Questions Teachers Ask in English Classes - Do They Help Students Develop Communication Skills? : A Report on a Case Study in a Japanese High School English Language Class

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Abstract: This paper focuses on a research project looking at teacher behaviour in the classroom which was designed to help teachers refine their teaching methods and classroom behaviour. In particular, the focus was on investigating the types of classroom questions teachers used. Data was obtained by conducting observations using tally sheets and ethnographic records. The types of questions examined were convergent/divergent display questions and convergent/divergent referential questions. It is commonly held that referential questions encourage more student participation, yet in reality they still constitute a very small proportion of questions asked by teachers in the EFL classroom. This was confirmed in this investigation. It was found that combining convergent/ divergent questions with referential/display categories of questions provided a more in-depth analysis of question types and student answers. Even when a question was classed as referential, if it was also found to be a convergent-referential question, the opportunities for students to engage in real communication were extremely limited. It was therefore concluded that to maximize student participation, questions of a referential-divergent nature were the most effective.

1. Introduction

With the introduction of a listening section to the *Center Test* in 2006 the importance of students' ability to understand spoken English has become an important aspect of English teaching at Japanese senior high schools. Until the introduction of the listening section in the *Center Test*, an opinion often voiced was that as there was no listening comprehension component in most university entrance examinations, there was therefore also no need

to focus on instruction of this in junior high and high school classes. The release in 2002 of the Monbukagakusho's whitepaper called *Eigo ga Tsukaeru Nihonjin,* "Japanese With English Abilities", along with the introduction of the listening section to the entrance exams, caused the situation to change.

In order to address this change, the English department at the high school featured in this study in Kagawa Prefecture, Japan, introduced a number of changes to its English classrooms. These included: reducing the class size from

around forty students to about twenty-five, teachers are to encourage more student talk time (especially student-to-student talk time), English to be used as the main language of instruction; Japanese used only when a complete breakdown of communication occurs, and finally, for teachers to become more aware of the kind of language they use in the classroom and how this influences students' ability to communicate.

A standard practice in the school is for teachers to be regularly observed by their peers and it was decided to use this opportunity to conduct a small study on the type of questions teachers asked and how students responded to different kinds of questions.

2. Background and definition of question types

Studies relating to EFL and ESL teaching have pointed out the need for teachers' questions. "In second language classrooms where learners often do not have a great number of tools your questions provide necessary stepping stones to communication (Richards and Lockhart, 1994: 165). Questioning is a commonly used strategy and in some cases teachers may use more than half the class time exchanging questions and answers. Additionally, in studies exploring the contribution of teachers' questions in ESL classrooms, these questions play a crucial role in language acquisition. Teachers' questions allow students to keep participation in the discourse and to modify language used so that it becomes more comprehensible and personally relevant (Richards and Lockhart, 1994: 185).

Teachers at the school in this study felt that asking 'open' questions would be more beneficial for the students as there were several possible answers and that there would accordingly be a greater opportunity for student participation. Open questions were defined by the teachers at the school as ones with several possible answers and those to which teachers also didn't know the answer or answers. According to the teachers at the school, closed questions were defined as questions to which the teacher didn't know the answer or answers, and only asked the question to check that the students' comprehension.

While there are many different types of questions that make it difficult to choose discrete and directly observable categories (Richards and Lockhart 1994: 185, Ellis, 1994: 587), two types of questions *referential* and *display* have been identified (Holland and Shortall, 1997: 65, Chaudron, 1988: 127). From previous studies on the effect of questions (on classroom behaviour) such as Shomoossi (2004) and Darn (2008) display questions have been defined as: questions designed to elicit learners' prior knowledge and to check comprehension. They often focus on the form or meaning of language structures and items, and *the teacher already knows the answer* (Darn, 2008: 2). Such questions are usually asked for comprehension checks, confirmation checks or clarification checks (Shomoossi, 2004:100) .In contrast referential questions are defined as: questions that require the learner to provide information, give an opinion, explain or clarify. They often focus on content rather than language, require 'follow-up' or 'probe' questions, and *the answer is not necessarily known by the teacher* (Richards and Lockhart, 1994, Darn, 2008) (authors' emphasis). A referential question would be a question such as "What do you think about animal rights? An example of a display question (and answer) would be:

T: *" Is this a book?"*
S: *" Yes, it is."*

The Longman Dictionary of Language Teaching and Applied Linguistics (1992: 85) defines a convergent question as "...a question that encourages students to converge or focus on a central theme. Convergent questions typically require a single correct answer and elicit short answers from students". Darn (2008) give further information on convergent and divergent questions. The best referential questions are those that are 'divergent' or 'open-ended' in that they are broad, may have multiple answers, and require a higher level of thinking from the learners. Open-ended questions are ideal for developing skills such as inferring, predicting, verifying and summarizing, as well as eliciting more language. 'Convergent' or 'closed' questions have more narrowly defined correct answers which can be recalled from memory and require little reflection or originality. Convergent questions may be display or referential in nature. Divergent questions, unlike convergent questions, which only require short responses, require longer, more detailed ones. However, it must be noted that it is highly unlikely that display-divergent questions can be found outside a classroom setting.

Several examples of convergent and divergent questions can be found in Richards and Lockhart (1994: 186-187) as well as Shomoossi (2004: 99-100). For example, *"How many of you have a personal computer at home?"* This question is convergent since it only requires a short answer. In addition, Shomoossi has classed this specific question as referential in his work because the teacher does not know the answer. It is indeed a real question and thus referential in nature. This style of question can therefore be described as referential-convergent. The question *"How have computers had an impact on society?"* is shown as an example of a divergent question in Richards and Lockhart (1994: 187). Using the previous definitions of referential/display and convergent/divergent questions, it was decided to develop a classification system for question forms by combining these concepts into divergent display / divergent referential and convergent display / convergent referential. The above question cited in Richards and Lockhart demands a much longer answer than convergent questions but because the teacher again does not know the students' answers, it is *referential* in nature. This question could therefore be described as referential-divergent questions. This can be represented as follows:

Table 1a. Classification of Question Types

	Convergent	Divergent
Display	display-convergent	display-divergent
Referential	referential-convergent	referential-divergent

Table 1b. Question Types: *Examples*

	Convergent	Divergent
Display	Is this a book?	Why do you think he has a headache?[1]
Referential	How many of you have a computer at home?	How have computers had an effect on society?

[1] See dialogue on p. 35. The teacher expected an answer that the student had already studied.

This table combines the four kinds of questions that have to do with the content of language learning. This display-referential distinction with the convergent-divergent distinction represents two different categories of questions used to show how communicative a student's answer might be.

The display-referential distinction alone cannot measure how communicative a student's answer may be since a convergent question only requires a short answer no matter if it is display or referential in nature. This is similar to findings by Shomoossi (2004: 98) who stated that "there can be found a number of questions, while referential, required a shorter answer and after them there was a period of silence or topic-change, for example; questions like the following did not help initiate a well formed interaction:

Where do you live?
What's your father's name of job?
What is the combination of your suitcase lock?

He concluded from this that *most* referential questions create more interaction in the classroom then display questions do.

A final type of question commonly found in language classrooms is the 'procedural question.' These are questions concerned with the management of the class such as *"Does everyone have a textbook?"* These questions, while an important part of teacher-talk, do not contribute much to the content of learning and have thus been ignored for the purposes of this study.

Referential questions that seek information predominate in conversations outside the classroom (76% of all questions asked) made up only 14% of questions asked by teachers. This suggests that communicative use of target language plays only a minor role in typical classroom interaction. Long and Sato (1983: 270) and Long (1983: 361) concluded that referential questions were more likely to elicit to longer, more authentic responses than display questions.

As with Long and Long and Sato, Shomoossi (2004: 100) found that display questions are used more frequently than referential questions. Moreover he also concluded that not all referential questions could create enough interaction. Questions such as "Where do you live? or "What is you father's job? while classed as referential in nature did not initiate well-formed interaction (Shomooss, 2004:100). The purpose of this study was to further develop Shomoossi's work and find which kinds of referential questions resulted in the longest student responses. Moreover Darn (2008) states that the best referential questions are those that are 'divergent' or 'open-ended' in that they are broad, may have multiple answers, and require a higher level of thinking from the learners. Classifying referential questions and display questions as convergent or divergent is an attempt to discover what kinds of referential questions help develop students' communicative competence and what percentage of questions in a typical communicative class at this school were composed of display and referential, convergent and divergent questions.

3. Methodology

The classes observed were three fifty-minute first year classes. There were approximately twenty-four students in each class, with girls outnumbering boys in all cases. The students were seated in pairs and it was easy to make groups by turning the desks around.

The object of all three lessons was to enable students to describe common medical conditions (a cold, the flu) and to understand the advice

received from a doctor. The textbook follows a similar plan for all units. First, a listening exercise where students listen for key words and then match conversations to pictures. (All listening exercises are on classroom tapes.) Next, there is a reading text, usually a dialogue, which the students practice in pairs. This is followed by a series of comprehension questions again with all questions on the class tape. When the teacher has checked the students' comprehension there is another listening task where students fill in blanks in a short summary.

The second half of the lesson is devoted to pair work or small group work. Pair work usually consists of substitution drills, followed by an "over-to-you" section in which students are free to form their own conversations. However, this final exercise isn't totally free since students are expected to produce the vocabulary and conversational styles modeled in the reading section and substitution drills.

Due to the style of the textbook it can be argued that it follows a PPP style (presentation, practice, production) style of teaching. All exercises necessary to fill a fifty-minute lesson are in the textbook with explanations and cultural notes found in the teacher's book. Consequently the teacher has "only" to choose a lesson from the book that is suitable for the students, plan an icebreaker and perhaps design an alternative application. However, what the teacher does within certain stages of the lesson is dependant on the teacher's methods and beliefs, e.g., open or closed questions in the icebreaker and application, when and how feedback occurs etc. In addition, the teacher may choose to do all or only some of the exercises in the textbook depending on the students' needs and the teacher's philosophy.

3.2 Procedure

The usual observation method used by this school is an ethnographic approach based on Day (1990: 45). The observer's task is to write a detailed record of the lesson. Teachers were asked to pay special attention to student involvement, especially student talk time, explanations of vocabulary and grammar, feedback given and class atmosphere. However, a detailed ethnographic record, including all the above points, is practically impossible to carry out in real time, can be very time-consuming and many teachers found it difficult to undertake. Quite often the observer resorted to writing the bare minimum so as to keep pace with the lesson. An example of a section of a recent ethnographic record from another first year class is reproduced below:

Table 2. Sample of an enthnographic record

Times	Notes
11 : 50	Bell rings. Most students in classroom. Talking and not in seats.
11 : 52	Teacher arrives. Students still not at desks. Teachers seems nervous (perhaps due to observation.)
11 : 54	Teacher says "Let's start!" One student calls out the order for Attention! Bow! Teacher asks him to repeat because some students still not at desks.
11 : 56	Two students arrive late.
11:56 - 11:57	Teacher tells the students to find their seats and hurry up. Looks annoyed.
11 : 58	Teacher tells class to open books to Lesson 4 and look at the pictures and asks their partners about them. Teacher repeats page number twice.
12:00 - 12:04	Students ask each other questions while teacher checks attendance records, and then walks around the class monitoring the students. Students seem involved in the activity but use a lot of Japanese. Noisy, but cheerful atmosphere.

The example above covers only the first ten minutes of a fifty-minute lesson so the final record is over five times longer than the extract presented above. Although time-consuming and difficult to undertake, this kind of record does contain some very useful information. For example, the teacher spends quite a lot of time on organizing the students, repeating information such as page numbers, checking attendance etc. It is easy to get an impression of the atmosphere of the class, something not available in other observation tools.

However, there are a number of problems with using an ethnographic record as the sole means of observation. First, this kind of tool gives little quantitative information and unless the observer, capable of writing exact quotes from both the students' and teacher's language there is almost no analysis of the language produced by either. With question types and student input being an important part of this research project, it was decided that an ethnographic record alone was no longer the best method for observing the language classrooms. Because of the problems mentioned above and because of the need to analyze classroom language, it was decided to supplement the ethnographic record with tally sheet based on the example found in *Understanding Language Classrooms* (Nunan, 1989: 78).

In a tally sheet each teacher and learner utterance is "checked" into predetermined categories and thus provides detailed quantitative information. Tally sheets have the advantage of being easy to use and are not as time-consuming as conventional ethnographic record. Because tally sheets are so quick and easy to use they are very useful for real-time observations, especially for observations aimed at providing an overview of classroom events, or at identifying specific patterns such as question types.

The categories in the tally sheet were discussed by the teachers prior to the observations and it was decided to leave two or three categories open and that these categories would be chosen by the teacher and observer before the class.

Although tally sheets do provide a reasonable objective picture of the classroom events, they do have one very serious problem - they fail to show the quality of the interactions. Because of this problem, it was decided to record the lessons and use tally sheets in conjunction with a brief ethnographic record.

4. Results and Discussion

Overall it was found that the majority of questions asked by the teacher were display questions rather than referential ones. This coincides with Long and Sato cited in Chaudron (1988: 127) "Long and Sato (1983) found that ESL teachers used significantly fewer referential questions than display questions in the classrooms…."

Class 1 had the lowest number of referential questions. Classes 2 and 3 had very similar number of referential questions but in Class 3 the teacher only asked 66 display questions compared with 77 in Class 1 and 81 in Class 2. In all three classes the number of procedural questions was small and from the ethnographic record it was found that this question type occurred mainly at the beginning and end of lessons. Table 2 shows the breakdown of question types into referential, display and procedural types.

Table 3. Types of questions asked by teachers

	Display	Referential	Procedural	Total
Class 1	77	22	10	109
Class 2	81	34	8	123
Class 3	66	35	7	108

At times, however, the distinction between display and referential questions was not always clear. Similar problems have been encountered in other studies. For instance, Richards and Lockhart (1994: 185) argue that "(Mehan 1979, Sinclair and Brazil 1982; White and Lightbrown 1984) have also observed that it is difficult to arrive at discrete and directly observable categories (Banbrook and Skehan, 1989)."

This can be seen in the following short dialogue (taken for the tapes and ethnographic study of Class 2). In this situation, it was not clear whether the teacher was asking a display or referential question. In the pre-listening exercise the teacher had asked students to look at the pictures, describe the symptoms and imagine why they had these symptoms.

T: *What's the matter with the boy in picture 1?*
S: *He is headache.*
T: *He has a headache? Why do you think he has a headache?*
S: *He is cold.*
T: *OK. A cold? He has a cold?*
S: *Yes, he is cold and headache.*

In this example, the first question was clearly classed as a display question since the picture shows a boy holding his head. However, the second question, "Why do you think he has a headache?" was more difficult to classify. This question could be considered a referential question because the teacher didn't know how the student would respond but at the same time, the teacher was expecting a normal answer such as "a cold" or "the flu" etc. The teacher's answer "OK" showed that this was the type of answer expected. She did not appear to be trying to engage the students in conversation; she only seemed to be trying to have them practice the names of the various illness she had reviewed at the beginning of the lesson.

Nunan (1989: 30) observed that, "Seen in this light, questions by the teacher about the colour of a student's eyes or hair or dress may be referential for some students and display for others."

In this study, such questions have been considered display rather than referential, although as Nunan pointed out the distinction is not always clear.

Questions asked by the teacher were analyzed not only at the display-referential level but also at the convergent-divergent level. At the display-referential level, 65% of all question asked were display and 26% were referential. However, by combining the display-referential and convergent-divergent categories it was found that virtually all the referential questions were of the convergent type. This reveals that even though they were referential, they only required short responses from the students. See Table 3 below for an analysis of frequency of question types.

Table 4. Detailed Analysis of Teacher Questions

	Display-convergent	Display-divergent	Referential-convergent	Referential-divergent
Class 1	58	19	22	0
Class 2	60	21	32	2
Class 3	40	26	30	5

What was interesting was the students' reaction to the different question types. In all three classes the divergent questions, both display-convergent and display-divergent, were answered by a very small number of students, and in classes 1 and 3, all these students were male. In class 2, one female student frequently answered the teacher's questions along with two male students.

At first, it appeared that the boys in all three classes were more dominant than the girls, but in the part of the lesson where the teachers asked students about their own health and whether they had ever been in hospital overnight, it was found that not only were most of the questions referential-convergent in nature, but also that various students were responding to the teachers' questions, both male and female. To the display questions, the number of students responding was restricted to mainly two or three boys but when the questions became referential, a wider range of students responded. While this may appear rather self evident, it is still not a common practice in many English language classes.

The fact that more students responded to referential questions than display ones, seems to suggest that the majority of students were not interested in only answering a series of display questions; but that they also were more interested in questions in which they could describe their own experiences. A few of the students became quite animated when describing bicycle accidents that had resulted in overnight stays in hospital. Additionally, other students asked them questions or commented about their accidents, often in Japanese, but with the help and encouragement of the teachers, who sometimes managed to change this to English. An example of such a conversation can be seen as follows:

Class 3 Ethnographic record (one section)

T: Have you ever had an accident and stayed in hospital for one or two nights? Raise your hands. (6 students, 4 boys and 2 girls raised their hands.)

T: T-kun, what kind of accident did you have? Sports, car, bicycle?

S1: Bicycle. Car crashed me. (Hand gesture to show crash.)

T: Wow! That sounds dangerous. Were you injured....hurt?

S1: I break arm two....bone.

S2: Itai. Itai.

T: (Turned to student that said "itai") What is "itai" in English?

S2: Ouch! It pain. T-kun, is it pain?

S1: Yes, big pain. (Student made dramatic face showing pain. Everyone laughed.)

As can be seen from the above example, the student who had the accident tried to explain what had happened and another student also commented on it. However, even though more students answered referential-convergent questions, they only gave short answers as the definition referential-convergent would indicate. At no time did the number of referential-divergent questions outnumber the referential-convergent questions and display-convergent questions made up the greatest number of

questions in all three classes. Because of this lack of referential-divergent questions it is doubtful whether these classes could be rated as communicative. As Richard and Lockhart（1994: 187）point out:

"It has as often been observed that teachers tend to ask more convergent than divergent questions. These questions serve to facilitate the recall of information rather than to generate student ideas and classroom communication. Since convergent questions require short answers, they may likewise provide limited opportunities for students to produce and practice the target language."

However, the number of referential-convergent questions was quite significant and this could suggest that the teachers were trying to make the classes more communicative.

4. Conclusion

This study highlights the value of using a variety of observation methods, incorporating both an ethnographic record as well as tally sheets. The value of using both is especially clear when an analysis of both *quality* and *quantity* is needed. While the systematic method, tally sheets, recorded the quantity of question types, alone it would have failed to address the importance of participant input and the value of both high and low reference factors. The ethnographic record incorporated these factors and gave important insights into the use of language in the classrooms.

The results from the tally sheet observations on the number of questions showed that despite the teachers' best intentions, the classes were not so communicative, in that the students were asked far more display type questions than referential ones. The majority of questions students were asked were ones to which the teacher already knew

the answer. Furthermore, when the students were asked a referential question, they were mainly referential-convergent in nature and in fact one class, Class 1, no referential-divergent questions were asked at all. Thus, the majority of questions required only short answers and little input on the part of the students.

Many of the teachers expressed the fear that students would be unable to answer referential-divergent type questions and would lose confidence when speaking. However, the fact that a wider number of students responded to referential-divergent questions than to any kinds of display questions, suggests that the students do want to engage in real communication and that given the opportunities, support and encouragement they may be able to give more fully developed answers. If this is indeed true, then real communication can take place within the context of high school language classes.

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