reflect the degree of tolerance the teachers

show toward L1 use for other functions. The lack of the teachers' attention to L1 use for private speech implies that neither Kaori nor Akira regards it problematic.

In sum, for Kaori, students' L1 use is justifiable as long as it leads to learning and this belief seems to underlie her lenient attitude toward an English-only policy. Her approach resonates with Levine's (2012) argument that L1 should be given a sanctioned place in order to achieve a baseline aim of having student use L2 as richly as possible. Her approach to L1 use, especially for social purposes in Kaori 2 and 3, seemed to contribute to creating a more relaxed classroom atmosphere, which promoted more interactions among learners and, consequently, L2 learning. This is supported by the high percentage of Student-Student interactions in Kaori 2 and 3 (66.3%, 64.7%), which were predominantly conducted in English. This argues against some teachers' concern (Ford, 2009; McMillan & Rivers, 2011) regarding L1 use, that more use of the L1 entails less use of the L2.

For Akira, it is the functions of L1 use that matter in drawing a line between what is acceptable or not. Regardless of students' level, he is strict about L1 use for scaffolded help, task control, and social functions while his approach is relaxed with the other L1 functions.

Pedagogical implications

The current study has illustrated how the Japanese instructors, who taught the same course under a unified syllabus, interpreted an institutionally required language policy and dealt with students' L1 use in the classroom differently. Akira successfully reduced students' L1 use to almost 0%. An English-only classroom was made possible by his strong belief in the policy as well as his teaching techniques: simplified instructions with the help of visual cues, constant monitoring of L1 use, and immediate, consistent feedback on L1 use. He seems to clearly believe that success in following an English-only rule requires efforts both on the side of students and the teacher, and this perception is shared by a participant in Mori's (2004) case study, who is also a proponent of an English-only rule in an ESL setting. Kaori, on the other hand, regards an English-only policy as an end rather than a means and did not give any negative feedback when her students used the L1. As a result, the 20-second sampling analysis captured more L1 turns in Kaori's classes than in Akira's classes. Yet, she was still successful in maximizing Student-Student interactions (more than 60% in Kaori 2 & 3), and having most of them conducted in the target language.

Neither of the approaches seems to have done the learners any harm, so the question remains which approach should be adopted in the classroom. Due to the small-scale of this study, its findings cannot be generalized, and therefore, it is impossible to give a clear answer to the question. However, I argue against adopting an English-only policy uniformly because under a "one-size-fits-all" policy, any L1 use is seen as bad practice on the part of the teacher, or laziness, or even an expression of rebellious attitudes on the side of the students (McMillan & Rivers, 2011). Instead, what this study has found is that L1 plays important roles in L2 learning cognitively and socially. Teachers should neither feel pressured to exclude L1 completely from the classroom nor should they unnecessarily suffer from "a sense of guilt" (Ford, 2009) when they notice students' L1 use.

Another difficult but important question is when teachers recognize values of L1 use in the classroom, how much L1 they should accept. None of the previous studies on the amount of L1 use (Leeming, 2011; Storch & Aldosari, 2010; Swain & Lapkin, 2000) has shown at which point L1 use becomes beneficial or detrimental to L2 learning. In this study, the highest percentage of L1 turns (14.7%) in Kaori 1 did not create a positive learning atmosphere or facilitate Student-Student interactions in English, as evidenced in the high number of pauses, while students' L1 use in Kaori 2 and 3 (4.6% and 7.0%) appears to have. This may be due to various contextual factors such as students' attitudes toward learning English, but it could be suggested that more than 10% of L1 use may not be as beneficial as less than 10% of L1 use in this specific context. It is beyond the scope of this study to establish a guideline for an acceptable level of L1 use, but one way to approach this issue is to admit that language choice should be considered as a continuum and that the target percentage of L2 use should be decided based on student proficiency level and task difficulty. Instead of an English-only rule, McMillan and Rivers (2011) argue for an "English-mainly" policy, under which teachers could allow students to use their L1 selectively. The researchers suggest different targets for L2 use depending on student level (e.g., 85%, 90%, and 95% English for lower-level, intermediate, and higher-level student respectively), although they are not based on empirical evidence.

Conclusion

The present study, which examined the amount of L1 use and its functions in discussion classes taught by two Japanese university instructors, has sought to contribute to the discussion regarding the dilemma teachers might have in following an English-only rule while recognizing critical roles of L1 use as a facilitator of L2 learning. Although both of the teachers aim for an institutional goal of an English-only policy, they take distinctive approaches to the rule. Akira, as a believer in creating an English-only environment, was strict with L1 use related to context: for scaffolded help, task completion, and social functions. In sharp contrast with Akira, Kaori took a more relaxed approach, especially with L1 use for social functions between activities. Her lenient approach appears to have brought about the much higher percentage of L1 use than that in Akira's classes. In Kaori 2 and 3, students' L1 use contributed to creating a relaxed environment, which seemed to have facilitated Student-Student interactions in the L2. This paper takes a position that selective L1 use depending on student levels and needs should facilitate L2 learning and that before prohibiting any use of L1, teachers should first understand when and how L1 is used.

This small-scale study has several limitations. Because of the nature of group discussion in which one turn is often produced concurrently with another and the sound quality of the videos, some L1 turns were enforcedly categorized into "unintelligible". Moreover, data from retrospective interviews with students could have provided their own explanations for their choice of L1 use, without depending too much on the researcher's interpretations (Leeming, 2011). Above all, the biggest limitation is that the study has not provided enough evidence to specify at which point L1 becomes detrimental to L2 learning; this question still remains open and there is need for future research in this respect.

Despite such limitations, this study has provided data to show that students' L1 use did not always result in less L2 use, but served various functions to assist learners to engage in

tasks and discussions effectively in the target language. Some teachers, like Akira, might be perfectly comfortable in taking their rigorous approach to no-Japanese rule, but even under an English-only policy, teachers should be flexible in dealing with students' L1 use because their L1 should not be regarded adversely as a stumbling block. It is vital to acknowledge the educational values that L1 holds and then each teacher, depending on the purpose of the class and the needs of students, should decide how to address students' L1 use.

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Biodata

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Appendix: Transcription Key

(See Leeming, 2011; Wong & Waring, 2010 for original)

//	Final fall
/	Slight fall (indicating more could be said)
?	Final rise
=	Overlap
{[ ]}	Non-lexical phenomenon which overlays the lexical stretch
[ ]	Non-lexical phenomenon which interrupts the lexical stretch
WORD	Japanese
( )	Translation of Japanese
T	Teacher
SA, SB	Identified student