Bloom's Taxonomy Revisited:

Question-Asking in English and Japanese University Students' Face Needs

ブルームのタキソノミー再考

-- 英語による質問から日本人大学生のフェイス（面子）を捉える --

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CHAPTER 1

Introduction

1.1 Background of research

The observation of Japanese university students in an English as a foreign language (EFL) discussion course in 2013 led to this current investigation of Japanese EFL students' question-asking. Initially, discussion guidelines were distributed to promote student interaction in their second language (L2), English. The written guidelines included prompts to encourage students to ask their classmates questions in English. However, instead of forming questions based on the prompts, students read the prompts without asking any questions. Incidentally, as the students were not able to use the discussion guidelines as intended, this served as an informal needs analysis of what these language learners know and what they need to know about asking questions in English.

It has been perceived and understood that the purpose of asking questions is to acquire information (Fitneva, 2012). For that reason, the commonly held assumption is that questions are spontaneously asked by question-askers to fill information gaps. However,

this may not hold true for question-asking in a classroom context. According to Flammer (1981), as questions presuppose some kind of available knowledge, this results in a paradox that "in order to ask what one does not know, one already has to know" (Flammer, 1981, p. 410). In a vocabulary study with fifth-grade Dutch students, van der Meij (1990) found that students with limited prior knowledge produced more global or open questions (i.e. starting with WH-words) than specific, closed questions (i.e. Yes/No questions). The results suggest that limited prior knowledge does not promote student question-asking, which supports Flammer's (1981) position.

Asking questions is an important part of classroom discourse. Teachers' questions have different roles, such as guiding student learning and thinking, and reflecting on the effectiveness of their teaching as well as student learning. According to Graesser and Person (1994), approximately 96 percent of classroom questions come from teachers.

The high frequency of questions from teachers can also be seen in EFL classrooms. Tan (2007) studied teachers' questions in Chinese university EFL classes and found that 91 percent of questions checked comprehension, eight percent elicited student thinking, and one percent was for maintaining discipline. Yes/No questions and other questions where teachers already knew the answer accounted for 87 percent of all

questions. Pham and Hamid (2013) studied beginning EFL teachers in Vietnam and found that most of the questions new teachers asked checked students' understanding of terminology. Furthermore, they found that if a teacher asked poorly formulated questions, students would not understand the teacher's intention, leading to the teacher's face loss.

Educators have had concerns about students' ability to ask self-generated questions. Students' questions are expected to stimulate students cognitively when acquiring knowledge, as well as during creative thinking, problem solving and learning (Dillon, 1998). Despite the benefits, not much has been researched on students' questioning-asking processes. According to Graesser and Person (1994), approximately 92 percent of student questions are basic knowledge level or recall questions, hence requiring "minimal mental activity" (Vogler, 2005, p. 98). As such questions, called low cognitive questions, have only one correct answer (Vogler, 2005), researchers may not consider that students' questions are worthwhile studying. Similarly in Japan, Kusumoto's (2015) study found that in Japanese high schools, the focus of question-asking is on recall level questions (i.e. remember and understand). On the other hand, high cognitive questions refer to questions that require deep thinking and processing beyond basic knowledge or recall questions (King, 1990), as they tap into the cognitive processes, such as application,

analysis, synthesis and evaluation.

Despite the low interest in student question-asking, researchers claim that question-asking can be learned, as it is necessary to improve students' ability to ask relevant questions (Dillon, 1998; Whittaker, 2012). However, students alone may not be responsible for their lack of self-generated questions. Teachers may not be able to recognize good questions because they may not know what good questions are (Morgan & Saxton, 2006). Whittaker (2012) proposes that teachers need to have appropriate question-asking strategies in order to improve students' ability to ask questions.

1.2 Bloom's Taxonomy: A framework to study questions

Bloom's (1956) Taxonomy and the revised Bloom's Taxonomy (Anderson & Krathwohl, 2001) have been widely used as a framework to study student questions. The first reason is that it is one of the most well-known taxonomies (Vogler, 2005) which has been used for over half a century. The second reason is that the more complex cognitive processes in Bloom's Taxonomy (i.e., analyze, evaluate, create) are the basis of high cognitive questions, also known as higher order questions. Questions based on Bloom's Taxonomy have been studied to develop students' high cognitive questions in a variety of classroom contexts (i.e., Alcón, 1993; Ayudaray & Jacobs, 1997; King, 1989, 1990) and to

address the need for question-asking instruction. However, such studies do not elaborate on how to teach high cognitive questions, nor do they provide details on the learning process of question-asking, including the analysis of students' interaction (O'Boyle, 2010).

In Japan, Bloom's Taxonomy has been used to study teachers' critical thinking questions in English language classrooms (Matsuta, Byrd, & Ware, 2001; Sano, 2014; see Section 2.5). However, Japanese students' Bloom's Taxonomy questions in an EFL context has not been studied. For example, the small number of benchmarks in the Japanese version of the Common European Framework of Reference for Languages (CEFR-J) could be a reflection of the lack of student questions. In spoken interaction, Japanese L2 learners are expected to ask and answer simple questions; however, in spoken production, they are only expected to answer questions after a rehearsed speech (CEFR-J, 2012). The limited benchmarks should not imply that question-asking is expected to be acquired spontaneously or that there is little value in teaching question-asking.

1.3 Developments and issues on question-asking research

Dillon (1998) states that students' question-asking has cognitive, behavioral and affective benefits. The cognitive features, which are knowledge and thinking (Dillon, 1998; Morgan & Saxton, 2006), allow students to select information and understand how

people interact with their "material, social, cultural, and mental world" (Flammer, 1981, p. 408). The behavioral features involve social competence, participation, as well as initiating and maintaining relationships as byproducts of students' knowledge, thoughts and feelings (Morgan & Saxton, 2006). Affective features which enhance question-asking include one's motives, beliefs and interests (Dillon, 1998).

Another affective feature related to question-asking is face (Waring, 2012). Since much of the existing body of literature on face research can be traced to communication studies, face has only been mentioned briefly in second language literature. As a result, it is underexplored as its discussion is not empirical but remains experiential.

Efforts have been made to develop surveys and scales to study classroom participation of L1 students and L2 learners. After developing a scale on classroom apprehension participation for US university students, Aitken & Neer (1993) found motivation to be a possible indicator for question-asking. Their findings suggest that it was not classroom apprehension but the lack of motivation which resulted in a lack of students' questions. They suggest strategies such as emphasizing tasks to encourage more questions (rather than the risk of building of social bonds in the classroom). Regarding Japanese university L2 learners' willingness to speak in English, Isoda (2008) developed a scale

which included three factors: low perceived competence to speak English, anxiety, and avoidance of speaking English. He suggests that in order to raise the effectiveness of English instruction, it is important to help reduce the learners' unwillingness to speak in English (Isoda, 2008). In a study on the classroom behavior of L1 Japanese university students, Yokomizo (2012) found that students generally feel resistant towards question-asking in the classroom due to their anxiety to speak in front of others and their desire not to disrupt their relationship with classmates. However, to date, little has been researched in the area which combines speaking in English classes and question-asking in English by Japanese university students.

This brief overview of the existing research on students' question-asking show that there are gaps which need to be filled in order to better understand the broad topic of question-asking instruction to Japanese learners of English. They encompass the following areas: the effectiveness of instruction, understanding the process that language learners undergo when asking self-generated questions in English, and the affective feature of face and language learners' face needs which may interfere when asking questions in English. Japanese university students make good participants for this study as the Ministry of Education, Culture, Sports, Science and Technology (MEXT) has been emphasizing the

development of global human resources, of which one of the core foci is developing university students' English skills. Furthermore, while past research on Bloom's Taxonomy questions were quantitative studies, qualitative aspects of question-asking interaction and face needs can add a new dimension.

1.4 The scope of the current research

This research addresses students' question-asking, its instructional as well as cognitive and social aspects. This dissertation starts with instruction of high cognitive questions or Bloom's Taxonomy questions in English to Japanese university students enrolled in classes taught in English. A variety of data, both quantitative and qualitative, have been collected during the 15-week study. They provide the basis for analyzing the frequency of Bloom's Taxonomy questions the participants ask and the effectiveness of instruction. To understand how participants interact with each other and ask question in English, Vygotsky's (1978) Sociocultural Theory (SCT) is the framework to study group discussions which provide opportunities for a "social learning process" (Brookfield, 2012). Furthermore, data on group discussions and semi-structured interviews are analyzed to explore participants' face needs by employing the face construct by Kerssen-Griep (2001). For this study, this face construct consisting of three types of face needs (i.e., fellowship

face, competence face and autonomy face; see Section 4.3.4) is employed to understand the following: students' question-asking as they interact with each other, and the effect that asking questions has on their face needs.

The purpose of this study is two-fold. The first purpose is to examine whether Japanese university EFL students are able to ask high cognitive questions in English as a result of instruction. The second purpose is to examine whether EFL students' face concerns affects their ability to ask questions in English. The following research questions are addressed:

RQ1: What kind of high cognitive questions in English do Japanese university EFL students ask before and after question-asking instruction?

RQ2: Does question-asking instruction have an effect on Japanese university EFL students' ability to ask high cognitive questions?

RQ3: What is the difference between students with high question-asking apprehension (HA) and low question-asking apprehension (LA) in terms of the questions in English they ask, their interaction during group discussions, and their face needs?

1.5 Outline of dissertation

Chapters 2, 3, and 4 review the literature as they relate to the theoretical framework for this study. Chapter 2 reviews Bloom's Taxonomy and question-asking based on the Taxonomy. The focus on students' asking high cognitive questions with and without strategy training give insight into the effect of question-asking instruction. Chapter 3 introduces Vygotsky's (1978) SCT and related Vygotskian concepts, such as Zone of Proximal Development (ZPD) and Activity Theory (AT). They serve as frameworks from which to study Bloom's Taxonomy questions during group discussions. Chapter 4 reviews the literature on the concepts of face, with a focus on Kerssen-Griep's face needs, as it brings to light the influence that face has when L2 learners ask Bloom's Taxonomy questions in the L2 classroom.

Chapter 5 discusses the participants and the methodology used in this study. This chapter first provides information on the participants and the materials. The materials used for data collection include the EQAS (English Question-Asking Survey), which has been developed to explore participants' face when asking questions in English, and the speaking task to examine participants' question-asking. After presenting quantitative and qualitative methods for data analysis, the chapter concludes with an explanation of how to code and

transcribe the data. Prior to presenting the study results, Chapter 6 provides both quantitative and qualitative results of EQAS based on the data generated from the survey.

Chapter 7 presents the results of the pre- and post-instruction tasks, including the transcription of participants' questions. The results of instruction effectiveness are presented as well. Chapter 8 provides the results and discussion of the case studies with two participants. While both have high motivation towards question-asking, one has low apprehension (LA/HM), and the other, high apprehension (HA/HM). The chapter includes an analysis of their face needs which surface in group discussions and their interviews.

Chapter 9 summarizes the main findings and implications, discusses the limitations of this study and proposes future directions for this research.

CHAPTER 2

Bloom's Taxonomy and students' high cognitive questions

2.1 Introduction

This chapter reviews the literature on high cognitive questions in the classroom based on Bloom's Taxonomy (Bloom, 1956). First, the rationale behind the development of Bloom's Taxonomy and its six cognitive processes are introduced, followed by a description of the revised Bloom's Taxonomy (Anderson & Krathwohl, 2001). After reviewing studies on students' high cognitive questions, with and without strategy training, the importance of teachers' question-asking is highlighted as they can promote students' high cognitive questions.

2.2 Bloom's Taxonomy (1956)

Bloom's Taxonomy (Bloom, 1956) is known as a hierarchy of cognitive processes, or "psychological processes" (Bloom, 1956, p. 33). Originally published in 1956, it was created as a classification of educational objectives on what students are expected to learn after instruction. According to Bloom, the cognitive domain of the

taxonomy is comprised of objectives described in terms of "knowledge, intellectual abilities, and intellectual skills" (Bloom, 1956, p. 3).

2.2.1 The cognitive processes in Bloom's Taxonomy

Bloom's Taxonomy is not a set of questions but consists of descriptions of the learning levels, or six cognitive processes (i.e., Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation) (Bloom, 1956; Krathwohl, 2002; Lord & Baviskar, 2007). The cognitive processes (see Figure 2.1) do not appear to be related to how the "human mind thinks and learns" (Williams & Burden, 1997, p. 13) or the mental processes involved in learning as the term suggests. They do not seem to be empirically-based; rather, their objectives were selected from publications on curriculum and testing, such as the *Higher Education for American Democracy*, a report by the US President's Commission on Higher Education published in 1947 (Bloom, 1956).

The conceptualization of Bloom's Taxonomy is said to represent how cognitive processes progress by level of difficulty. In other words, students must master the cognitive process in the lower level to advance to the next cognitive process. For example, in Knowledge, the first level, students are asked to identify facts or recall what they already know. Questions in this level usually start with question words, such as *what,*

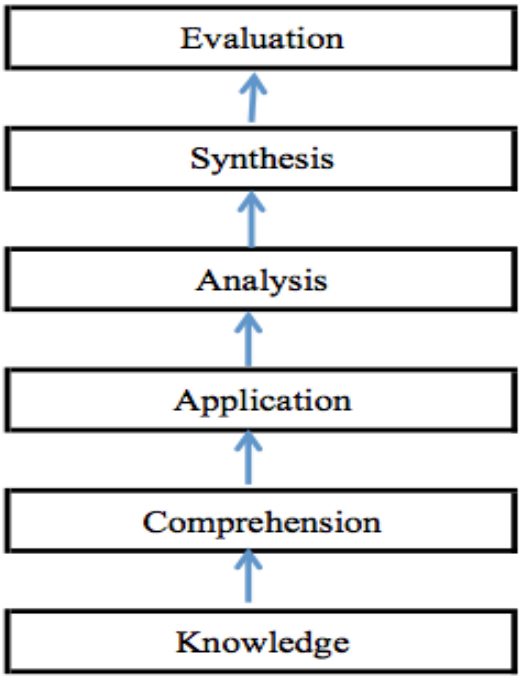

Figure 2.1 Six levels of cognitive processes of Bloom's Taxonomy (1956)

when, where, why, and *who*. Comprehension, the next level, asks students to describe, reword or interpret information they already know from the knowledge level. By doing so, students not only regurgitate what they had memorized but can also explain about what they understand and recall.

Compared to the lower cognitive processes, the other cognitive processes (i.e., Application, Analysis, Synthesis and Evaluation) are said to require higher cognitive processing because they emphasize the "mental processes of organizing and reorganizing material to achieve a particular purpose" (Bloom, 1956, p. 189). While Bloom (1956) classifies Application as a higher cognitive process, there are other interpretations. For example, Anderson and Krathwohl (2001) include Application as a lower cognitive

process, while Walsh and Sattes (2005) include processes from Knowledge to Analysis among the lower cognitive processes. Kinsella (2010), who adapted the Taxonomy, adds Inferencing between Application and Analysis.

Bloom's (1956) higher cognitive processes also describe how knowledge of material or ideas is related to other information. For example, Comprehension is believed to be more cognitively difficult than Knowledge; similarly, Application, more cognitively difficult than Comprehension. In Application, students are asked to apply the concepts they have learned to new situations. While Analysis questions require students to break ideas into parts and understand how they relate to each other, Synthesis questions enable students to create something new from different knowledge and concepts. Finally, by asking Evaluation questions, students make judgments based on criteria and standards.

Bloom's Taxonomy has also been studied from teachers' perspectives. Nakanishi (2012) used Bloom's Taxonomy as a framework to analyze two English language textbooks: one based on content and language integrated learning (CLIL), and the other, a non-CLIL textbook. Nakanishi (2012) concludes that while both textbooks are designed to address CLIL's 4C's framework (i.e., content, communication, cognition and culture; see Coyle, Hood & Marsh, 2010, p. 41), the cognitive load placed on learners' speaking was

lower for the CLIL-based textbook compared to the non-CLIL textbook as the lower cognitive processes were required for teachers' question-asking.

Bloom's Taxonomy has also been employed to teach high cognitive questions to L1 English speakers (King, 1990) and to L2 English learners in Spain (Alcón, 1993) and Singapore (Ayudaray & Jacobs, 1997). While it has also been used to teach critical thinking among college students (King, 1990) and business students (Nentl & Zietlow, 2008), the emphasis on critical thinking has been criticized.

2.2.2 Criticisms of Bloom's Taxonomy

In addition to arguments that Bloom's Taxonomy does not provide the perfect classification of cognitive processes (Graesser, Ozuru & Sullins, 2010), there have been criticisms of it. For example, Booker (2007) argues that Bloom's Taxonomy has been used to "devalue basic skills" (Booker, 2007, p. 348). Booker's concerns were that while the Taxonomy has been designed for higher education, it has been misused in the US educational system in the hopes of developing K-12 students' critical and advanced thinking at the expense of learning basic skills and facts.

While Bloom's Taxonomy may appear comprehensive with its six levels of cognitive processes, Ornell (1974) criticizes the Taxonomy for lacking "imaginative

understanding" (Ornell, 1974, p. 3), which he defines as responses to *"if...then"* (Ornell, 1974, p. 3; italics added) questions. He questions the hierarchy as it may assume a value-system which the Taxonomy imposes, such as one cognitive process being higher than another. By providing an example in literature that "no one seriously disputes that the evaluator (critic) is of considerably lower stature than the creator (writer)" (Ornell, 1974, p. 4), Ornell finds it questionable that the critic's work (i.e., Evaluation) is more advanced than the writer's (i.e., Synthesis). He further asserts that the cognitive processes do not necessarily progress according to the hierarchy but may be blurred. Paul (1985) claims that the Taxonomy is a "one-way hierarchy" (Paul, 1985, p. 37). In addition, Ornell (1974) suggests that it may be more appropriate to implement the Taxonomy in some subject areas, such as history, which is based on knowledge (e.g., Wineburg & Schneider, 2010), rather than mathematics, where the separation between cognitive processes may not apply. The argument about cognitive processes not progressing in the order of the hierarchy was one of the areas reflected in the revised Taxonomy, discussed in the next section.

2.3 The revised Bloom's Taxonomy

The revised Bloom's Taxonomy (Anderson & Krathwohl, 2001) was published in 2001. As there were conceptual changes since the release of the original Bloom's

Taxonomy (1956), efforts to revise the Taxonomy started in the mid-1990s (Anderson, 1999). Discussions were held to rename the cognitive process to verbs because nouns referred to the type of knowledge which each process corresponded to (Anderson, 1999).

One major change was the addition of the knowledge dimension, consisting of factual knowledge, conceptual knowledge, procedural knowledge and metacognitive knowledge (Anderson & Krathwohl, 2001). Factual knowledge refers to basic information students need to know in order to solve problems; conceptual knowledge refers to the relationship between the basic information within a larger context, which make them work together. While procedural knowledge refers to ways to do something, metacognitive knowledge is about cognition and awareness of one's own cognition. Each type of knowledge, matched with the six cognitive processes, was used to assess what students had achieved. Figure 2.2 presents the other change in the revised Taxonomy, which was renaming the cognitive processes. The last two cognitive processes from the original Taxonomy were reversed, putting Evaluate before Create.

Although the writers of the revised Taxonomy do not provide empirical evidence to justify the reversal, Huitt (2011) believes that they are equally complex as Evaluate is similar to critical thinking, while Create is similar to creative thinking.

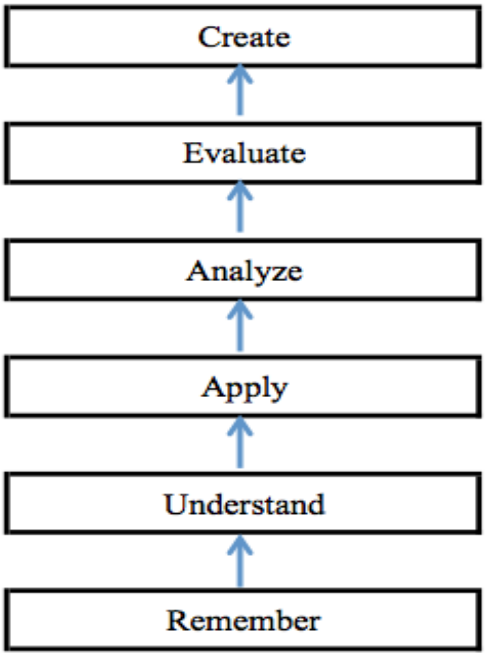

Figure 2.2 Six levels of cognitive processes of the Revised Bloom's Taxonomy (2001)

The revised Taxonomy was published over a decade ago; however, there is ongoing research regarding its effectiveness. For example, the revised Taxonomy has been central to developing the thinking and problem-solving skills in CLIL classrooms where teaching in an additional language is used for both content and language (Coyle et al., 2010). Some studies favor the reversal of Evaluate and Create, which was one of the points of contention in the original Taxonomy. For example, in music education, Hanna (2007) supports its reversal as improvisation, composition and performance are part of Create, the highest process. Furthermore, Miller and Dumford (2014) suggest that deliberate creative processes, such as generating solution and making connections, also take place in the Create level. Despite the criticisms against its use, the cognitive processes from the

original Taxonomy are still being widely promoted for instruction in classrooms (Walsh & Sattes, 2005).

Although the cognitive processes of both the original and revised Bloom's Taxonomy were created for assessment purposes, they have been adapted for instructing student-generated questions. The next section introduces research which has used the original Bloom's Taxonomy to instruct students to develop higher cognitive questions.

2.4 Students' high cognitive questions

This section will address how strategy training can help students' to develop high cognitive questions. Especially noteworthy are studies showing the effectiveness of strategy training on question-asking as elaborated responses are generated by students. While studies do not always employ Bloom's Taxonomy, researchers use different labels for high cognitive and low cognitive questions and provide definitions for them.

2.4.1 Students' high cognitive questions with strategy training

In a study involving US college students, King (1990) conducted research on types of questions (i.e., critical thinking questions and recall questions) which L1 students generated when using a guided reciprocal peer-questioning procedure. The treatment group was trained in question-asking through the use of generic question stems (see Table 2.1),

such as *"How would you use…?" "What is an example of …?"* and *"Explain why…"* The control group did not receive any strategy training. The post-test results show that the number of recall questions asked by the treatment group (*M*=0.31; *SD*=0.48) and control group (*M*=0.39; *SD*=0.65) were similar. However, the number of critical thinking questions the treatment group asked (*M*=1.92; *SD*=1.32) was significantly higher than the control group (*M*=0.08; *SD*=0.28). King (1990) attributes the critical thinking questions to the use of question stems, which influence students' cognitive processing. To support King's (1990) findings, similar results have been found in a replication study with L2 students in Spain (Alcón, 1993) where question stems were used to promote group discussions.

In another study with secondary L2 students in Singapore, Ayudaray and Jacobs (1997) investigated whether teaching strategies in history classes would result in students' asking more higher order questions. The treatment group was instructed to engage in group discussion to prepare for an essay question based on a lecture they had heard; the control group did not receive any question-asking instruction. The questions were recorded and categorized into two types (i.e., recall questions and higher order questions). The results indicate that prior to treatment, both control group (recall, *M*=13.5; *SD*=5.20; higher order,

Table 2.1

Sample sentence stems and their corresponding cognitive processes (Adapted from Alcón, 1993; King, 1990)

COGNITIVE PROCESSES (Bloom, 1956)	SAMPLE SENTENCE STEMS
Application	Explain why …
	What is a possible solution to the problems of…?
	What conclusions can you draw about…?
Analysis	What is the difference between … and…?
	How are … and … similar?
	What are the strengths and weaknesses of…?
	How is … related to …?
Synthesis	What do you think would happen…?
	What do you think will happen if…?
	How does … affect…?
Evaluation	In your opinion, which is better … or …? Why?
	Do you agree or disagree with this statement …?

M=4.0; *SD*=1.63) and treatment group (recall, *M*=14.75; *SD*=4.646; higher order, *M*=4.2; *SD*=2.062) asked a similar number of questions. However, while the control group's post-treatment questions declined (recall, *M*=8.75; *SD*=3.202; higher order, *M*=1.75; *SD*=1.258), the treatment group's questions increased significantly (recall, *M*=38.5; *SD*=13.077; higher order, *M*=14.5; *SD*=6.758).

While these studies were successful, they do not provide details of the treatment. For example, Alcón (1993) has treatment and control groups; however, her study does not

include a pre-test/post-test, which examines the effectiveness of the instructional method by comparing the learners' performance between the two phases. Furthermore, Alcón (1993) does not include the details of the treatment, such as the frequency and length of instruction, and the conditions of the group discussions, such as the duration and the number of students in each group.

In a study from a US college biology course, results indicate that even when students received the same treatment, the number of questions may vary due to different classroom environments. Marbach-Ad and Sokolove (2000) compared the number of high cognitive questions asked by students enrolled in classes with different teaching styles: an active learning class and a traditional lecture class. Based on students' questions, the researchers identified two types of high cognitive questions which synthesize and integrate information. Thoughtful questions resulted from "extended thought and synthesis of prior knowledge and information, often preceded by a summary, a paradox, or something puzzling" (Marbach-Ad and Sokolove, 2000, p. 858). Research questions contain "the kernel of a research hypothesis" (Marbach-Ad and Sokolove, 2000, p. 859). Their study compared the number of questions students asked in homework exercises. While the active learning homework exercises yielded 66 thoughtful questions and 18 research questions

from three assignments, the traditional class generated 48 thoughtful questions and 15 research questions from five homework assignments. Students enrolled in both classes received the same strategy training, which consists of a presentation of a taxonomy and sample questions. However, the classroom environment contributed to the difference in the number of questions, as the active learning class allowed students to use microphones to ask questions, which was an advantage the traditional class did not have.

2.4.2 Students' high cognitive questions without strategy training

There is research that even without question-asking training, students are still capable of asking higher cognitive questions. However, the frequency of higher cognitive questions may depend on the activity they are engaged in.

Chin and Brown (2002) studied L1 students in an eighth grade chemistry class in the US and found the number and types of student questions varied depending on the laboratory activities. The researchers studied two types of questions: basic information questions and wonderment questions. Basic information questions included recall questions and procedural questions, which clarify how a task should be carried out. Wonderment questions required students to synthesize new knowledge to what they know to improve their understanding, as well as "curiosity, puzzlement, skepticism or

speculation" (Chin & Brown, 2002, p. 531).

Six students, who engaged in five hands-on laboratory activities, asked a total of 220 questions, of which 190 were basic questions (86%) and 30 were wonderment questions (14%). The experiment of separating the salt-sand mixture generated 40 basic questions and 17 wonderment questions. However, the boiling point activity generated 61 basic questions but only seven wonderment questions. In analyzing the questions, the researchers found that the first activity was an "open-ended problem-solving activity where no instructions or step-by-step procedure were given" (Chin & Brown, 2002, p. 528). On the other hand, since the second activity was procedural, it was not cognitively challenging. The researchers conclude that it is not enough to provide students opportunities to ask questions, but teachers need to teach strategies to promote student question-asking.

France and Bay (2010) show how types and frequency of student questions change before and after treatment, which was a day-long visit to a science research institute in New Zealand. Three hundred ninety-nine students (ages 16-18) submitted pre-visit questions about what they intended to ask scientists and post-visit questions about what they found interesting during the visit. Their questions were classified as nature of science and science information questions, which asked about "concepts and the practice

of science" (France & Bay, 2010, p. 180), and higher cognitive questions, which dealt with application of science and ethical issues, as well as about how relevant "the culture of science" (France & Bay, 2010, p. 180) was to people's lives. In the first two categories together, post-visit questions were lower than pre-visit questions (77, pre-visit; 68, post-visit). However, in the last two categories together, more questions were asked after the visit (96 pre-visit; 165 post-visit). Although students did not learn strategies for asking questions, researchers believe the visit had an effect on students' questions as they were "enculturated, albeit briefly, within a science research community" (France & Bay, 2010, p. 191), not in a science classroom.

In a Chinese university EFL class, where strategy training was not provided, Tan (2007) warns that students can get into the habit of staying silent in front of the teacher. Tan (2007) expresses concerns that students are discouraged from engaging in deep thinking because they are used to a text-driven instructional style and further states that teachers need to allow students to be responsible for their own learning by encouraging them to think critically. The study has implications on the role of the teacher in the classroom, which needs to change from "knowledge transmitter" (Tan, 2007, p. 100) for students to be able to ask questions.

2.5 Teachers' high cognitive questions

Van Compernolle (2014) reassures that L2 development in the Sociocultural Theoretical perspective (see Chapter 3) means "seeing L2 learners as *people* with diverse histories, emotions and desires, dispositions to and beliefs about language and learning, and complex, dynamic motives for language learning that together shape the qualities of their experiences and outcomes" (van Compernolle, 2014 p. 64, italics in original). If this applies to learners, it should equally apply to teachers, as their teaching starts with their own learning (Swain, Kinnear, & Steinman, 2011).

Albergaria Almeida (2012) suggests that teachers' being able to generate high cognitive questions can result in students' high cognitive questions. She hypothesized that the amount and the kind of information available to teachers could influence the number and type of questions they ask. In an activity for Portuguese school teachers to analyze strategies which promote question-asking, control and treatment groups read the same material, except the treatment group's text had slightly less information. Of all questions asked, the control group generated 22 questions (eight higher-level questions; 14 lower-level questions) and the treatment group, 40 questions (21 higher-level questions; 19 lower-level questions). The results indicate the text with less information demanded the

participants' higher cognitive thinking, which resulted in more questions. While this study suggests that less text can generate more questions, the same strategy does not guarantee that students can generate more questions, as they need to be trained first to ask higher-level questions.

In a similar vein, while teachers may teach their students about the cognitive processes in Bloom's Taxonomy, Matsuta, Byrd and Ware (2001) point out that teaching is not enough. They argue that it is important for teachers to first define the processes and give concrete examples to students, for example, when teaching English learners in a Japanese university. On the other hand, Sano (2014), who interviewed two native-speaking EFL teachers, found that they have different views on asking high cognitive questions to learners in Japanese university EFL classes. While one teacher believes that teachers asking high cognitive questions, based on Bloom's Taxonomy, is effective only for learners who participate, the other believes it is the teacher's job to "craft the questions" (Sano, 2014, p. 39) and scaffold the activity for learners to enhance critical thinking skills.

Lord and Baviskar (2007) warn that college students are expected to recall and recite facts in science courses because of the way professors ask questions to generate lower level answers. They conclude, however, that professors need to challenge students

and the way they think during class sessions by engaging them through inquiry and problem-solving. To sum, it is important that teachers exercise their judgment on selecting which type of strategy would be most effective for their students as strategies which suit teachers may not be appropriate for students (Albergaria Almeida, 2012).

This chapter introduced Bloom's Taxonomy and the cognitive processes. The literature shows the importance of asking high cognitive questions as they promote students' deep thinking. Since asking questions is not an isolated segment in complex interactions, a framework from which to study question-asking interaction would be necessary. The next chapter reviews the literature on Vygotsky's Sociocultural Theory (SCT) as its related concepts can provide the theoretical and analytical framework to study such interactions.

CHAPTER 3

Sociocultural Theory (SCT) and Vygotskian concepts

3.1 Introduction

The purpose of this chapter is to review the literature on Sociocultural Theory (SCT) and Vygotskian concepts as a framework to analyze Bloom's Taxonomy questions during group discussions by L2 learners. SCT and Vygotskian concepts such as Zone of Proximal Development (ZPD) and Activity Theory (AT) provide the theoretical and analytical framework from which to study the question-asking interaction and the complexity involved in a L2 classroom.

3.2 Vygotsky's Sociocultural Theory (SCT)

In the mid-1920s, Russian psychologist Lev Vygostky sought ways to reconcile the notion of the separation of the individual and the social environment. To Vygotsky, the individual and the social were "conceived of as mutually constitutive elements of a single interacting system" (Cole, 1985, p. 148). This led to the conception of the SCT, which posits that one's cognitive development is socially and culturally created.

Vygotsky, who studied children, noted there were two stages in children's cultural development: "*between* people (*interpsychological*) and *inside* the child (*intrapsychological*)" (Vygotsky, 1978, p. 57; italics in original). His ideas of children's development parallel the process of learning a new language, as it entails "acquiring new conceptual knowledge and/or modifying already existing knowledge as a way of re-mediating one's interaction with the world and with one's own psychological functioning" (Lantolf, & Thorne, 2006, p. 5). As van Compernolle (2014) refers to SCT as "a theory of what it means to be a person" (van Compernolle, 2014, p.64), Vygotsky's theoretical perspective on society and social relations is likened to the process of one's learning experience, including trial and error.

3.3 Zone of Proximal Development (ZPD)

As one of the Vygotskian concepts concerning education, the definition of a child's Zone of Proximal Development (ZPD) is *"[T]he distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers"* (Vygotsky, 1978, p. 86, italics in original). The above definition is the "transition from inter- to intrapsychological functioning" (Frawley

& Lantolf, 1985, p. 20), which takes place in the ZPD. There are two levels of development: what learners can perform independently now, what they are capable of doing under the guidance of others, and eventually, on their own (Vygotsky, 1978).

Unlike his contemporaries, who either believed development and learning to be separate, or that development and learning are identical (i.e., one develops to the extent that s/he is instructed), Vygotsky's view synthesized both in that some kinds of development are maturational, while others are based on learning, which "itself is also a developmental process" (Vygotsky, 1978, p. 81). He rejected the notion that development is a requirement for instruction and learning. Rather, in the ZPD, "learning leading development" (Newman & Holzman, 1993, p. 57) takes place through the method of "tool-and-result methodology" (Newman & Holzman, 1993, p. 62), made possible through collaboration between learners and adults or more capable peers.

Newman and Holzman (1993) criticize that the ZPD has been misinterpreted; rather than a tool-and-result, it has become a tool-for-result, using the ZPD "to develop assessment tools, devise curricula and teaching methods, and evaluate classroom practices" (Newman & Holzman, 1993, p. 66). For example, Hedegaard (2005) describes the ZPD as a tool for teaching and evaluating the learning of young children, which was used to make

"a class function actively as a whole through class dialogue, group work, and task solutions" (Hedegaard, 2005, p. 247). Wells (1999) suggests a broadened conception of the ZPD as an interactive space. Kinginger suggests that the different interpretations could be attributed to the ZPD being Vygotsky's "unfinished concept" (Kinginger, 2002, p. 245), which makes the original meaning obscure.

In the context of SLA, the language teacher usually assumes the role of the adult or the more capable other. Children who are incapable of performing a task independently learn to complete the task by interacting with an adult or more capable other who controls the child's cognitive development (Frawley & Lantolf, 1985), referred to as other-regulation. However, by beginning to perform the task independently, the child gradually achieves self-regulation.

Referred to as "the initial study on L2 development in the ZPD" (Lantolf, 2011, p. 29), Aljaafreh and Lantolf (1994) studied the corrective feedback that three university L2 students received during their writing tutorials to explore whether negative feedback would lead to L2 learning. Findings showed that learners' language development was based on other-regulation (i.e., relying on the tutor), or their own self-regulation (i.e., relying on themselves). The data reveal that tutor intervention was gradually reduced, as

learners became less reliant on the tutor, eventually gaining control over their performance, thus, enhancing their writing.

Although studies on ZPD tend to focus on the successes of L2 learning, Ohta (2010) shows its limitations. Ohta (2010) interviewed 17 advanced-level learners of Asian languages after they experienced L2 learning in ZPD with native speaker (NS) interlocutors. Asked about how ZPD is (or is not) related to their language learning, the participants identified several limitations. First, L2 learners found difficulty in retaining the language provided by NS interlocutors. For example, when one learner started a sentence which he did not complete, the NS interlocutor completed it. Consequently, the learner never developed the ability to use the language in this context. This shows that attempted assistance through ZPD does not guarantee that language would be learned, nor that language learning is a linear process (Ohta, 2010). Next, when a student used the strategy of guessing and uttering different words until the NS found the appropriate word, it did not help with the learner's word retention. Also the study reports the learners' inability to handle topics which were too difficult, and over-reliance on NS interlocutors' assistance. What needs to be noted is that the participants were of high proficiency, and for this level, "conversation may seem less helpful as the vocabulary and structures encountered are less

common" (Ohta, 2010, p. 178). Ohta further adds that learners may experience success in communication, but that success might not translate to learning new forms.

3.3.1 Mediation

In Vygotsky's SCT, mediation is a process which serves as a bridge, connecting individuals to a wide range of information which can be learned. Mediation is a key concept, which occurs simultaneously with other SCT concepts such as ZPD (see Section 3.3) and Activity Theory (see Section 3.4). Means of mediation include the use of cultural artifacts, such as language, books, and technology (Lantolf & Thorne, 2006). Examples of means of mediation for language learning include teachers' instruction, textbooks, writing activities, interaction with other learners, and one's L1 (Swain, Kinnear & Steinman, 2011). Nevertheless, they help convert elementary mental functions, such as memory, attention, perception, and thinking (Wertsch, 1985) to higher mental functions. From a SCT perspective, there are cultural, or psychological symbols such as gestures, language and sign systems, which play an important role in mental processes as they mediate activities. Vygotsky also emphasized the importance of signs as precursors of language. He regarded signs as a prerequisite for progress, for without language "no progress and no civilized world would be possible" (van der Veer, 1996, p. 251).

A case in point is Huong (2007) who studied the role of the "more capable peer" (Vygotsky, 1978, p. 86). A study to compare the group-work organization and participation of Vietnamese ESL learners was conducted where one group received help from a knowledgeable senior student and the other group proceeded without help. Findings show that the assisted group stayed on task as the senior student mediated the learners' tasks by explaining, making suggestions and orchestrating the group discussion. On the other hand, the unassisted group had to discover what to do on their own, requiring more time to start the task, which consequently left group participation disorganized. While both groups eventually achieved their task of discussing the assigned topic in English, Huong (2007) acknowledges the role of the senior student as her mediation helped maintain structure to create an environment conducive to learning.

Mediation is not limited to instruction in L2 classrooms. In a content-based science classroom, Gibbons (2003) studies how L2 learners' discourse and academic register were transformed by their teachers' mediated help. By employing a mode continuum, which is conceived in differences between spoken and written language placed on a scale, the activities offered a "developmental sequence of language learning" (Gibbons, 2003, p. 255). To illustrate an example in an experiment using magnets, a

student's utterance, "They stick together," was transformed to "They are attracted to each other" (Gibbons, 2003, p. 258, modified) in academic register. While the participants were initially unable to discuss their science experiment, as they had experienced difficulty in shifting their language for an audience, teachers helped them move along the "continuum toward more writtenlike language" (Gibbons, 2003, p. 256). By starting with what students can understand, teachers extended the students' language for later use, which is the process Gibbons calls the ZPD (see Section 3.3).

According to Lantolf (1994), learners appropriate higher mental functions by performing tasks through the mediated guidance of others, such as parents, siblings, or teachers (Huong, 2007). In the classroom, teachers' explicit instruction may be one of the most widely practiced forms of mediation. However, over time, learners become increasingly responsible for carrying out their own tasks with less mediated help from others. How learners become responsible for their own learning is later elaborated in Activity Theory (see Section 3.3.3).

3.3.2 Scaffolding

In the classroom, SCT and ZPD have been used interchangeably with scaffolding (Wood, Bruner & Ross, 1976), which is a widely-practiced teaching strategy to guide

students in their learning. Originally introduced by psychologist Jerome Bruner, scaffolding is used as a problem-solving process, where an adult assists a child to perform tasks or goals "within the child's range of competence" (Wood et al., 1976, p. 90). Scaffolding refers to temporary help, which "assists learners to move toward new skills, concepts, or levels of understanding" (Gibbons, 2002, p. 10).

With its many interpretations, scaffolding has not been criticism-free. There has been criticism against scaffolding between expert and novice as the scaffolding process "fails to take into consideration the ways in which individual learners contribute to the scaffolding process" (Mascolo, 2005, p. 186). Kinginger (2002) expresses concern over the quality of the instruction through scaffolding, thus, questioning that "they challenge neither the distribution of power in the classroom nor the nature of the desirable developmental outcome of language education" (Kinginger, 2002, p. 254). Furthermore, regarding scaffolding and mediated activities all together, Lantolf argues that "randomly provided mediation is less effective than mediation geared to a learner's ZPD" (Lantolf, 2011, p. 30).

Although scaffolding in the classroom usually involves teachers and students, the following study introduces scaffolding between students. In a study on scaffolding

between peers, Ohta (2000) claims one's development can occur within the ZPD even if peer assistance is not fully available. Ohta (2000) studied two college-level Japanese as a foreign language (JFL) learners in the US, who performed an oral translation task focusing on Japanese grammatical accuracy. Although the male student helped to correct approximately 50 percent of the female student's errors, findings show that all errors did not need to be corrected for her development to occur as she had reached an intrapsychological level where she noticed and corrected her own errors with minimal or no feedback. The results of the study were consistent with how development manifests in ZPD, that "development cannot occur if too much assistance is provided or if a task is too easy" (Ohta, 2000, p. 52). However, another study showed that power struggles between students could result in failed group discussions, which is counterproductive to scaffolding. In Kayi-Aydar's (2013) study of a university L2 class, nine students participated in group scaffolding and student-led discussions which were unsuccessful. The next section discusses Activity Theory (AT), where ZPD can take place, as Swain et al. (2011) suggest.

3.4 Activity Theory (AT)

Vygotsky's original thoughts of activity were that it was "socially meaningful" (Kozulin, 2005, p. 101), which was made through relations with others. His ideas, however,

were not originally based on sociocultural concepts, as he once held that the behaviorist stimulus-response act was central to learning and behavior in both humans and animals (Minick, 2005). Nevertheless, Vygotsky was influenced by the Marxist and Hegelian "social theory of human activity" (Kozulin, 2005, p. 104) and changed his idea from the stimulus-response act to that of a "complex, mediated act" (Vygotsky, 1978, p. 40; see Figure 3.1, left), which included the use of signs and tools. This concept was further developed by Vygotsky's student, Alexei Leontiev, who defined that activity fulfills biological or social needs, such as satisfying hunger or achieving status, driven by one's motive (Lantolf & Thorne, 2006; Swain et al., 2011).

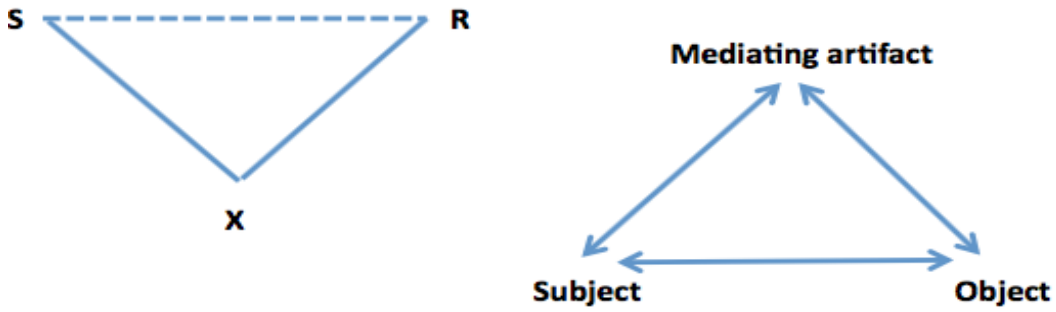

Figure 3.1 Model of mediated act (left) and its reconceptualization (right) (Adapted from Vygotsky, 1978)

According to Gedera (2016), Leontiev asserted that there were three hierarchical levels: activity, actions and operations. Activities consisted of actions, and actions consisted of operations. Leontiev associated activity with motive, or why something was

done. In the next level, action explained what was done, and finally, operation explained how something was done. While the weakness of this model was that the borders between each level could be blurred, the advantage was that there is flexibility between the levels (i.e., activity, action, operation) in order to achieve the object. For example, Leontiev (1981) applies the three levels to learning a foreign language. In the operation level, students learn "to construct speech utterances or organized chains of speech utterances" (Leontiev, 1981, p. 24), while in the action level, language is taught for a different motivation and aim. Finally, the language is taught for communication for students to be able to use context-appropriate speech, which goes beyond using grammatically correct sentences.

Vygotsky's activity model employed a mediational artifact (see Figure 3.1, right); however, a more complex, yet holistic activity system was conceptualized by Engeström (1999). Here, the categories of rules, division of labor, and community between the participants were added to Vygotsky's (1978) model, as they represent the complexities of social practice in a variety of settings where categories interact with each other to achieve an outcome (Lantolf & Thorne, 2006). The illustration of this activity system is what is known as AT (Engeström, 1999; see Figure 3.2). AT provides the framework to

analyze interactions between individual and social activities (Hickey, 1997), which consist of the process between the different categories and product, as realized in the outcome. It should be noted that while Engeström's model of human activity uses the category *instruments* (Engeström, 1999, p. 174) to refer to that which mediates subject and object, others have adopted different labels for the same concept (e.g., *mediational means*, in Lantolf & Thorne, 2006, p. 222, and Swain et al., 2011, p. 102).

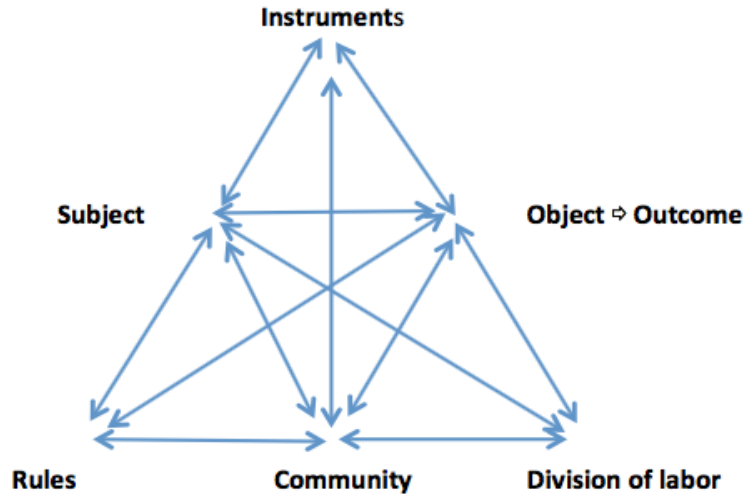

Figure 3.2 Model of human activity (Adapted from Engeström, 1999)

3.4.1 AT and motivation

According to Langford (2005), Vygotsky found that there is no separation between means and end while studying infants. However, by the end of infancy, when the infant starts to separate means and end, "cognition takes up the role of means, while motivation takes on that of determining ends" (Langford, 2005, p. 68). In other words,

motivation (end), not cognition (means), leads their development. As AT posits that social and individual activities are interdependent, psychological characteristics such as motivation are not seen as an individual's characteristic but within the context of the activities (Rueda & Moll, 1994). Furthermore, AT has been applied to individuals and institutions (Swain, et al., 2011).

In education, one of the early studies on motivation from a sociocultural perspective is by Rueda and Moll (1994) on the changes in teachers' instruction, which had a positive influence on Latino students' writing. The study involved 12 junior high school teachers from working class communities in the US, where the concern was the students' low level of English writing due to their lack of motivation. After teachers changed their teaching and started implementing activities in which students wrote about significant issues in their community (i.e., rather than lighter topics, such as friendship), immediate improvement was seen in their writing. Not only was the researchers' purpose to change the process of writing, but also the "*motive* of writing" (Rueda & Moll, 1994, p. 125) as students communicated something meaningful in their writing. Although they do not have an illustrated activity model in their chapter, the overall activity can be analyzed using an AT framework as it touches every category in the two-tiered triangle. The target is to have

students (subject) improve their writing skills (object) through a writing activity "as a tool for communication, and as a tool to elaborate their thinking" (mediated means; Rueda & Moll, 1994, p. 126) about personal experiences (community). The activity involves teachers' instruction and students' independent writing (instruments) with pre-writing discussions and instruction on the mechanics of writing (rules). The motivations were social, as students made connections between "classroom activities and issues of life outside the classroom" (Rueda & Moll, 1994, p. 127) and teachers developed as "*mediators* of learning" (p. 127; italics in original).

The AT model shows how elements in the system can interact with each other to motivate learners' L2 learning. Allen (2010) studied six US college students' motivation to learn French. They were participants in a short-term study-abroad program. By using questionnaires, interviews, and learning logs, the focus of the analysis was on the participants' perceptions of their motives and personal goals. Allen (2010) categorized their motives for L2 learning into social motives (e.g., communication with others), higher-level cognitive motives (e.g., intrinsic motives, such as learning French as an end), and lower-level cognitive motives (e.g., extrinsic motives, such as learning French for a degree). Findings show that compared to those with higher-level cognitive motives, the L2

motivation of participants with lower-level cognitive motives was not enhanced. This could be attributed to the "lack of alignment of motive and goal combined with an inability to achieve meaningful participation in their new community of practice" (Allen, 2010, p.45). Participation in the new community of practices through which learners become "participants in the practices of social communities and constructing identities in relation to these communities" (Wenger, 1998, p. 4) could have been missing from those with lower-level cognitive motives.

3.4.2 AT and contradictions

One of AT's strengths is that contradictions which occur in activities cause imbalance in the system. While contradictions usually imply the presence of disruption in the activity, Kuutti (1996) states that contradictions are perceived to be helpful in developing activity systems. For example, Wells (2002) studied two nine year-old Canadian female students who were engaged in making a model from junk they collected. Their activity consisted of a combination of dialogue and entries in writing logs, intertwined with their dynamics and relationship, of which all served as mediational means to produce the junk model, the object. The two participants' dialogue, according to Wells (2002) "increases individual as well as collective understanding" (Wells, 2002, p.61)

through which the participants appropriate news ways of doing, speaking, negotiating and thinking by taking advantage of their resources. Wells (2002) also emphasizes the importance of analyzing "classroom action-and-interaction" (Wells, 2002, p. 62) and warns not to limit the focus on verbal interaction only as the mediational mean to assess the students' product. This study highlights the flexibility of AT, which encompasses many strengths that cannot be manifest in verbal interactions alone.

Different contradictions or tensions can also occur within the same activity. Swain et al. (2011) recount the narrative of an ESL teacher in Canada who worked with French-Canadians in a corporate setting. When one of her students sent an inquiry by email, checking the connotation of an English phrase, she faced the dilemma of whether answering his question would be helpful for him, or whether she would maintain the asymmetrical power relations which attempt to make the student dependent on her expertise. By illustrating two different AT models, one with the ESL teacher as the subject, and the other with the French-Canadian student, there were elements which interacted with each other in order to achieve their different objects or outcomes. Notwithstanding these contradictions, Swain et al. (2011) suggest that the advantage of AT is that it challenges "the linear cause and effect model of learning centered inside an individual's brain with a

model that positions learning in the varied interactions between individuals" (Swain et al., 2011, p. 111). They also acknowledge that such tensions and contradictions are where "potential change and learning" (Swain et al., 2011, p.105) can occur.

The purpose of this chapter was to review the literature on the Sociocultural Theory (SCT) and Vygotskian concepts, which serve as a framework from which to study L2 classroom interactions. Question-asking interactions, including Bloom's Taxonomy questions can be studied through concepts such as ZPD and AT, as they can help illuminate the learners and their roles in the complex interactions. The following chapter reviews the literature on the concepts of face in language classrooms. After introducing the development of concepts of face, Kerssen-Griep's (2001) concept is elaborated in order to understand language learners' face needs which surface during interactions in the L2.

CHAPTER 4

Face and L2 learners

4.1 Introduction

This chapter reviews the literature on face and L2 learners as their face needs could keep them from asking questions in English. Such face needs may surface when English language learners ask Bloom's Taxonomy questions during interactions. Reviewing the literature on face provides insight on the nature of L2 learners' face in classroom contexts. After introducing concepts by Goffman, by Brown and Levinson, and Chinese face mechanism, three types of face needs in the classroom and face-related behaviors such as shame and silence will be reviewed.

4.2 Concepts of face

Much of the existing body of literature on face can be traced to communication studies from both a Western and Asian perspective, especially concerning Chinese participants.

4.2.1 Goffman's concept of face

Goffman defines face as "the positive social value a person effectively claims for himself," (Goffman, 1967, p. 5) based on the impressions others have. His basic tenet is that interaction is a prerequisite of face, which is valued by both self and others. He asserts that one is said to have face when self-image is consistent with how s/he is perceived by others. On the other hand, Goffman warns that since one's social face is on loan to him/her from society it will be withdrawn if others prove that s/he is unworthy of it.

Based on the "rule of self-respect and the rule of considerateness" (Goffman, 1967, p. 11), one saves his/her own face and that of others. Should one's face be threatened, face-saving actions, or face-work, come into play. Goffman's idea of face-work is that it counteracts face-threatening events and is practiced as long as one does not sacrifice his/her own face or that of others.

Goffman claims that "underneath their differences in culture, people everywhere are the same" (p. 44), thus, implying that human nature and face are similarly universal. Although little of his work has been studied by others as he was a "theorist working in an unexplored area" (Strong, 1988), Brown and Levinson (1978, 1987) attribute their concepts of face to Goffman and share the same concept that face is universal.

4.2.2 Brown and Levinson's politeness strategies

Brown and Levinson's (1978, 1987) politeness strategies are based on the premise that people have basic wants they share and wish to satisfy. They claim that one's basic wants are manifest in face, which consist of negative face and positive face. While positive face refers to one's desire to be "understood, approved of, liked or admired" (Brown & Levinson, 1987, p. 62), negative face refers to one's wants to not be imposed. However, such desires cannot always be satisfied as some actions are intrinsically face-threatening.

Brown and Levinson refer to actions to avoid face-threatening acts (FTA) as politeness strategies. First, the speaker is faced with a choice of doing or not doing the FTA to the hearer. Upon deciding to do the FTA, the speaker decides whether to go *on record*, where the message is conveyed clearly and directly, or *off record*, where the message is communicated indirectly. When going on record, which is face-threatening, one can choose to do the FTA *baldly, without redress*, where the FTA is done in the most direct way, without jeopardizing his/her relationship with the hearer. The alternative is to *take redresssive action*, or to give face to the hearer by counteracting "the potential face damage of the FTA" (Brown & Levinson, 1987, p. 69). Brown and Levinson propose two

ways to give face. First, through positive politeness, the speaker does what needs to be done to satisfy the hearer's positive face, such as behaving in a friendly manner. On the other hand, negative politeness assures that the speaker satisfies the hearer's negative face by not interfering with his/her freedom.

Goffman (1967) and Brown and Levinson (1978, 1987) acknowledge cultural differences as they assert that the concept of face is universal and "has no attraction in a cross-cultural perspective" (Brown & Levinson, 1978, p. 91). Nevertheless, in a study on indirectness and politeness applied to the speech act of requests, Blum-Kulka, Danet and Gerson (1985) found that Israeli society is a positive politeness oriented society in Brown and Levinson's terms. This is because Blum-Kulka et al. (1985) found that requests for action were direct, which could be attributed to social distance between people and impositions considered to be small in Israel. The next section introduces the Chinese concept of face as an example of culture-specific face.

4.2.3 Chinese concepts of face: *miànzi* and *liǎn*

Reviewing Chinese face gives insight on elements missing in Western interpretations of face (Sueda, 2014). *Miànzi* is the prestige or reputation one achieves or a measure of recognition by society (Chang & Holt, 1994), and *liǎn* represents the society's

confidence in one's moral character and integrity (Ho, 1976; Mao, 1994). While loss of *miànzi* is to suffer a loss of reputation due to failure based on group judgment (Mao, 1994), loss of *liǎn* is more damaging to one's *miànzi,* thus making it impossible for one to "function properly within the community" (Ho, 1976, p. 868).

Unlike Brown and Levinson's (1978, 1987) concept which is centered on self-image or individual face, Chinese face is closely connected to the community's perception and judgment of one's character and behavior. According to Mao, "Chinese face depends upon, and is indeed determined by the participation of others" (Mao, 1994, p. 460). Chang and Holt (1994) state that *miànzi* can be claimed by individuals and shared by members of an ingroup. However, individuals are also expected to uphold the *miànzi* of the ingroup which can be a lubricant for smooth relationships or disruptive to relationships if mishandled.

In a case study of three Chinese students in a UK university, Wu (2009) identified four face-related factors based on *miànzi* among the Chinese: low-risk face, collective face, hierarchical face, and harmonious face. Results of classroom observations and interviews revealed how participants' concerns for face influence their classroom interactions. In terms of low-risk face, participants avoided situations perceived as unclear

or unpredictable, such as making English errors and speaking up, by remaining silent to avoid judgment by others. In terms of collective face, attention is given to maintain mutual-face and other-face. For example, one's reticence is attributed to collective face, as his mistakes not only put himself but also his other Chinese colleagues to shame.

4.2.4 Reconceptualization of face constructs across cultures

The dichotomy between universal and culture-specific face constructs may not be as distinct as there have been studies which transcend culture lines. Ways to classify culture gives insight on understanding the merge of culture lines. Generally, Western cultures like the US are referred to as individualistic cultures where individuals are responsible for themselves; however, Chinese and Asian cultures are generally considered collectivistic cultures where ingroup members value cooperation and solidarity (Morisaki & Gudykunst, 1994). While there is a tendency to distinguish between the individual-collective cultural dimensions, Morisaki and Gudykunst (1994) acknowledge that they can cross over each other in varying degrees. This suggests that there are Asians with individualistic tendencies and Westerners with collectivistic tendencies.

The next section introduces an alternative to Brown and Levinson's (1978, 1987) model of universal face, which has been applied to Japanese contexts.

4.3 Lim and Bowers' face construct and Japanese face

Lim and Bowers' (1991) universal face construct has been applied to study face and relations in a classroom context. One reason this has become possible could be attributed to the shift of face research from a linguistic approach, where meanings of utterances are based on a linguistic formula seen in Brown and Levinson's (see Section 4.2.2) politeness strategies. The studies introduced here present face from an interactional and relational approach where participants co-construct face meanings (Arundale, 2006).

4.3.1 Brief overview of Japanese face

The Chinese term *miànzi* (see Sections 4.2.3 and 4.4.2) is said to be the origin of the Japanese term, *mentsu* (Morisaki & Gudykunst, 1994; Sueda, 2014). Face in Japanese, which literally translates as *kao*, also has a social role as it refers to the "appearance one presents to others" (Morisaki & Gudykunst, 1994, p. 48), similar to *miànzi.* This is connected to Japanese linguistic politeness as "preservation of face in Japanese culture is intimately bound up with showing recognition of one's relative position in the communicative context and with the maintenance of the social ranking order" (Matsumoto, 1988, p. 415), which challenges Brown and Levinson's (1978, 1987) universal face. However, while face in Japan is intertwined with one's social status, in Chinese society,

everybody's face is to be respected regardless of their social status (Sueda, 2014).

To clarify the notions of face in Asian cultures in general, Yabuuchi (2004) states that between the Chinese and the Japanese there are different concepts which explain their social behavior. They are *miànzi* and *guanxi* (relation) for the Chinese; *giri* (duty or obligation) and *haji* (shame; see Section 4.4.3) for the Japanese. However, these social behaviors are intertwined because when one's *giri* is satisfied, the *guanxi* operates properly and *miànzi* is maintained. In contrast, if *giri* is not fulfilled*, guanxi* goes wrong, resulting in damaged *miànzi* and *haji* (Yabuuchi, 2004). The following studies in classroom contexts show that there is an action which precedes reaction in *guanxi*, such as with peers. This results in maintenance or loss of *miànzi*, and thus, evokes an emotion, such as *haji* for loss of face.

4.3.2 Lim and Bowers' concept of universal face

Lim and Bowers (1991) make two arguments against Brown and Levinson's (1978, 1987) concept of face. One is against their assertion that negative politeness and positive politeness are mutually exclusive. This means positive politeness strategies are employed to maintain one's positive face, and negative politeness, for one's negative face. However, Lim and Bowers argue that the dichotomy does not satisfy complicated

communicative acts. For example, both positive and negative politeness strategies can be employed for FTA which result in either positive or negative face threats. A threat to one's face, positive or negative, can be alleviated by a negative politeness strategy (e.g., avoidance or minimizing imposition) and positive face strategy (e.g., affection or respect).

Lim and Bowers' (1991) other argument was aimed at Brown and Levinson's (1978, 1987) concept of positive face. They contend that there are two types of positive face, which are the desire to be included through a sense of belongingness and to have one's abilities be appreciated through positive evaluation. As a result, they propose three types of face: fellowship face, competence face, and autonomy face (Lim & Bowers, 1991). Fellowship face, or "the want to be included" (p. 420) and competence face, or "the want that their abilities be respected" (p. 420) are based on positive face; autonomy face or "the want not to be imposed on" (p. 420) is similar to negative face.

4.3.3 Applicability of Lim and Bowers' construct to Japanese university students

Yokomizo (2012) studied 204 Japanese university students' participation behavior related to their face needs. She focused on their non-participation in class, desire to be recognized by professors, and attitude towards professors' learning students' names. Results show that such students generally feel resistant towards question-asking in class

due to their anxiety to speak up and their relationship with others, leading to non-participation.

Yokomizo (2012) indicates that students who do not feel resistant to volunteering in class have a high autonomy face. In contrast, those who feel resistant to volunteering felt that classroom participation sets them apart from others in terms of their competence. This is a reflection of their tendency to avoid violation of their autonomy, fellowship and competence faces, which is a finding consistent with Lin and Yamaguchi (2011) who suggest that "East Asians may be motivated to pursue high self-esteem not by enhancing their personal achievement but through maintaining their face" (Lin & Yamaguchi, 2011, p. 454). Furthermore, Yokomizo (2014) states that out of two groups who desired to be recognized by professors and believed professors should learn students' names, while one group of students are cooperative and value harmony, the other group wishes to be acknowledged as intelligent students. This indicates the first group's high fellowship face. However, the second group's desire to be recognized by professors, which indicates their high competence face, does not agree with the findings by Lin and Yamaguchi (2011) as it disrupts classroom harmony. Nevertheless, results related to students' high fellowship face are consistent with another finding by the same researchers,

which are pleasant feelings one has when face is maintained.

Sueda (2014) employs Lim and Bowers' (1991) face construct to study Japanese university returnees' responses to written prompts. Returnees are students who repatriate to Japan after a "prolonged sojourn abroad" (Kanno, 2000, p. 362) and are mostly businessmen's children. By studying various factors of returnees, such as proficiency in L2 such as English, country of residence, age and duration of stay, and type of school attended, Sueda (2014) explores how participants negotiate their identities as returnees while revealing different aspects of the three faces. For example, one male participant identifies himself as a behind-the-scenes member, or *kuroko* in Japanese (Sueda, 2014, p. 119), or taking a supporting role. When he created the football team at his Japanese school, he felt he would be a better supporter than a leader by helping people perform well. His interview indicates that his fellowship and competence needs were fulfilled (Sueda, 2014), which results in high self-esteem (Lin & Yamaguchi, 2011). In contrast, a female participant expressed a difference in her personality when speaking English and Japanese. While her competence face was honored because of her English proficiency, too much face-honoring made her uncomfortable as her fellowship needs were not met. These studies give a glimpse on how face is present in the classroom, which is addressed in the next section.

4.3.4 Kerssen-Griep's construct of face needs

Kerssen-Griep (2001) employed Lim and Bowers' (1991) model to understand student motivation in the classroom and identified instructional activities in graduate university classes during which students felt that their face needs were either supported or threatened. Activities were coded according to Lim and Bowers' (1991) three face needs. For example, encouraging participants to have ownership of the class, allowing communication for a safe environment and risk-taking, as well as interest in participants' contribution, enhanced participants' fellowship and competence face needs. On the other hand, participants' autonomy and competence face needs were addressed when participants engaged in independent thinking and exercised their judgment in applying knowledge learned. Encouragement for improvement, including reference to poor student performance, addressed competence face needs. Implications include recommending teachers' communication to enhance students' autonomy face needs as they relate to motivation.

While Kerssen-Griep's face construct can be traced to Lim and Bowers' (1991) face wants, it is necessary to distinguish the terminology between the two. Lim and Bowers (1991), who call their construct consisting of face wants, base their construct on Brown and Levinson's (1978, 1987) positive wants and negative wants. On the other hand,

Kerssen-Griep (2001) bases his model on Deci, Ryan and Williams' (1996) definition of psychological needs, which lead to effective functioning and wellbeing when fulfilled. Because of this definition, Kerssen-Griep (1996) distinguished needs from wants, which evolved into his (2001) face needs.

4.4 Face-related behaviors in the L2 classrooms

In this section, the understudied subject of face-related behaviors in the L2 classroom is explored. Studies here address the following topics: (1) Asian and Western perspectives of shame, and (2) silence in the Japanese L2 classroom.

4.4.1 Shame

Ho, Fu and Ng (2004) state that guilt, shame, and embarrassment are considered "the most painful of human experiences" (Ho et al., 2004, p. 64); yet, they are difficult to distinguish as different experiences are associated with these emotions. Qi (2011) claims that different states of face result in emotions, such as shame, which is associated with face loss. Therefore, it is not surprising that face has been underexplored in language learning research as shameful emotions can be unpleasant.

According to Bedford (2004), shame in Chinese culture shares aspects such as exposure, inadequacy and concern with identity. According to Wu (2009) Chinese

participants at a UK university have experienced some form of shame. One participant tried to keep a low profile in order to "minimize the risk of *xiu chi*" (Wu, 2009, p. 297), or loss of face. Another participant felt *can kui* (mixed regret and shame) for not fulfilling his responsibility when he was not prepared for his presentation. Since one's identity depends on his/her relationship with others (Bedford, 2004), this makes the Chinese susceptible to being shamed by others' actions. In contrast, the shame that Westerners feel is closely related to their own identity.

From a Western perspective, Scheff (1997) describes pride as an emotion that accompanies solidarity, and shame as accompanyimg alienation. Shame is a normal part of social control, but becomes disruptive when it becomes denied, leading to alienation. Sueda (2014) states that shame is difficult to acknowledge since people do not want to accept the pain which results from shame. She illustrates the role that face plays in balancing shame and pride in one's identity. For example, when face is threatened, one's shame becomes stronger; when face is honored, one's pride becomes stronger.

In Sueda's (2014) study of Japanese university returnees, a male student who had lived in Europe displayed his sense of shame. Although the Japanese media stereotypically associates returnees with high proficiency in English, she found that the student, who had

lived in a non-English-speaking country, could not fulfill the expectations society had for returnees and seemed to have a sense of shame for not being proficient enough in English. Sueda (2014) reports that another participant, a female student whose English speech sounded native-like, felt uncomfortable during English class when she was called on to read out loud a passage in the English textbook. As the student's native-like English speech attracted negative attention and criticism from her classmates, she deliberately changed her pronunciation to sound less native-like. She had mixed feelings of pride as a returnee, and consequently, shame for being looked down upon due to her native-like English speech.

4.4.2 Silence

While silence in L2 classrooms has multiple meanings, studies often associate it with students' consciousness of others. This manifests in an "egocentric concern for presenting oneself" (King, 2013, p. 339) and unwillingness to engage in behavior and negative judgement by classmates (King, 2013), which may be based on Western teachers' perceptions filtered through their values and standards (Clark & Gieve, 2006).

By analyzing the interaction of Japanese students enrolled in Australian universities, Nakane (2005) found that a male student was able to respond in English when

the lecturer called on him; however, there were short gaps of silence when he did not volunteer to take up the floor quickly enough. Silence could be attributed to one's lack of comprehension of the target language, fear of losing face for not knowing the answer, weakness in linguistic proficiency, or a combination of all factors. The excerpt of a female student indicates that there could be different norms in language-specific length of silence. She chose to remain silent, possibly as a face-saving strategy when she was not able to answer an Australian classmate's question within one second, which is the expected length of silent pause. This could support the view, albeit with little empirical evidence, that "Japanese can tolerate longer gaps than English speakers" (Nakane, 2005, p. 88), which may be misinterpreted by classmates and instructors. Kidd (2016) refers to this gap as processing time, which refers to the length of time necessary for students to process information during lessons. Furthermore, while Australian lecturers interpreted silence as face-threatening, Nakane asserts that Japanese students' silence works to reduce the threat to their face.

Nakane's view is supported by Kidd's (2016) study on face and silence by younger Japanese L2 learners between ages 10 and 12, who attended private English conversation classes. He compared what silence meant for students and native

English-speaking teachers and found that, in general, silence functions to "maintain the students' face and to uphold the face of the teacher" (Kidd, 2016, p. 231). Kidd, who interviewed teachers, found that they referred to silence as "negatively impacting on the atmosphere of the classroom, obstructing interaction, interfering with the flow of learning activities" (Kidd, 2016, p. 232). However, through student interviews he found that silence in the classroom was acceptable to Japanese students. For example, when teachers called on students to answer, that triggered silence among Japanese students, which teachers mistakenly interpreted as a "missed opportunity" (Kidd, 2016, p. 230). By trying to get the Japanese students to join in the class activities, the teacher could neglect the students' negative face wants by imposing on their positive face wants.

While Kidd (2016) recognizes that students' silence may be unintentional, King (2013) perceives silence as a "dynamic construct which is determined by an array of competing forces" (King, 2013, p. 328), including passivity, demotivation or lack of competence. Like Kidd (2016), he acknowledges that student silence may be a choice. Liu (2002) shares this view and proposes that understanding cross-cultural differences in classroom silence is necessary in order to encourage L2 learners to speak up.

This chapter opened by reviewing the literature on face and providing examples

of Chinese face and face concepts by Goffman, Brown and Levinson, and Lim and Bowers. The Lim and Bowers face construct, which has been employed to study Japanese university students' face in the classroom context, is the basis for Kerssen-Griep's face needs construct. Furthermore, face-related behaviors in the L2 classroom, such as shame and silence are reviewed in order to understand how face can operate among L2 learners, for example, when asking Bloom's Taxonomy questions. The following chapter discusses the methodology, both quantitative and qualitative, used in this study. They include the English question-asking survey (EQAS) and other quantitative methods which examine the frequency of students' questions and the effectiveness of instruction. The qualitative methods analyze participants' utterances, interaction and student interviews, followed by an explanation of the coding methods and transcription procedures of the qualitative data.

CHAPTER 5

Background of participants and methodology

This chapter first provides information on the participants, followed by the materials for data collection. Next, both quantitative and qualitative methods, and the procedure to collect and analyze the data are explained. Data collected from quantitative and qualitative methods are triangulated, as is most frequently done in education (Cohen, Manion & Morrison, 2011). The chapter concludes with an explanation of the coding methods and transcription procedures.

5.1 Participants

This study was conducted during a 15-week academic term from April 2015 to July 2015. The participants are 45 second-year Japanese university students majoring in international economics at a private university in Tokyo. They were enrolled in two English-taught content-based courses, Academic English (A-course) and Current English (C-course). Since their matriculation, the students have been taking two listening/speaking courses taught in English every term. In addition, they have taken courses in reading and

writing taught in Japanese. The 45 students agreed to participate in this study by returning a consent form in Japanese (Appendix A), which was distributed to all students enrolled in both courses.

5.1.1 Consent to participate

The consent form explained (1) the purpose of the study, (2) the method, (3) the protection of personal information and data, and (4) risks and benefits. The form stated that the purpose of the study was to analyze questions in English which Japanese university English language learners ask in order to develop teaching methods for asking self-generated questions in English. The form described the use of IC recorders during students' group discussions in English that would be used for analyses. The methods include an online survey on question-asking in English and interviews with the researcher. Students were also informed that their personal information would be kept confidential with their data being numbered and used only for the purpose of this study. Finally, as participation in the study was optional, students were told that there would be no risks and defrayment involved. Twenty-eight A-course students and 17 C-course students agreed to participate in this study.

5.1.2 TOEIC Bridge ®

The TOEIC Bridge ® was completed by all participating students in the third week of the study. A commercial norm-referenced test, the TOEIC Bridge ® serves as an objective tool to measure the baseline performance of the participants' English competence. The TOEIC Bridge ® was selected for two reasons: (1) its format is similar to that of the TOEIC ®, a norm-referenced test that Japanese university students commonly take to prepare for job-hunting, and (2) the duration of the test, approximately 60 minutes plus 10 minutes for instructions, is appropriate to administer during one 90-minute class period.

The scores from the 45 participants ranged from 126 to 176 (M=160.88; SD= 8.75). Thirty-three participants scored over 160, accounting for 73 percent of all participants. A TOEIC Bridge ® score over 160 (i.e., roughly equivalent to 570 on TOEIC ®) is higher than the TOEIC ® mean score (M=512) earned by Japanese test takers in 2013 (Institute of International Business Communication, 2013).

5.2 Materials

5.2.1 Development of English Question-Asking Survey (EQAS)

This section describes the development of the English Question-Asking Survey (EQAS) (Appendix B). Due to the lack of an existing survey on language learners'

question-asking in English, it became necessary to create a tool to examine language learners' face during question-asking in English. The process started with a pilot survey with open-ended questions, followed by the development of a Likert scale survey used in a small scale study. Finally, a larger pilot study was carried out with a revised Likert scale survey.

5.2.1.1 Administration of open-ended pilot survey

Initially, 18 Japanese university students responded to open-ended questions in a pilot survey to gather descriptions of their emotions related to face when asking questions in English. The questions were created based on past studies (Sukemune, 1995). The same type of open-ended survey has been used with 20 university instructors of English in Japan. The instructors checked the Japanese wording and content validity of the items so that the questions were consistent with face-related emotions. Based on these questions, the Likert scale items were developed.

5.2.1.2 Development of pilot Likert scale survey

The Likert scale has been used in past literature (Aitken & Neer, 1993; Isoda, 2008; Yokomizo, 2012; see Section 1.1) to measure "opinions, beliefs, and attitudes" (DeVellis, 2012, p. 93) of respondents. For this new survey, three learner domains were

taken into consideration to develop the survey items. They are the cognitive domain (i.e., what the learner knows and thinks), the affective domain (i.e., what the learner feels about his/her own knowledge and thoughts), and the psychomotor domain (i.e., what action the learner takes as a result of his/her own knowledge, thoughts and feelings) (Morgan and Saxton, 2006). An 8-point Likert scale, where 1 indicates a situation to be most applicable, and 8, the least, was used to pilot 36 items. 16 items measure competence (COMP) in asking questions in English, 12 measure anxiety (ANX) during question-asking, and eight focus on question-asking avoidance (AVD):

1. I believe I do not have the ability to ask questions in English (COMP)
2. I get nervous when I ask others questions in English (ANX)
3. I do not want to ask my native English teacher questions in English if possible (AVD)
4. I do not want to ask my classmates questions in English if possible (AVD)
5. I believe others do not understand the questions I ask in English (COMP)
6. I feel embarrassed asking my native English teacher questions in English (ANX)
7. I feel embarrassed asking my classmates questions in English (ANX)
8. I want to avoid asking my native English teacher questions in English (AVD)
9. I want to avoid asking my classmates questions in English (AVD)
10. I believe I have the ability to ask questions in English and to communicate (COMP)
11. I want to ask my native English teacher a lot of questions in English (AVD)
12. I want to ask my classmates a lot of questions in English (AVD)
13. I believe I am not capable of asking questions in English at my current level of English speaking ability (COMP)
14. I am relaxed when I ask my native English teacher questions in English (ANX)
15. I am relaxed when I ask my classmates questions in English (ANX)
16. I would like to speak as little as possible when I have to ask questions in English (AVD)
17. I believe I am not capable of communicating my intentions to my interlocutor when I ask questions in English (COMP)

18. I become worried when I ask my native English teacher questions in English (ANX)
19. I become worried when I ask my classmates questions in English (ANX)
20. I tend to think that I want to ask questions in Japanese even when I have to ask in English (AVD)
21. I am more likely to feel motivated to ask questions in English if I am interested in the topic (COMP)
22. I am more likely to enjoy speaking in English if I am able to ask questions in English (COMP)
23. I tend to take a long time in coming up with questions in English (ANX)
24. I feel flustered when my interlocutor does not understand my questions in English (ANX)
25. I believe asking questions in English helps me get a higher grade (COMP)
26. I find it easier to ask questions in English in small groups than before the entire class (COMP)
27. I believe it is important not to be afraid of making mistakes in order to ask questions in English (ANX)
28. I find it easier to ask questions in English when I prepare in advance (COMP)
29. I believe that asking questions in English helps improve my English ability (COMP)
30. I believe my English grammar is not accurate enough in order to ask questions in English (COMP)
31. I believe my English vocabulary is not big enough in order to ask questions in English (COMP)
32. I tend to ask my native English teacher questions in English when I do not understand something during English class (COMP)
33. I feel resistance in asking my native English teacher questions in English during English class (ANX)
34. I feel resistance in asking my native English teacher questions in English privately (ANX)
35. I want to give my native English teacher a good impression by asking questions in English (COMP)
36. I want to give my classmates a good impression by asking questions in English (COMP)

5.2.1.3 Administration of small-scale pilot of the Likert scale survey

The Likert scale survey was tested (see Section *5.2.1.2*) on 61 literature majors at a Japanese university. The items were not reverse-coded for all surveys administered. Statistical Package for the Social Sciences (SPSS) Version 22 was used for an exploratory factor analysis. As Table 5.1 indicates, factors were extracted with principal axis factoring and rotated by Promax rotation. The initial analysis showed eight factors with eigenvalues over 1. After performing this several times with three factors, items with factor loadings under 0.4 (deemed to be too weak) were eliminated, reducing the items from 36 to 21.

Of the 21 items, eight items related to learners' language competence (i.e., grammar, vocabulary and ability to communicate one's intentions) comprised the first factor (named *competence*). Seven items related to learners' communication apprehension to question-asking in English comprised the second factor (*question-asking apprehension*). Six items related to learners' motivation to question-asking in English comprised the third factor (*question-asking motivation*). In order to measure the reliability of each factor, Cronbach's alpha was calculated. Table 5.1 shows that the first and second factors have high internal consistency, with alpha of .938 and .909, respectively. The alpha of the third factor was .728, showing an internal consistency at an acceptable level (DeVellis, 2012).

Table 5.1

Items of small-scale EQAS, factor loadings and Cronbach's alpha

Survey item	**Factor**		
	Question-asking competence	Question-asking apprehension	Question-asking motivation
	α = 0.938	α = 0.909	α = 0.728
Q1	**1.01**	-0.18	-0.08
Q31	**0.95**	-0.18	-0.14
Q30	**0.92**	-0.20	-0.08
Q5	**0.90**	-0.06	0.15
Q13	**0.87**	-0.01	0.05
Q17	**0.83**	0.11	0.07
Q23	**0.67**	-0.22	-0.06
Q20	**0.59**	0.18	0.01
Q16	0.51	**0.45**	0.06
Q9	-0.15	**0.99**	-0.15
Q7	-0.03	**0.85**	-0.23
Q4	-0.07	**0.82**	0.05
Q8	0.39	**0.63**	-0.13
Q19	0.23	**0.51**	-0.24
Q3	0.42	**0.47**	0.09
Q35	0.19	-0.25	**0.70**
Q26	0.12	-0.21	**0.59**
Q29	-0.19	0.11	**0.57**
Q22	-0.06	0.30	**0.53**
Q25	0.14	-0.12	**0.52**
Q28	-0.27	0.09	**0.42**

Note: Extraction method: Principal Axis Factoring. Rotation method: Promax with Kaiser Normalization. Rotation converged in 5 iterations. Factor loadings > .40 are in boldface.

5.2.1.4 Administration of large-scale pilot of the revised Likert scale survey

The revised 21-item Likert scale survey (see Section *5.2.1.3*) was tested on 314 Japanese university students from a variety of academic majors, such as literature, social sciences, and sciences, with different levels of English ability.

A factor analysis with principal axis factoring and Promax rotation was performed. As Table 5.2 indicates, three factors – *question-asking competence, question-asking apprehension, question-asking motivation* – were extracted. The number of items remained unchanged at 21. Cronbach's alpha of each factor was calculated (i.e., .925 for *competence,* .921 for *question-asking apprehension*, and .718 for *question-asking motivation*) and showed that the survey was reliable.

To develop this Likert scale survey, however, only the exploratory factor analysis, which determines the underlying structure of a set of items, was performed. While the confirmatory factor analysis, which tests hypotheses (DeVellis, 2012) is usually the next step, for this study, individual interviews with study participants were conducted instead. As this survey is used to explore the relationship between Japanese university language learners' questions in English and their face, the participants' emic perspective, often studied in qualitative research (Kakai, 2015), needs to be taken into consideration

Table 5.2

Items of large-scale EQAS, factor loadings and Cronbach's alpha

Survey item	**Factor**		
	Question-asking competence	Question-asking apprehension	Question-asking motivation
	α = 0.925	α = 0.921	α = 0.718
Q13	**0.90**	-0.07	-0.05
Q11	**0.85**	-0.02	0.02
Q23	**0.82**	0.06	-0.01
Q18	**0.79**	-0.10	0.05
Q19	**0.78**	-0.03	0.06
Q15	**0.74**	0.02	-0.11
Q21	**0.69**	0.10	-0.08
Q22	**0.52**	0.26	0.10
Q25	-0.08	**0.93**	0.04
Q24	-0.14	**0.88**	-0.09
Q28	0.02	**0.86**	0.09
Q31	0.20	**0.66**	0.05
Q27	0.10	**0.64**	-0.17
Q29	0.29	**0.57**	-0.01
Q16	0.39	**0.47**	0.09
Q20	-0.06	-0.12	**0.60**
Q17	-0.11	0.16	**0.58**
Q14	-0.05	0.02	**0.57**
Q12	-0.04	0.21	**0.54**
Q30	0.14	-0.16	**0.52**
Q26	0.15	-0.19	**0.49**

Note: Extraction method: Principal Axis Factoring. Rotation method: Promax with Kaiser Normalization. Rotation converged in 5 iterations. Factor loadings > .40 are in boldface.

in addressing the issue of face. Open-ended questions were added to the survey in order to ask the respondent's feeling as these items relate to shame, a feeling strongly related to one's threatened face.

The final survey (see Section 5.3.2) consists of filtering questions, the Likert scale items with sub-scales measuring *competence, question-asking apprehension, question-asking motivation*, and open-ended questions pertaining to face threats while asking questions in English.

5.2.2 Speaking task (Pre- and post-instruction tasks)

A speaking task was developed to examine the participants' ability to produce high-cognitive questions in English independently. The 20-minute task consisted of two steps. First, the participants read a news story written in English (see Figure 5.1). Then participants were digitally recorded while asking five self-generated questions aloud in English related to the passage. The same speaking task was conducted twice, before and after instructions on question-asking in English.

In the News

Masahiro Kusunoki

Harvard student boosts study abroad

By Yukihiro Nagura
Yomiuri Shimbun Staff Writer

While Masahiro Kusunoki, 19, studies politics at Harvard University in the United States, he also leads "Ryugaku (study abroad) Fellowship," a Kobe-based nonprofit organization launched in March.

Since returning for summer vacation last month, Kusunoki has been traveling throughout Japan with others from the NPO to hold study abroad workshops, mainly at high schools. "I want high school students to consider developing as individuals at overseas universities as an option for their future," said Kusunoki, who will hold a forum in Otemachi, Chiyoda Ward, Tokyo, on June 22.

Kusnoki had lived in Britain since he was 4 years old due to his father's job, but returned to Japan at 15 because he was struggled to get along at local schools, he says. He enrolled in Nada High School, a private school in Kobe, and was considering advancing to a Japanese university. However, in his final year of high school, he participated in an international competition as a member of the school's debate club, and found himself greatly inspired.

"The world I know is very small, and I've had so few experiences," he says. He came to this realization as he listened to the story of a female student from Palestine who spoke about losing a classmate during a demonstration. Hearing that story instilled in him a determination to study abroad.

Kusunoki says he didn't even know how to write the essays required to apply to Harvard, but listened to advice from people who had gone before, and felt encouraged. And last autumn, he entered Harvard University. Since then, he feels like he has matured through discussion with the school's students, who have gathered from all over the world.

"Once you make it there, you can carry through somehow. The important thing is interacting with many people," Kusunoki gives that and other advice to high school students whose English skills are still weak. For his next project, he is thinking of building a network for students who have traveled overseas, so they can offer one another support.

While Masahiro Kusunoki, 19, studies politics at Harvard University in the United States, he also leads "Ryugaku (study abroad) Fellowship," a Kobe-based nonprofit organization launched in March.

Since returning for summer vacation last month, Kusunoki has been traveling throughout Japan with others from the NPO to hold study abroad workshops, mainly at high schools. "I want high school students to consider developing as individuals at overseas universities as an option for their future," said Kusunoki, who will hold a forum in Otemachi, Chiyoda Ward, Tokyo, on June 22.

Kusunoki had lived in Britain since he was 4 years old due to his father's job, but returned to Japan at 15 because he was [sic] struggled to get along at local schools, he says. He enrolled in Nada High School, a private school in Kobe, and was considering advancing to a Japanese university. However, in his final year of high school, he participated in an international competition as a member of the school's debate club, and found himself greatly inspired.

"The world I know is very small, and I've had so few experiences," he says. He came to this realization as he listened to the story of a female student from Palestine who spoke about losing a classmate during a demonstration. Hearing that story instilled in him a determination to study abroad.

Kusunoki says he didn't even know how to write the essays required to apply to Harvard, but listened to advice from people who had gone before, and felt encouraged. And last autumn, he entered Harvard University. Since then, he feels like he has matured through discussion with the school's students, who have gathered from all over the world.

"Once you make it there, you can carry through somehow. The important thing is interacting with many people," Kusunoki gives that and other advice to high school students whose English skills are still weak. For his next project, he is thinking of building a network for students who have traveled overseas, so they can offer one another support.

Figure 5.1

Reading text for pre- and post-instruction task. From “In the News: Masahiro Kusunoki: Harvard student boosts study abroad” by Y. Nagura, 2014, *The Japan News*, p. 3. Copyright 2014 by Yomiuri Shimbun and Masahiro Kusunoki. Reprinted with permission.

5.2.3 Treatment and instructional materials

The treatment, which was the explicit instruction of asking Bloom's Taxonomy questions in English, was adapted from Alcón (1993). Table 5.3 outlines the course syllabus for this semester-long study. Ten weeks were spent on the instruction of question-asking in English and reinforcement through quizzes and discussions. The instruction of the six question types is based on the sample sentence stems, as noted in Table 5.4, which have been adapted originally from King (1990) and the revised Bloom's Taxonomy (Anderson & Krathwohl, 2001).

Two weeks were spent on the instruction and follow-up activities for each question type. For example, in the first week, students received explicit instruction of one question type, which was followed by practice activities consisting of reading a short news story and creating English questions with the sentence stems students had just learned. For homework, students received two news stories in English. One news story was for a quiz where students read the story and wrote questions in English based on the story. The other was for small group discussions where they practiced question-asking in English. The advantage of small group discussions is that they are reported to foster students' thinking and problem-solving skills (Gillies, 2011). The news stories were teacher-selected reading

Table 5.3

Course syllabus for research design and data collection procedure

Wk	Activity	Type of data	Data to be analyzed
1	Pre-instruction task	QUAL & QUAN	BT Q-types & frequency
	English question-asking survey	QUAL & QUAN	Likert scale survey & open-ended Qs
2	TOEIC Bridge ®	QUAN	Test scores for English competence
3	R & U Q instruction	N/A	N/A
4	Quiz & discussion	QUAL	Quiz answers & group discussions
5	Applying Q instruction	N/A	N/A
6	Quiz & discussion	QUAL	Quiz answers & group discussions
7	Analyzing Q instruction	N/A	N/A
8	Quiz & discussion	QUAL	Quiz answers & group discussions
9	Evaluating Q instruction	N/A	N/A
10	Quiz & discussion	QUAL	Quiz answers & group discussions
11	Creating Q instruction	N/A	N/A
12	Quiz & discussion	QUAL	Quiz answers & group discussions
13	Practice for speaking task	N/A	N/A
14	Post-instruction task	QUAL & QUAN	BT Q-types & frequency
15	Individual interviews	QUAL	Interview data

Note: BT= Bloom's Taxonomy; Q = question; R = Remembering; U = Understanding
QUAN = quantitative; QUAL = qualitative

texts, usually on a relevant topic of interest to the students. The rationale for using English news stories suitable for learners at an advanced stage of autonomy (Lee & Morrison, 1998) is based on the focus of the academic department's speaking courses, to expose students to English through a variety of English language media.

5.3 Quantitative methods for data collection

5.3.1 Pre- and post-instruction tasks

The speaking task developed for this study (see Section 5.2.2) was conducted twice, before and after the treatment (see Section 5.2.3). The purpose was to measure the high cognitive and low cognitive questions which students ask, and compare their frequency between pre- and post-instruction tasks to examine the effectiveness of instruction. The high cognitive questions are Analyzing, Evaluating and Creating questions, while the low cognitive questions are Remembering, Understanding and Applying questions (see Table 5.4). As the participants had never seen the material and were not allowed to use dictionaries, a short glossary (i.e., “boosts,” “instill,” “determination,” “matured,” “carry through”) was added. The instructions for the task were written in the participants’ L1, Japanese. The participants’ questions in English were digitally recorded, transcribed, and coded (see Section 5.5.1).

5.3.2 English Question-Asking Survey (EQAS)

The English Question-Asking Survey (EQAS), as described earlier, had been developed to explore the participants’ question-asking in English. In the session prior to

Table 5.4

Sentence stems from the revised Bloom's Taxonomy (Anderson & Krathwohl, 2001; adapted from Morgan and Saxton; 2006)

Question type (Description and sample sentence stems)
REMEMBERING QUESTIONS
(Retrieving knowledge from one's memory; remembering and recalling facts and information)
What is …? / How is …? / Where is …? / Why did …? / Which one…? / Who …?
UNDERSTANDING QUESTIONS
(Asking somebody's understanding by summarizing, explaining, comparing in their own words)
What is a (an) …? / What does _____ mean? / What is an example of …? / How did _____ happen?
APPLYING QUESTIONS
(Solving problems by applying knowledge, facts and information in a different way)
How would you use …? / What can _____ be used for? / What would be the result if …? /
What would happen if …?
ANALYZING QUESTIONS
(Breaking information into parts; breaking information to find connections)
How would you categorize …? / What is the relationship between ___ and ___? /
How are ____ and _____ different / similar? / What is/are the problem(s) with …? /
What could have happened with …?
EVALUATING QUESTIONS
(Presenting opinions by making judgments about information)
Do you agree with the actions of …? / What is your opinion on …? / What is the importance of …? /
What choice would you have made …? / Which would have been better, ____ or _____?
CREATING QUESTIONS
(Putting information together by combining in a new pattern or suggesting solutions; Designing a procedure to accomplish a task; constructing or inventing a new product)
How many ways can you create …? / How can … be used to create …? / How could … be improved? /
Can you think of an original way for …? / Can you make a model that would change …?

the start of the instruction, the EQAS was administered on a web-based form. The survey was written entirely in Japanese (Appendix B) to ensure that all participants had equal access to information in their L1. The purpose of the survey was explained in Japanese to the participants. The entire survey took approximately 20 minutes to complete on classroom computers. The survey results, analyzed using the Statistical Package for the Social Sciences (SPSS) Version 22 software, were used for the following purposes: (1) to find out about participants' general use of and interest in English, (2) to perform a factor analysis to find out which factors relate to language learners in Japanese universities when they ask questions in English, and (3) to explore their face needs during question-asking in English. Details of the two sections in the survey are explained below.

5.3.2.1 Filtering questions

The first section (items 1 to 11) addresses the participants' use of and interest in English. Filtering questions cover a variety of situations where they may be expected to use the English language are as follows:

1. When did you start studying English?

Age: (1) 0 to 2 years old; (2) 3 to 5 years old; (3) 6 to 8 years old; (4) 9 to 12 years old; (5) Over 13 years old

Grade level: (1) Preschool age; (2) Kindergarten; (3) Grade 1 to 2; (4) Grade 3 to 4; (5) Grade 5 to 6; (6) Upon entering JH school

2. Where did you begin studying English?

(1) In a kindergarten in Japan; (2) In an elementary school in Japan; (3) In a JH school in Japan; (4) Overseas; (5) Other (Describe: _____)

3. Have you every traveled or lived overseas? (Starting with duration of over 1 week) Yes / No

4. If you answered YES, where have you lived (or stayed) over one month?

5. If you answered YES, list all the countries where you have lived (over one month), how old you were, the duration, and your reason for residence, as well as your schooling in each country.

Country	*Ages*	*Duration*	*Reason**	*Schooling***
e.g. New Zealand	16 to 17	0 years 10 months	(3)	A.
1.		years months		
2.		years months		

*For the reason, please choose from the following and write the number in the column *Reason**

(1) Family's overseas transfer; (2) Language studies; (3) Exchange program; (4) Independent overseas program (other than exchange programs); (5) Homestay program; (6) Long-term travel; (7) Volunteer; (8) Internship

For your schooling, please choose from the following and write the letter in the column *Schooling*

(A) Local school; (B) Full-time Japanese school; (C) Saturday Japanese language school; (D) International school; (E) Language school; (F) Homeschooling; (G); Did not enroll in school (due to preschool age); (H) Did not attend school

6. If possible, would you like to study abroad in the future? Yes / No

7. If you answered YES, circle all reasons which apply

To improve my language skills / To experience foreign culture / To study subjects in my major / To have an advantage when job hunting / To get an overseas-related career / Others ( ).

Which country or region would you like to study in? _____

8. If you answered NO, circle all reasons which apply

Not confident in my language skills / Have already studied abroad / Financial difficulties /Do not wish to postpone graduation / May interfere with job hunting / No interest / Others ( ).

9. Would you like to have a career where you use English? Yes / No

10. If you answered YES, circle one place where you would like to work

(1) Japanese company / organization in Japan; (2) Foreign company / organization in Japan; (3) Japanese company / organization overseas; (4) Foreign company / organization overseas; (5) Either is fine

11. If you answered NO, circle one place where you would like to work

(1) Japanese company / organization in Japan; (2) Foreign company / organization in Japan; (3) Japanese company / organization overseas; (4) Foreign company / organization overseas; (5) Either is fine

5.3.2.2 Likert scale and open-ended items

The second section consists of an 8-point Likert scale (items 12 to 24, 26, 28, 30, 32, 34, 36 and 38) for which rating points range from "applies very much" (rated 1) to "does not apply at all" (rated 8). Open-ended items (items 25, 27, 29, 31, 33, 35, 37 and 39) are placed after each of the last eight Likert scale items (items 24, 26, 28, 30, 32, 34, 36 and 38) to prompt participants to write about their feelings related to question-asking in English:

12. I believe I do not have the ability to ask questions in English
13. I am more likely to enjoy speaking in English if I am able to ask questions in English
14. I believe I am not capable of asking questions in English at my current level of English speaking ability
15. I find it easier to ask questions in English when I prepare for classes in advance
16. I tend to take a long time in coming up with questions in English
17. I would like to speak as little as possible when I have to ask questions in English
18. I believe that asking questions in English helps improve my English ability
20. I believe my English vocabulary is not sufficient to ask questions in English
21. I believe others do not understand the questions I ask in English
22. I sometimes think I would like to ask questions in Japanese even when I have to ask questions in English
23. I believe I am not capable of communicating my intentions to my interlocutor when I ask questions in English
24. I feel embarrassed asking my classmates questions in English
25. State your reason for Q24
26. I want to avoid asking my classmates questions in English
27. State your reason for Q26
28. I want to give my classmates a good impression by asking questions in English
29. State your reason for Q28
30. I become worried when I ask my classmates questions in English
31. State your reason for Q30

32. I do not want to ask my classmates questions in English if possible
33. State your reason for Q32
34. I want to avoid asking my native English teacher questions in English
35. State your reason for Q34
36. I want to give my native English teacher a good impression by asking questions in English
37. State your reason for Q36
38. I do not want to ask my native English teacher questions in English if possible
39. State your reason for Q38

5.3.3 Median split

The results of the factor analysis of the 20 Likert scale items were further analyzed by conducting a median split. Median split is a method of dividing continuous independent variables into two groups, above or below the median, prior to conducting further analyses (Iacobucci, Posavac, Kardes, Schneider & Popovich, 2015).

The median split results were used to categorize the participants in to high and low groups for two variables: question-asking apprehension and question-asking motivation. Participants were then divided into four groups based on the combination of high and low groups of the two variables: (1) low apprehension with high motivation (LA/HM), (2) low apprehension with low motivation (LA/LM), (3) high apprehension with high motivation (HA/HM), and (4) high apprehension with low motivation (HA/LM). The above-mentioned groups were then used to select participants for the case studies (see Section 5.4.2).

5.3.4 Correspondence Analysis

Correspondence analysis, an exploratory data analytical technique analyzing the association between two variables with several categories (Clausen, 1998) was used for this study. Results are presented on a correspondence table and visually on a graph "as points within a space" (Clausen, 1998, p. 1; see Section 7.1). Categories with similar frequencies are placed close to each other, while categories with dissimilar frequencies are placed far apart.

Correspondence analysis was performed to explore the following: (1) the relation between two variables, namely, types of students and the question types they ask during the pre-instruction task, and (2) the relation between the same two variables during the post-instruction speaking task. Types of students refer to the four groups determined by the median split: low apprehension with high motivation (LA/HM), low apprehension with low motivation (LA/LM), high apprehension with high motivation (HA/HM), and high apprehension with low motivation (HA/LM) (see Section 5.3.3). The Categories option of the Statistical Package for the Social Sciences (SPSS) Version 22 was used to perform the correspondence analysis.

5.3.5 McNemar Test

The McNemar test examines changes in time of dichotomous variables by testing the equality of two proportions obtained from a single sample (Gerber & Finn, 2005, p. 119). Conditions must be met to carry out a McNemar's test: (1) there must be one categorical dependent variable with two dichotomous variables and one categorical independent variable with two related groups (Laerd Statistics, 2013); and (2) the two groups of dependent variables must be mutually exclusive (Laerd Statistics, 2013), meaning that they cannot overlap.

For this study, the McNemar test was used to test the effectiveness of the question-asking instruction in English (see Section 7.3). The categorical dependent variable was the frequency of questions in English, and the two dichotomous variables were the high cognitive and low cognitive questions. The independent variable was the speaking task, and the two related groups were the pre- and post-instruction tasks.

5.4 Qualitative methods for case studies

Qualitative methods can provide a broader illustration when addressing research questions as qualitative data can add to multiple points-of-views when triangulated with quantitative data (Brown & Rodgers, 2002).

According to Creswell (2013), qualitative inquiry starts with a problem. There are two problems in this study. The first is whether English question-asking instruction has an effect on Japanese university EFL students' ability to ask high cognitive questions. The second question is whether language learners' competence face needs are related to cognitive (e.g., their English proficiency) or social (e.g., interaction with teachers or classmates) factors when asking questions in English. In Vygotskian-based language classrooms (e.g., Swain et al., 2011), learners' knowledge is co-constructed through interaction with the teacher, students, and artifacts, such as instructional materials. Thus, each student contributes to his/her own unique language learning experience. In this study, while the common denominator is the instruction students receive, there are other aspects of their language learning experience that illuminate their thinking and behaviors. Compared to quantitative analysis alone, qualitative analysis gives a glimpse of cognitive challenges students experience and how they learn question-asking in English, as well as the social and interactional complexity intertwined with face which could surface when asking English questions.

5.4.1 Case studies

Case study research has been chosen for this study because it offers the advantage of conducting an in-depth study of the different types of qualitative data, such as observation, interviews, audiovisual material, and documents (Creswell, 2013). Case study research investigates a case "in depth and within its real-world context" (Yin, 2014, p. 16), and can be bounded with parameters such as time and place (Creswell, 2013). The case studies attempt to explore the difference between two students with high and low question-asking apprehension by studying their pre- and post-instruction task results, their group discussion data and interview comments.

5.4.2 Sampling strategies

Two male students have been chosen through maximum variation sampling for the case studies (Creswell, 2013). Maximum variation sampling is based on a criterion which differentiates the participants, and then participants are selected based on specific characteristics (Creswell, 2013). The criterion for selecting these participants is based on their level of question-asking apprehension and question-asking motivation from the Likert scale responses. The two case study participants represent the following groups: (1) low apprehension with high motivation (LA/HM); and (2) high apprehension with high

motivation (HA/HM) (for grouping rules, see Section 6.3).

Gender was the basis of the participants' selection. Male students have been chosen because Japanese males have been reported to face more problems than females when communicating in English (Shigemitsu, 2013). Therefore, LA/LM and HA/LM students, as well as female students have been excluded from the case studies. The following sections describe the type of data and their collection methods.

5.4.3 Type of data

5.4.3.1 Open-ended items in EQAS

EQAS has eight open-ended items (see Section *5.3.2.2*) where respondents write their reasons regarding their thoughts and feelings related to the preceding items related to question-asking in English. The results of these items concern participants' shame, desire to avoid asking questions, anxiety (Isoda, 2008) and face needs (Kerssen-Griep, 2001).

5.4.3.2 Pre- and post-instruction tasks

In addition to collecting quantitative data (i.e., frequency and question types) the same pre- and post-instruction tasks were administered to collect qualitative data. For each task, the participants asked five self-generated questions in English on the same news story (see Figure 5.1).

5.4.3.3 Small group discussions

The week after question-asking instruction, participants took part in discussions consisting of three students. The discussions provided opportunities to foster thinking and problem-solving skills (Gillies, 2011) and to practice and reinforce the question-asking patterns students had learned the previous week. Throughout the study, there were five group discussions lasting for approximately 15 to 20 minutes. Each discussion was based on a teacher-selected English news story that students received the previous week. They prepared for the discussion, which was recorded, transcribed, and coded (see Section 5.5).

5.4.3.4 Semi-structured interviews

At the end of the semester, individual interviews were conducted. The purpose of these semi-structured interviews was two-fold: (1) participants reflected on their own progress and ability to ask high cognitive questions in English, and (2) participants were asked about their perception of instruction and if it had an effect on their face needs.

The following three questions were asked:

Q1. How has your question-asking in English changed over the term?

Q2. Do you believe you could now ask questions in English to Japanese speakers, to non-native speakers, as well as to native speakers? Do you want to be able to ask questions in English?

Q3. Have you ever experienced any difficulty when communicating in English, including asking questions in English?

While the first two questions are related to the question-asking instruction, the third question pertains to the participants' face needs while asking questions, as well as communicating in general in English. Interviews were 20 to 30 minutes long, due to the participants' time constraints at the end of the semester. However, asking only three questions allowed time for participants to provide longer answers, hence, resulting in more in-depth interaction with the researcher. Interviews were recorded, transcribed, coded, and translated into English.

5.5 Coding methods

In this research, two types of coding were applied for the qualitative data. The first is *A Priori* Coding, based on "a pre-established, recommended, standardized, or prescribed system" (Saldaña, 2016, p. 175). In this study, two types of *A Priori* coding were used to code: (1) the self-generated questions asked by the participants in the pre- and post-instruction tasks, and (2) the face needs which emerge during the semi-structured interviews. Sections 5.5.1 and 5.5.2 provide details and examples of the two *A Priori* coding systems applied to this study's data.

The second type of coding is referred to as "conventional coding" (Creswell, 2015, p. 156), which was applied to the small group discussion and the interview data. In

conventional coding, the categories are derived from the data. For this study, the codes will not be counted, as done in summative data analysis (Creswell, 2013) since counting is generally associated with quantitative research.

5.5.1 *A Priori* coding of pre- and post-instruction tasks

The 45 participants' questions uttered in the pre- and post-instruction tasks have been coded into six question types based on the revised Bloom's Taxonomy (2001; see Figure 2.2). The descriptions of the question types have been adapted from Morgan and Saxton (2006) (see Table 5.4). The following sample questions for each type have been selected from speaking tasks, followed by the participants' ID:

(1) Remembering questions

Questions, which make one retrieve knowledge from one's memory; questions which make one remember and recall facts and information

e.g. What does Kusunoki study at Harvard? (participant, hereafter P8A)

(2) Understanding questions

Questions which ask somebody's understanding by summarizing, explaining, comparing in their own words

e.g. Why did he decide to study abroad? (P1A)

(3) Applying questions

Questions which solve problems by applying knowledge, facts and information in a different way.

e.g. To boost studying abroad, how should government take action? (P21A)

(4) Analyzing questions

Questions which ask to break information into parts; break information to find connections

e.g. Can you compare study abroad and study in Japan? (P16A)

(5) Evaluating questions

Questions which ask to present opinions by making judgments about information

e.g. What is your opinion on the weakness of Japanese students' English skill? (P28C)

(6) Creating questions

Questions which ask to put information together by combining in a new pattern or suggesting solutions; designing a procedure to accomplish a task; constructing or inventing a new product

e.g. Can you make a good way to make studying abroad more easy? (P43C)

Two EFL university teachers who hold Masters' degrees in TESOL – one Canadian and one Japanese – were hired to code 445 questions from both tasks (Appendix C). After the researcher trained them, they coded all questions. To assess inter-coder agreement, their results were compared against each other for agreement. The agreement rate *r* (%) was defined as $\boldsymbol{r = a / N \times 100\ (\%)}$ in which *a* is the number of agreed codes and *N* is the total number of questions (Tsuru & Takeda, 2013).

For the pre-instruction task, the agreement rate between the two coders was 59 percent. Areas of disagreement were found in questions which were ambiguous because the participants had not received instruction at the time of the task. In addition, the Canadian coder's native speaker interpretation was more in-depth than that of the Japanese

coder, whose understanding of questions was similar to the participants' understanding. For the post-instruction speaking task, the agreement rate was 73 percent. Areas of disagreement were found between Applying questions and Creating questions as both coders sometimes misunderstood the participants' intentions. The two coders and the researcher discussed the areas of ambiguity and resolved the disagreements, and eventually reached the same conclusion 100 percent of the time.

5.5.2 *A Priori* coding of semi-structured interviews

In addition to conventional coding (see Section 5.5), semi-structured interviews of the two case study participants were coded by applying Kerssen-Griep's (2001) face needs, consisting of fellowship face, competence face, and autonomy face (see Section 4.3.2). This face construct, rather than Lim and Bowers' (1991), was selected since the study took place in a classroom context, as did Kerssen-Griep's (2001) study. The following are data samples, which address face needs, sometimes addressing more than one type (see Section 5.6 for transcription procedures):

(1) Fellowship face and competence face

e.g. *Jibun no iken wo yoriyoi mono ni shite iku, toiu imi de, giron no hitsuyousei wa aru to omoimasu [**In order to further improve my ideas, I believe there is a need for discussion**]*. (P2A)

(2) Autonomy face and competence face

e.g. *Kurasu no nakade eigo ga dekiru hito ga ite, souiu hito to shaberu toki, nanika tsutawatte naikana, to omou. Soshite shaberu ki wo nakusu [**In class, when I speak to somebody who speaks English well, I feel like I'm not understood. And I lose my motivation to speak English**]*. (P39A)

To check the validity of the coding for qualitative data, two Japanese nationals were hired as coders, as the transcription was partly in Japanese. One TESOL MA degree holder and PhD student in language education who is an EFL instructor performed the intercoder agreement. Codes, which were first identified by the researcher, were discussed between the coders to ensure thorough analysis of the qualitative data.

5.6 Transcription procedures

The participants' utterances were in Japanese, their L1, and English, their L2. First, L2 utterances were transcribed verbatim in English. Next, L1 utterances transcribed in Romanized script were followed by their English translations. Finally, while both L1 utterances and their English translations were italicized, only the English translations were placed in brackets and boldfaced. Non-verbal text was placed in double parentheses; for example, ((non-verbal)). The following are transcription samples in their corresponding languages:

(1) Pre- and/or post-instruction task (L2)

How many ways can you create to increase who study abroad? (P05A)
Do you agree with studying abroad while high school student? (P12A)

(2) Group discussion (L1 and L2)

They won't cut trees and, but then they plant any other greens. *Sou sureba… nante ieba iino? Uunto [**By doing that… how should I say this? Um**]* (P44C)

(3) Interview comments (L1)

Yappa saisho wa kaite aru koto, understanding toka, ato remembering ga ookatta ki ga suru kedo, sore igai, ma, evaluating toka no shitsumon mo shite ita no kana, to omotte. Nankai ka wa. ***[Well, in the beginning, it feels like many were Understanding, or like, and Remembering, which deal with what's written, but now, um, it seems like I was asking questions like Evaluating questions, a couple of times]*** (P39A)

This chapter opened by explaining the details of the participants of this research and the materials used to collect data. The English Question-Asking Survey (EQAS) as well as the pre- and post-instruction tasks generated quantitative data, which were analyzed to examine the effectiveness of question-asking instruction. Qualitative data were collected and analyzed in order to conduct a case study of two participants. The chapter concludes with the coding methods for the qualitative data. The results obtained from analyzing the English Question-Asking Survey (EQAS) are presented in the following chapters – the results of the speaking tasks in Chapter 7 and the case study results in Chapter 8.

CHAPTER 6

English Question-Asking Survey (EQAS): Results and discussion

This chapter presents the results from the English Question-Asking Survey (EQAS) developed for this study (see Section 5.2.2). It was administered in the second week of the study. Results consist of descriptive data of study participants' from the filtering question answers, factor analysis of Likert scale items and open-ended items. The four student groups (i.e., LA/HM, LA/LM, HA/HM, HA/LM; see Section 5.3.3) and how they were derived from median split results are explained. A multiple correspondence analysis provides a graphical summary of the filtering questions and the Likert scale items. Finally, responses to open-ended items are presented.

6.1 Descriptive data of filtering questions

The EQAS asks questions about the participants' background with English language learning and travel abroad experience of over one week. Questions on participants' interest in study abroad and a career using English were also asked. Table 6.1 summarizes the descriptive data of the 45 study participants (ages 19 to 21, M=19.38; SD=

Table 6.1

Descriptive data of the study participants based on filtering questions (N=45)

	Female (*N*=18)		Male (*N*=27)	
Starting age - English language studies				
Age 3-5	5	(27.8%)	0	(0%)
Age 6-8	5	(27.8%)	4	(14.8%)
Age 9-12	5	(27.8%)	7	(26.%)
Age 13+	3	(16.6%)	16	(59.2%)
Travel-abroad experience (>1 week)				
Yes	11	(61.1%)	16	(57.2%)
No	7	(38.9%)	12	(42.8%)
Interest in study abroad				
Yes	13	(72.3%)	24	(85.7%)
No	5	(27.7%)	4	(14.3%)
Interest in career using English				
Yes	17	(94.5%)	21	(75.0%)
No	1	(5.4%)	7	(25.0%)

0.535). The participants' gender is the independent variable.

As formal English instruction in Japan starts in junior high school, all participants have started studying English by age 13 at the latest. However, while 40 percent of male participants started studying English by age 12, 80 percent of female participants had already started their English studies by then. Of 13 participants who had started studying English outside the formal school system, one male and 10 female participants wrote their first exposure to English lessons was at a private English

conversation school. One female student had lived in the US between ages two to four, and one male student had a private tutor who came to his home to give English lessons.

As for their travel-abroad experience, 16 male participants have travelled outside of Japan for at least one week, accounting for 57 percent of male students. However, this figure is slightly outnumbered by female participants, as 11 students or over 60 percent of them have travel-abroad experience. While approximately 72 percent of female students are interested in studying abroad, over 85 percent of male students have similar study-abroad interests. Of the 37 respondents who were interested in studying abroad, 13 males and 9 females wrote the country/area they would like to study in. An overwhelming 20 students selected an English-speaking country (i.e., North America by 15 students, UK by three students, Australia by two students) while two students chose France.

For both genders, the number of students who had an interest in a career using English outnumbered those who were not interested. Out of 36 students who wrote where they wanted to work, 18 selected Japan, while five chose to work abroad. However, for 13 students, the location did not matter, as either Japan or another country was acceptable to them. The next section presents the results of the Likert scale items.

6.2 Likert scale items: Factor analysis and Cronbach's alpha

Before performing the factor analysis, descriptive data of the 20 Likert scale items was calculated. Table 6.2 presents their mean *(M)* or the average of all scores, and standard deviation *(SD)* or "the average distance of the scores from the mean" (Dörnyei, 2007, p. 214). While descriptive statistics summarizes datasets about the sample (Dörnyei, 2007), factor analysis is used to find out how many latent variables comprise a set of items (DeVellis, 2012). Prior to the factor analysis, items were not reverse-coded.

Table 6.3 presents the results of the factor analysis of the 8-point Likert scale items, which was performed with principal axis factoring and Promax rotation. The items with factor loadings of over 0.4 were retained, thus, eliminating two items (15 and 18). Twelve items related to embarrassment (Ho et al., 2004), avoidance and unwillingness to ask questions in English (Isoda, 2008) were identified to comprise the first factor, *question-asking apprehension* (Aitken & Neer, 1993). The second factor comprises three items on one's competence in asking English questions. It has been named *question-asking competence* after Isoda's (2008) "low perceived competence to speak English" (Isoda, 2008, p. 49). The third factor, *question-asking motivation* (Aitken & Neer, 1993) consists of three items, which could motivate question-asking in English.

Table 6.2

Descriptive data of Likert scale items

Items (variable)	*M*	*SD*
Q12 – I believe I do not have the ability to ask questions in Eng. (COMP)	3.24	1.612
Q13 – I am more likely to enjoy speaking in Eng. if I am able to ask questions in Eng. (MOTIV)	2.67	1.859
Q14 – I find it easier to ask questions in Eng. when I prepare for classes in advance (COMP)	3.44	1.7
Q15 – I tend to take a long time in coming up with questions in Eng. (MOTIV)	3.13	1.714
Q16 – I would like to speak as little as possible when I have to ask questions in Eng.	2.4	1.498
Q17 - I would like to speak as little as possible when I have to ask questions in Eng. (AVOID)	4.36	1.873
Q18 - I believe that asking questions in English helps improve my English ability (MOTIV)	2.24	1.495
Q19 – I believe my Eng. grammar is not accurate enough in order to ask questions in Eng. (COMP)	3.13	1.804
Q20 – I believe I am not capable of asking questions in English at my current level of English speaking ability (COMP)	2.76	1.583
Q21 – I believe others do not understand the questions I ask in Eng. (COMP)	3.51	1.604
Q22 – I sometimes think I would like to ask questions in Japanese even when I have to ask questions in Eng. (COMP)	3.58	1.925
Q23 – I believe I am not capable of communicating my intentions to my interlocutor when I ask questions in Eng. (COMP)	3.64	1.598
Q24 – I feel embarrassed asking my classmates questions in Eng. (AVOID)	4.27	2.168
Q26 – I want to avoid asking my classmates questions in Eng. (AVOID)	4.6	2.209
Q28 – I want to give my classmates a good impression by asking questions in Eng. (MOTIV)	5.69	2.009
Q30 – I become worried when I ask my classmates questions in Eng. (AVOID)	3.64	1.99
Q32 – I do not want to ask my classmates questions in Eng. if possible (AVOID)	4.64	2.165
Q34 – I want to avoid asking my native Eng. teacher questions in Eng. (AVOID)	5.33	2.143
Q36 – I want to give my native Eng. teacher a good impression by asking questions in Eng. (MOTIV)	5.16	2.067
Q38 – I do not want to ask my native Eng. teacher questions in Eng. if possible (AVOID)	5.16	2.11

Note: COMP = competence; MOTIV = motivation; AVOID = avoidance

Table 6.3

Items of small-scale EQAS, factor loadings and Cronbach's alpha

Pattern Matrix[a]	**Factor**		
	Question-asking apprehension	Question-asking comprehension	Question-asking motivation
	α = 0.928	α = 0.873	α = 0.715
Q24	**.969**	-.224	-.057
Q26	**.935**	-.212	-.106
Q32	**.911**	-.098	.084
Q17	**.824**	-.035	.027
Q22	**.682**	-.061	.005
Q21	**.633**	.300	-.214
Q23	**.611**	.168	-.114
Q30	**.609**	.099	-.287
Q16	**.607**	.293	.205
Q12	**.605**	.126	-.003
Q34	**.571**	-.161	-.215
Q38	**.529**	-.060	-.045
Q14	.524	**.451**	.000
Q20	.292	**.761**	.275
Q19	.374	**.600**	.062
Q36	-.176	.019	**.656**
Q13	.309	-.536	**.641**
Q28	-.417	.130	**.062**

Note: Extraction method: Principal Axis Factoring. Rotation method: Promax with Kaiser Normalization.

Rotation converged in 10 iterations. Factor loadings > .40 are in boldface.

After performing the factor analysis, Cronbach's alpha of the first two factors indicate that *question-asking apprehension* and *question-asking competence* have high reliability, with alpha of .928 and .873, respectively. The alpha of the third factor, *question-asking motivation* at .715, was at a marginally acceptable level. The next section describes the median split of two variables for creating four student groups.

6.3 Creating student groups: Median split of *question-asking apprehension* and *question-asking motivation*

For this study, 45 participants' mean scores of Likert scale items were used to perform a median split (see Section 5.3.3). Table 6.4 presents all 45 participants' mean scores in *question-asking apprehension* (items 12, 16, 17, 21, 22, 23, 24, 26, 30, 32, 34 and 38) and *question-asking motivation* (item 13, 28 and 36). The median split results are used for two purposes: (1) to categorize the participants in high and low groups of the two variables, and (2) to use the groups as the criteria for selecting the participants for the case study (see Section 8.4.2). Table 6.4 presents the participants and the four groups they are placed in: (1) low apprehension with high motivation (LA/HM), (2) low apprehension with low motivation (LA/LM), (3) high apprehension with high motivation (HA/HM), and (4) high apprehension with low motivation (HA/LM).

Table 6.4

Student groups based on median split of question-asking apprehension and question-asking motivation

P	A	M	S group	P	A	M	S group
01A	7.08	5.33	LA/LM	25C	3.83	6.33	HA/LM
02A	6.58	3.33	LA/HM	26C	3.83	4.33	HA/HM
03A	6.25	5.67	LA/LM	27C	3.67	3.67	HA/HM
04C	6.17	3	LA/HM	28C	3.58	4.67	HA/LM
05A	5.92	8	LA/LM	29C	3.5	7	HA/LM
06A	5.92	4.67	LA/LM	30A	3.33	5	HA/LM
07A	5.83	4.33	LA/HM	31C	3.25	2.33	HA/HM
08A	5.42	5.33	LA/LM	32A	3.17	5	HA/LM
09A	5.25	5.67	LA/LM	33A	3.17	2.33	HA/HM
10C	5.25	5.33	LA/LM	34A	3.17	2	HA/HM
11A	5.08	5	LA/LM	35A	2.83	5	HA/LM
12A	4.92	4.67	LA/LM	36A	2.67	3.33	HA/HM
13A	4.92	7.67	LA/LM	37C	2.5	2.67	HA/HM
14A	4.92	5.33	LA/LM	38C	2.42	5.33	HA/LM
15C	4.83	5.33	LA/LM	39A	2.33	1.33	HA/HM
16A	4.67	5	LA/LM	40C	2.25	3.33	HA/HM
17C	4.67	4.33	LA/HM	41C	2.17	2	HA/HM
18C	4.42	5	LA/LM	42C	2	7.33	HA/LM
19A	4.42	4	LA/HM	43C	1.83	3.33	HA/HM
20A	4.25	2.67	LA/HM	44C	1.83	4.67	HA/LM
21A	4.17	5.33	LA/LM	45C	1.08	4.67	HA/LM
22A	4.08	3.67	LA/HM	*M*	4.03177	4.50333	
23A	4	6.67	HA/LM	*SD*	1.43158	1.58065	
24A	4	1.67	HA/HM	Median	4	4.66	

Note: P = participant; A = question-asking apprehension; M = question-asking motivation; S group = student group; LA/LM = low apprehension with low motivation; LA/HM = low apprehension with high motivation; HA/HM = high apprehension with high motivation; HA/LM = high apprehension with low motivation

When responding to the Likert scale survey, participants were instructed to indicate the degree to which the statements reflected their thoughts and feelings about question-asking in English on 8-point Likert scales ranging from most applicable (1) to least applicable (8) (see *Section 5.2.2.2*). For this study, items were not reverse-coded. Therefore, if participants' *question-asking apprehension* score was higher than the mean of all participants (*M*=4.03177) they are considered to have low apprehension (LA) for question-asking in English. In contrast, if the same score was lower than that of all participants, they could have high apprehension (HA). On the other hand, participants with *question-asking motivation* scores higher than the mean (*M*=4.50333) are considered to have low question-asking motivation (LM), while those with scores lower than the mean could have high motivation (HM). The next section summarizes the filtering question results of LA/LM and HA/LM groups not included in the case studies (see Section 5.4.2).

6.4 Summary of EQAS filtering questions: The LM groups

Figure 6.1 graphically summarizes the results of a multiple correspondence analysis of the filtering questions based on the following variables: (1) student groups (LA/HM, LA/LM, HA/HM, HA/LM; see Section 5.3.3), gender, initial age of English instruction (Start_Age), travel-abroad experience (YTR, NTR), interest in study abroad

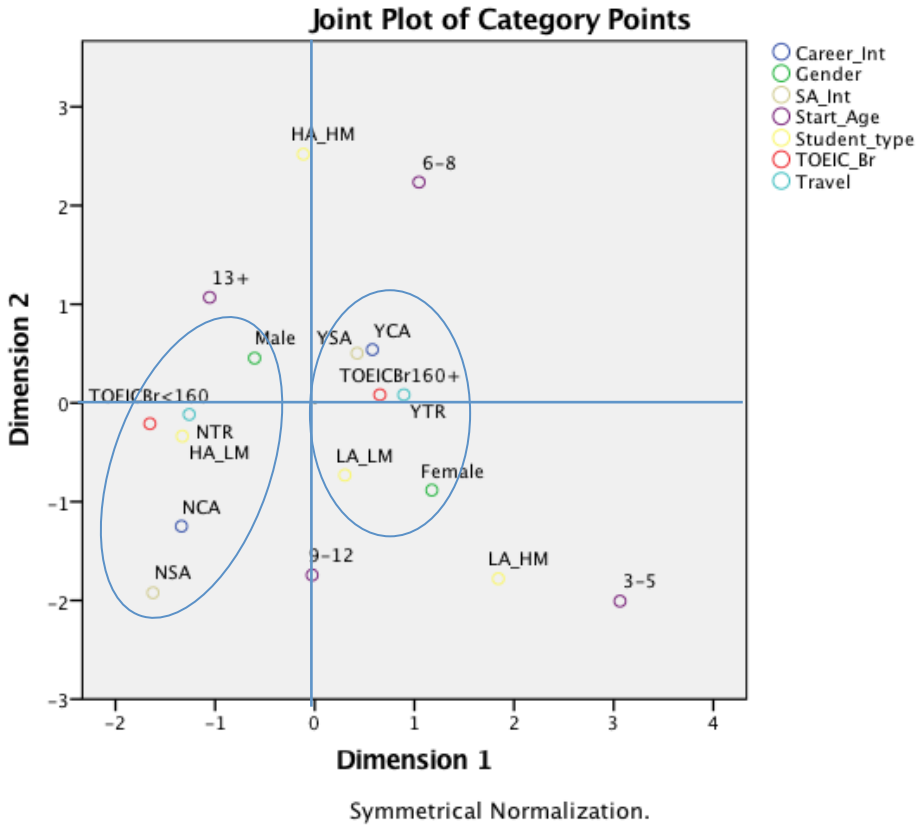

Figure 6.1 Profiles of student groups and variables in a two-dimensional plot (*N*=45)

(YSA, NSA), interest in career using English (YCA, NCA), and TOEIC Bridge ® scores (TOEICBr 160+, TOEICBr <160). First, variables which do not have a strong association will be mentioned.

Figure 6.1 indicates that there is no strong association between the high motivation groups (HA/HM and LA/HM), the initial age of instruction (Start_age; ages 3-5, 6-8, 9-12, 13+) and other variables as the plots are distant from each other. The following sections describe the variables associated with participants' low question-asking motivation (LA/LM and HA/LM), as they are not described in the case studies.

6.4.1 The low apprehensives (LA/LM)

15 participants placed in the LA/LM group (see Table 6.4). The multiple correspondence analysis results in Figure 6.1 indicated that this group had more female participants and students with TOEIC Bridge ® scores higher than 160 (TOEICBr160+). Furthermore, more respondents indicated they had travelled abroad (YTR) and were interested in studying abroad (YSA) and in a career using English (YCA).

Individual EQAS results of the filtering questions indicated there were seven female and eight male students in the LA/LM group. Although their TOEIC Bridge ® scores ranged from 148 to 178 (M=163.2; SD=8.937), 12 students' scores were higher than 160. Nine students had travelled abroad to English-speaking countries; two visited non-English speaking countries such as China and Korea. Twelve students were interested in studying abroad; seven indicated the US or Canada as their preference, and two, France and Taiwan. Fourteen stated they were interested in having a career using English, but nine wanted to work in Japan. While only one male student indicated that he would like to work abroad, the location did not matter for the other four students. The following section discusses the results of the same variables by HA/LM participants.

6.4.2 The high apprehensives (HA/LM)

11 students placed in the HA/LM group (see Table 6.4). The multiple correspondence analysis results in Figure 6.1 indicated that this group had more male participants and students with TOEIC Bridge ® scores below 160 (TOEICBr<160). Furthermore, more participants indicated they had never travelled abroad (NTR), and were not interested in studying abroad (NSA) nor in a career using English (NCA).

Individual EQAS responses to the filtering questions indicated there were nine male participants. Seven students had travelled abroad; while five travelled to English-speaking countries, others have gone to non-English speaking countries like Italy, Vietnam and Indonesia. Eight HA/LM participants stated they were not interested in studying abroad. Among the three students who did express an interest in studying abroad, one student chose France, and two, North America, as their preference. Although seven were interested in a career using English, they would like to have a career in Japan. One chose to work overseas, but the location did not matter for the other three. Although the TOEIC Bridge ® scores of 11 students ranged from 126 to 168, only four students had scores lower than 160 (M=158; SD=11.627). Two who had TOEIC Bridge © scores lower

than 160 indicated that they had never travelled abroad and were not interested in studying abroad or getting a career using English.

This section provided a summary of low apprehensive participants' responses to the filtering questions and Likert scale items. While the multiple correspondence analysis in Figure 6.1 graphically illustrates the association between variables of the participants of this study, their individual EQAS responses provide a clearer picture of their attributes. In the next section, details of their responses to the open-ended items bring to light their thoughts and face needs while asking questions in English.

6.5 Responses to open-ended items

EQAS has eight open-ended items (see Section *5.3.2.2*) where participants explained their thoughts and feelings related to the preceding Likert scale items regarding face needs when asking questions in English. Results of items 24, 26 and 34 are shown in Figures 6.2, 6.3 and 6.4 respectively, with answers to their corresponding open-ended items 25, 27 and 33. While the factor analysis results show that these items are related to question-asking apprehension (see Table 6.3), the responses indicate the participants' shame (item 24; see Section 4.4.1), and their desire to avoid asking questions (items 26 and 34; Isoda, 2008). Items 24 and 26 have been selected because HA participants found these

situations more applicable when asking questions to classmates. Item 34 has been added to compare with questions asked to native English-speaking (NES) teachers.

6.5.1 Shame when asking questions in English to peers

Figure 6.2 shows the ratings for item 24 (*M*=4.27, *SD*=2.168), which was "I feel embarrassed asking my classmates questions in English." Twenty-one out of 23 HA participants rated this item from 1 to 4. The reasons in item 25 included affective causes (lack of confidence, P37C; lack of competence, P41C), and cognitive causes (inaccurate grammar, P34A; inaccurate pronunciation, P29C). Three HA participants (P30A, P36A and P40C) wrote of the awkwardness of speaking in English to a classmate who usually speaks in Japanese which causes embarrassment, a reason four LA participants also stated (P13A, P16A, P20A, P21A).

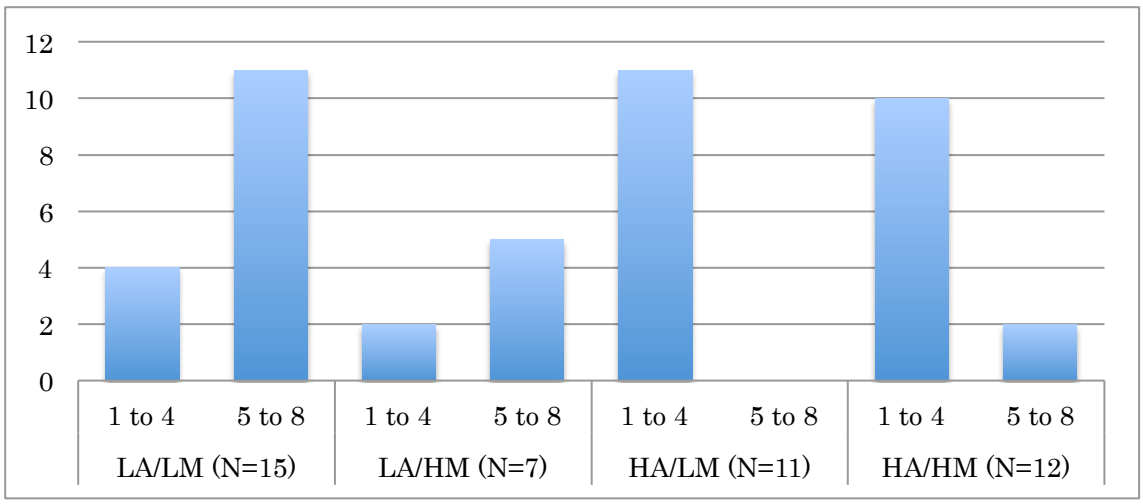

Figure 6.2 Likert scale responses to Q24 (*N*=45)

On the other hand, 16 LA participants rated this item between 5 and 8, which indicates not feeling as shameful or embarrassed when asking questions in English as their HA counterparts did. LA participants accepted that asking questions in English was part of their English lesson (P5A, P11A and P14A). Five LA participants felt asking questions was nothing to be ashamed of, as everybody was learning English (P1A, P6A, P8C, P9A and P12A). One participant (P17C) wrote that feeling ashamed would keep her from improving her English. There were, however, six participants who rated item 24 between 1 and 4. Their reasons include the awkwardness of asking question in English to a classmate who speaks Japanese (P13A and P16A) and some shame and embarrassment (P18C and P20A). P3A, who gained confidence during her short-term study abroad, wrote that even though she would like to speak more English, her classmates were not as willing. The next section presents the responses to items 26 and 27, which have to do with one's desire to avoid asking questions in English to classmates.

6.5.2 Desire to avoid asking questions in English to peers

Figure 6.3 shows the ratings for item 26 (M=4.6, SD=2.209), which was "I want to avoid asking my classmates questions in English."

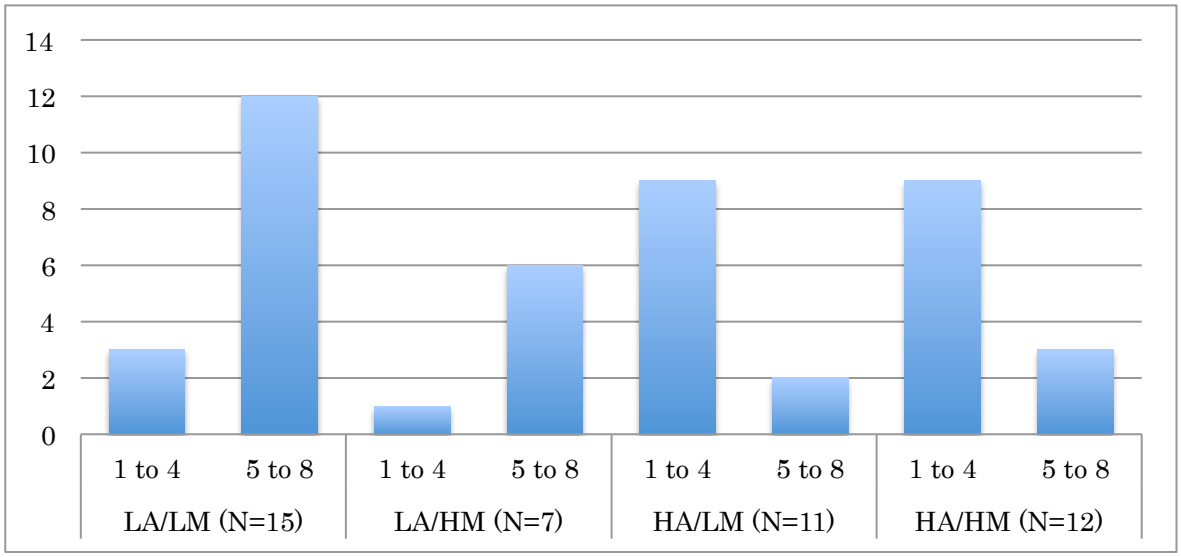

Figure 6.3 Likert scale responses to Q26 (*N*=45)

Eighteen HA participants rated this item between 1 and 4. In item 27, the same reasons for item 25 (i.e., lack of competence, P35A; inaccurate pronunciation, P30A; lack of confidence, P41C) were stated. In addition, the fear of making mistakes (P26C and P28C), one's poor English (P40C), as well as interactional reasons, such as the fear of not being understood (P25C, P39A and P45C) which may result in being ridiculed (P35A) were stated. Although four participants wrote they would not avoid asking questions, they did not state their reasons (P23A, P24A, P29C and P31C).

In contrast, 18 out of 22 LA participants rated this item from 5 to 8. They stated their willingness to improve their English skills (P1A, P2A, P5A, P12A P15C and P17C) and their acceptance that asking questions is part of English class (P6A, P7A and P8A) as their reason. Two participants wrote that while they preferred asking questions in Japanese,

they would still ask questions in English as long as others understood them (P11A and P19A). Five LA participants wrote that they would not avoid asking questions in English, but they did not state their reason (P4C, P7A, P10C, P21A and P22A). Although a minority, four LA participants rated item 26 from 1 to 4. They also gave the same rating to item 24 (P13A, P16A, P18C and P20A). While P18C, a LA/LM student wrote that she would feel embarrassed if she could not come up with a question in English, P20A, a LA/HM student, stated that sometimes he could not express his ideas clearly in English. P13A and P16A mentioned the awkwardness of asking questions in English to a classmate who speaks Japanese, which was the same response for item 24. The next section explains the responses to items 34 and 35, which deal with one's desire to avoid asking questions in English to English teachers.

6.5.3 Desire to avoid asking questions in English to native English-speaking (NES) teachers

Figure 6.4 presents the participants' ratings for item 34 (M=5.33, SD=2.143), which was, "I want to avoid asking my native English teacher questions in English." Unlike item 30, where participants rated their desire to avoid asking questions to peers, the ratings by HA participants were divided. While 14 HA participants rated this item

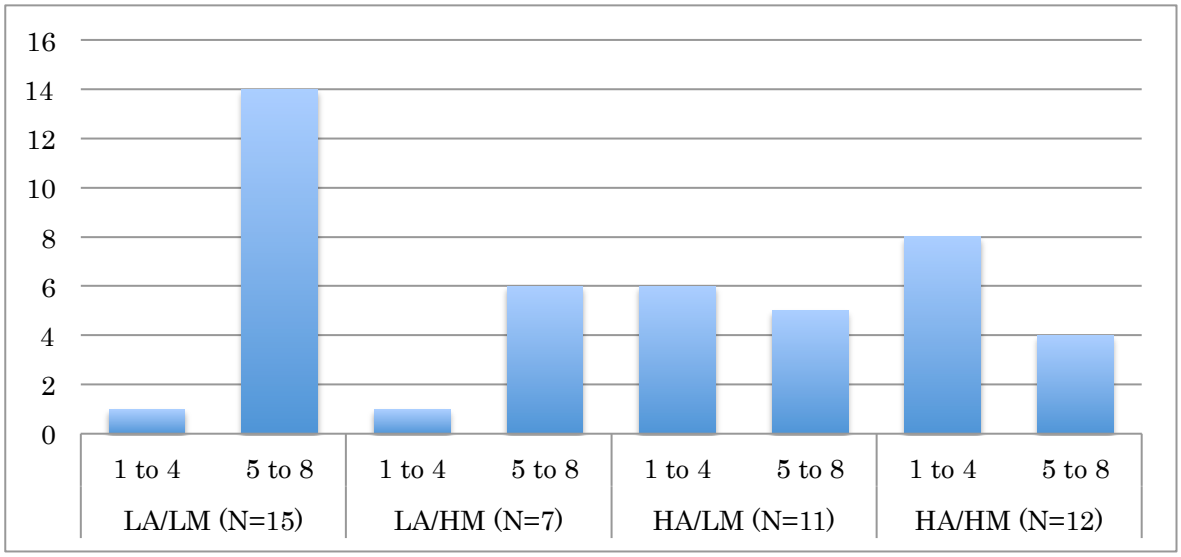

Figure 6.4 Likert scale responses to Q34 (*N*=45)

between 1 and 4, nine gave a rating between 5 and 8. Compared to the ratings for item 26, which deals with avoiding question-asking to peers (ratings of 1 to 4 by 18 HA participants; 5 to 8 by five HA participants), more participants indicated that they would not avoid asking questions to NES teachers as they would to peers. Responses to item 35 vary. For example, P35A wrote that NES teachers in Japan acknowledge efforts made by Japanese students which could pay off. P39A mentioned that he believed such teachers would correct his English. P34A and P36A wrote that asking questions in English to NES teachers was natural and that would help improve their own English. Furthermore, P28C found it interesting to ask questions in English to such teachers.

There were LA participants who rated item 34 between 5 and 8, who wrote similar responses to the above-mentioned answers. Six participants (P1A, P3A, P7A, P8A,

P17C and P20A) wrote comments similar to that by P34A and P36A that it would help improve their English. Four participants (P3A, P6A, P13A, P15C and P18C) responded that English teachers expected student participation and would correct students' English. Like P28C, one participant was curious to learn the thoughts of native English speakers (P16A) and another participant wanted to challenge herself by asking questions to see if the NES teacher would understand her (P10C).

There were some responses to item 35, which did not match the ratings from item 34. For example, among the HA participants who rated this item between 1 and 4, there were participants who expressed their willingness to ask questions despite their worries that the NES teacher might not understand them (P24A) and regardless of who the interlocutor was, be it a Japanese or a NES teacher (P33A). On the other hand, although there were LA participants who gave a 5 to this item, they expressed concerns about their English. For example, P9A and P12A felt more nervous asking questions to NES teachers compared to asking questions to Japanese peers.

6.6 Discussion and summary

6.6.1 Variables of descriptive data

This chapter presents the results of EQAS, which consists of filtering questions, Likert scale items and open-ended items. One of the noteworthy variables is gender, which became the criteria for selecting case study participants. The reason for looking at gender is supported by Shigemitsu (2013), who writes that Japanese males have been reported to have more problems than females when communicating in English. This makes male students ideal candidates for case studies of face needs when asking questions in English.

The participants' TOEIC Bridge ® scores may serve as one indicator of their English competence, but it is unlikely that their scores have any relationship with their ability to ask questions in English (see Figure 6.1). As TOEIC Bridge ® is a norm-referenced test which measures the test-takers' receptive skills, it alone cannot measure speaking ability. Approximately 73 percent of all participants have earned a TOEIC Bridge ® score over 160 (i.e., roughly equivalent to 570 on TOEIC ®), which is higher than the TOEIC ® mean score (M=512) earned by Japanese test takers in 2013 (Institute of International Business Communication, 2013). These results could be a reflection of their academic department, which is known to attract students who are

interested in international studies (see Section 5.1.2); hence, they are interested in English or generally have high English proficiency. However, L2 learners' interest or high proficiency in English, or even being a native speaker (Adams, 2015; King, 1990) does not guarantee their ability to ask questions in English, as previous research indicated that question-asking training was necessary (Alcón, 1993; Ayudaray & Jacobs, 1997) to develop question-asking ability.

6.6.2 Further development of Likert scale survey

The EQAS has been developed for this study as no suitable English question-asking scale for language learners exists. Table 6.3 presented the exploratory factor analysis of the three subscales, and independently, they each demonstrate their reliability statistically. However, these results did not replicate those from the pilot survey (see Section *5.2.2.4*). This suggests that the data "[do] not provide evidence for reliability" (Morgan, Leech, Gloeckner & Barrett, 2013, p. 111).

The reason why the EQAS factor analysis results did not replicate the pilot survey results could be attributed to the different participants to whom the surveys were administered. While the large-scale pilot study was administered to over 300 participants, who were university students representing various levels of English competence and

academic majors, EQAS participants only represent one group of students who participated in the pilot study (see Section *5.2.2.4*), thus making the survey results biased. It may, therefore, be necessary to perform a confirmatory factor analysis to confirm a pattern of relationships based on previous analytic results (DeVellis, 2012).

However, to compensate for the lack of statistical reliability of this survey, the EQAS participants' answers to the open-ended questions have been studied for two reasons: (1) to strengthen the reliability of the Likert scale survey; and (2) to explore and gain insight on the participants' perception of asking questions in English and their face needs through their open-ended responses, described in the next section.

6.6.3 Participants' face needs

In this study, the responses to the EQAS open-ended items are one of the ways to gain insight into participants' face needs (Kerssen-Griep, 2001) when they ask questions in English. This is because Likert scale survey responses alone cannot measure question-asking ability and underlying face needs.

The responses to item 25 were related to the HA participants' shame and embarrassment, caused by their anxiety to ask questions in English, which is similar to findings in Isoda (2007). Shame and embarrassment can also be caused by not fulfilling

one's responsibility (Wu, 2009), such as the participants' lack of proficiency in English (Sueda, 2014). This could cause one's competence face needs to be threatened (Kerssen-Griep, 2001), which could further threaten one's fellowship face needs. This will be addressed in Chapter 8 (see Section 8.3.3).

Items 27 and 35 were related to question-asking avoidance. Avoidance in speaking English was a variable, which Isoda (2007) identified in order to develop his scale. However, responses to the two items suggest that face can be audience-based (Richmond, Wrench & McCroskey, 2013). Low apprehensive students (e.g., LA/LM and LA/HM) are less likely to avoid question-asking in English, be it with NES teachers or classmates. However, the high apprehensive students (e.g., HA/LM and HA/HM) are slightly more likely to avoid question-asking in English to peers than to NES teachers. This is further discussed in Chapter 8.

A final comment is made on responses such as, "I don't know" (P38C, to item 25), or "I'm not interested in the impression that others have of me" (P8A, to item 29), or "It doesn't matter to me" (P4C, to item 35). To label such comments as irrelevant may be inappropriate because they could disguise respondents' autonomous face needs (Kerssen-Griep, 2001), which reflect their desire to refrain from giving responses.

However, as it is difficult to get university students to be honest about their emotions (see Section 4.4.1) such as shame, further studies on such responses will be saved for future research.

This chapter summarizes the results of EQAS. The EQAS, which consists of filtering questions, Likert scale items and open-ended items, was developed for this study. Chapter 7 presents the results of the pre-and post-instruction speaking tasks, which were performed by all four student groups (LA/HM, LA/LM, HA/HA, HA/LM; see Section 5.3.3). Chapter 8 addresses the second and third research questions in the case study of two participants to explore the difference between their low and high question-asking apprehension.

CHAPTER 7

Pre- and post-instruction tasks: Results and discussion

This chapter presents the results of the pre- and post-instruction tasks. A correspondence analysis (see Section 5.3.4) was performed between the four student groups and the question types they produced (see Sections 5.2.3 and 5.3.2). Then, a McNemar test (see Section 5.3.5) compared the results of the two tasks to examine whether instruction was effective.

7.1 Correspondence analysis results

The pre-instruction task was administered in the first week of the study. The post-instruction task was given after completing the instruction of all six question types. Appendix C presents the coding results of both tasks (see Section 5.5.1).

7.1.1 Pre-instruction task results

Correspondence analysis results are displayed both on a correspondence table and a graph (see Section 5.3.4). Table 7.1 presents the distribution of questions (N=220), which is graphically illustrated in Figure 7.1.

Table 7.1

Pre-instruction task: Frequency (%) by question type

Correspondence Table

Question-type	**LA/LM** (*N*=15)	**LA/HM** (*N*=7)	**HA/LM** (*N*=11)	**HA/HM** (*N*=12)	**TOTAL Q-type (*N*=220)**	
Remembering	15	7	10	6	38	(17.3%)
	(39.5%)	(18.4%)	(26.3%)	(15.8%)		
Understanding	32	17	26	24	99	(45.0%)
	(32.3%)	(17.2%)	(26.3%)	(24.2%)		
Applying	1	3	1	3	8	(3.6%)
	(12.5%)	(37.5%)	(12.5%)	(37.5%)		
Analyzing	12	0	4	9	25	(11.4%)
	(48.0%)	(0%)	(16.0%)	(36.0%)		
Evaluating	11	7	9	15	42	(19.1%)
	(26.2%)	(16.7%)	(21.4%)	(35.7%)		
Creating	3	1	1	3	8	(3.6%)
	(37.5%)	(12.5%)	(12.5%)	(37.5%)		

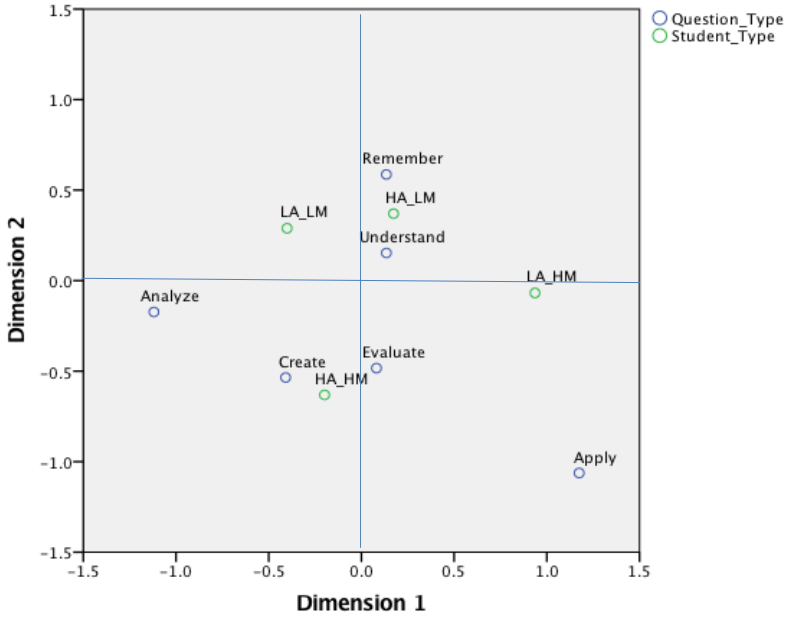

Figure 7.1 Pre-instruction task: Student groups and question types in a two-dimensional plot (*N* = 220)

Table 7.1 shows that Understanding questions account for 45 percent of all questions, followed by Evaluating questions at 19.1 percent, and Remembering questions at 17.3 percent. Figure 7.1 also shows that all student groups ask the highest number of Understanding questions, as this question type is plotted closest to the center. However, there is variance between student groups regarding the second frequently asked question types. For example, Remembering, which is closely plotted to LA/LM and HA/LM, follows Understanding questions for these two groups; however, for HA/HM, Evaluating is the question type after Understanding, as their close plots are graphically displayed in Figure 7.1. In contrast, LA/HM asks the same number of Remembering and Evaluating questions, as seen in their roughly equidistant plots. The low frequency of Creating questions is consistent among all groups. Applying and Analyzing questions, which were situated further out from the center, away from other question types and student groups, will be discussed later.

7.1.2 Post-instruction task results

Table 7.2 presents the correspondence analysis of distribution of questions (*N*=225), which Figure 7.2 graphically illustrates.

Table 7.2

Post-instruction task: Frequency (%) by question type

Correspondence Table

Question-type	**LA/LM** (*N*=15)	**LA/HM** (*N*=7)	**HA/LM** (*N*=11)	**HA/HM** (*N*=12)	**TOTAL Q-type (*N*=225)**	
Remembering	7	2	4	5	18	(8.0%)
	(38.9%)	(11.1%)	(22.2%)	(27.8%)		
Understanding	13	7	14	12	46	(20.5%)
	(28.3%)	(15.2%)	(30.40%)	(26.1%)		
Applying	10	4	13	11	38	(16.8%)
	(26.3%)	(10.5%)	(34.2%)	(28.9%)		
Analyzing	8	3	4	11	26	(11.6%)
	(30.8%)	(11.5%)	(15.4%)	(42.3%)		
Evaluating	24	11	15	17	67	(29.8%)
	(35.8%)	(16.4%)	(22.4%)	(25.4%)		
Creating	13	8	5	4	30	(13.3%)
	(43.3%)	(26.7%)	(16.7%)	(13.3%)		

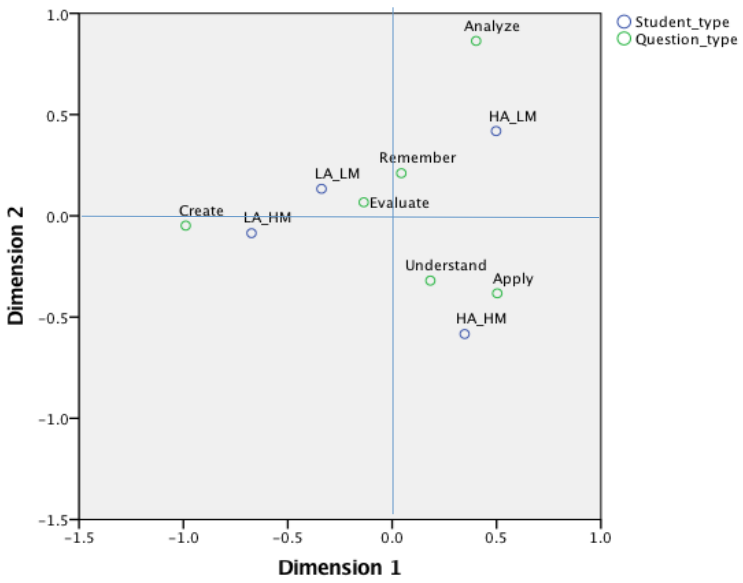

Figure 7.2 Post-instruction task: Student groups and question types in a two-dimensional plot (*N* = 225)

Both Table 7.2 and Figure 7.2 show that all student groups ask the highest number of Evaluating questions. As with the pre-instruction task, there is variance between student groups regarding the second frequently asked question types with this task. For example, Understanding questions were the second most frequently asked questions by LA/LM, HA/LM and HA/HM. However, LA/HM asked one more Creating question than Understanding question. The frequency of Remembering questions was low, a common pattern among all groups. Similar to the pre-instruction task, Analyzing questions were situated further out from the center, away from other question types and student groups.

7.2 Language data

Language data, or participants' utterances from the two tasks, which was not available in past studies (Alcón, 1993; Ayudaray & Jacobs, 1996; King, 1990) are an important part of qualitative data in this study. Table 7.3 lists the pre-instruction sample questions, and Table 7.4, the post-instruction questions. Partially-underlined questions indicate that participants used the same wording from the reading material (see Figure 5.1) to form their question.

Table 7.3 *Sample questions from pre-instruction task*

REMEMBERING QUESTIONS

- How old is he? (P21A; LA/LM)
- What is Kusunoki's major at Harvard University? (P22A; LA/HM)
- How long has Kusunoki lived in Britain? (P35A; HA/LM)
- Why did Kusunoki live in Britain? (P29C; HA/HM)

UNDERSTANDING QUESTIONS

- Why did he back to Japan at 15? (P1A; LA/LM)
- What makes him realize that the world he knows is very small? (P6A; LA/HM)
- How does Kusunoki thinks building a network is important? (P28C; HA/LM)
- What kind of experience does he have? (P40C; HA/HM)

APPLYING QUESTIONS

- How can we feel encouragement from his advice for high school students whose English skills are still weak? (P10A; LA/LM)
- How do you treat money problem to do? (P4C; LA/HM)
- How does he support from the side of money? (P32A; HA/LM)
- What do we do to get the skills of discussion? (P33A; HA/HM)

ANALYZING QUESTIONS

- How does Mr. Kusunoki make connection with people who had gone Harvard University before? (P6A; LA/LM)
- Why does – why was he struggled to get along at local schools? (P28C; HA/LM)
- Why did he enter Nada High School easily? (P27C; HA/HM)

EVALUATING QUESTIONS

- What is the good point to study abroad? (P8A; LA/LM)
- Should Japanese education system be changed? (P2A; LA/HM)
- How do you think to study abroad a good way to know the world? (P26C; HA/HM)
- You have the intelligence, so do you want to change the world yourself? (P45C; HA/LM)

CREATING QUESTIONS

- How will Kusunoki build a network for students who have traveled overseas? (P12A; LA/LM)
- What are you thinking about after care after ryugaku? (P4A; LA/HM)
- When we go to study abroad what kind of special experience do we get? (P32A; HA/LM)
- There are some thing – anything to do instead of – to study abroad for people who can't study abroad? (P37C; HA/HM)

Table 7.4 *Sample questions from post-instruction task*

REMEMBERING QUESTIONS

- What will Kusunoki will do for his next project concretely? (P5A; LA/LM)
- What happened in his final year in high school? (P7A; LA/HM)
- What is his next project? (P28C; HA/LM)
- What is Ryugaku Fellowship? (P29C; HA/HM)

UNDERSTANDING QUESTIONS

- Why was struggled to get along at local schools? (P10C; LA/LM)
- Why does he want high school students to consider developing as individuals at overseas universities as an option for their future? (P7A; LA/HM)
- Why did he decide to study in abroad universities? (P23A; HA/LM)
- Why did he choose Harvard University? (P41C; HA/HM)

APPLYING QUESTIONS

- What can students learn by studying abroad? (P12A; LA/LM)
- How would you improve your English skills if you English skill is very weak? (P17C; LA/HM)
- How should we do to speak English better? (P38C; HA/LM)
- What would happen if a network for students who have travelled overseas become popular in Japan? (P43C; HA/HM)

ANALYZING QUESTIONS

- Do you think what is the difference between studying abroad and studying in Japan? (P1A; LA/LM)
- What is the problems with developing as individuals in overseas universities? (P4C; LA/HM)
- What is the purpose of study abroad? (P29C; HA/LM)

EVALUATING QUESTIONS

- Do you think that Ryugaku Fellowship will succeed and why? (P9A; LA/LM)
- What is your opinion on studying abroad? (P17C; LA/HM)
- Do you agree with the action about Ryugaku Fellowship? (P27C; HA/HM)
- If you can study abroad, what subject do you want to study? (P38C; HA/LM)

CREATING QUESTIONS

- Can you think of a way to encourage foreign students to study in Japan? (P6A; LA/LM)
- Can you come up with an idea that a number of students like Masahiro Kusunoki will increased? (P19A; LA/HM)
- Can you make a model that the Japanese student who study abroad will increase? (P45C; HA/LM)
- Can you make a new plan to encourage student who want to study abroad without scholarship? (P36A; HA/HM)

Remembering questions recall facts and information. The four Remembering questions before instruction asked about Kusunoki, which the speaking task material deals with. There were questions asking about his age, major at Harvard University and life in Britain. However, the four sample questions after instruction required more details about Kusunoki's project rather than Kusunoki himself.

Understanding questions ask for explanations, for which answers usually cannot be found in the text. The four questions from the pre-instruction task asked about his return to Japan and experience. The questions after the instruction task asked for more details beyond the facts and information Remembering questions ask for. Questions of this type include why Kusunoki had difficulty adjusting to schools in Britain, and why he chose to study abroad, specifically at Harvard University.

Applying questions aim to solve problems by applying knowledge in a different way. The four questions before instruction asked about how to encourage high school students to improve their English, deal with financial issues related to study abroad and ways to improve discussion skills. The Applying questions asked after instruction focused on how to solve problems related to improving English skills, studying abroad and the subsequent experience. None of these questions had answers in the reading material.

Among the high cognitive questions asked before instruction, Analyzing questions by LA/LM, HA/LM and HA/HM are listed while none were asked by LA/HM. The three questions aimed to find connections between information, such as why Kusunoki did not get along in British schools and why he entered Nada High School. After instruction, all groups asked Analyzing questions which dealt with studying abroad and its specifics, such as the difference between studying in Japan and abroad, the purpose of studying abroad, the relationship between studying abroad and the English language, and issues of studying abroad used as a way to develop individuals.

Evaluating questions ask about opinions or one's position about an issue, such as agreement or disagreement. The Evaluating questions before instruction asked opinions of the advantages of studying abroad, changing the Japanese education system and more ambitiously, changing the world. On the other hand, the same type of questions after instruction asked about one's opinion of Kusunoki's NPO, Ryugaku Fellowship, whether one agrees with what the NPO endeavors to do, and one's opinion of studying abroad.

Finally, the Creating questions ask about new or alternatives to existing ways. Questions before instruction asked what could be done after studying abroad as well as alternatives to studying abroad, in addition to ways to recruit past study abroad students.

The questions after instruction aimed at coming up with new ideas or alternatives to increasing the number of Japanese students to study abroad and foreign students to study in Japan, and promoting study abroad without a scholarship.

The next section presents the results of the McNemar test, which measures the effectiveness of instruction.

7.3 McNemar test results

The McNemar test was selected to examine the frequency of questions between both speaking tasks. The test compared the high cognitive questions (i.e., Analyzing, Evaluating, and Creating questions) and low cognitive questions (i.e. Remembering, Understanding, and Applying) asked before and after instruction for the purpose of examining the effectiveness of instruction.

Questions were grouped into four categories: high cognitive questions before and after instruction, and low cognitive questions before and after instruction. As the same types of questions were measured twice, they were paired-samples. The dependent variable, which was the question type, had two dichotomous variables: high cognitive questions and low cognitive questions. The independent variable was the speaking task, for which there were two related groups. They were the pre-instruction task and post-instruction task.

Table 7.5 shows the frequency of low and high cognitive questions, which participants asked before and after instruction. Of the 220 pre-instruction task questions, 145 were low cognitive questions and 75, high cognitive questions. In contrast, of the 225 post-instruction questions, there were 102 low cognitive questions and 123 high cognitive questions. The McNemar's test was performed and there was a statistically significant difference in the number of high cognitive questions asked in pre- and post-instruction tasks, $p = .05$

Table 7.5 *Cross-tabulation table of low cognitive and high cognitive questions asked in pre- and post-instruction tasks (N=445)*

Task type	Low Cog Qs Count (%)	High Cog Qs Count (%)	TOTAL Count (%)
Pre-instruction task	145 (65.9%)	75 (34.1%)	220 (100%)
Post-instruction task	102 (45.3%)	123 (54.7%)	225 (100%)
TOTAL	247 (55.5%)	198 (44.5%)	445 (100%)

7.4 Discussion

In response to the second research question regarding the effect of question-asking instruction, the results indicate that the participants, 45 Japanese university EFL students, were able to ask high-cognitive questions in English as a result of the instruction. Table 7.5 shows that while the participants asked 75 high cognitive questions before instruction, this increased to 123 high cognitive questions in the post-speaking task. On the other hand, the number of low cognitive questions asked between the two speaking tasks indicated a decline from 145 to 102 questions.

Although the methods in this study were different from Alcón (1993) and Ayudaray and Jacobs (1997) (see Section 2.4.1), the results show that indeed Japanese university EFL students learned how to ask high cognitive questions. This indicates that regardless of method, study participants were capable of asking high cognitive questions.

The first research question which was not addressed in past studies (Alcón, 1993; Ayudaray & Jacobs, 1997) asks what kind of high cognitive questions students produced before and after instruction. The results indicate that Evaluating questions were the most frequently asked high cognitive questions, with 42 questions pre-instruction and 67 questions post-instruction, respectively. Figure 7.2 further supports the findings that

Evaluating questions accounted for the highest number of all questions asked in the post-instruction task. As the variable with the highest frequency is plotted closest to the center (Takahashi, 2005), Evaluating questions were the most frequently asked questions by all four student groups.

However, when looking at the frequency of other high cognitive questions, Creating questions increased from eight questions before instruction to 30 questions after instruction. On the other hand, Analyzing questions remained almost unchanged, from 25 to 26 between the two tasks. The frequency of both Creating and Analyzing questions was lower than Evaluating questions, and, as seen in Figure 7.2, they are plotted further away from the center (Takahashi, 2005).

The results of the speaking tasks bring to light an issue concerning the frequency of questions and the order of the cognitive processes. In Bloom's Taxonomy (Bloom, 1956), Evaluate is the next level above Analyze. However, the post-instruction task results indicate that more Evaluating questions were asked compared to Analyzing questions, suggesting that Analyzing may not have been mastered because of its low frequency. Although past studies (Alcón, 1993; Ayudaray & Jacobs, 1997) do not indicate that there is any bearing between the number of questions asked and the order of cognitive processes,

participants' comments give a glimpse of why more Evaluating questions were asked. One participant stated in an interview, *"Evaluate wa yoku kiku naiyou... iken ya kangae wo kiitari* ***[Evaluating is something we often hear, as we often ask for people's ideas and opinions]"*** (P11A, LA/LM), which implies that Evaluating questions were already part of the participants' question-asking repertoire even before instruction. However, another participant commented, *"Remembering, Understanding ga wakaranakereba Evaluating mo dekinai* ***[Unless I know how to ask Remembering questions or Understanding questions, I would not be able to ask Evaluating questions]"*** (P3A, LA/LM). This agrees with what Bloom (1956) claims, that mastering cognitive processes in the lower level to be able to advance to higher cognitive processes is the logical way to progress in the Taxonomy. That said, more investigation is needed regarding ways to promote students' questions with lower frequency like Analyzing questions. At the same time, it may be necessary to look at data from other sources to address this issue.

While past studies (Alcón, 1993; Ayudaray & Jacobs, 1997) did not provide transcriptions of questions which study participants' asked, this study aimed at collecting qualitative data to better understand what could be missing in studies focusing on quantitative data. Qualitative data in this study included the transcriptions of the questions

asked in the speaking tasks (see Tables 7.3 and 7.4). They could provide insight into understanding why more Evaluating questions were asked than Analyzing questions. In reference to the previously-mentioned issue of Analyzing questions, it is necessary to revisit the six types of sentence stems (see Table 5.4):

a. How would you categorize …? (putting things in categories)
b. What is the purpose of …? (asking the purpose of something)
c. What is the relationship between _____ and _____? (asking the relationship)
d. How are _____ and _____ different / similar? (asking differences and similarities)
e. What is/are the problem(s) with …? (asking to identify a problem or advantage)
f. What could have happened with …? (asking about possible consequences)

When analyzing the transcriptions of the 26 Analyzing questions produced after instruction, findings show that there were four asking purposes (b), two which asked relationships (c), 14 asking differences (d), four asking to identify problems and advantages (e), and one which asked about possible consequences (f). None of the questions asked about categories (a). While level of difficulty has not been studied between Analyzing and Evaluating questions, it is likely that the above sentence stems ask for more complex information than Evaluating (E) questions, which needs closer examination in future studies.

This chapter summarizes the results of pre- and post-instruction tasks to explore whether question-asking instruction has an effect on the participants' ability to ask high

cognitive questions. Sample questions, which participants asked during the pre- and post-instruction tasks were also provided. Chapter 8 presents two male participants with high motivation towards asking questions in English: one is a low apprehension case; the other, a high apprehension case.

CHAPTER 8

Two cases of question-asking apprehension: Results and discussion

This chapter addresses the second and third research questions (see Section 1.4) by presenting two participants. The two cases use data from multiple sources: responses to EQAS open-ended items, data of pre- and post-instruction tasks, group discussion data in English and semi-structured interviews.

8.1 Case study participants

Two case studies are presented to explore the difference between students with low and high question-asking apprehension by comparing the following: (1) their thought process behind the post-instruction tasks, (2) the questions they ask during group discussions from a Vygotskian perspective, and (2) their underlying face needs related to question-asking in English which surface during interviews.

The first case study deals with Nobuto, a male participant who scored 160 on the TOEIC Bridge ®. He has been selected because of the question types he asked in the pre-instruction tasks as he did not ask any Remembering or Understanding questions.

Nobuto's question-asking apprehension subscale score, 6.58, put him among those with low question-asking apprehension (LA). In contrast, his question-asking motivation score, 3.33, placed him among those with high question-asking motivation (HM). Based on the subscale scores, Nobuto placed in the LA/HM group (see Section 6.3).

The second case introduces Tomo, a male participant with a TOEIC Bridge ® score of 160. His subscale scores indicated that he was both apprehensive and motivated about asking questions in English, which seemed conflicting. Tomo's question-asking apprehension and question-asking motivation subscale scores were 2.33 and 1.33, respectively. As a result, he placed in the HA/HM group (see Section 6.3).

8.2 A low apprehension case

Nobuto was 20 years old and in his second year of university when he participated in the study. He started studying the English language while he was in the $5^{th}/6^{th}$ grade in a Japanese elementary school. However, this was not his first exposure to English. As a young child, Nobuto used to live in Chicago between ages six and nine because of his father's business. However, he said he did not speak English at the time because he was enrolled in a full-time Japanese school.

When the study started, Nobuto's written responses to the EQAS filtering

questions indicated that he had an interest in studying abroad in the United States to further his studies in his major. However, he indicated that he was not interested in pursuing a career using English.

8.2.1 High awareness of high cognitive questions

The following are the questions which Nobuto asked during both pre- and post-instruction speaking tasks with question types indicated in parentheses:

[Pre-instruction task]

1. Do you know how to live economic on studying abroad? (Applying)
2. Do you think if it is effective to studying abroad on especially on purpose? (Evaluating)
3. Do you think students whose English skills are still weak should study abroad? (Evaluating)
4. How long do you think it is effective that students study abroad on- and get some well – well – on getting some ability? (Evaluating)
5. Should Japanese university education system be changed? (Evaluating)

[Post-instruction task]

1. Do you think people who doesn't have purpose on studying abroad, should study abroad? (Evaluating)
2. Can you think a scholarship system for people who study abroad? (Creating)
3. What is the advantages of studying abroad? (Evaluating)
4. Can you think the way people who are in Japanese university can also experience, can also experience stimulus communicating between other country students? (Creating)
5. Can you think people who are weak English skills, also be able to communicate with foreign students? (Creating)

During the interview, when Nobuto reviewed the transcription of his questions, he explained why he had asked Creating questions:

Creating towa atarashii mono wo mitashite iku hijou ni juuyou na koto dato

omoimashita. Nanode narubeku souiu kotoga dekiru youni shimashita. ***[Creating means to fulfill something new, which I believed was very important… So I tried to make as many Creating questions as possible]***

When asked about the other questions types, Nobuto explained as follows:

Kore wa Creating janakutomo, giron wo yobesou na shitsumon, toiu ten de, iretemo ii kana,to omoimashita. ***[Even though they were not Creating questions, I thought maybe I could add them because they seemed to be questions which could prompt discussions]***.

Nobuto further elaborated on questions which could prompt discussions:

Jibun no iken wo yoriyoi mono ni shite iku, toiu imi de, giron no hitsuyousei wa aru to omoimasu ***[In order to further improve my ideas, I believe there is a need for discussion]***.

When asked about questions which could prompt discussions, while Nobuto was confident with his ideas, he emphasized the importance of *"taikyoku gawa no hito no kangae mo kikeru kanousei* ***[the possibility of listening to the ideas of my opponents]***."

When asked about what he learned about asking questions in this course, Nobuto answered that Applying and Analyzing questions have sharpened his thoughts and helped him with question-asking in English:

Applying ya Analyzing no dankai wa fudan wa muishiki ni yatteiru mono nanode, sore wo ishikiteki ni torae naosu koto ga dekita. Toiu koto de, jugyou wo ukeru mae to uketa ato de shikou no surudosa ga towareta youna ki ga shimasu. ***[I have been accustomed to thinking of Applying and Analyzing questions unconsciously. But, I have been able to perceive them more consciously. So compared to before I took this class, I feel confronted with the sharpness of my thoughts]***

In response to the second research question, "Does question-asking instruction

have an effect on Japanese university EFL students' ability to ask high cognitive questions?" the results of his post-instruction task show that for Nobuto, it did have an effect on asking high cognitive questions. The types of questions he uttered during the post-instruction task were all high cognitive questions (i.e., one Evaluating and four Creating questions; see Section 8.2.1), which addresses the first part of the third research question. Not only was Nobuto able to ask high cognitive questions, but he clearly articulated his thought process when asking questions. Nobuto said, *"Ima no jiten de, koko made mittsu wa Creating ga tsukuremashita yo, toiu koto wo shimesu tsumori deshita [**I intended to show that at this point, I have been able to make three Creating questions**]."*

While more needs to be studied regarding the relationship of Japanese EFL university students' ability to ask high cognitive questions and their critical thinking skills, a native English teacher at a Japanese university who Sano (2014) interviewed surmises that teachers' question-asking was effective for enhancing the critical thinking for EFL students "who participate" (Sano, 2014, p. 39). If Nobuto is capable of expressing his deliberate plans for asking high cognitive questions and actually asks them, it can be interpreted that he was participating in his own learning and potentially has critical thinking skills.

The next section looks at how Nobuto's question-asking was manifest in small group discussions. The names of the other students are all pseudonyms.

8.2.2 The traffic controller

Prior to question-asking instruction, in his written responses to open-ended items in EQAS (see Section 6.5), Nobuto wrote that asking questions in English was, *"hajiru koto demo nai tame* ***[It's not something to be ashamed of]****"* (item 25; see Figure 6.2). In addition, he would not avoid asking questions in English to classmates because *"eigo no nouryoku wo agetai tame [****I want to improve my English competency****]"* (item 27; see Figure 6.3). However, when asked whether he felt worried about asking his classmates English questions, he wrote *"jibun no eigo ni sukoshi jishin ga nai tame [****because I am a little unsure of my English****]"* (item 31; see Figure 6.4). Notwithstanding his responses to the open-ended items, during the semi-structured interview, Nobuto explained the role he tried to fulfill during the small group discussions:

> *Nagare ga narubeku tomaranai youni shiyou to omotte imashita. Amari jibun ga hansou to, minna ga owanaku naru to, hontou ni daremo hanasanaku nattchau node, jibun ga shitsumon wo omoi ukaba nakutemo, toriaezu, giron ga mawaru youni, jibun ga seiriyaku ni tatou kana, to omotte.* ***[I tried to keep the flow going. If people don't think they should talk, then nobody would talk. So even though I didn't have any questions, I thought I should become the traffic controller to make sure the discussions moved on]****.*

Nobuto's self-perceived role as traffic controller was reflected in his interactions. The next

two excerpts are from the small group discussion which Nobuto took part in. They illustrate how Nobuto participated in discussions by keeping in mind the relevant question type and the assigned reading material. The topic for the first excerpt was about Japanese women who lived away from their husband and children due to their work. The discussion reinforced Remembering and Understanding questions.

Excerpt 1

(1)	Nobuto	What is obstacle for transfer?
(2)	Chika	*Aaa **[Ummm]***
(3)	Taiki	What is
(4)	Nobuto	Yeah.
(5)	Chinatsu	In this case –
(6)	Nobuto	W-e-l-l…
(7)	Chika	Or, in society or in other case?
(8)	Nobuto	More generally…
(9)	Chika	More generally… *uuu..mu **[Hmmm]***
(10)	Nobuto	The other might be here… here, paragraph 12.
(11)		((10-second silence)). The answer might be nursing care.
(12)		I want more general question
(13)	Chika	Or, people who has a family, maybe, of course, family…
(14)		is not… obstacle, but maybe a problem. *Un **[yeah]***.
(15)	Taiki	Maybe.

Nobuto's question in line 1, "What is obstacle for transfer?" is a Remembering question. In lines 2, 3 and 5, Chika and Taiki expressed their hesitation as they looked for answers. In line 6, Nobuto uttered a stretched "W-e-l-l…" to which Chika clarified by asking "Or, in society or in other case?" In line 8, Nobuto gave a hint, "More generally," which Chika

repeated in line 9. Nobuto gave another hint when he pointed out in lines 10 and 11 that the answer could be found in "paragraph 12." After giving away the answer, Nobuto said in line 12, "I want more general question" to Chika and Taiki to elicit questions in English to carry on with the discussion. From lines 13 to 15, Chika and Taiki have finally caught on and gave their view to Nobuto's question in line 1.

The next excerpt in this section deals with Creating questions. Nobuto, with Mami and Tetsu, discussed prosthetic limbs created on 3-D printers. In this segment, Nobuto re-directed the discussion which was getting off track.

Excerpt 2

(1)	Mami	I don't think it's not.
(2)	Tetsu	Say if you have completely another face or another body
(3)		((laughter)) is it still you?
(4)	Nobuto	That is – full face?
(5)	Tetsu	*Soshitara plastic surgery wo* ***[Then you could have***
(6)		***plastic surgery]***
(7)	Nobuto	*So ne, seikei mo nanika* ***[Well, plastic surgery is kind of]***
(8)	Tetsu	*Kawattchau* ***[It gets changed]*** ((snipped))
(9)	Mami	There's no identity. *Dare ga dare ka wakannnai jan,*
(10)		*shincho mo wakan naku naru shi* ***[You don't even know***
(11)		***who's who, or how tall they were]***
(12)	Naoki	Right.
(13)	Mami	So maybe human becomes a robot, only with their brains
(13)		*Atama wo okashiku naku suru toka, robotto shika*
(14)		*nakunaru jan* ***[If you make them not go crazy, then***
(15)		***you'll only be left with robots]*** ((6 second pause))
(16)	Nobuto	Maybe these technologies is used for another,

(17) *senso toka, jirai wo tsukuttari toka* ***[like wars, or like***
(18) ***making land mines]***

Between lines 1 and 6, Mami, Tetsu and Nobuto jokingly talked about prosthetic limbs which could be likened to plastic surgery. However, in line 7, Nobuto slowly came to the realization that their discussion had gone off-topic. Between lines 8 and 11, Tetsu and Mami discussed the disadvantages, such as losing one's identity. Nobuto, in line 12, endorsed the ideas by the two students. Between lines 13 and 15, Mami got agitated and expressed concerns that such prosthetic limbs could turn people into robots. However, after a six-second pause, although not a question, Nobuto suggested a new way to utilize the technology of 3-D printers and brought the discussion back on track.

Before the discussion, while students took a quiz on Creating questions, Nobuto wrote a comment acknowledging the importance of asking such questions. In English, he wrote, "To ask evaluating question helps us to realize different ways of thought and it might enable us to create better thought." In other words, for Nobuto, being able to judge and express opinions by asking Evaluating questions allowed him to generate Creating questions, like his utterances in lines 16 to 18.

In response to the second and third parts of the third research question, which asks about students' interaction in group discussions and their face needs, it is important to

note that Nobuto saw himself as a "traffic controller." During group discussions, Nobuto usually took the initiative and led discussions by asking questions. In Excerpt 1, his question-asking manifested in the two modes: the pedagogic and natural modes (Gil, 2002). Teacher talk (Walsh, 2013) or the pedagogic mode is classroom talk by teachers which refers to talk for a pedagogical purpose; on the other hand, talk in the natural mode refers to teachers' classroom talk without a pedagogical purpose. For example, on the topic of Japanese women living away from their husbands and children due to business transfers, Nobuto asked in line 1, "What is the obstacle for transfer?" After some turns for clarification with other group members, Nobuto suggested where the answer could be found by saying, "The answer might be here … here, paragraph 12. The answer might be nursing care" (lines 10-12). Shortly after this, Nobuto shifted gears and asked for a question in a pedagogic mode: "I want more general question."

Nobuto is not a teacher; however, in Vygotskian terms, he assumed the role of the more capable peer (Huong, 2007; Vygotsky, 1978) during interactions. As the more capable peer, Nobuto scaffolded his peers' thinking and helped them find answers (see Excerpt 1, lines 8, 10). Although Nobuto's role as a teacher or traffic controller is not as obvious in Excerpt 2, he said in line 12, "Right," and gave feedback (Mehan, 1979) as a

teacher would when he confirmed Mami's comment and kept the discussion flowing.

Nobuto's attempts to maintain the interactional balance with others while engaging in group discussion brings to light the issue of face during discussions. As seen in the above interview comment, Nobuto clearly expressed his position as a traffic controller to manage the discussions. In this way, he showed how his fellowship face and competence face needs (Kerssen-Griep, 2001) were enhanced while helping and speaking with others. In his utterances, Nobuto displayed face-enhancing strategies by encouraging his peers to respond in a "climate safe for independent thought and risk-taking" (Kerssen-Griep, 2001, p. 266). By taking into consideration the fellowship face needs of his peers and helping them enhance their competence face needs (Kerssen-Griep, 2001), he in return, enhanced his own competence face needs as traffic controller.

Kerssen-Griep (2001) states that his findings regarding face needs originated from "moment-by-moment communication dynamics" (Kerssen-Griep, 2001, p. 268) in different contexts. However, for Nobuto, his self-perceived role as a traffic controller or his open-mindedness of listening to the ideas of his opponents (see page 141, this chapter) could be traitlike (Richmond, Wrench & McCroskey, 2013), which may not be context-based as Kerssen-Griep (2001) suggests. Nobuto's ability to ask questions have

sharpened his thoughts (see Section 8.2.1), which were already part of his thinking repertoire. However, a HA/HM student may not share this kind of awareness. The next section deals with Tomo, the second case study.

8.3 A high apprehension case

When Tomo, an economics major, participated in this study, he was 20 years old. Tomo started studying English when he entered Japanese junior high school. According to Tomo's responses to the EQAS filtering question, he had never traveled outside of Japan. However, he wrote that he was interested in studying abroad if given the opportunity. If his hopes for a travel abroad experience could materialize, in addition to reinforcing his language skills and having intercultural experiences, Tomo would like to use the English language for an international career.

8.3.1 High awareness of difficulty with question-asking

When the interview started, Tomo read the transcriptions of his pre- and post-instruction tasks. The following are the transcription of Tomo's ten questions:

[Pre-instruction task]

1. What is the most important thing to study abroad for us? (Understanding)
2. What should we do to go to study abroad? (Applying)
3. Why does he think to support study abroad? (Understanding)
4. Why discussion inspired him? (Understanding)
5. What is another support that he- he is going to offer? (Understanding)

[Post-instruction task]

1. What is the fact is that Mr. Kusunoki does this action? (Understanding)
2. What do you think the important point for developing study abroad? (Evaluating)
3. What's method is used for students whose English skills are still weak? (Applying)
4. Do you agree with studying abroad? (Evaluating)
5. Which project will be done by Mr. Kusunoki? (Remembering)

Tomo commented on the post-speaking task as follows:

> *Konkai wa Evaluating ga fueta kedo, Creating toka Analyzing ga nakatta desu **[This time there were more Evaluating questions, but there weren't any Creating or Analyzing questions]**.*

In Tomo's pre-instruction task, there were four Understanding questions, which were low cognitive questions. The speaking task after the instruction still had two low cognitive questions, which were one Remembering question and one Understanding question. Nothing was mentioned about the Applying questions from both speaking tasks. When asked to assess how his ability to ask questions in English changed during the semester, Tomo gave the following response.

> *Saisho wa kaite aru koto, Understanding toka … ma, Evaluating toka no shitsumon mo shiteita no kana? **[First, the questions were about what is written in the text, like Understanding … well, maybe I also asked some Evaluating questions?]***

Indeed, when looking at Tomo's questions before instruction, the first two questions deal with study abroad in general while the other three were specifically related to the details from the text for the speaking task (see Figure 5.1). However, the post-instruction task had

a mix of both high and low-cognitive question types.

Compared to Nobuto's interview, Tomo did not comment much about the two speaking tasks. In the last question, after Tomo looked back on the entire course, he commented on how difficult it was to ask questions:

> *Ima made juken nado de shitsumon ni kotareu gawa data kara, shitsumon wo tsukuruno wa muzukashiina, to omotta. Understanding toka, Remembering toka, kaite arumono wa sorehodo muzukashiku nakatta ga, kotareu hito ga kangaeru youna shitsumon wo tsukuru noga muzukashi katta [**Up to now, like in entrance exams, I have been on the answering side, so I thought it was difficult to come up with questions. Questions like Understanding and Remembering weren't that hard because you can ask about things that are written, but it was difficult to ask questions which make others think**]*.

As Tomo commented, Remembering and Understanding questions are indeed the low cognitive questions which teachers generally ask (Lord & Baviskar, 2007).

In response to the first part of the third research question, regarding the types of questions which participants ask in English, Tomo's post-instruction task questions show that he did ask three high cognitive questions (i.e, two Evaluating and one Applying). As for the second research question, "Does question-asking instruction have an effect on Japanese university EFL students' ability to ask high cognitive questions?", at this point, it is difficult to determine whether instruction had an effect on his ability to asks questions in English. This is because, unlike Nobuto, it is difficult to define the effect of

question-asking instruction for students like Tomo, as there seemed to be a discrepancy between his perceived difficulty of asking questions and his actual performance on the post-instruction task, as seen in his previous comment (see page 151).

Research suggests that the emphasis on high cognitive questions could cause teachers to overlook the knowledge and information students have when asking low cognitive questions (Booker, 2007); then it becomes difficult to judge a student's question-asking ability by simply looking at the questions asked at face value. Although Tomo did not articulate why he chose his question types as clearly as Nobuto did, Sano (2014) advocates the importance of both high and low cognitive questions for students to develop critical thinking skills. Her argument emphasizing the importance of high and low cognitive skills could justify the question-asking ability of students like Tomo who ask low cognitive questions and have difficulty asking high cognitive questions. Besides his low cognitive questions, another feature of Tomo's utterances is his use of the Japanese language during group discussions in English, which the next section addresses.

8.3.2 Japanese utterances and tensions in English group discussions

In this section, which focuses on Tomo's group discussions, the data will be studied in light of Activity Theory (AT), a Vygotskian concept. Activity Theory (AT; see

Section 3.4) has been selected as it illustrates the tensions in English group discussions caused by Tomo's Japanese utterances.

The next excerpt is from Tomo's group discussion, which deals with the same topic as Excerpt 1.

Excerpt 3

(1)	Junpei	I ask you – these children in such situations, in such
(2)		situations, grow up. They don't grow up usually with
(3)		family. How, how they will grow up.
(4)		So there is no different with usual children.
(5)		So, are there any differences with these children and usual
(6)		children when they grow up?
(7)	Mami	There could be difference
(8)	Tomo	*Ore no itte ita yatsu [**The thing I was saying**]*
(9)		*Katei ja nakute [**Not family**]*
(10)	Mami	(inaudible utterance in Japanese)
(11)	Tomo	I think their child grow up *mondai koudou okosu mitaina*
(12)		[***Causing something like problematic behavior***]
(13)		*Kakuritsu ga hokano kodomo yori takai, no wo iitakatta*
(14)		[***A higher rate among these children compared to***
(15)		***other children, was what I wanted to say***]
(16)		((10-second silence))
(17)	Mami	*Mondai ga okori yasui [**Prone to causing problems**]*
(18)	Tomo	*Mondai ga okori yasui [**Prone to causing problems**]*
(19)	Mami	*Toraburu meikaa [**Trouble maker**]* ((laughter))
(20)	Tomo	*Toraburu meikaa [**Trouble maker**]*
(21)	Junpei	They may become trouble maker. Why?
(22)	Tomo	Why? This age is important for
(23)	Mami	Yes
(24)	Tomo	For…*atama no naka dewa ne, kangaete irunn da yo ne.*
(25)		[***I'm thinking in my head***] ((laughter))

(26)	Junpei	Okay, okay
(27)	Mami	Nursing age is very important for those child.

In the first group discussion of the study, Tomo's group focused on the children, rather than on the mother who was transferred. When Junpei started the discussion (lines 1 – 6), he asked about children who lived with and those who lived away from their mothers, and whether there was a difference. In line 7, Mami mentioned that there could be a difference, which was followed by Tomo. In lines 8 and 9, he tried to explain in Japanese that it was not the family with the problems. He added a comment in Japanese about such children causing *"mondai koudou* ***[problematic behavior]****"* compared to those living with their mothers (lines 11-16). In lines 17 and 19, Mami reiterated Tomo's comments about such children being trouble makers, which Tomo repeated. However, in line 21, when Junpei asked why they became trouble makers in English, Tomo started answering in English (line 22). But Tomo reverted to Japanese in lines 24 and 25 and explained laughingly that he was thinking of how to say what he wanted to say in English. In line 26, Junpei expressed his understanding to Tomo, and in line 27, Mami summarized the discussion.

In response to the second and third parts of the third research question, which asks about students' interaction and face needs, Tomo's utterance in Japanese is the key to understand how his underlying face needs manifest in group discussions. The data are

studied in light of Activity Theory (AT; see Section 3.4) which has been selected to illuminate the complexity of the interaction because of Tomo's Japanese utterances.

Group discussions in English can be studied by employing AT as the framework. As Tomo is the high apprehension case, AT puts Tomo as the *subject*. The *rules* are having discussions in English and using the Bloom's Taxonomy question type learnt the previous week. The *community* consists of members participating in group discussions. The *division of labor* refers to the action of asking and answering questions. There are several *instruments*, such as the discussion, the English language, the students' utterances, and Tomo's Japanese utterances. The *object* is for everybody to participate in English group discussions, resulting in the *outcome* of becoming more proficient in asking Bloom's Taxonomy questions in English.

Figure 8.1 represents several actions from the group discussion. Multiple actions make up the activity, which is participation in the group discussions in English by asking and answering questions in English. In the top triangle, Tomo's (*subject*) utterances, which were partly in Japanese (*instrument*) served his purpose of fulfilling his object, which was to participate in group discussions (*object*), but not necessarily in English.

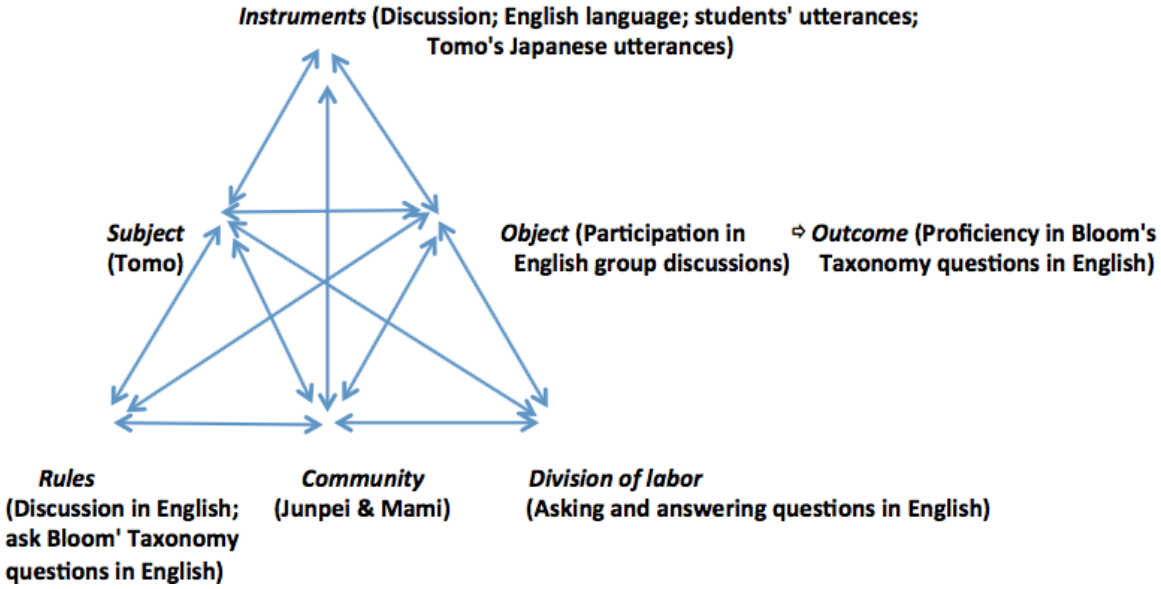

Figure 8.1 Tomo's group discussion employing the Activity Theory framework (Adapted from Engeström's (1999) model of human activity)

In Excerpt 3, when Junpei and Mami (*community*) scaffolded Tomo's (*subject*) understanding (*instrument*) and asked him to give his reason about the problematic behavior (*division of labor*), Tomo explained in lines 24 and 25 in Japanese (*instrument*) how he was thinking and coming up with an explanation for the discussion (*object*) albeit in Japanese. In line 26, Junpei (*community*) responded, "Okay, okay" (*division of labor*) as if to excuse Tomo (*subject*) from following up with an explanation in English (*instrument*), which was the rule for holding discussions.

The main cause of tensions in Excerpt 3, for which the AT model is applied, was Tomo's inability to follow the *rules* consistently. This resulted in the bottom left triangle

(*subject – rules - community*) being left out from the AT model. However, the tensions caused by Tomo speaking partly in Japanese did not result in the kind of disruptive social relations documented in group work between NESs and ELLs (Leki, 2001). Although not using English during discussions could have contributed to members' not asking Bloom's Taxonomy questions in English learnt the previous week (*outcome*), Tomo's Japanese utterances could be perceived as a linguistic resource (Palmer, 2009), which kept the communication and discussions flowing.

Swain et al. (2011) emphasize that analysis through an AT framework allows learning to be studied in the multiple interaction between individuals. For that reason, the tensions in Tomo's group discussions could provide opportunities to consider alternative ways to teach Bloom's Taxonomy questions and reinforcement activities in the Japanese EFL context (see page 163). Students' face needs, which could be tied to their motivation, will be addressed in the next section.

8.3.3 Face needs and motivation

As Excerpt 3 illustrates the tensions in Tomo's group discussions which could be attributed to his Japanese utterances, one may wonder why his question-asking motivation score indicated his *high* motivation towards question-asking (see Section 8.1). To answer

this question, the semi-structured interview and open-ended responses may bring to light some ideas Tomo expressed about his self-perceived question-asking in two different contexts: with classmates and with NES teachers.

In his responses to the EQAS open-ended questions (see *Section 5.3.2.2*), Tomo expressed concerns about his English speaking ability. Tomo was ashamed of asking classmates questions in English because *"shitsumon shita koto ga rikai shite moraenai kamo shirenai kara [**others may not understand my question**]"* (item 25). Kerssen-Griep's (2001) framework of face needs is employed to understand Tomo's use of Japanese utterances. Tomo put himself in a "face-exposing" (Kerssen-Griep, 2001, p. 267) situation, for not being able to carry on in English, resulting in competence face needs that were not fulfilled. In this way, Tomo's concerns of classmates not understanding his question is strongly tied to both his competence face needs as an English learner and his fellowship face needs with classmates. At the same time, Tomo's utterances in Japanese could be a choice he made in order to save his face. Making a contribution during discussions, regardless of language, Tomo could perceive himself engaging in a face-enhancing action, as he kept the conversation going. This is supported by Kerssen-Griep's (2001) "communication encouraging participants' ownership of and

investment in the class" (Kerssen-Griep, 2001, pp. 264-265). Tomo switched from Englisih to Japanese (line 11, lines 24-25), to save his competence face needs. Otherwise, should his competence face needs be threatened, it would also strengthen his autonomy face needs, as seen in Tomo's response to item 25.

During the interview, Tomo was asked what he would do when he became aware that his interlocutors might not have understood what he said. Tomo answered, "*Sono mama tsuzukeru* ***[I'd keep going]***." Asked how he would gauge how much his interlocutors understood him, Tomo said, "*Futsu ni nanka kotaete kureru* ***[If they would answer me in a normal way]***." In other words, Tomo himself did not perceive others' not understanding him as face-threatening or face-exposing as long as the interaction with his interlocutor was coherent. This suggests that for Tomo, if he got some answer, he would interpret that as being understood.

Although Tomo wanted to avoid asking his classmates questions in English, he was willing to do so with NES teachers (items 34 & 35). To understand Tomo's possible motivation for asking questions in English, his changing face needs when dealing with NES will be addressed by looking at open-ended items related to how participants engage with NES teachers (see *Section 5.3.2.2*). In item 35, Tomo wrote he did not need to avoid

question-asking in English with NES teachers because *"kichinto naoshite kure sou dakara **[they may correct my errors properly]**."* In item 37, Tomo wrote of his desire to make a good impression on NES teachers *"Eigo de komyunikeshon wo toritai kara **[because I want to communicate in English]**."* Furthermore, Tomo indicated in item 39 that he would not avoid asking NES teachers questions in English *"Nihongo ga wakaranai kamo shirenai kara **[because they may not understand Japanese]**."*

Besides interacting with NES teachers, Tomo spoke of his interactions with other NES, who were customers at the *izakaya* (Japanese style pub) where he worked. He related his experience at work as follows:

> *Nanka baito, sou iu toki dato, anmari shaberu koto ni chuucho shinai n desukedo, jugyou ni naruto, yappa sugoi, minna rikai shiteiru hito toka iru kara, souiu tokoro kini shite anmari shabere nakunaru, mitai na **[It's like, when I'm at work, I don't feel that reluctant to speak, but when it comes to classes, it's like, many people understand English well. So I get concerned and sort of become tongue-tied]***

At the *izakaya*, it is likely that the NES customers find it helpful to have a server like Tomo, which could raise his competence face needs and motivation to speak English. At the same time, Tomo could be aware that even if he did not understand the customers' English, he would not lose face (Varonis & Gass, 1985).

What could be at play in Tomo's interactions in English, which are different

between his classmates and the NES, can be traced back to Chinese concepts of face. When Tomo interacts with his classmates in English, his *miànzi* (Chang & Holt, 1994), which he needs to uphold as a member of the ingroup, is threatened. However, when interacting with NES, who are not part of his ingroup, he does not risk losing his *miànzi* or reputation (Mao, 1994) because he and his performance in English are not based on the NES's ingroup rules. As a result, he could feel more motivated to interact in English with NES than with classmates.

Because different behaviors one engages in depends on interlocutors, Tomo's example illustrates how one's face needs can be audience- and situation-based (Richmond, et al., 2013). Notwithstanding face needs, there are some issues which need to be addressed regarding question-asking during English group discussions.

8.4 Discussion: Bloom's Taxonomy questions and group discussions

As seen in the course syllabus (see Table 5.3), one of the follow-up activities to reinforce the Bloom's Taxonomy questions was group discussions. Students received a news story and an accompanying worksheet to prepare for the discussion. During individual interviews, there were students who commented on how helpful they found it to prepare for the discussions in advance to be able to ask the targeted questions. For example,

one student said, *"Saishono koro wa, honbun wo yonde, hontouni kantann na shitsumon shika shinakatta kedo, saishuuteki ni sorenari ni jugyou de mananda shitsumon wo shiyou to iu doryoku wo shita"* ***[in the beginning, I read the text and was able to come up only with really easy questions, but I eventually started making efforts somehow to ask the questions I learned in class]"*** (P06A, LA/LM). On the other hand, for other students, research suggests that there could be cognitive demands which involve incorporating high cognitive questions during group discussions that cannot be overcome by advance preparation.

When comparing the two cases, the language data from Nobuto's group discussions show that he asked questions in English to keep the discussions flowing. While Nobuto asked more Bloom's Taxonomy questions earlier in the term (i.e., Remembering/ Understanding; see Excerpt 1) than later (i.e., Creating questions; see Excerpt 2), Tomo asked only one Bloom's Taxonomy question, an Evaluating question throughout the entire study. Although Tomo commented that asking high cognitive questions, which make others think, was difficult as indicated in his interview comment (see Section 8.3.1), it is likely that as the term progressed and the question types became more difficult, asking higher cognitive questions required deeper thinking than lower cognitive questions did (see

Section 2.5).

For the post-instruction task, which was administered in a controlled environment (see Section 5.2.2), participants like Nobuto who had clear strategies (see Section 8.2.1) such as asking Creating questions, were able to generate more high cognitive questions. Furthermore, Nobuto was able to clearly state his reasons for producing the questions he asked, while Tomo's reasons were not as clear (see Section 8.3.1), which were reflected in the types of questions he asked.

While this study did not examine any correlations between the pre- and post-instruction task and the questions generated during the group discussions, it can be speculated that group discussions involved complex listening processes which require attending to details of the topic that did not allow asking high cognitive questions to take place simultaneously (McDevitt, Sheehan, Cooney, Smith & Walker, 1994). In other words, taking part in discussions could have posed "demands on the listeners' memory load" (Shang, 2005, p. 59), which may have interfered with attending to "more relevant and important tasks" (Shang, 2005, p. 59), such as asking high cognitive questions. In reference to alternative ways to teach Bloom's Taxonomy questions (see page 157), it may be necessary to examine the cognitive demand of the instruction as well as reinforcement

tasks. This is to ensure that the quality and quantity of high cognitive questions which learners produce, reflect question-asking instruction. Therefore, group discussions may not be the best way for reinforcement, even though they have become part of the EFL courses which Japanese university students are required to take. Furthermore, written practice of high cognitive questions which immediately followed the instruction of question types (see Table 5.3) may need to be reconsidered. This is because while questions Tomo wrote looked very coherent, his ability to write coherent questions did not transfer to his oral ability to ask questions of equal quality as his written questions.

The next chapter, the conclusion, summarizes the main findings, discusses the limitations of this study and proposes future directions of this research.

CHAPTER 9

Conclusion

This chapter summarizes the main findings, followed by the implications of this study. After stating the research limitations, the chapter concludes with directions for future research.

9.1 Summary

This study was conducted in order to investigate whether question-asking instruction in English using Bloom's Taxonomy has an effect on the following: (1) Japanese university EFL students' ability to ask high cognitive questions, and (2) the types of questions they ask in English after instruction. In addition, the effectiveness of instruction was examined by analyzing the frequency of the six question types that students asked. Furthermore, participants' interviews which revealed their thoughts during the speaking tasks and group discussions also brought to light how their competence face needs (Kerssen-Griep, 2001) affect their ability to ask questions in English.

Chapter 7 addressed the first research question, which pertains to the kinds of

high cognitive questions the participants asked. Results indicate that Evaluating questions accounted for the highest number of high cognitive questions for both tasks performed before and after instruction. Although the number of Analyzing questions remained unchanged between both tasks, the number of Creating questions increased in the post-instruction task. The quantitative data of this study showed that results were similar to past studies mentioned in Chapter 2 (e.g., Alcón, 1993; Ayudaray & Jacobs, 1997) as the number of high cognitive questions the participants asked did increase as a result of one semester's English question-asking instruction. This leads to the second research question, also addressed in Chapter 7, which deals with the effectiveness of question-asking instruction. Based on the frequency of high and low cognitive questions participants asked during both speaking tasks, McNemar's test results determined that there was a statistically significant difference in the number of high cognitive questions.

Chapter 8 addressed the third research question related to the difference between two participants: one student with high question-asking apprehension (HA) and another with low question-asking apprehension (LA). In addition to their performance in pre- and post-instruction tasks and group discussions, their interviews revealed their face needs during question-asking in English. The LA student, Nobuto, had a high awareness of

asking high cognitive questions and produced more of those questions during the speaking tasks while the HA student, Tomo, asked more low cognitive questions even after instruction. Nobuto was consistent throughout the entire study in terms of the high cognitive questions he chose to produce during the speaking tasks and his reasons for selecting them. He also assumed the role as traffic controller or the capable peer during group discussions as seen in interactions based on Vygotsky's Sociocultural Theory, which Chapter 4 discussed. As a result, Nobuto's fellowship and competence face needs were enhanced as he asked his classmates questions in attempts to make the group discussion flow smoothly. However, Tomo, who asked more low cognitive questions had difficulty asking high cognitive questions. Tomo also had difficulty keeping up with group discussions in English as his interactions studied through Vygotsky's Activity Theory (AT) revealed that he often resorted to using Japanese, his L1. His competence face needs were threatened during group discussions whenever he was not able to carry out discussions in English.

Qualitative data, such as those previously mentioned, help us understand EFL students' face needs which surface during question-asking in English. Furthermore, Chapter 6 explained that this study also analyzed quantitative data on students' face by

utilizing the English Question-Asking Survey (EQAS) developed for this study. Three Likert scale items which related to face needs of HA and LA participants were analyzed in three different contexts: shame when asking questions in English to peers, and the desire to avoid asking questions in English to peers as well as to native English-speaking teachers. The results indicate that more HA participants than LA participants felt shameful and had the desire to avoid asking peers questions in English. However, LA participants responded that they would not avoid asking native English-speaking teachers questions in English. The responses by HA participants were divided as those who would not avoid asking questions believed that teachers would correct their errors in English and found it interesting to ask their teachers questions. On the other hand, HA participants who stated their desire to avoid asking their teachers questions had indicated that they felt nervous when asking teachers questions.

9.2 Implications

A major pedagogical implication of this study is that students' ability to ask high cognitive questions in English have the potential to help develop their critical thinking skills. Studies have shown that Bloom's Taxonomy (1956) has been employed to teach critical thinking to L1 students of different disciplines (e.g., Barnett & Francis, 2012, for

psychology students; Nentl & Zietlow, 2008, for business students) and to L2 students regardless of their academic level (e.g., Sano, 2014, for Japanese university students; Zohar & Dori, 2003, for Israeli students). As researchers in Japan have alerted education authorities of the need for Japanese students to develop critical thinking skills (Kusumi, Koyasu & Michita, 2011) their ability to ask high cognitive questions in English could make a contribution in the development of such skills in both English and Japanese.

The development of EQAS as a tool to collect quantitative data for student face needs of English language learners is a contribution to second language research. As the concept of face has been understudied, EQAS was developed to investigate one's face needs while asking questions in English. Methodological implications of EQAS include the four student groups (LA/LM, LA/HM, HA/LM, HA/HM) generated from the participants' Likert scale scores. The four groups serve as a lens magnifying one's face needs which surface in English group discussions. These groups suggest that one's apprehension and motivation during question-asking in English are intertwined with one's face needs. When such data are combined with qualitative data, more in-depth analyses of participants become possible that one type of data cannot accomplish.

A theoretical implication is the potential that Bloom's Taxonomy has in L2

classrooms. When starting this study, Bloom's Taxonomy (1956) was selected because it is well-known and mentioned, albeit briefly, in many teaching credential programs in the US. Even though the Taxonomy was created for assessment purposes (and not for question-asking) and despite criticisms against it (see Section 2.2.2), this study's results indicate its effectiveness as a question-asking taxonomy. With only six levels in the cognitive processes, participants were able to see that the Taxonomy was a logical way for them to learn how to ask questions in English, as seen in one participant's comments introduced here:

> *"Kono youna shitsumon no bunrui ga aru towa shirimasen deshita* ***[I never knew there was such a way to classify questions]****"* (P03A, LA/LM).

Although Bloom's Taxonomy is employed sporadically as a theoretical framework in research, results from this study indicate that it is a worthwhile Taxonomy to "revisit" despite its datedness.

Finally, a developmental implication of this study is the participants' growing awareness of their own metacognitive knowledge (see Section 2.3), which goes beyond the question-asking instruction they took part in during the 15-week course. In this study, the extensive qualitative data collected from various sources showed the extent to which question-asking instruction in English has stretched participants' deep thinking. For

example, interview comments from two participants who began the course with a low question-asking motivation (LM) score are introduced here to show that learning how to ask questions in English has changed the way they perceive question-asking in English:

> *Sanpi ryouron ni wakaresouna kiji de areba, yori koudo na shitsumon no houga tsukuriyasui kana, to omotteimasu.* ***[For stories which may be controversial, I believe it could be easier to ask more higher level questions]*** (P09A, LA/LM).

> *Yonde matomeru dake ja, sonnani atamani hainnai kedo, yonde discussion shite, shitsumon wo kangaeru koto de, nokoru to omoun desu yone. Zettai atama no naka ni. Sorega nanka yokatta desune.* ***[If I read the material and just summarize it, it doesn't stay in my memory. But if I read it and have discussions and then ask questions, I believe it remains in my memory. Absolutely, it stays in my head. That was kind of good]*** (P28C, HA/LM).

These comments also suggest how the participants' competence face needs in question-asking were enhanced by participating in this study. At the same time, it is necessary to remember that question-asking is a life-long endeavor. Several group discussions or one post-instruction task should not determine EFL learners' (in)ability to ask questions in English, but more opportunities should be available for practice and development.

9.3 Limitations

There are several limitations in this study. The first limitation deals with the case studies, which examined in depth only two participants who scored high on

question-asking motivation: Nobuto (LA/HM), with low question-asking apprehension, and Tomo (HA/HM), with high question-asking apprehension. By examining also participants from the other two student groups with low motivation (i.e., with low question-asking apprehension, LA/LM, and with high question-asking apprehension, HA/LM), the results could be more transferable to a wider group of participants.

The next limitation deals with factor analysis. While semi-structured interviews added to the reliability of the exploratory factor analysis results for this study, by performing a confirmatory factor analysis, the reliability and validity of this scale can be further strengthened. Although the factor analysis results of the pilot study and this study were not consistent, they can be refined by administering the survey to a larger sample and a wider range of EFL students representing different proficiency levels.

Another limitation is that members' checks or validity checks (Creswell, 2013) of the case study participants' interview comments were not done due to time constraints. In the future, a validity check needs to be conducted with participants from whom interview data are collected by asking them to check the accuracy of transcriptions. Considerations for the vulnerability of the study participants and possible ramifications are necessary, especially when dealing with a sensitive topic like face. As an alternative to

member checks, multiple methods of coding (Kerssen-Griep, 2001) can be an option to consider in the future.

9.4 Directions for future research

As this study focused on participants who are international economics majors, research on question-asking instruction in English needs to be expanded to include participants from other disciplines. For example, science majors (see Chapter 2) are potential candidates. To find out what teaching methods would lead to such students' ability to produce high cognitive questions, materials need to be carefully selected. The qualitative data generated in this study can be utilized to design the instructional program for the appropriate audience.

Another possible topic, as suggested in Sano (2014) is exploring ways to teach Bloom's Taxonomy questions to EFL students with lower English proficiency. First, question-asking instruction could be customized for a reading course where students do not feel the pressure of speaking spontaneously, which can be less face-threatening. Next, for group discussions to reinforce oral proficiency skills, the number of students assigned to a discussion group may be changed from triads as in this study to dyads. This is because dyads could be less threatening when speaking and asking questions as students can orient

to each other more easily with one other rather than two students. Furthermore, the students' threshold of proficiency in English for question-asking instruction needs to be determined. While Sano (2014) and Matsuta et al. (2001) do not give specific information regarding the proficiency level of their participants, instruction for participants with very low proficiency levels could result in unsuccessful experiences for both teachers and students alike. The participant from this study with the lowest TOEIC Bridge ® score of 126 (P42C), who wrote of his low motivation for English studies in his EQAS response left the study two weeks before it ended. It is recommended that potential participants have at least a score of 140 in TOEIC Bridge ® or 395 in TOEIC (Institute of International Business Communication, 2013), as this is roughly the score which low-performing students from the participants' university get. Finally, teachers may need to be flexible and be selective of question types which do not need to be reinforced, even if all six Bloom's Taxonomy questions are instructed. Based on the post-instruction tasks of this study, since Applying, Analyzing or Creating questions were the less frequently asked question types, teachers may select to spend less time on these compared to Remembering, Understanding and Evaluating questions.

For this study, sentence stems were effective for teaching question-asking as

seen in the McNemar test results, and follow-up activities could reinforce Bloom's Taxonomy questions. Pedrosa-de-Jesus, Moreira, Lopes and Watts' (2014) study with L1 speakers suggests that engaging students in projects could be more effective in promoting students' questions instead of teaching sentence stems. However, for L2 learners, explicit instruction of sentence stems as well as projects to reinforce the sentence stems could be beneficial as a combination of both could help students retain question stems and employ cognitive skills beyond sentence stems. This can be further explored in future studies.

Finally, by implementing question-asking instruction with a variety of English language learners, it is hoped that the importance of asking questions will be acknowledged by practitioners as well as by researchers. Furthermore, having participants engage in interactions with native and non-native English speakers who speak different varieties of English would provide opportunities for question-asking beyond what language learners experience when interacting with fellow learners from their own country. A possible outcome would be the inclusion of more descriptors related to question-asking in CEFR-J (CEFR-J, 2012) where learners could be expected to ask questions beyond the recall level as part of their standardized English learning. By doing so, asking questions could be recognized as a skill all students should be equipped with in order to be

successful as global human resources.

References

Adams, N.E. (2015). Asking a great question: A library teaches questioning skills to first-year medical students. *Medical Reference Services Quarterly, 34* (4), 418-427. http://dx.doi.org/10.1080/02763869.2015.1052691

Aitken, J.E., & Neer, M.R. (1993). College student question-asking: The relationship of classroom communication apprehension and motivation. *Southern Communication Journal, 59* (1), 73-81. http://dx.doi.org/10.1080/10417949309372923

Albergaria Almeida, P. (2012). Can I ask a question? The importance of classroom questioning. *Procedia – Social and Behavioral Sciences, 31*, 634-638. http://dx.doi.org/10.1016/j.sbspro.2011.12.116

Alcón, E.G. (1993). High cognitive questions in NNS group classroom discussions: Do they facilitate comprehension and production of the foreign language? *RELC Journal, 24* (1), 73-85. http://dx.doi.org/10.1080/10417949309372923

Aljaafreh, A., & Lantolf, J.P. (1994). Negative feedback as regulation and second language learning in the zone of proximal development. *The Modern Language Journal, 78* (4), 465-483. http://dx.doi.org/10.1111/j.1540-4781.1994.tb02064.x

Allen, H.W. (2010). Language-learning motivation during short-term study abroad: An activity theory perspective. *Foreign Language Annals, 43* (1), 27-49. http://dx.doi.org/10.1111/j.1944-9720.2010.01058.x

Anderson, L.W. (1999). Rethinking Bloom's Taxonomy: Implications for testing and assessment. Retrieved January 29, 2015, from http://files.eric.ed.gov/fulltext/ED435630.pdf

Anderson, L.W., & Krathwohl, D.R. (2001). *A taxonomy for learning, teaching, and assessing.* New York: Addison Wesley Longman.

Arundale, R.B. (2006). Face as relational and interactional: A communication framework for research on face, facework, and politeness. *Journal of Politeness Research, 2*, 193-216. http://dx.doi.org/10.1515/PR.2006.011

Ayudaray, J., & Jacobs, G.M. (1997). Can learner strategy instruction succeed? The case of higher order questions and elaborated responses. *System, 25* (4), 561-670. http://dx.doi.org/10.1016/s0346-251x(97)00044-4

Barnett, J.E., & Francis, A.L. (2012). Using higher order thinking questions to foster critical thinking: A classroom study. *Educational Psychology, 32* (2), 201-211. http://dx.doi.org/10.1080/01443410.2011.638619

Bedford, O.A. (2004). The individual experience of guilt and shame in Chinese culture. *Culture and Psychology, 10*, 8(1), 29-52. http://dx.doi.org/10.1177/1354067X04040929

Bloom, B.S. (1956). *Taxonomy of educational objectives.* New York: Longmans, Green, and Co.

Blum-Kulka, S., Danet, B., & Gerson, R. (1985). The language of requires in Israeli society. In J. Forgas (Ed.), *Language and social situations* (pp.113-139). New York: Springer.

Booker, M.J. (2007). A roof without walls: Benjamin Bloom's Taxonomy and the misdirection of American education. *Academic Questions, 20*, 347-355. http://dx.doi.org/10.1007/s12129-007-9031-9

Brookfield, S.D. (2012). *Teaching for critical thinking: Tools and techniques to help students question their assumptions.* San Francisco: Jossey-Bass.

Brown, J.D., & Rodgers, T.S. (2002). *Doing second language research*. Oxford: Oxford University Press.

Brown, P., & Levinson, S.C. (1978). Politeness: Some universals in language usage. In E.N. Goody (Ed.), *Questions and politeness: Strategies in social interaction* (pp.56-289). Cambridge, UK: Cambridge University Press.

Brown, P., & Levinson, S.C. (1987). *Politeness: Some universals in language usage.* Cambridge, UK: Cambridge University Press.

CEFR-J (2012). *CEFR-J English*. Retrieved February 18, 2015 from http://www.cefr-j.org

Chang, H-C., & Holt, G.R. (1994). A Chinese perspective on face and inter-relational concern. In S. Ting-Toomey (Ed.), *The challenge of facework: Cross-cultural and interpersonal issues* (pp. 95-132). Albany, NY: State University of New York Press.

Chin, C., & Brown, D.E. (2002). Student-generated questions: A meaningful aspect of learning in science. *International Journal of Science Education, 24* (5), 521-549. http://dx.doi.org/10.1080/09500690110095249

Clark, R., & Gieve, S.N. (2006). On the discursive construction of 'the Chinese learner.' *Language, Culture and Curriculum, 19* (1), 54-73. http://dx.doi.org/10.1080/07908310608668754

Clausen, S.-E. (1998). *Applied correspondence analysis: An introduction.* Thousand Oaks, CA: Sage. http://dx.doi.org/10.4135/9781412983426

Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). London: Routledge.

Cole, M. (1985). The zone of proximal development: Where culture and cognition create each other. In J. Wertsch (Ed.), *Culture, communication, and cognition: Vygotskian perspectives* (pp. 146-161). Cambridge, UK: Cambridge University Press.

Coyle, D., Hood, P., & Marsh, D. (2010). *CLIL: Content and language integrated learning.* Cambridge, UK: Cambridge University Press.

Creswell, J.W. (2013). *Qualitative inquiry and research design: Choosing among five approaches.* Thousand Oaks, CA: Sage.

Creswell, J.W. (2015). *30 Essential skills for the qualitative researcher.* Thousand Oaks, CA: Sage.

Deci, E.L., Ryan, R.M., & Williams, G.C. (1996). Need satisfaction and the self-regulation of learning. *Learning and individual differences, 8* (3), 165-183. http://dx.doi.org/10.1016/S1041-6080(96)90013-8

DeVellis, R.F. (2012). *Scale development: Theory and applications* (3rd ed.). Thousand Oaks, CA: Sage.

Dillon, J.T. (1998). Theory and practice of student questioning. In S.A. Karabenick (Ed.), *Strategic help-seeking: Implications for learning and teaching* (pp. 171-193). Mahwah, NJ: Lawrence Earlbaum.

Dörnyei, Z. (2007). Research methods in applied linguistics. Oxford, UK: Oxford

University Press.

Engeström, Y. (1999). Communication, discourse and activity. *The Communication Review, 3* (1-2), 165-185. http://dx.doi.org/10.1080/10714429909368577

Fitneva, S.A. (2012). Beyond answers: questions and children's learning. In J.P. de Ruiter (Ed.), *Questions: Formal, functional and interactional perspectives* (pp. 165-178). Cambridge, UK: Cambridge University Press. http://dx.doi.org/10.1017/CBO9781139045414.012

Flammer, A. (1981). Towards a theory of question asking. *Psychological Research, 43,* 407-420. http://dx.doi.org/10.3102/00028312031001104

France, B., & Bay, J.L. (2010). Questions students ask: Bridging the gap between scientists and students in a research institute classroom. *International Journal of Science Education, 32* (2), 173-194. http://dx.doi.org/10.1080/09500690903205189

Frawley, W., & Lantolf, J.P. (1985). Second language discourse: A Vygotskyan perspective. *Applied Linguistics, 6* (1), 19-44. http://dx.doi.org/10.1093/applin/6.1.19

Gedera, D.S.P. (2016). The application of activity theory in identifying contradiction in a university blended learning course. In D.S.P. Gedera & P.J. Williams (Eds.), *Activity theory in education: Research and practice* (pp. 53-70). Rotterdam, Netherlands: Sense Publishers.

Gerber, S.B., & Finn, K.V. (2005). *Using SPSS for Windows: Data analysis and graphics* (2nd ed.). New York: Springer-Verlag.

Gibbons, P. (2002). *Scaffolding language, scaffolding learning: Teaching second language learners in the mainstream classroom*. Portsmouth, NH: Heinemann

Gibbons, P. (2003). Mediating language learning: Teacher interactions with ESL students in a content-based classroom. *TESOL Quarterly, 37* (2), 247-273. http://dx.doi.org/10.2307/3588504

Gil, G. (2002). Two complementary modes of foreign language classroom interaction. *ELT Journal, 56* (3), 273-279. http://dx.doi.org/10.1093/elt/56.3.273

Gillies, R.M. (2011). Promoting thinking, problem-solving and reasoning during small group discussions. *Teachers and Teaching: Theory and Practice, 17* (1), 73-89. http://dx.doi.org/10.1080/13540602.2011.538498

Goffman, E. (1967). *Interaction ritual: Essays on face-to-face behavior.* New York: Pantheon.

Graesser, A., Ozuru, Y., & Sullins, J. (2010). What is a good question? In M.G. McKeown & L. Kucan (Eds.), *Bringing reading research to life* (pp. 112-141). New York: The Guilford Press.

Graesser, A.C., & Person, N.K. (1994). Question asking during tutoring. *American Educational Research Journal, 31* (1), 104-137. http://dx.doi.org/10.3102/00028312031001104

Hanna, W. (2007). The new Bloom's Taxonomy: Implications for music education. *Arts Education Policy Review, 108* (4), 7-16. http://dx.doi.org/10.3200/AEPR.108.4.7-16

Hedegaard, M. (2005). The zone of proximal development as basis for instruction. In H. Daniels (Ed.), *An introduction to Vygotsky* (2nd ed.) (pp. 227-251). London: Routledge.

Hickey, D.T. (1997). Motivation and contemporary socio-constructivist instructional perspectives. *Educational Psychologist, 32* (3), 175-193. http://dx.doi.org/10.1207/s15326985ep3203_3

Ho, D.Y. (1976). On the concept of face. *American Journal of Sociology, 81* (4), 867-884. http://dx.doi.org/10.1086/226145

Ho, D.Y., Fu, W., & Ng, S.M. (2004). Guilt, shame and embarrassment: Revelations of face and self. *Culture and Psychology, 10* (1), 64-84. http://dx.doi.org/10.1177/1354067X04044166http://dx.doi.org/10.1086/226145

Huitt, W. (2011). Bloom et al.'s Taxonomy of the cognitive domain. *Educational Psychology Interactive.* Valdosta, GA: Valdosta State University. Retrieved February 1, 2015, from http://www.edpsycinteractive.org/topics/cogsys/bloom.html [pdf]

Huong, L.P.H. (2007). The more knowledgeable peer, target language use, and group participation. *The Canadian Modern Language Review, 64* (2), 329-350. http://dx.doi.org/10.3138/cmlr.64.2.329

Iacobucci, D., Posavac, S.S., Kardes, F.R., Schneider, M.J., & Popovich, D.L. (2015). Towards a more nuanced understanding of the statistical properties of a median split. *Journal of Consumer Psychology, 25* (4), 652-665. http://dx.doi.org/10.1016/j.jcps.2014.12.002

Institute of International Business Communication. (2013). TOEIC Bridge ® to TOEIC tesuto no sukoa hikaku hyou [A comparison chart between TOEIC Bridge ® and TOEIC ®]. Retrieved February 11, 2016, from http://www.toeic.or.jp/library/toeic_data/bridge/pdf/data/

Comparison_BridgeandTOEIC.pdf

Isoda, T. (2008). Eigo supiikingu teikoukan shakudo no sakusei [Developing a scale of unwillingness to speak English]. *Hiroshima Gaikokugo Kyouiku Kenkyu, 11,* 41-49. http://doi.org/10.15027/24578

Kakai, H. (2015). Kongo kenkyu ho nyumon: Shitsu to ryo ni yoru tougo no aato. [*Introduction to mixed methods research: The art of integrating quality and quantity*]. Tokyo: Igaku Shoin.

Kanno, Y. (2000). Kikokushijo as bicultural. *International Journal of Intercultural Relations, 24,* 361-382. http://dx.doi.org/10.1016/S0147-1767(00)00006-7

Kayi-Aydar, H. (2013). Scaffolding language learning in an academic ESL classroom. *ELT Journal, 67* (3), 324-335. http://dx.doi.org/10.1093/elt/cct016

Kerssen-Griep, J. (2001). Teacher communication activities relevant to student motivation: Classroom facework and instructional communication competence. *Communication Education, 50* (3), 256-273. http://dx.doi.org/10.1080/03634520109379252

Khatib, M., & Nourzadeh, S. (2015). Development and validation of an instructional willingness to communicate questionnaire. *Journal of Multilingual and Multicultural Development, 36* (3), 266-283. http://dx.doi.org/10.1080/01434632.2014.914523

Kidd, J.A. (2016). *Face and enactment of identities in the L2 classroom.* Bristol, UK: Multilingual Matters.

King, A. (1989). Effects of self-questioning training on college students' comprehension of lectures. *Contemporary Educational Psychology, 14,* 366-381. http://dx.doi.org/10.1016/0361-476X(89)90022-2

King, A. (1990). Enhancing peer interaction and learning in the classroom through reciprocal questioning. *American Educational Research Journal, 27* (4), 664-687. http://dx.doi.org/10.3102/00028312027004664

King, J. (2013). Silence in the second language classrooms of Japanese universities. *Applied Linguistics, 34* (3), 325-343. http://dx.doi.org/10.1093/applin/ams043

Kinginger, C. (2002). Defining the zone of proximal development in the US foreign language education. *Applied Linguistics, 23* (2), 240-261. http://dx.doi.org/10.1093/applin/23.2.240

Kinsella, K. (2010, October). Academic language function toolkit: A resource for developing academic language for all students in all content areas. A presentation to the Sweetwater Union High School Distict. San Diego, CA. Retrieved October 25, 2014, from http://civicaweb.santabarbaraca.gov/civicax/filebank/blobdload.aspx?BloblD=62331

Kozulin, A. (2005). The concept of activity in Soviet psychology: Vygotsky, his disciples andcritics. In H. Daniels (Ed.), *An introduction to Vygotsky* (2nd ed.) (pp.101-124). London: Routledge.

Krathwohl, D.R. (2002). A revision of Bloom's Taxonomy: An overview. *Theory into Practice, 41* (4), 212-218. http://dx.doi.org/10.1207/s15430421tip4104_2

Kusumi, T., Koyasu, M., & Michita, Y. (Eds.). (2011). *Hihanteki shikou ryoku wo umu:*

Gakushi ryoku to shakaijin kiso ryoku no kiban keisei [Developing critical thinking in higher education]. Tokyo: Yuhikaku.

Kusumoto, Y. (2015, March). Exploring the effect of project-based learning on critical thinking skills: A case study of Japanese students majoring in economics. Unpublished presentation to the Joint American Association for Applied Linguistics and Association Canadienne de Linguistique Appliquée Conference. Toronto, Canada.

Kuutti, K. (1996). Activity theory as a potential framework for human-computer interaction research. In B. Nardi (Ed.), *Context and conscious: Activity theory and human computer interaction* (pp. 17-44). Cambridge: MIT Press.

Laerd Statistics. (2013). McNemar's test using SPSS statistics. Retrieved February 11, 2016, from https://statistics.laerd.com/spss-tutorials/mcnemars-test-using-spss-statistics.php

Langford, P.E. (2005). *Vygotsky's developmental and educational psychology.* New York: Psychology Press.

Lantolf, J.P. (1994). Sociocultural theory and second language learning. *The Modern Language Journal, 78* (4), 418-420. http://dx.doi.org/10.1111/j.1540-4781.1994.tb02058.x

Lantolf, J.P. (2011). The sociocultural approach to second language acquisition. In D. Atkinson (Ed.), *Alternative approaches to second language acquisition* (pp.24-47). London: Routledge.

Lantolf, J.P., & Thorne, S.L. (2006). *Sociocultural theory and the genesis of second language development.* Oxford: Oxford University Press.

Lee, W., & Morrison, B. (1998). A role for newspaper articles in developing autonomous language learning skills. *RELC Journal, 29* (2), 99-120. http://dx.doi.org/10.1177/003368829802900205

Leki, I. (2001). "A narrow thinking system": Nonnative-English-speaking students in group projects across the curriculum. *TESOL Quarterly, 35* (1), 39-67. http://dx.doi.org/10.2307/3587859

Leontiev, A.A. (1981). *Psychology and the language learning process*. Oxford: Pergamon. Retrieved August 3, 2016, from lchc.ucsd.edu/mca/Paper/JuneJuly05/AAL_speech%20and%20comm [pdf]

Lim, T-S., & Bowers, J.W. (1991). Facework: Solidarity, approbation, and tact. *Human Communication Research, 17* (3), 415-450. http://dx.doi.org/10.1111/j.1468-2958.1991.tb00239.x

Lin, C.-C., & Yamaguchi, S. (2011). Effects of face experience on emotions and self-esteem in Japanese culture. *European Journal of Social Psychology, 41,* 446-455. http://dx.doi.org/10.1002/ejsp.817

Liu, J. (2002). Negotiating silence in American classrooms: Three Chinese cases. *Language and Intercultural Communication, 2* (2), 37-54. http://dx.doi.org/10.1080/14708470208668074

Lord, T., & Baviskar, S. (2007). Moving students from information recitation to information understanding: Exploiting Bloom's Taxonomy in creating science questions. *Journal of College Science Teaching, 36* (5), 40-44. http://www.nsta.org/store/product_detail.aspx?id=10.2505/4/jcst07_036_05_40

Mao, L.R. (1994). Beyond politeness theory: 'Face' revisited and renewed. *Journal of Pragmatics, 21,* 451-486. http://dx.doi.org/10.1016/0378-2166(94)90025-6

Marbach-Ad, G., & Sokolove, P.G. (2000). Can undergraduate biology students learn to ask high level questions? *Journal of Research in Science Teaching, 37* (8), 854-870. http://dx.doi.org/10.1002/1098-2736(200010)37:8<854::AID-TEA6>3.0.CO;2-5

Mascolo, M.F. (2005). Change processes in development: The concept of coactive scaffolding. *New Ideas in Psychology, 23*, 185-196. http://dx.doi.org/10.1016/j.newideapsych.2006.05.002

Matsumoto, Y. (1988). Reexamination of the universality of face: Politeness phenomena in Japanese. *Journal of Pragmatics, 12,* 403-426. http://dx.doi.org/10.1016/0378-2166(88)90003-3

Matsuta, K., Byrd, M.E., & Ware, J.L. (2001). Classroom use of critical thinking skills: Student and teacher surveys. *Educational Studies, 43*, 199-217. http://ci.nii.ac.jp/naid/110007054465

McDevitt, T.M., Sheehan, E. P., Cooney, J.B., Smith, H.V., & Walker I. (1994). Conceptions of listening, learning processes, and epistemologies held by American, Irish, and Australian university students. *Learning and Individual Differences, 6* (2), 231-256. http://dx.doi.org/10.1016/1041-6080(94)90011-6

Mehan, H. (1979). "What time is it Denise?": Asking known information questions in classroom discourse. *Theory into Practice, 18* (4), 285-294. http://dx.doi.org/10.1080/00405847909542846

Miller, A., & Dumford, A.D. (2014). Creative cognitive processes in higher education. *The Journal of Creative Behavior*, published online 20 November, 2014. http://dx.doi.org/10.1002/jocb.77

Minick, N. (2005). The development of Vygotsky's thought: An introduction to *Thinking and Speech*. In H. Daniels (Ed.), *An introduction to Vygotsky* (2nd ed.) (pp.37-57). London: Routledge.

Morgan, G.A., Leech, N.L., Gloeckner, G.W., & Barrett, K.C. (2013). *IBM SPSS for introductory statistics: Use and interpretation* (5th ed.). New York: Routledge.

Morgan, N., & Saxton, J. (2006). *Asking better questions* (2nd ed.). Markham, Ontario, Canada: Pembroke Publishers.

Morisaki, S., & Gudykunst, W.B. (1994). Face in Japan and the United States. In S. Ting-Toomey (Ed.), *The challenge of facework: Cross-cultural and interpersonal issues* (pp.47-93). Albany, NY: State University of New York Press.

Nakane, I. (2005). Negotiating silence and speech in the classroom. *Multilingua, 24,* 75-100. http://dx.doi.org/10.1515/mult.24.1part2.75

Nakanishi, C. (2012). CLIL (naiyou gengo tougo) gata gakushuu eigo kyouzai to kyoushi you manyuaru no hyouka [Evaluating CLIL materials and teacher's manual]. *Kunitachi College of Music Kenkyu Kiyou, 47,* 87-97.

Nentl, N., & Zietlow, R. (2008). Using Bloom's Taxonomy to teach critical thinking skills to business students. *College & Undergraduate Libraries, 15*, (1 & 2), 159-172. http://dx.doi.org/10.1080/10691310802177135

Newman, F., & Holzman, L. (1993). *Lev Vygotsky: Revolutionary scientist.* London: Routledge.

O'Boyle, A. (2010). Interpersonal aspects of thinking skills in an intercultural language learning context. *The International Journal of Language, Society and Culture, 31*, 62-71. http://www.educ.utas.edu.au/users/tle/journal/issues/2010/31-8.pdf

Ohta, A.S. (2000). Rethinking interaction in SLA: Developmentally appropriate assistance in the zone of proximal development and the acquisition of L2 grammar. In J.P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 51-78). Oxford: Oxford University Press.

Ohta, A.S. (2010). Limitations of social interaction in second language acquisition: Learners' inaudible voices and mediation in the zone of proximal development. In P. Seedhouse, S. Walsh, & C. Jenks (Eds.), *Conceptualising 'learning' in applied linguistics* (pp. 163-181). Hampshire, UK: Palgrave Macmillan.

Ornell, C.P. (1974). Bloom's Taxonomy and the objectives of education. *Educational Research, 17* (1), 3-18. http://dx.doi.org/10.1080/0013188740170101

Palmer, D.K. (2009). Code-switching and symbolic power in a second-grade two-way classroom: A teacher's motivation system gone awry. *Bilingual Research Journal, 32* (1), 42-59. http://dx.doi.org/10.1080/15235880902965854

Paul, R.W. (1985). Bloom's Taxonomy and critical thinking instruction. *Educational Leadership, 42* (8), 36-39. Retrieved January 29, 2015, from http://www.ascd.org/ASCD/pdf/journals/ed_lead/el_198505_paul.pdf

Pedrosa-de-Jesus, H., Moreira, A., Lopes, B., & Watts, M. (2014). So much more than just a list: Exploring the nature of critical questioning in undergraduate sciences. *Research in Science & Technological Education, 32* (2), 115-134. http://dx.doi.org/10.1080/02635143.2014.902811

Pham, L.N.K., & Hamid, M.O. (2013). Beginning EFL teachers' beliefs about quality questions and their questioning practices. *Teacher Development: An international journal of teachers' professional development, 17* (2), 246-264. http://dx.doi.org/10.1080/13664530.2012.753947

Qi, X. (2011). Face: A Chinese concept in global society. *Journal of Sociology, 47* (3), 279-295. http://dx.doi.org/10.1177/1440783311407692

Richmond, V.P., Wrench, J.S., & McCroskey, J.C. (2013). *Communication apprehension, avoidance, and effectiveness.* (6th ed.). Boston, MA: Pearson.

Rueda, R., & Moll, L.C. (1994). A sociocultural perspective on motivation. In H.F. O'Neill, Jr. & M. Drillings (Eds.), *Motivation: Theory and research* (pp. 117-137). Hillsdale, NJ: Erlbaum.

Saldaña, J. (2016). *The coding manual for qualitative researchers.* (3rd ed.). Thousand Oaks, CA: Sage.

Sano, M. (2014). Critical thinking skills and teachers' questioning behavior in a Japanese university EFL context. *Japan Journal of Multilingualism and Multiculturalism, 20* (1), 32-47.

Scheff, T.J. (1997). *Emotions, the social bond, and human reality: Part/whole analysis.* Cambridge, UK: Cambridge University Press.

Shang, H-F. (2005). An investigation of cognitive operations on L2 listening comprehension performance: An exploratory study. *International Journal of Listening, 19* (1), 51-62. http://dx.doi.org/10.1080/10904018.2005.10499074

Shigemitsu, Y. (2013). Question-answer sequences in English and Japanese conversations: A perspective of conversational style differences. *Academic Reports, 36* (2), 31-39. https://www.t-kougei.ac.jp/research/pdf/vol36-2-05.pdf

Strong, P.M. (1988). Minor countesies and macro structures. In P. Drew & A. Wootton (Eds.), *Erving Goffman: Exploring the interaction order* (pp.228-249). Boston: Northeastern University Press.

Sueda, K. (2014). *Negotiating multiple identities: Shame and pride among Japanese returnees.* Singapore: Springer.

Sukemune, S. (1995). Hattatsu to kyoiku. Honpou no daigakusei no mu-shitumon kodo ni kansuru shinrigaku teki kenkyu (da iippo) [A study of why Japanese college students do not ask questions in the classroom (Part 1)]. *Research Reports of the Mukogawa Women's University Institute of Education, 13*, 2-45.

Swain, M., Kinnear, L., & Steinman, L. (2011). *Sociocultural theory in second language education: An introduction through narratives.* Bristol, UK: Multilingual Matters.

Takahashi, S. (2005). *Excel de manabu koresupondensu anarisisu* [Using Excel to learn correspondence analysis]. Tokyo: Ohmsha.

Tan, Z. (2007). Questioning in Chinese university EL classrooms: What lies beyond it? *RELC Journal, 38* (1), 87-103. http://dx.doi.org/10.1177/0033688206076161

Tsuru, M., & Takeda, S. (2013). Accent-type dependency of agreement rates of emotions in Japanese word speech. *International Journal of Affective Engineering, 12* (2), 185-190. http://dx.doi.org/10.5057/ijae.12.185

van Compernolle, R.A. (2014). *Sociocultural theory and L2 instructional pragmatics.* Bristol, UK: Multilingual Matters.

van der Meij, H. (1990). Question asking: To know that you do not know is not enough. *Journal of Educational Psychology, 16* (1), 8-32. http://dx.doi.org/10.1037/0022-0663.82.3.505

van der Veer, R. (1996). The concept of culture in Vygotsky's thinking. *Culture & Psychology, 2*, 247-263. http://dx.doi.org/10.1177/1354067X9600200302

Varonis, E.M., & Gass, S. (1985). Non-native/non-native conversations: A model for negotiation of meaning. *Applied Linguistics, 6* (1), 71-90. http://dx.doi.org/10.1093/applin/6.1.71

Vogler, K.E. (2005). Improve your verbal questioning. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 79* (2), 98-103. http://dx.doi.org/10.3200/TCHS.79.2.98-104

Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Walsh, J.A., & Sattes, B.D. (2004). Quality questioning: Research-based practices to engage every learner. Thousand Oaks, CA: Corwin.

Walsh, S. (2013). *Classroom discourse and teacher development.* Edinburgh, UK: Edinburgh University Press.

Waring, H.Z. (2012). "Any questions?": Investigating the nature of understanding-checks in the language classroom. *TESOL Quarterly, 46* (4), 722-752. http://dx.doi.org/10.1002/tesq.48

Wells, G. (1999). *Dialogic inquiry: Toward a sociocultural practice and theory of education.* New York: Cambridge University Press.

Wells, G. (2002). The role of dialogue in activity theory. *Mind, Culture, and Activity, 9* (1), 43-66. http://dx.doi.org/10.1207/S15327884MCA0901_04

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity.* Cambridge, UK: Cambridge University Press.

Wertsch, J.V. (1985). *Vygotsky and the social formation of mind.* Cambridge, MA: Harvard University Press.

Whittaker, A. (2012). Should we be encouraging pupils to ask more questions? *Educational Studies, 38* (5), 587-591. http://dx.doi.org/10.1080/03055698.2012.663078

Williams, M. & Burden, R.L. (1997). *Psychology for language teachers: A social constructivist approach*. Cambridge, UK: Cambridge University Press.

Wineburg, S., & Schneider, J. (2010). Was Bloom's Taxonomy pointed in the wrong direction? *Phi Delta Kappan, 91* (4), 56-61. http://dx.doi.org/10.1177/003172171009100412

Wood, D., Bruner, J.S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry, 17* (2), 89-100. http://dx.doi.org/10.1111/j.1469-7610.1976.tb00381.x

Wu, X. (2009). The dynamics of Chinese face mechanisms and classroom behavior: A case study. *Evaluation & Research in Education, 22* (2-4), 87-105. http://dx.doi.org/10.1080/09500790903487512

Yabuuchi, A. (2004). Face in Chinese, Japanese, and U.S. American cultures. *Journal of Asian Pacific Communication, 14* (2), 261-297. http://dx.doi.org/10.1075/japc.14.2.05yab

Yin, R.K. (2014). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage.

Yokomizo, T. (2012). Daigakusei no jugyo sanka koudou to feisu neezu to no kakawari: Hatsugen suru koto ni taisuru teikoukan oyobi hi ninshiki yokkyu, ninshiki doryoku yokkyu kara miete kita mono [The relationships between university students' active classroom participation and face needs]. *Journal of Kawaguchi Junior College, 26* (2), 17-32.

Zohar, A., & Dori, Y.J. (2003). Higher order thinking skills and low-achieving students: Are they mutually exclusive? *Journal of the Learning Sciences, 12* (2), 145-181. http://dx.doi.org/10.1207/S15327809JLS1202_1

Appendix A
Informed Consent Form　(Japanese Version)

「日本の大学生英語学習者による英語での質問の研究」へのご協力のお願い

本研究の目的をご理解いただき、調査にご参加いただければ幸いです。

本研究の目的

本研究は、日本の大学生英語学習者による英語での質問を調査することで、英語学習者が自発的に英語で質問できるよう、指導法の開発を目的としています。それにより、日本の英語教育のあり方についての提言に役立てます。

調査方法

本調査では、参加者が英語で行う小グループ・ディスカッションを IC レコーダで録音します。また英語での質問に関する WEB アンケートにもお答えいただきます。アンケートの記入には 20 分ほどかかる予定です。講座終了前には調査者による面談を実施します。

個人情報とデータの取り扱い

取得したデータや個人情報は、本研究以外には使用いたしません。データには番号付けを行うとともに匿名化し、個人情報は厳重に守秘されます。データの保管には万全を期し、外部へ漏洩がないよう配慮いたします。調査内容を知ることができるのは調査者のみです。

調査に参加することによる利益と不利益

本調査に参加することで費用の負担など参加者が不利益を受けることは一切ありません。調査への参加は完全に自由であり、参加を希望されなくても不都合が生じることはありません。希望すれば調査結果を見ることができます。

以上、ご質問・ご不明点がありましたらご連絡下さい。

本研究へのご理解とご協力に感謝いたします。

国際基督教大学大学院アーツ・サイエンス研究科
博士後期課程　　2 年
調査者　　武田礼子
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参加同意書

私は以上の説明を理解し、参加者として調査に協力することに同意いたします。また個人情報の保護を条件に、調査結果を論文として公表することを承諾いたします。

日付: 年 月 日

参加者　署名: _____

所属: _____

連絡先 (E-mail): _____

Appendix B

English Question-Asking Survey (EQAS) for Japanese University Students

(Japanese Version)

日本の大学生英語学習者の英語による質問に関する調査

本日は調査にご協力をいただきまして、誠にありがとうございます。

近年、グローバル人材育成に関連して、学校の英語指導や企業が求める英語力などがマスコミに取り上げられています。そこで大学生の英語学習者である皆さんに、英語による質問をすることに関する調査を実施いたします。皆さんから得られました結果は、大学およびグローバル人材育成のための英語教育のあり方についての提言に役立てます。

このアンケートの所要時間は 15 分です。あなた自身のこれまでの英語学習や今後の英語との関わり、また英語による質問に関する見解などをおたずねします。正しい答えや間違った答えはありませんので、思った通りにお答え下さい。アンケートへの参加は自由意志によるものです。アンケートから得られましたデータは厳重な管理のもと研究目的にのみ使用され、他の目的に使用されることはありません。無論、皆さんの成績にも影響を及ぼすことはありません。回収後のアンケート用紙のデータをコンピュータに入力後、シュレッダーで処分するなど個人情報の保護には最大限に配慮いたします。

それぞれの質問をよく読み、全ての質問にお答えください。回答漏れがないようにお願いいたします。

国際基督教大学大学院博士後期課程　アーツ・サイエンス研究科

（調査者）武田礼子

E-mail: g169010k@yamata.icu.ac.jp

あなたのお名前：_____

あなたの学籍番号：_____

あなたのこれまでの英語学習や海外経験、今後の英語や海外との関わりについておたずねします

1.　あなたは、いつから英語の学習を始めましたか？以下の年齢と学年で、それぞれ該当する数字ひとつに○をつけて下さい。

学習開始年齢：	(1)	0-2 歳	(4)	9-12 歳
	(2)	3-5 歳	(5)	13 歳以上
	(3)	6-8 歳		
学習開始学年：	(1)	就学前	(4)	小学 3-4 年
	(2)	幼稚園	(5)	小学 5-6 年
	(3)	小学 1-2 年	(6)	中学入学後

2.　あなたは、どこで英語の学習を始めましたか？該当する数字ひとつに○をつけて下さい。

(1)　日本の幼稚園
(2)　日本の小学校
(3)　日本の中学校
(4)　海外
(5)　その他　（具体的に＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿）

3.　あなたは,これまで海外に滞在したことはありますか？(含・1 週間以上の旅行)

はい　　いいえ

4.　問 3.で「はい」と答えた方におたずねします。→　滞在国名、滞在時の年齢、期間、滞在理由についてお答え下さい。

5.　問 3.で「はい」と答えた方におたずねします。→　複数の国に滞在した場合は、すべてをお書き下さい。

滞在国名	年齢	期間	滞在理由※	学校※※
（例）ニュージーランド	16 歳 ～17 歳	0　年 10　ヶ月	(3)	A.

1.	歳　～　歳	年　　ヶ月		
2.	歳　～　歳	年　　ヶ月		
3.	歳　～　歳	年　　ヶ月		
4.	歳　～　歳	年　　ヶ月		
5.	歳　～　歳	年　　ヶ月		

※滞在理由は以下より選択して、数字を上記の「滞在理由※」に記入してください。

(1) 家族の海外転勤
(2) 語学留学
(3) 交換留学
(4) 一般留学（交換留学以外）
(5) ホームステイ
(6) 長期旅行
(7) ボランティア
(8) インターンシップ

※※通った学校は以下より選択して、文字を上記の「学校※※」に記入してください。

A. 現地校
B. 日本人学校
C. 日本語補習校
D. インターナショナルスクール
E. 語学学校
F. ホームスクーリング
G. 未就学（学齢期に達していない）
H. 学校には通わなかった

6.　可能であれば、あなたは将来、留学したいと考えますか？

はい　　いいえ

7.　問 5. で「はい」と答えた方におたずねします。留学したい理由について、以下より該当するもの全てに○をつけて下さい。

語学力向上・異文化に触れる・専門分野を学ぶ・就職活動に役立てる・
海外関連の仕事に就きたい・その他　（　　）
希望する留学先（国名）はどこですか？＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

8.　問 6. で「いいえ」と答えた方におたずねします。留学したくない理由について、以下より該当するもの全てに○をつけて下さい。

語学力に自信がない・すでに留学した（留学中）・経済的に困難・卒業が遅れる
就職活動に支障が出る・興味がない・その他　（　　）

9.　あなたは英語を使う仕事を希望しますか？

はい　　いいえ

10.　問 8. で「はい」と答えた方におたずねします。どのような職場で英語を使う仕事を希望するかについて、以下よりひとつ選択して○をつけて下さい。

(1) 日本の日本企業・団体
(2) 日本の外国企業・団体
(3) 外国の日本企業・団体
(4) 外国の外国企業・団体
(5) こだわらない

11.　問 8. で「いいえ」と答えた方におたずねします。どのような職場で仕事を希望するかについて、以下よりひとつ選択して○をつけて下さい。

(1) 日本の日本企業・団体
(2) 日本の外国企業・団体
(3) 外国の日本企業・団体
(4) 外国の外国企業・団体
(5) こだわらない

次の各項目は、あなたにどの程度当てはまりますか？「大いに当てはまる（1)」から「全く当てはまらない（8)」までのうち、最も当てはまる数字に〇をつけて下さい。

	大いに当てはまる							全く当てはまらない
12. 私には、英語での質問をする力がないと思います	1	2	3	4	5	6	7	8
13. 私は、英語による質問ができると、英語を話すのが楽しくなると思います	1	2	3	4	5	6	7	8
14. 私には、今の英語力では英語で質問をすることはできないと思います	1	2	3	4	5	6	7	8
15. 私は、英語の授業に出る前に予習をすると、英語の質問がしやすくなると思います	1	2	3	4	5	6	7	8
16. 私は、英語による質問を考えるのに、時間がかかる方です	1	2	3	4	5	6	7	8
17. 私は、英語で質問しなければならない時も、できるだけ質問しないようにしていたいです	1	2	3	4	5	6	7	8
18. 私は、英語の質問ができると、自分の英語力が上がると思います	1	2	3	4	5	6	7	8
19. 私は、英語で質問ができるほど、自分の英文法が正しくないと思います	1	2	3	4	5	6	7	8
20. 私は、英語で質問ができるほど、自分の語彙数が多くないと思います	1	2	3	4	5	6	7	8

21. 私が英語でする質問は、相手に意味が伝わらないと思います	1	2	3	4	5	6	7	8
22. 私は、英語で質問をしなければならない時でも、日本語で質問をしたいと思うことがよくあります	1	2	3	4	5	6	7	8
23. 私には、英語で質問をして、自分が考えていることを相手に伝えることができないと思います	1	2	3	4	5	6	7	8

次の各項目では、あなたに最も当てはまる数字（１～８）に○をつけ、理由を自由に記述して下さい。

24. 私は、クラスメートに英語で質問をすることを恥ずかしいと思います	1	2	3	4	5	6	7	8
25. 理由：								
26. 私は、クラスメートに英語で質問をすることは避けたいです	1	2	3	4	5	6	7	8
27. 理由：								
28. 私は、英語の質問をして、クラスメートに好印象を持たれたいです	1	2	3	4	5	6	7	8
29. 理由：								
30. 私は、クラスメートに英語で質問をする時、心配な気持になります	1	2	3	4	5	6	7	8
31. 理由：								
32. 私は、できればクラスメートに英語での質問をしたくありません	1	2	3	4	5	6	7	8

33. 理由：								
34. 私は、ネイティブの先生に英語で質問をすることは避けたいです	1	2	3	4	5	6	7	8
35. 理由：								
36. 私は、英語の質問をして、ネイティブの先生に好印象を持たれたいです	1	2	3	4	5	6	7	8
37. 理由：								
38. 私は、できればネイティブの先生に英語での質問をしたくありません	1	2	3	4	5	6	7	8
39. 理由：								

ご自身に関する情報を書いてください。

学年：　（　　）年　**年齢：**　（　　）歳

性別：　男　・　女

学部：　（　　）学部　**学科：**　（　　）学科

国籍：　（　　）　**母語：**　（　　）

ご協力をいただきまして、ありがとうございました。

Appendix C

Coding results of pre- and post-instruction speaking tasks

Pre-instruction speaking task results (Sequence of question type)

P	Q1	Q2	Q3	Q4	Q5	P	Q1	Q2	Q3	Q4	Q5
01	R	U	U	R	R	24	R	U	E	AN	AN
02	AP	E	E	E	E	25	E	E	E	E	AN
03	R	R	R	U	U	26	AN	U	AN	AN	E
04	AP	E	E	C	E	27	AN	AN	E	U	E
05	U	U	U	U	R	28	U	AN	U	U	U
06	AN	AN	U	U	U	29	R	U	U	U	R
07	U	U	U	U	U	30	U	U	R	U	U
08	U	U	E	E	E	31	U	U	U	U	U
09	R	U	U	R	R	32	U	AP	U	R	C
10	AN	AN	U	AP	AN	33	U	AP	AP	U	E
11	E	AN	E	E	U	34	U	R	U	U	R
12	U	AN	C	AN	AN	35	U	R	U	U	R
13	R	R	R	U	R	36	R	U	U	U	R
14	U	U	U	U	E	37	C	E	E	C	AN
15	AN	E	AN	C		38	U	U	U	U	R
16	E	U	C	U	U	39	U	AP	U	U	U
17	U	AP	U	U	U	40	U	R	U	E	E
18	U	U	AN	U	U	41	U	U	E	U	C
19	R	U	R	U	R	42	U	U	R	R	R
20	R	U	U	U	R	43	E	E	E	AN	E
21	R	E	U	U	E	44	AN	AN	U		
22	R	U	U	R	U	45	U	U	U	E	E
23	E	E	E								

Note: P = participant; R = Remembering; U = Understanding; AP = Applying; AN = Analyzing; E = Evaluating; C = Creating

(Black cells indicate there was not utterance)

Pre-instruction speaking task results (Distribution of question type)

P	R	U	AP	AN	E	C	P	R	U	AP	AN	E	C
01	3	2	0	0	0	0	24	1	1	0	2	1	0
02	0	0	1	0	4	0	25	0	0	0	1	4	0
03	3	2	0	0	0	0	26	0	1	0	3	1	0
04	0	0	1	0	3	1	27	0	1	0	2	2	0
05	1	4	0	0	0	0	28	0	4	0	1	0	0
06	0	3	0	2	0	0	29	2	3	0	0	0	0
07	0	5	0	0	0	0	30	1	4	0	0	0	0
08	0	2	0	0	3	0	31	0	5	0	0	0	0
09	3	2	0	0	0	0	32	1	2	1	0	0	1
10	0	1	1	3	0	0	33	0	2	2	0	1	0
11	0	1	0	1	3	0	34	2	3	0	0	0	0
12	0	1	0	3	0	1	35	2	3	0	0	0	0
13	4	1	0	0	0	0	36	2	3	0	0	0	0
14	0	4	0	0	1	0	37	0	0	0	1	2	2
15	0	0	0	2	1	1	38	1	4	0	0	0	0
16	0	3	0	0	1	1	39	0	4	1	0	0	0
17	0	4	1	0	0	0	40	1	1	0	0	3	0
18	0	4	0	1	0	0	41	0	3	0	0	1	1
19	3	2	0	0	0	0	42	3	2	0	0	0	0
20	2	3	0	0	0	0	43	0	0	0	1	4	0
21	1	2	0	0	2	0	44	0	1	0	2	0	0
22	2	3	0	0	0	0	45	0	3	0	0	2	0
23	0	0	0	0	3	0	TL	38	99	8	25	42	8

Note: P = participant; R = Remembering; U = Understanding; AP = Applying; AN = Analyzing; E = Evaluating; C = Creating; TL = Total

Post-instruction speaking task results (Sequence of question type)

P	Q1	Q2	Q3	Q4	Q5	P	Q1	Q2	Q3	Q4	Q5
01	U	E	C	E	AN	24	U	AN	C	E	AN
02	E	C	E	C	C	25	C	U	AP	AP	E
03	U	E	E	E	E	26	E	AP	C	U	AN
04	AN	C	AN	AP	E	27	R	AP	AN	E	E
05	R	C	AP	AN	E	28	U	C	U	R	E
06	R	C	E	AP	C	29	R	AP	AN	AP	E
07	U	R	E	C	U	30	AP	E	AN	AP	U
08	R	C	E	E	AP	31	U	U	AN	E	C
09	U	C	AN	E	E	32	U	E	AN	U	AP
10	R	AP	U	C	E	33	R	E	AP	E	AN
11	R	AN	AP	C	E	34	R	AP	E	U	E
12	C	E	AN	AP	AP	35	AN	E	U	E	E
13	R	E	AP	E	E	36	U	U	AN	E	C
14	U	U	E	C	AN	37	AN	AN	E	AP	AP
15	U	E	U	C	U	38	U	E	AP	E	E
16	U	AN	E	E	C	39	U	E	AP	E	R
17	R	U	C	E	AP	40	R	E	E	AN	AP
18	U	U	R	U	E	41	U	U	U	E	AP
19	E	E	E	AP	C	42	R	U	E	AP	U
20	U	U	U	E	C	43	U	AN	E	C	AP
21	E	AP	AN	AP	E	44	C	E	AP	U	E
22	E	AN	AP	U	E	45	U	U	AP	E	C
23	U	AN	E	AP	C						

Note: P = participant; R = Remembering; U = Understanding; AP = Applying; AN = Analyzing; E = Evaluating; C = Creating

Post-instruction speaking task results (Distribution of question type)

P	R	U	AP	AN	E	C	P	R	U	AP	AN	E	C
01	0	1	0	1	2	1	24	0	1	0	2	1	1
02	0	0	0	0	2	3	25	0	1	2	0	1	1
03	0	1	0	0	4	0	26	0	1	1	1	1	1
04	0	0	1	2	1	1	27	1	0	1	1	2	0
05	1	0	1	1	1	1	28	1	2	0	0	1	1
06	1	0	1	0	1	2	29	1	0	2	1	1	0
07	1	2	0	0	1	1	30	0	1	2	1	1	0
08	1	0	1	0	2	1	31	0	2	1	1	1	0
09	0	1	0	1	2	1	32	0	2	1	1	1	0
10	1	1	1	0	1	1	33	1	0	1	1	2	0
11	1	0	1	1	1	1	34	1	1	1	0	2	0
12	0	0	2	1	1	1	35	1	1	1	0	2	0
13	1	0	1	0	3	0	36	0	2	0	1	1	1
14	0	2	0	1	1	1	37	0	0	2	2	1	0
15	0	3	0	0	1	1	38	0	1	1	0	3	0
16	0	1	0	1	1	2	39	1	1	1	0	2	0
17	1	1	1	0	1	1	40	1	0	1	1	2	0
18	1	3	0	0	1	0	41	0	3	1	0	1	0
19	0	0	1	0	3	1	42	1	2	1	0	1	0
20	0	3	0	0	1	1	43	0	1	1	1	1	1
21	0	0	2	1	2	0	44	0	1	1	0	2	1
22	0	1	1	1	2	0	45	0	2	1	0	1	1
23	0	1	1	1	1	1	TL	18	46	38	26	67	30

Note: P = participant; R = Remembering; U = Understanding; AP = Applying; AN = Analyzing; E = Evaluating; C = Creating; TL = Total