Improving Teacher Questions and Feedback through Action Research

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Abstract

Teachers are constantly striving to improve student learning. One way teachers can do so is through action research within their own classroom. Here a case study is presented concerning the use of mixed methods research to investigate teacher feedback in a Japanese junior high school English class. This research project quantitatively classified the types of feedback given by the Japanese English teacher (JTE) and Assistant language teacher (ALT) into the following categories (as proposed by Lyster, 1998): Recasts, explicit correction, and negotiation of form. Teacher question types (display, referential, conformational, and repetition) were also quantified. Finally, a qualitative interview was performed, wherein the JTE watched a video recording of the lesson and reflected on possible improvements. The results of the analysis showed that the JTE and ALT primarily used negotiation of form (i.e. prompting student self-correction) in their feedback. Furthermore, display questions (where the answer is already known by the teacher) were the most used. A review of the lesson video recording by the JTE prompted the realization that there was a lack of open-ended questions asked, there was too much teacher talk in the class, and an over use of student praise. Thus by conducting action research teachers were able to self-identify areas to improve their lessons and create a more communicative classroom environment.

Introduction

Posing questions to students and providing feedback on their answers are fundamental aspects of teaching and thus an important field of investigation both generally and for self-reflection by individual teachers. This particular action research project was undertaken to investigate both the questioning strategies and feedback techniques used in a particular English language class, as well as to evaluate their effectiveness. Additionally it is hoped that the examination of the class through this action research will aid in the improvement of the teaching methods employed in this classroom.

Teaching situation background

The observed class was a 1st year junior high school (seventh grade) English as a foreign language (EFL) class in Japan. The class was observed midway through the school year. As only one class was observed during this research project, knowledge of the class background can help put the results obtained in context, as well as help to explain why certain approaches (such as the use of team-teaching) were used.

In Japan it is compulsory for students to study a foreign language and the vast majority of schools choose English. At public schools in this school district, English is studied formally from the fifth grade of elementary school. In elementary school students are taught 32 lessons, of 45 minutes each, per year. The lessons focus primarily on vocabulary and using a few set phrases (for example "Do you like dogs?" "Yes, I like dogs."). Native speakers of English are primarily responsible for teaching elementary school lessons as the regular classroom teachers typically have little or no knowledge of English. No reading or writing is taught at the elementary school level.

In junior high, students begin studying English three times per week for 50 minutes each with a specialist Japanese Teacher of English (JTE). The JTE is joined by a native-English speaking Assistant Language Teacher (ALT) once per week. A useful overview of the history and issues involving the use of team-teaching in Japan is provided by Tajino and Tajino (1999). Some of the common issues that they cite is a tendency for JTEs to use the ALT as a "human tape recorder" relegated to simply reading passages aloud from a book for students to repeat and for the ALT to view the JTE simply as a translator. There is also a great deal of variation in terms of which teacher plans the lessons and leads the class.

At this school, the JTE is primarily responsible for lesson planning and the ALT assists as required for team-teaching. The JTE and ALT typically discuss the day's upcoming lessons for around ten minutes in the morning.

The role of action research

Action research, according to Dornyei (2007), is characterized by a close link between the teacher and researcher, as well as its purpose in furthering understanding of the classroom situation with a view of improving the effectiveness of the teacher's instruction. Furthermore, Taylor (2002, p. 399) states that "...you may only look at one class, possibly only one lesson, and are not looking for the large numbers to make your research statistically viable and thus generalizable to other contexts." However Dornyei (2007) notes that although action research is potentially powerful for its active rather than passive involvement of teachers in research, it can be difficult to carry out in practice due to the extra time demands placed on teachers who conduct their own research, a lack of incentives, as well as their lack of training leading to questions of the research's validity. Thus Dornyei (2007) concludes that action research "... although it is undoubtedly a noble idea, it just does not work in practice." (p. 191).

While this argument may be valid in many cases, it presupposes that the teacher carrying out the research has no training (such as a research background in their undergraduate or post-graduate studies), and is unable or unwilling to devote the necessary time to the project. Thus as we will explore below, action research remains a potentially useful tool for many teachers to methodically examine their teaching situation in the continuing quest for professional improvement.

Classroom research methods

A large number of classroom research methods have been developed that are available to   classroom action researchers for examining classroom interaction. A review by Chaudron (1988) alone found 26 different examples. These can be classified on a spectrum of their quantitative or qualitative nature. Examples of quantitative data can include test scores, surveys with set responses, and tally-sheets for observations. While quantitative methods have the advantage of being statistically analyzable, they run the risk of missing important information that, while not easily quantifiable, is vital to the understanding of the situation. This issue can be addressed by utilizing more qualitative methods, although these run the risk of being influenced (either

intentionally or not) by the preconceived notions of the investigator. However, it can be argued that no method can be totally without bias, as even the selection of categories for quantitative surveys can influence the results). Common quantitative data collection methods include interviews or surveys that allow open-ended responses, as well as researcher observations (as in an ethnographic study). Dornyei (2007) states that by using mixed methods (combining qualitative and quantitative approaches) researchers can achieve a fuller understanding of the situation, verify findings against each other, and reach multiple audiences who may be more inclined towards one method or the other.

There are a number of technologies available to aid researchers in gathering data. An increasingly popular tool in classroom research is the use of video recorders. When using video however, Zuengler, Ford, & Fassnacht(1998, cited in Dornyei 2007, p. 184), caution against the occurrence of "literal blind spots" where the camera is unable to view the entire class, as well as "figurative blind spots" where the unfamiliar presence of the camera causes the subjects to change their behavior. The advantage of using video rather than simply recording audio is that it allows the repeated observation of non-verbal interactions that can be a vital component of communication, in addition to being helpful in differentiating which subjects an utterance can be attributed to (Murison-Bowie, cited in Dornyei 2007, p. 185). Although transcribing video can be labor intensive, once completed the data in the transcripts can be easily re-examined for future research by both the original researcher and others.

The role and effectiveness of questions

If proper communication is the ultimate goal of learning a language, then questions that facilitate communication rather than simply check knowledge can be a useful tool.

As Chaudron (1988) points out, questions that are open-ended are more effective than closed questions which result in either simple yes or no answers, or standard phrases that are simply parroted (such as the classic "How are you?" "I'm fine, thank you, and you?"). Furthermore, referential questions where the teacher is unaware of the answer are more likely to result in natural communication than display questions to which the teacher already knows the correct answer. For example "What did you do last weekend?" will likely elicit a more complex response than "What's the date today?" However, closed and display questions can still be considered useful as a means of

increasing confidence in low-level students as the answers may be simpler and require less vocabulary. Thus while open-ended and referential questions are more likely to result in a more communicative classroom, other types should not be overlooked completely, as their effectiveness may depend on the learning context and student level.

Another factor related to questions to consider, besides the type of questions asked, is to whom they are asked and how. Classes naturally contain students of different levels as well as personality. Some students are naturally more confident (though not necessarily more able) and thus more likely to answer a question posed by the teacher. This can lead to the domination of class time by some students to the detriment of other students' opportunities for communication. Chaudron (1988) points out that questions are useful for directing who is expected to speak in addition to selecting the topic of discussion. Thus by asking questions to specific students, teachers can attempt to create more opportunities for quiet students to communicate. Teachers can also direct easier questions to lower level students so that they can feel involved in the class and gain confidence through getting a correct answer. Likewise, more advanced students can be given challenging questions to help maintain their interest.

The role and effectiveness of feedback

Feedback is an essential aspect not only of classroom discourse, but also general communication. While feedback can take many forms (such as praise, criticism, and body language) it is perhaps most directly observable and applicable in this case of error correction. It is currently felt, although not universally, (Russell 2010) that it is important for students to receive feedback so that they can identify errors and thus make changes necessary to improve their performance, especially when learning a language outside of childhood (Long 1996, cited in Russell 2010). Hedge (2000) also explains that there are many factors to consider when providing feedback. These include which errors are important to correct (for example systemic errors, which are a result of incorrect knowledge of English, versus simple mistakes), how to give negative feedback without causing anxiety and demotivating the learner, when to correct (immediately versus at the end of the activity), as well as the method of feedback.

Lyster and Ranta (1997) identify the following types of oral error correction: Explicit correction (identifying and correcting the error), recast (repeating the answer in it's correct form without explicitly identifying that the answer was incorrect), repetition

(repeating the statement and using tone of voice to indicate the error), clarification requests (indicating that the response was not understood), elicitation (leaving pauses for the students to fill with the correct answer), and metalinguistic feedback (referring to a grammar point to prompt the correct answer). They found that in an examination of French immersion second language classrooms that recasts made up the majority of teachers' feedback. However recasts were the least effective in terms of student uptake, defined as "... a student's utterance that immediately follows the teacher's feedback and that constitutes a reaction in some way to the teacher's intention to draw attention to some aspect of the student's initial utterance" (Lyster and Ranta 1997, p. 49). They go on to categorize uptake as with or without repair based on whether there was "...the correct reformulation of an error" (Lyster and Ranta 1997, p. 49). Lyster (1998) subsequently combines elicitation, clarification requests, metalinguistic feedback, and repetition into the category of "negotiation of form" (AKA prompts) as all four categories bring an error to the students attention without directly offering the correct form. Lyster (1998) goes on to claim that while recasts are useful for correcting phonological mistakes, they were less effective for correcting lexical and grammatical errors. Lyster claims this is partly because students don't always recognize a recast as a correction. Finally Lyster concludes that using the negotiation of form as feedback was the most effective as it allows students to notice and correct their own mistakes.

However in a review of feedback research, Russell (2010) concluded that there is still debate over the effectiveness of recasts (particularly in non-immersion settings) as well as whether or not student uptake is an accurate measure of learning.

Methods

In order to investigate the use of questions and feedback in this particular classroom, a mixed methods approach was undertaken. The approach taken in this study was to attempt to triangulate the results through a combination of quantitative tally-sheets and a qualitative ethnographic study. This was done with the view that by combining techniques they will complement each other and create a more complete view of the situation than either would give if used on their own.

Qualitative analysis

The researcher decided to obtain data via the post-class review of a video tape made of the class rather than by actively making observations during the class itself. This was done for several reasons, not least of which was that the researcher was himself

participating in teaching the class. It was felt that due to a lack of practice in classroom observation that a format allowing multiple viewings of events would preclude the possibility of significant omissions on the part of the researcher. The use of two video cameras also allowed the observation of the class from multiple angles (one facing the teachers and the blackboard, the other facing the students), as well as providing insurance against technical malfunctions resulting in gaps in the data. Also, while not hidden, the cameras were placed outside of the students immediate field of vision in order to minimize any distractions to the class.

Two weeks following the recorded lesson a semi-structured interview with the JTE was recorded regarding her impressions of the lesson. The JTE was also shown the recorded footage so as to refresh her memory of the lesson. The two-week gap between the lesson and the interview may have aided in the objective self-critique of the lesson.

Quantitative analysis

Tally-sheets were chosen to gather quantitative observations due to their simplicity and ease of use. Furthermore, the tally-sheets used event sampling (tallying results over the course of the class) rather than time sampling (breaking the observation period into times sections) for the quantitative analysis as the researcher was only concerned with the amounts and relative proportions of questions and feedback rather than when they occur.

The researcher chose to divide the types of questions into display, referential, and confirmation types for simplicity. Repeated questions were tallied separately so as to indicate the total amount of questions without unduly influencing the ratios of types of questions.

The researcher chose to adopt the feedback categories set out by Lyster (1998), again due to their simplicity. This class didn't feature writing activities so only oral questioning and feedback strategies needed to be examined.

Results

Ethnographic qualitative observations

The observed class consisted of 7 students (1 female and 6 male) who have been in

the same class together since kindergarten. All the students are native Japanese speakers. The school is located in a rural area of Japan with very little exposure to English. In fact it is quite likely that the only direct interaction the students have had with a non-Japanese person is within the language class. A short anonymous survey (see appendix) revealed that the large majority of the students (6/7) enjoy studying English and feel it is important for them. The reasons given for studying English included for future employment, university, travel, and making friends (4, 2, 2, and 1 students respectively). This positive attitude to studying English helps to explain why they are generally well behaved and attentive.

While the students were aware of the presence of the recording equipment, it didn't appear to affect the class atmosphere, likely because there were no unfamiliar observers operating the equipment. The class was very teacher-centered, with a great deal of talk between the two teachers and students, as well as between the teachers themselves. Lockstep (whole-class work) was prominent, with no pair or group work performed, and thus almost no talk occurring between students. The class primarily focused around the blackboard, with the JTE and ALT spending most of the class standing on either side of it. The total amount of teacher talk appeared to be shared equally between the JTE and ALT, although the JTE was more likely to explain grammar points and the ALT more likely to provide example sentences and pose questions to the students. There was also a significant portion of talk between the ALT and JTE, with the JTE posing questions to the ALT in order to provide examples of dialogue for the students to listen to. Students did not raise their hands and wait to be called on for answers, but rather called out responses. The JTE and ALT both provided immediate feedback to students, often at almost the same time, causing their responses to overlap. There was a tendency for three of the seven students to dominate the answering of questions posed to the whole class, with the other students only answering questions posed to them directly. The questions were very repetitive, for example pointing at various objects on the board and asking, "what's this?" or "where's this?" over and over. There is also a great deal of praise for students, particularly from the JTE. Feedback was given in a positive manner, avoiding harsh criticism. New vocabulary and example sentences were translated by the students from English into Japanese, and Japanese also featured prominently in the explanations of the grammar points by the JTE. The students became noticeably more engaged in the class once the teachers began to adopt a more playful attitude to the placement of the object the students had to describe and also begin to move around the classroom during the final five minutes of the lesson.

Teacher interview

Two weeks after the lesson was taped, the researcher interviewed the Japanese Teacher of English (JTE) regarding the lesson and showed her the recording. When asked her impression of the lesson she responded that, "It was very bad. I spoke too much. [the] students need more and more activities." She went on to say that the same types of questions were always asked and that she feels we need to ask more "how" and "why" questions (ie. open-ended questions). She felt that these questions are more likely to make students think, but that it is difficult for the students to answer them. She went on to explain that she asks the same sequence of questions every week so as not to intimidate the students and allow them to gain confidence. However, she feels that she should take advantage of the small class size to now ask individual students more follow up questions. For example, if a student is asked "How are you?" and they reply "I'm tired." she could then ask "Why are you tired?" Other comments on the lesson were that the students should be speaking with the ALT more and that talk between the two instructors should be reduced. Also, the JTE felt that she should have used more real-life classroom examples to practice the locations of objects rather than relying on the printed material on the blackboard beyond the initial presentation.

When asked about classroom feedback the JTE felt that it was useful, but perhaps somewhat excessive. "I often praise them. If the answer is right we have to praise. Great. Good job. That's right. Those words sometimes encourage them, but I use [them] too much" She also felt that it is better to correct mistakes immediately, rather than later in the lesson.

Overall the JTE felt that having watched the video of her teaching was a good opportunity to improve her teaching in the class.

Quantitative analysis of question types and feedback

Table 1. Types and Frequencies of Questions (Qs) Posed to Students (SS) by the Assistant Language Teacher (ALT) and Japanese Teacher of English (JTE)

Type of question	No. of ALT to SS Qs	% of total ALT to SS Qs	No. of JTE to SS Qs	% of total JTE to SS Qs
display questions	40	70.2	50	63.3
referential questions	7	12.3	1	1.3
teacher confirming understanding	8	14	5	6.3
teacher repeats a question	2	3.5	23	29.1
total	57	100	79	100

Table 1 indicates that the majority of questions posed by both the assistant language teacher (ALT) and the Japanese teacher of English (JTE) are display questions (70.2% and 63.3% respectively).   Furthermore, while the ALT and JTE both asked a similar number of questions to confirm understanding, the JTE was much more likely to repeat a question to a student than was the ALT. Although the total number of questions posed by the JTE was higher than that of the ALT (79 versus 57), when the repeated questions are subtracted from the total the numbers do not vary greatly (56 versus 55).

Table 2. Types of Feedback (FB) Given to Students (SS) by the Assistant Language Teacher (ALT) and Japanese Teacher of English (JTE)

Type of feedback	Frequency of ALT FB to SS	% of total ALT FB to SS	Frequency of JTE FB to SS	% of total JTE FB to SS
recast	1	4.5	1	2.9
explicit correction	6	27.3	4	11.8
negotiation of form	15	68.2	29	85.3
total	22	100	34	100

Table 2 shows that the majority of feedback provided to students by both the ALT and JTE is through the negotiation of form (68.2% and 85.3% respectively) whereas recasts made up the smallest amount of feedback for both (4.5% and 2.9%). The ALT was also more likely to use explicit correction than the JTE.

Discussion

This action research project has shown that both the JTE and ALT make extensive use of display questions in their class (Table 1). In terms of the effectiveness of this type of questioning, there is much to be desired, as became apparent to the JTE upon reviewing the transcript. The ethnographic study of the class revealed that almost no communication occurred between students. On the other hand, while there was no pair or group work, the small class size means that the total amount of student communication was unlikely to be significantly lower due to the number of questions directed to the class by the teacher. Also, the practice of asking specific students questions slightly mitigated the tendency of certain individual students to completely dominate the class. Unfortunately, if the purpose of asking questions is to create a communicative environment with natural back and forth communication, the repeated use of display questions can be considered a major obstacle. However, it is questionable whether the students are at a high enough level to engage in more communicative talk without teacher questions for guidance. Also, while the ALT and JTE dominate the classroom talk, by interacting together and asking each other questions, they can provide unscripted examples of English in action for the students to observe. The key points, as observed by the JTE in the teacher interview, are to take advantage of the small class size and ask more follow-up questions to the students, as well as to gradually decrease the amount of teacher talk and allow the

students to gain confidence and include more real-life activities to challenge the students to communicate more.

In terms of feedback, the research shows that the teachers primarily use negotiation of form (prompts) rather than explicit correction, although there are some variations between the two teachers (Table 2). This type of feedback is considered effective, (particularly for lexical and grammatical errors, (Lyster, 1998)), although as the ethnographic transcripts indicate, the way that JTE and ALT provide overlapping feedback could be considered confusing to the students. Also, by constantly correcting each response they are potentially inhibiting a communicative atmosphere through over-correction.

It is interesting to note that the results do not confirm those obtained by Lyster (1998), as the majority of feedback in this study was negotiation of form rather than recasts. However, because of the limited scope of this study it would be difficult to speculate as to the cause of this discrepancy in feedback methods. Also, while the categories presented by Lyster (1998) are useful for quantitative analysis, there is still some subjective interpretation on the part of the researcher when tallying feedback as some categories are difficult to distinguish (particularly between a recast and a repetition as the difference relies on voice tone). It would be interesting to repeat this analysis in other Japanese junior high schools to see if these results are consistent within the Japanese school system or whether the observed class was simply an outlier. Until this stage is completed however, it is not possible to generalize the results of this single classroom observation to make comparisons between Japanese English language classrooms and the Canadian French immersion classrooms observed by Lyster (1998).

Finally, in terms of the effectiveness of team teaching between the ALT and JTE, the fact that both teachers gave similar amounts of feedback (Table 2) and asked similar amounts of questions (Table 1) indicates that there is a fairly equal relationship between them. While the video transcript indicates that the ALT and JTE do conform somewhat to the stereotypical roles of "human tape recorder" and "translator" respectively (Tajino & Tajino, 2000) those are not their exclusive roles and thus the students are able to benefit from the different strengths that both teachers bring to the classroom.

Conclusion

By conducting an action research project, it was possible for EFL teachers to systematically self-evaluate their teaching style in terms of the questions they ask and the feedback they provide to students. While the results obtained through this action research may not be generalizable to situations outside the particular classroom studied, the research still has "internal generalizability" (Maxwell, 1992, cited in Dornyei 2007, p. 58). Thus the results can be useful for improving other classes taught by the ALT and JTE. By performing this action research project the JTE and ALT were able to identify four immediate areas that require attention: the domination of the answering process by a few students, too many repeated display questions by the teachers, the ALT and JTE giving feedback at the same time, and too much praise.

References

Chaudron, C. (1988). *Second language classrooms: research on teaching and learning.* Cambridge: Cambridge University Press

Dornyei, Z. (2007). *Research Methods in Applied Linguistics.* Oxford: Oxford University Press

Hedge, T. (2000). *Teaching and Learning in the Language Classroom.* Oxford: Oxford University Press

Izumi, A. (2011). Interview with researcher

Long, M.H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (eds.) *Handbook of second language acquisition* (pp. 413-468). San Diego, CA: Academic Press.

Lyster, R. (1998). Negotiation of form, recasts, and explicit correction in relation to error types and learner repair in immersion classrooms. *Language Learning*, *48*(2), 183-218

Lyster, R. & Ranta, L. (1997). Corrective feedback and learner uptake: Negotiation of form in communicative classrooms. *Studies in Second Language Acquisition, 19*, 37-66.

Maxwell, J. A. (1992). Understanding the validity in qualitative research. *Harvard Educational Review*, *62*(3), 279-300

Murison-Bowie, personal communication cited in Dornyei, Z. (2007) *Research Methods in Applied Linguistics.* Oxford: Oxford University Press. p.185

Russell, R. (2009). Corrective feedback, over a decade of research since Lyster and Ranta (1997): Where do we stand today? *Electronic Journal of Foreign Language Teaching, 6*(1), 21-31

Tajino, A. and Tajino, Y. (2000). Native and non-native: what can they offer? Lessons from team-teaching in Japan. *ELT Journal*, *54*(1), 3-11

Taylor, E. (2002). Research in Your Own Classroom. in J. C. Richards & W. A.

Renandya (Eds.), *Methodology in Language Teaching* (pp. 397-403). New York. Cambridge University Press.

Zuengler, J., Ford, C., & Fassnacht, C. (1998). *Analyst eyes and camera eyes: theoretical and technological considerations in "seeing" the details of classroom interaction.* Albany, NY: School of Education, University of Albany.

Appendix

Survey and results

Do you enjoy studying English?

英語を勉強するのが好きですか？

Do you study English outside of school (Juku, Eikaiwa, etc)?

学校の授業以外に（塾、英会話）英語を勉強しますか？

     If yes, how often per week.

     する場合：週に何回勉強しますか？

Is studying English important for you? If yes, why.

あなたにとって、英語を勉強するのは大事なことですか？大事だと思ったら、
なんでそう思いますか？

     -Future job　就職

     -University　大学入試

     -Travel　海外旅行

     -culture　異文化に興味ある

     -make friends　国際交流

     -other　他に

Question	Number of positive responses	Number of negative responses
Do you enjoy studying English?	6	1
Do you study English outside of school?	2	5
Is studying English important for you?	6	1
I study English for a future job.	4	0
I study English for university.	2	0
I study English for travel.	2	0
I study English for culture.	0	0
I study English to make friends.	1	0
I study English for other reasons.	0	0