

Challenging Japanese Science Student Stereotypes: Active Classroom Participation in English

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Introduction

Since the 1980's, the Japanese government has been making efforts to shift Japan towards a more globalized society by increasing internationalization through invitations to foreign workers and students (Yonezawa, 2014). The *Global Jinzai* (Global Human Resources) initiative is part of a corresponding effort to domestically prepare Japanese company employees and students with the English language skills needed to meet the challenges of working or studying competitively on the global stage (Brown, 2014; Yonezawa, 2014). In preparation for the 2020 Tokyo Olympics, the Abe government recently announced more aggressive measures targeting English education in order to meet the demands of other globalization efforts (MEXT, 2015). The plan was initiated at the beginning of the 2014 fiscal year and included the introduction of regular English classes into the elementary school curriculum (previously English classes started in junior high school) (MEXT, 2015), since it is well known that earlier foreign language instruction can lead to an increase in language proficiency and retention (Johnson & Newport, 1989; Flege, Yeni-Komishian & Liu, 1999; Kormos & Csizér, 2008; Collier, 1987; Singleton, 1995). Furthermore, there is increased funding for English language education reform such as developing higher quality textbooks and educational materials, and more effective teacher training to improve instructors' skills and enable them to teach fully English-immersive classes (MEXT, 2015). It is anticipated that these efforts will improve Japanese students' English fluency more effectively than previously established measures.

While Japanese university students have had a minimum of six years of compulsory English classes at elementary and high school in Japan (Osterman, 2014), many students are limited particularly in their spoken English abilities. The predominant method of teaching English in Japanese high schools places a high priority on grammar (Hino, 1988; Nishino, 2008) and on exam skills in preparation for the English component of university entrance exams (Nakata, 2011), since it is widely believed that entrance to a prestigious university secures a student's future career opportunities (Sugimura and Shimizu, 2012). University entrance exams do not, as a rule, include a speaking portion, and as a result even high school English classes devote relatively little time to speaking practice or free discussion. In order to be able to engage with the increasingly connected global community envisaged by internationalization initiatives, university students must have a solid grasp of spoken English and be comfortable using it in informal, and academic or research contexts. Some of these skills can be taught in the classroom, and consistent and repeated interaction with fluent English speakers can help in building a sense of comfort in social academic situations. However, one of the major challenges that Japanese students face when enrolled in fully English-immersive courses is difficulty with real-time communication (Wilkinson, 2015), and therefore, students often show reserved behaviour in the foreign language classroom.

Reticence on the part of Asian students in second language classes has often been noted (for example, see Littlewood, 1999; Hadley, 1997; Cheng, 2000), and this tendency is particularly exhibited in Japanese students – communication anxiety among Japanese students in foreign language classes has been well documented (Williams & Andrade, 2008; Tajima, 2002; Yamashiro & McLaughlin, 2001). Horowitz, Horowitz & Cope (1986) proposed that student anxiety, particularly in foreign language classes, can be classified into three main categories: communication apprehension, fear of negative judgment, and test anxiety (p. 127). Communication apprehension has been defined as an uneasiness when faced with either real or expected communication with another person (Horowitz, Horowitz & Cope, 1986). A fear of negative judgment may be defined as apprehension about how one's actions in general are perceived by others in a social

setting. According to Markus & Kitayama (1991), this kind of apprehension is more prevalent in Japanese society. In foreign language classes, students may perceive each class to be an evaluation of their language abilities, and as such frequently feel nervous and stressed (Cutrone, 2009). Students who are apprehensive in foreign language classes may minimize their engagement with others, or withdraw from class activities, both of which prevent them from acquiring competence of the language (Horowitz, Horowitz & Cope, 1986). To help students relieve their foreign language anxieties by building up their confidence in spoken English, a dynamic, yet flexible speaking course designed to accommodate reticent students is desirable.

The University of Tokyo Department of English Language, through the Centre for Global Communication Strategies, has recently developed a compulsory spoken English course for first year undergraduate students in an effort to partially address these issues. The FLuency Oriented Workshop (FLOW) course is a single-term (seven-week) course designed to help students improve their spoken English fluency, particularly in an academic setting. Prior to the FLOW course, the only compulsory immersive English class was an academic writing class – ALESS in the case of science students (Active Learning of English for Science Students) and ALESA for humanities and social science students (Active Learning of English for Students of the Arts). While ALESS and ALESA have been successful at teaching students how to write academic papers, they have not been as successful in encouraging students to speak English more effortlessly. Thus FLOW was introduced as a supplement to these writing courses.

As writing courses, ALESS and ALESA do not have a significant speaking objective. However, as the names of the courses imply, students are expected to participate actively in class. Generally, in terms of a typical writing class the classroom atmosphere is relatively reserved during verbal tasks in English and follows the documented trend that Japanese students tend to be reticent learners in foreign language classes. When planning the FLOW course, the assumption was that similar or higher levels of anxiety could be expected on the part of students, since by its nature speaking is a more socially engaged activity, requiring faster responses and a degree of spontaneity. Difficulties with

encouraging students to speak English in class were predicted and prepared for. However, these predictions turned out to be unfounded. FLOW students, especially those who would typically be reticent in their ALESS or ALESA classes, are far more willing to actively participate in speaking activities. This suggests that the level of active verbal participation in English classes may be more dependent on the nature of the class itself than has been previously recognized.

In this paper, I use a qualitative study to compare classroom cultures in respect of active speaking practices in a number of speaking (FLOW) and academic writing (ALESS) classes I have instructed at the University of Tokyo. Students enrolled in ALESS do not take FLOW in the same semester, and vice versa, and therefore the primary common feature between the two courses in this study is that the students belong to the same cohort, and can provide a comparison of social culture within the classroom. I argue that the learning activities in FLOW counter the kind of reticent student behaviour that is often observed in many foreign language classes at the university level, such as ALESS. This paper is based on qualitative impressions of the classroom and participant observation, and findings may not be applicable to all foreign language classrooms. However, the investigation is aimed at provoking questions about classroom management and activities to encourage greater student verbal communication in class. Firstly, common reasons for Japanese students' reticence and how they influence classroom activeness will be addressed. Second, the techniques and activities used in FLOW to encourage spoken English and how these methods impact active speaking in class will be introduced. The observations in a typical ALESS class with respect to the speaking component will be discussed, followed by comparisons of common speaking activities in both FLOW and ALESS classes. Finally, some strategies for adapting the speaking activities used in FLOW to ALESS to encourage more active verbal participation in class will be proposed. Ultimately, I want to suggest that if provided with optimal opportunities, Japanese science students are capable of rising to the challenge of communicating verbally in English.

Common Reasons Given for Japanese Students' Reti- cence and Classroom Culture: An Overview of the Lit- erature

The relative reticence of Japanese students to actively participate in foreign language classes has been much discussed. Researchers have suggested multiple reasons for the reserved behaviour that is often observed in foreign language classes: language-related issues such as a perceived or actual lack of target language vocabulary, poor pronunciation, and/or incomprehension of class activities (Williams & Andrade, 2008), and personality-related factors, for instance shyness (Yashima, 2002), introversion, or a fear of making mistakes in front of others (Littlewood, 1999; Kitano, 2001; Cutrone, 2009). Kowner (2002) further suggested that students might feel intimidated to speak in foreign language classes if the teacher is non-Japanese, adding that previous interactions with non-Japanese individuals could have resulted in unpleasant outcomes that students may not want to repeat.

Currently, the standard method of teaching in Japan across all subjects is teacher-centred, where it is rare for students to provide input unless called upon (Cutrone, 2009; Sato, 2003). By contrast, foreign language classes at the university level tend to have elements of Western-style pedagogy (Cutrone, 2009) which include student-centred practices and collaborative learning (Park, 2002; Nguyen, Terlouw & Pilot, 2006), and these classes may be taught by instructors who are accustomed to Western-style teaching methods that value frequent verbal communication on the part of students, and creative, individual points of view. The communication apprehension experienced by Japanese students may result simply from being placed in this unusual and uncomfortable situation. Moreover, there are some reports of spillover from oral communication anxiety to a reduction in other forms of active participation, such as writing (Spolsky, 1989).

Whereas active participation in class is valued in many Western-style classrooms, Nozaki (1993) reports that Japanese students generally believe a good student should be observant, obedient, and passive in the classroom. Not surprisingly, these behaviours have especially been observed in many foreign lan-

guage classes at the university level (Helgesen, 1993; King, 2013). Many students are familiar with rote learning and memorization of English (Tinkham & Weinstein-SHR, 1989; Browne & Wada, 2010) due to the typical “grammar-translation” style (Hino, 1988; Nishino, 2008) of English language instruction in secondary schools, and as a result, less emphasis is placed on free discussion. Moreover, there may also be a sense of security in passive learning that affects students’ willingness to participate verbally in foreign language classes at the tertiary level. The reasons for Japanese students’ reticence are complex and likely to be highly intertwined. However, as I try to show below, classroom activities that can be tailored to address communication apprehension issues may be successful in encouraging reserved Japanese students to overcome their anxieties and communicate verbally in English.

Challenging the Japanese Reticent Student Stereotype with FLOW

The FLOW course is a mandatory English speaking class where the aim is to increase the spoken competence of Japanese students in an academic context. Given that this course takes place over seven weeks, the time within which to significantly improve fluency is limited, and therefore, the primary course objectives are instead to provide students with an opportunity to build their confidence and equip them with the necessary tools for autonomous learning through self-reflection activities and in-class exercises. Different instructors have designed different syllabi, but the aims and objectives remain the same. In the iteration of FLOW discussed in this paper, the in-class activities were designed to prepare students for a formal presentation and a debate at the end of the seven-week term. These activities included methods to build a position on a topic, support and defend the position, as well as concede when students are countered with a more persuasive argument. Students also learned how to extend a discussion, critically engage, and disagree with others’ opinions in a way that they may not have previously experienced, even in their native language. The speaking techniques were designed to demonstrate to students that preparedness and repetition are the foundations for learning to speak

more fluently, rather than simply possessing a large vocabulary or perfect pronunciation, attributes that many students have falsely identified as crucial to speak English more effectively.

Initial impressions of the FLOW classroom identified a drastically different atmosphere in comparison to the ALESS classroom – the FLOW environment was more spirited and students interacted with each other predominantly in English, diverging from the stereotype that Japanese students are reticent in foreign language classes. Remarkably, all students participated in the speaking activities, which is in direct contrast to a typical ALESS class where it is common that one or two students would be less willing to engage verbally in English. Additionally, FLOW classes containing high proficiency students were inclined to be more active, as these students were able to comprehend the directions of in-class activities more quickly; carry on discussions to a greater degree; persuade weaker level students to speak; and were less likely to be reticent about contributing in English. As a result, even students predisposed to passive behaviour were drawn into participating which resulted in an active atmosphere in the classroom. Nevertheless, while the social nature of FLOW classrooms tended to be more active than ALESS, there were still a large number of students of lower English proficiency who needed prompting in order to carry on a discussion in English. For some lower proficiency students, inevitably the comfort of using Japanese was too great and they would default back to speaking their native language. In order to limit the chances of reverting to spoken Japanese, classes were conducted with minimal down-time between speaking tasks.

The in-class activities of FLOW centred on two main elements to encourage students to speak in English: (1) repetition of spoken material, and (2) spontaneity of speaking. In general, students were asked to analyze an article or form an opinion on a topic (for example: gender equality in science; bee colony collapse disorder; and factors related to happiness) that was provided as homework during the previous class. Students had one week to become familiar with the topic and to be able to summarize the article within several minutes. In class, in pairs or trios, students would take turns summarizing their viewpoints on the assigned article within a three-minute time frame. Once students finished their first summary, new pairs would be formed and the

task was repeated, with the appointed time decreased by one minute. The task was repeated once again within one minute. All in all, three repetitions of the same task allowed students three chances to talk about the same topic, thereby solidifying the vocabulary they had used while pressuring them to be concise and to focus on the important elements of their speech. These repetitious exercises were designed to make students mindful that preparation (via homework) is key to successful spoken English. The more students practiced with each repetition, the easier it was to speak, which increased their self-confidence, and this helped them understand that their grammatical mistakes or imperfect pronunciation were not a complete hindrance to being understood.

To prepare FLOW students for spontaneous discussion (in the forms of a 'question and answer' (Q&A) session following a presentation and during a formal debate), several activities were designed to solicit instinctive, natural responses. One such activity, 'Arguing about Nonsense', asked students to initially argue about a randomly selected, banal object (for example, a pen versus a cat) with respect to its importance to humanity in a one-minute time frame. Their partner needed to disagree and respond by arguing about the importance of their own banal object. In the second task, students were instructed to refute their partner's argument and continue to argue the importance of their own object. Students then formed new pairs and continued to practice arguing and conceding techniques with little to no preparation time. This particular task took into account repetition and spontaneity to increase spoken fluency. Although this particular task is considered by students to be a non-academic exercise, it provides essential academic skills by forcing students to be adaptive and creative with their responses. Activities that were designed to increase spontaneous speech also developed students' listening skills and challenged their ability to be flexible with their speaking partner's comments in order to concur with or rebut their viewpoints.

Studies have suggested that a student's identity can be confirmed to his or herself through group discussion with peers, and this may make students apprehensive of exhibiting their faults and prejudices (Sugimura & Shimizu, 2011). As a result, expressing an opinion on a topic may be too confronting for some Japa-

nese students, even in their native language. This could be partly due to a lack of vocabulary with which to express their ideas, or rather, a cultural propensity to conform to the majority opinion and not stand out (Sugimura & Mizokami, 2012; Littlewood, 1999). Therefore, certain in-class activities (for example, designing policies and solutions to balance gender equality in science, or increase happiness in Japan) were designed to combat the tendency for some students to resist taking a position on a topic, a similar rationale that led to the implementation of the 'Arguing about Nonsense' activity. During such tasks, groups of three or four students discussed a topic together, decided on a group stance, and created a short presentation describing the group's position. The follow-up activity required students to form new groups and subsequently describe their previous group's position to the new group members. This method alleviated much of the anxiety for students who felt uncomfortable vocalizing their own viewpoints or having to form an initial opinion, and allowed them to report the presentation their previous group had constructed.

Self-reflection journals for second language acquisition are a popular method to highlight weaknesses and strengths for autonomous learning and self-improvement (Matsumoto, 1996; Bray & Harsch, 1996). Studies have indicated that students can increase their fluency in a foreign language by assessing their own shortcomings and devising ways to overcome them (Matsumoto, 1996). The self-reflective assignments in FLOW may be another reason for the greater degree of participation in class compared to ALESS. After each FLOW class, students were asked to submit two-minute videos summarizing and analyzing their performance in class, addressing their English limitations, and reflecting on how often they used Japanese in class and if they thought it was detrimental to building their English fluency. The confessional nature of the self-reflection videos allowed the students to underscore their weak points and discover their strengths, and provided an opportunity for students to pledge their aspirations to achieve more in the following classes. Studies have reported that intrinsically motivated students who have vowed to perform better in classes have demonstrated increases in overall academic performance (Koo & Fishbach, 2008; Afzal, Ali, Khan & Hamid, 2010; Spielmann & Radnofsky, 2001). Valu-

able insight was garnered from reviewing the self-reflection videos: some high proficiency students used the opportunity to critique the effectiveness of in-class activities, thus giving worthwhile feedback that was used to modify certain in-class tasks. Some lower proficiency students had mentioned being envious of high level English speakers, which either motivated them to be more active in the following class, or caused them to confront their own attitudes and inadequacies about speaking English in ways they may not have had previously considered. The self-reflection activities seemed to have played a beneficial role in increasing students' abilities to actively participate in FLOW class while providing them with a method to independently find ways to improve their English skills. First impressions of FLOW have demonstrated that designing English speaking activities to relieve communication anxiety in Japanese students can bring about a positive change in active participation in class.

Classroom Observations in a Typical ALESS Class

ALESS is a course designed to introduce first year science students to academic writing in the IMRaD (Introduction, Methods, Results, and Discussion) format, through instruction in English (Middleton, 2012; Gally, 2011; Mishina, 2015). Depending on the semester, this may be the first fully English-immersive course taken by many students at The University of Tokyo. As the course name suggests, students are expected to take an active role in the classroom – this includes extensive discussion, presenting in small and large groups, planning a project (a scientific experiment) that will become the basis for an extended writing assignment, independently analyzing the linguistic patterns of academic writing and giving peer feedback on writing drafts. Much of this peer feedback occurs in Japanese, as speaking English is not itself a major objective of this writing course, and many students lack the meta-vocabulary necessary to discuss the writing process in English (students are, however required to deliver a final presentation in English at the end of the semester). When students are engaging directly with the teacher (in English), they tend to be passive listeners, and sometimes find it difficult even to seek clarification when they are uncertain.

The causes of this passivity are likely to be many and various. Among the subtle and intricate psychological issues of Japanese students' reticence (for example Yashima, 2002; Littlewood, 1999; Kitano, 2001; Cutrone, 2009; and Kowner 2002), ALESS is also known to be a difficult class, and those who lack confidence in their English (the vast majority) may arrive at the first class merely hoping to survive it rather than use it as a chance to improve. Expectations of difficulty and stress can be self-fulfilling if they cause the kinds of apprehension previously mentioned. In addition, students who are inexperienced with English-immersive courses could be unprepared for the speed and vocabulary used by the instructor, and may expend considerable energy simply trying to comprehend what the instructor is saying, with little energy left for interaction. Furthermore, ALESS classes tend to be loaded with content necessary for writing an IMRaD paper that is worth 50% of the overall grade. As such, some students may intrinsically be strategizing how to divide their efforts in order to pass the course without speaking more English than the minimum requirement that is the final presentation. On the other hand, given that it is a compulsory course, students who are reticent may be so due to the boredom, indifference, lack of motivation, or disengagement that can affect any classroom, foreign language or otherwise. Relatedly, it has been suggested that some Japanese university students use passivity as a strategy for coping with an educational system in which they feel helpless (King, 2012), such as a foreign language class.

ALESS classes are not streamed, and therefore classes tend to have students with a wide range of English abilities. This is particularly so for speaking abilities. It is not unusual for a class to contain a student with very high spoken fluency; who may have lived abroad, or studied at an international school, for example (see Kanno, 2003 for discussion of some of the problems these students face). Returnees who are accustomed to a Western style of teaching may be able to better negotiate the teacher's instructions, volunteer answers, and encourage a more active classroom atmosphere. However, these students often have their own communication anxieties about standing out amongst their peers. They may wish to appear modest about their English ability or not dominate the class by speaking frequently; they could be inherently shy and not want to volunteer answers; they may

feel singled out by other students; and less proficient students may depend heavily on them to answer questions when carrying out group activities or provide translations of the teacher's instructions. Highly proficient students may therefore feel just as reluctant as their less fluent classmates to actively participate in the class, and may additionally constitute an extra source of intimidation for other students.

Reservedness with respect to verbal participation within the ALESS classroom could be partly due to the perception that science is a serious subject and students need to behave accordingly. It has previously been theorized that study of a certain subject, like science, is also a procedure in procuring particular characteristics that define the practitioners of that subject (Krogh & Thomson, 2005). Therefore, aspects of students' identity may be affected when they become educated in science, such as the way they analyze, observe, and perform activities. A study conducted with German high school students surveyed their perspectives of peers who studied science versus languages (Hannover & Kessels, 2004), and a similar study with Dutch students (Taconi & Kessels, 2009) demonstrated that the views of students who preferred science were typically seen as introverted people, and perceived to have specific personality traits that fit their image of scientists: limited in artistic skills, less emotive, but more studious and driven compared to their peers who preferred learning languages (Hannover & Kessels, 2004; Taconi & Kessels, 2009). Furthermore, communication through academic writing tends to differ between arts and science students, and students' written work are apt to conform to the stereotypes whereby science students are more interested in delivering facts as concisely as possible, and arts students concentrate on composing arguments and the logical flow of the paper (North, 2007). These discrepancies could possibly translate into other forms of communication, for example speaking, that may lead to perceived differences between the likelihood of active classroom participation between science and arts students. Combined with the possibility that aspects of Japanese science students' identities might be shaped by the characteristics and requirements of learning and practicing science, at least within the ALESS classroom, students may present an image of earnestness in order to demonstrate how serious they are as science students.

It is plausible that while students may have their own reservations about speaking English in class, the instructor could also be guilty of having preconceived perceptions of, and/or disregarding the students' English abilities. For example, by not demanding English usage during group activities, some students may surmise this as permission to carry out the tasks in Japanese. Additionally, instructors could be overlooking students who are habitually uncommunicative in an effort to decrease the awkwardness of silence, which might result in these students presuming that applying extra effort for English communication is unnecessary if the teacher consistently neglects their input. Furthermore, instructors could be explicitly expressing disappointment when confronted with a subdued classroom, thereby reaffirming and intensifying students' communication anxiety. Students may be led to believe that silence in the classroom is far worse than using Japanese. However, certain tactics such as group work have the effect of increasing the overall activeness of a classroom (Sato, 2003). Unfortunately, in ALESS, a large part of the group activities are conducted in Japanese, until the teacher engages with the students. In general, the only times that ALESS students are required to speak English are during practice and formal presentation activities, and when speaking to the instructor. These teaching strategies may be inadvertently contributing to increased Japanese use in ALESS classes, and any students' related anxiety towards using English. On the other hand, there are occasions when the use of Japanese in ALESS may be better for achieving class goals, such as peer feedback exercises (Allen & Mills, 2013; Allen, 2015). In these exercises, students work in pairs or trios and exchange written sections of their papers to constructively critique one another's written work. Discussions in Japanese are useful in the peer feedback context if students lack the appropriate English vocabulary to provide concise and valuable assessment. Nonetheless, to reinforce spoken English in ALESS, it may be better for teachers to standardize their classroom practices to avoid sending students mixed messages that using Japanese instead of English is permissible.

The high quality ALESS papers that are published in a yearly periodical called *ALESS: A Collection of Student Papers* demonstrate the achievements of the ALESS writing course. Despite the successes of ALESS, students possessing the initia-

tive to speak English in class have previously commented that the number of formal English speaking opportunities in ALESS class was insufficient. As previously mentioned, ALESS classes tend to contain a surplus of activities designed to teach students how to write sections of the IMRaD paper that may not garner the quantity and/or quality of active verbal participation that the instructor seeks. Consequently, FLOW complements and supplements ALESS by providing students the opportunities to practice speaking and to develop increased verbal communication skills.

Crucial Differences Between ALESS and FLOW

The differences between ALESS and FLOW demonstrate how the materials and activities utilized in class influence the classroom atmosphere and the readiness of students to actively participate in English. ALESS is primarily a writing course with a thirteen-week duration, and even in the case of those ALESS students who do become comfortable speaking in English, English speaking activities are loaded towards the end of the semester. Therefore, students can take their time building courage and becoming familiar with speaking English in class. ALESS is also linear, in that students are instructed to communicate about their scientific research in the straightforward IMRaD fashion that is routine in academic scientific presentations. In direct contrast, FLOW is a short and concentrated seven-week course. As an academic discussion class, FLOW is circular, whereby students are taught a variety of skills to supplement spoken discourse that can be drawn upon when necessary. While the FLOW classroom speaking environment is inevitably artificial, it does allow students to practice speaking techniques that are useful for carrying on discussions, agreeing, disagreeing, and conceding, so that these speech patterns may become natural. The speaking skills that students acquire in FLOW are built up cumulatively by multiple speaking activities, whereas in ALESS, the formal speaking task is more of an isolated activity.

In ALESS, the formal speaking activity that is the final presentation, takes place at the end of the semester, and generally requires individual students to give a five to six-minute talk about their research using the IMRaD format, with a subsequent

five to ten-minute Q&A session. Typically, one class period is devoted to introducing the important aspects of successful presentation techniques and creating effective slides, and another class period is used for students to practice their presentations. ALESS students are able to practice one presentation repeatedly and deliver that presentation once for evaluation. On the other hand, the formal group presentation in FLOW, which occurs in week five of the seven-week term, requires groups of three or four students to deliver an eight to ten-minute talk with a ten-minute discussion style Q&A session that follows. The presentation is based on a general topic covered in class (for example, happiness), and groups then decide on a specific aspect to focus on. Students have one week to gather evidence and prepare for their presentation. No extra class time is dedicated to successful presentation techniques, skills, or presentation practice. Cooperative learning is stressed in this situation and FLOW students must interact with each other outside of class in order to engineer a logical and organized presentation. The dynamic social nature of previous classes prepares students to be more communicative with each other during the presentation planning phase. This is contrary to ALESS where students tend to work independently, which may have a fundamental impact on the overall classroom dynamics.

Similarly, the FLOW formal debate at the end of the term provides evidence of the effort students applied to learning discussion techniques in previous classes. Students choose the debate topics and are instructed to bring evidence for a position without knowledge of which side they will be arguing for. The nature of the evidence, the analysis of the evidence, and the manner in which it is used can reflect how well students have prepared for and understood the concept of a debate. During the activity, students are required to critically engage with their opposition's position and evidence in order to refute and provide counterarguments. Afterwards, a Q&A session with minimal preparation time illustrates how well the students can handle a discussion by defending or conceding their position based on the evidence provided. The discussion skills taught in the first half of the course should equip students to function adequately during the debate and Q&A session, therefore providing an overview of how well students were able to understand and

incorporate the previous lessons. On the contrary, the Q&A session of the ALESS final presentation does not usually take on a discussion format, as students often do not have the necessary skills or are unaware of the techniques to lengthen a discussion. It may be plausible that during the ALESS final presentation Q&A sessions, students are so accustomed to the ingrained reticent classroom culture preceding the final presentation activities that they continue to display passivity.

The informal nature of FLOW classes compared to ALESS may just be the suitable type of atmosphere to assuage the communication anxieties felt by some of the students. The contrast in student attitudes with FLOW most likely arises from the fact that students know that the majority of their grade depends upon their speaking ability, whereas in ALESS, the major grade component comes from the written paper. In subsequent terms, students have remarked that the evaluative requirements of ALESS and FLOW are disparate, and actively participating in FLOW classes allows them to realize the benefits of their efforts quicker than in ALESS. Particularly, driven students understand the brevity of the FLOW time frame and, as such, do not tend to squander class time by speaking excessively in Japanese.

While many of the skills to help build English fluency are practiced during in-class activities in FLOW, students who are motivated to practice speaking outside of class have access to speaking tutorials and free discussion opportunities at the Komaba Writers Studio (KWS) (Nakatake, 2013), where bilingual teaching assistants (TAs) are available to engage in discussions with students. The KWS TAs tend to be closer in age to the students themselves, and, therefore, can reduce some of the anxiety of speaking English that may be associated when communicating with the teacher. While the speaking services provided by the KWS inherently have a positive effect on active student participation in FLOW classes, it was originally established to support ALESS students for their academic writing tasks. The KWS can provide assistance with regards to elucidating homework instructions and giving advice on students' academic papers and presentations, with the option of communicating in Japanese. These services are invaluable to the ALESS student by bridging the gap between students and their instructors, but it is possible that they can also serve as a crutch to prolong students' avoid-

ance of speaking English. The varying uses of the KWS again suggest that the different speaking practices of FLOW and ALESS students can be interpreted as the result of the divergent classroom cultures of these two courses.

Initial Student Evaluation of FLOW

To assess students' impressions of FLOW, a questionnaire (Table 1) was developed by the FLOW Program and distributed to students at the end of each seven-week term in the first semester the course was offered. According to responses from 78 students from my classes, there was an overall positive response to the course. Students stated that the fully-immersive English classroom provided them with sufficient listening and speaking opportunities (54%). The vast majority of students surveyed believed they had enough opportunities to speak English in class (91%). The activities that students identified as having a strong positive impact on their acquisition of English discussion skills were weekly discussion exercises in pairs and groups (31%), the formal debate (27%), the 'Arguing about Nonsense' activity (9%), and making presentations (7.5%). Students mentioned gaining valuable discussion and debating skills (23.5%), as well as learning the appropriate language to express their opinions (10%), thinking logically (5%), and gaining confidence in their own English-speaking ability (4%). Although FLOW is a newly developed course, students' initial positive evaluation of the class confirms the importance of developing academic discussion skills in English. Even supposing that some students were unable to

Table 1: FLOW Survey questions given to students at the end of each seven-week term to assess their impressions of the course.

1	Overall, what do you feel was the most positive thing you got out of the class?
2	Which activity (or activities) did you feel helped most in improving your ability to participate in a discussion in English?
3	What kind of support, activities or topics might have made the class more effective?
4	Do you feel you have enough opportunity to speak English during class? If not, what was the reason?
5	Did you go to KWS to practice speaking?

apply the discussion techniques taught in class, they were exposed to 105 minutes of an English-only environment in which to practice listening and speaking – a beneficial opportunity they may not have had outside of FLOW class.

Conclusion

While it is difficult to distinguish the exact factors between ALESS and FLOW that lead to differences observed in classroom atmospheres, it is suggested that incorporating FLOW-like activities into ALESS classes may help to increase the level of student participation. Ultimately, students need to feel comfortable in class to contribute verbally. By blending some of the strategies used in FLOW it may be possible for students in ALESS to challenge the reticent science student stereotype as well. For example, introducing more group activities in ALESS, such as group writing exercises, may help to encourage students to share ideas about writing, increase their exposure to the different vocabulary and opinions of their peers, and supply and receive immediate feedback on their writing skills. Furthermore, repetition exercises can be included to allow students to describe their ALESS experiments in a way that could help to solidify their ideas and methodologies, as well as provide opportunities to use the appropriate scientific language to describe their research. While each ALESS class is already filled with content, one method to reduce the amount of teacher-centred instruction during class time is to incorporate methods of the flipped classroom (Lage, Platt & Treglia, 2000; Enfield, 2013; McLaughlin et al., 2014), whereby the bulk of the theory can be introduced either through video format or readings that students would be required to view or read, respectively, and comprehend prior to attending class. This method frees up class time to allow instructors to approach teaching in a more student-oriented and collaborative learning way to foster greater active participation in classrooms.

The general stereotype of the reticent Japanese student in foreign language classes, which also exists to some degree in ALESS classes, can be successfully challenged when one observes a FLOW class with students belonging to the same cohort. In this study, a small sample of FLOW students in their first semester was observed, and it has been interesting to see

how the FLOW classroom atmosphere has influenced active participation in the ALESS classrooms in the subsequent semester. ALESS instructors have remarked that students are more willing to verbally communicate in English during class, and students seem to be less inhibited to ask for clarification from the instructor. Moreover, after students have experienced FLOW, the use of spoken English in ALESS could be a factor that is enforced by the instructor rather than merely encouraged. On the other hand, some FLOW students in the second semester seem to require more urging from the instructor to participate in class, as they may have become acquainted with the reserved ALESS classroom from their first semester. Further investigations should implement a longitudinal study with students belonging to the same cohort, for example, over the course of their undergraduate degrees, to investigate how FLOW has impacted their use of English and active participation in other courses. Additional studies could examine the influence of living abroad or being familiar with Western-style classrooms on active participation in ALESS and FLOW. Although the initial study that this paper is based on is limited in breadth, the students' early response to FLOW has been positive and thus validates the relevance of the course to their undergraduate program.

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References

- Allen, D. (2015). Personal and procedural factors in peer feedback: A survey study. *Komaba Journal of English Education*, 6, 47–65.
- Allen, D. & Mills, A. (2013). Peer feedback in the academic English classroom: A pilot study. *Komaba Journal of English Education*, 4, 27–51.
- Afzal, H., Ali, I., Khan, M. A. & Hamid, K. (2010). A Study of University Students' Motivation and Its Relationship with Their Academic Performance. *International Journal of Business and Management*, 5(2), 80–88.
- Bray, E. & Harsch, K. (1996). *Using Reflection/Review Journals in Japanese*

- Classrooms*. Japan: Educational Resources Information Center (ERIC).
- Brown, H. G. (2014). Contextual factors driving the growth of undergraduate English-medium instruction programmes at universities in Japan. *The Asian Journal of Applied Linguistics*, 1(1), 50–63.
- Browne, C. M. & Wada, M. (2010). Current Issues in High School English Teaching in Japan: An Exploratory Survey. *Language Culture and Curriculum*, 11(1), 97–112.
- Cheng, X. (2000). Asian students' reticence revisited. *System*, 28(3), 435–446.
- Collier, V. P. (1987). Age and rate of acquisition of second language for academic purposes. *TESOL Quarterly*, 21(4), 617–641.
- Cutrone, P. (2009). Overcoming Japanese EFL learners' fear of speaking. *Language Studies Working Papers*, 1, 55–63.
- Enfield, J. (2013). Looking at the Impact of the Flipped Classroom Model of Instruction on Undergraduate Multimedia Students at CSUN. *Tech-Trends*, 57(6), 14–27.
- Flege, J. E., Yeni-Komishian, G. H., & Liu, S. (1999). Age constraints on second-language acquisition. *Journal of Memory and Language*, 41(1), 78–104.
- Gally, T. (2011). Form and Content in a Science Writing Curriculum. *Komaba Journal of English Education*, 2, 95–114.
- Hadley, G. (1997). A survey of cultural influences in Japanese ELT. *Bulletin of Keiwa College*, 6, 61–87.
- Hannover, B., & Kessels, U. (2004). Self-to-self prototype matching as a strategy for making academic choices. Why high school students do not like math and science. *Learning and Instruction*, 14(1), 51–67.
- Helgeson, M. (1993). Dismantling a wall of silence: the "English conversation" class. In Wadden, P. (ed.) *A Handbook for Teaching English at Japanese Colleges and Universities*. New York: Oxford University Press, 37–49.
- Hino, N. (1988). Yakudoku: Japans dominant tradition in foreign language learning. *JALT Journal*, 10(1), 45–55.
- Horwitz, E., Horwitz, M., & Cope, J. (1986). Foreign language classroom anxiety. *Modern Language Journal*, 26, 125–132.
- Johnson, J. S. & Newport, E. L. (1989). Critical period effects in second language learning: The influence of maturational state on the acquisition of English as a second language. *Cognitive Psychology*, 21(1), 60–99.
- Kanno, Y. (2003). *Negotiating bilingual and bicultural identities: Japanese returnees betwixt two worlds*. New Jersey: Lawrence Erlbaum Associates.
- King, J. (2013). Silence in the Second Language Classrooms of Japanese Universities. *Applied Linguistics*, 34(3), 325–343.
- Kitano, K. (2001). Anxiety in the college Japanese language classroom. *The Modern Language Journal*, 85(4), 549–566.
- Koo, M. & Fishbach, A. (2008). Dynamics of Self-Regulation: How (Un)accomplished Goal Actions Affect Motivation. *Journal of Personality and Social Psychology*, 94(2), 183–195.

- Kormos, J. & Csizér, K. (2008). Age-related differences in the motivation of learning English as a foreign language: Attitudes, selves, and motivated learning behavior. *Language Learning*, 58(2), 327–355.
- Kowner, R. (2002). Japanese communication in intercultural encounters: the barrier of status-related behavior. *International Journal of Intercultural Relations*, 26(4), 339–361.
- Krogh, L. B. & Thomsen, P. V. (2005). Studying students' attitudes towards science from a cultural perspective but with a quantitative methodology: border crossing into the physics classroom. *International Journal of Science Education*, 27, 281–302.
- Lage, M. J., Platt, G. J., Treglia, M. (2000). Inverting the Classroom: A Gateway to Creating an Inclusive Learning Environment. *Journal of Economic Education*, 31(1), 30–43.
- Littlewood, W. (1999). Defining and developing autonomy in East Asian contexts. *Applied Linguistics*, 20(1), 71–94.
- Markus, H. R. & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224–253.
- Matsumoto, K. (1996). Helping L2 learners reflect on classroom learning. *ELT Journal*, 50(2), 143–149.
- McLaughlin, J. E., Roth, M. T., Glatt, D. M., Gharkholonarehe, N., Davidson, C. A., Griffin, L. M., Esserman, D. A., Mumper, R. J. (2014). The Flipped Classroom: A Course Redesign to Foster Learning and Engagement in a Health Professions School. *Academic Medicine*, 89(2), 236–243.
- MEXT (Japanese Ministry of Education, Culture, Sports, Science and Technology). (2012). *Higher Education in Japan*. Retrieved from http://www.mext.go.jp/english/highered/_icsFiles/afieldfile/2012/06/19/1302653_1.pdf.
- MEXT (Japanese Ministry of Education, Culture, Sports, Science and Technology). (2015). *English Education Reform Plan corresponding to Globalization*. Retrieved from http://www.mext.go.jp/english/topics/_icsFiles/afieldfile/2014/01/23/1343591_1.pdf.
- Middleton, G. (2012). The Social Role of the ALESS Program: The Place of a Science Writing Class in Undergraduate Education. *Komaba Journal of English Education*, 3, 53–64.
- Mishina, Y. (2015). Simulating the Research Laboratory: Using Science to Teach English in ALESS. *Komaba Journal of English Education*, 6, 67–83.
- Nakata, Y. (2011). Teachers readiness for promoting learner autonomy: A study of Japanese EFL high school teachers. *Teaching and Teacher Education*, 27(5), 900–910.
- Nakatake, M. (2013) Challenges and possibilities in tutorials in a writing center in Japan. *The Language Teacher*, 37(6), 17–20.
- Nguyen, P.-M., Terlouw, C., Pilot, A. (2006). Culturally appropriate pedagogy: the case of group learning in a Confucian Heritage Culture context. *Intercultural Education*, 17(1), 1–19.

- Nishino, T. (2008). Japanese secondary school teachers' beliefs and practices regarding communicative language teaching: An exploratory survey. *JALT Journal*, 30(1), 27–51.
- North, S. (2005). Different values, different skills? A comparison of essay writing by students from arts and science backgrounds. *Studies in Higher Education*, 30(5), 517–533.
- Nozaki, K. (1993). The Japanese student and the foreign teacher. In Wadden, P. (ed.), *A Handbook for Teaching English at Japanese Colleges and Universities*. New York: Oxford University Press, 27–33.
- Osterman, G. L. (2014). Experiences of Japanese University Students Willingness to Speak English in Class. *SAGE Open*, 4(3), 1–13.
- Park, C. C. (2002). Crosscultural Differences in Learning Styles of Secondary English Learners. *Bilingual Research Journal*, 26(2), 443–459.
- Sato, K. (2003). *Improving Our Students' Speaking Skills: Using Selective Error Correction and Group Work To Reduce Anxiety and Encourage Real Communication*. Akita: Educational Resources Information Center (ERIC).
- Singleton, D. (1995). Second Languages in the Primary School: The Age Factor Dimension. *Teanga: The Irish Yearbook of Applied Linguistics*, 15, 155–66.
- Spielmann, G. & Radnofsky, M. L. (2001). Learning Language under Tension: New Directions from a Qualitative Study. *The Modern Language Journal*, 85, 259–278.
- Spolsky, B. (1989). *Conditions for Second Language Learning*. Toronto: Oxford University Press.
- Sugimura, K. & Mizokami, S. (2012). Personal identity in Japan. *New Directions for Child and Adolescent Development*, 138, 123–143
- Sugimura, K. & Shimizu, N. (2011). Identity development in the learning sphere among Japanese first-year university students. *Child Youth Care Forum*, 40, 25–41.
- Taconis, R. & Kessels, U. (2009). How choosing science depends on students' individual fit to science culture. *International Journal of Science Education*, 31(8), 1115–1132.
- Tajima, M. (2002). Motivation, attitude, and anxieties toward learning English as a foreign language: a survey of Japanese university students in Tokyo. *Gengo no Sekai*, 20, 115–155.
- Tinkham, T. & Weistein-SHR, G. (1989). Rote learning, attitudes, and abilities: A comparison of Japanese and American students. *TESOL Quarterly*, 23(4), 695–698.
- Wilkinson, D. (2015). English-Medium Content Courses: Student Approaches and Strategies to Increase Comprehension Levels, *International Journal of Learning, Teaching and Educational Research*, 11(3), 1–16.
- Williams, K. E. & Andrade, M. R. (2008). Foreign language learning anxiety in Japanese EFL university classes: Causes, coping, and locus of control. *Electronic Journal of Foreign Language Teaching*, 5(2), 181–191.
- Yamashiro, A. D. & McLaughlin, J. (2001). Relationships among attitudes,

motivation, anxiety, and English language proficiency in Japanese college students. In Robinson, P., Sawyer, M., & Ross, S. (eds.), *Second Language Research in Japan*. Tokyo: Japan Association for Language Teaching, 112–126.

Yashima, T. (2002). Willingness to communicate in a second language: The Japanese EFL context. *The Modern Language Journal*, 86(1), 54–66.

Yonezawa, A. (2014). Japans challenge of fostering global human resources: Policy debates and practices. *Japan Labor Review*, 11(2), 37–52.