Teachers' Questions Repairing in Classroom

Abstract

This article aims to clarify teachers' motivation of using question repairs in a classroom conversation by applying conversation analysis method. Two English classroom videos were selected from YouTube websites. All of these data are English instructions in Chinese high schools. One video is an English course at a high school in Huangshan city. The second video is an English course in NO.1 Middle School Affiliated to Central China Normal University. After the transcript, the number of sequences containing questions was counted. The sequences are distinguished according to the topic of the question. All of the questions made by teacher are calculated and the target of this paper is repaired questions. There are 345 questions in the collected video data. The most common question types are Wh-questions (145) like *why it is impossible*, and the second most frequently used question is Yes/No question: a total of 79. The reason teachers use Wh-questions more frequently is that the answer to these questions is not short-answered, and students must understand the learning content in order to answer. In contrast, although Yes/No question is easy for students to understand and answer, it takes longer to ask questions than to answer, which may result in too little oral expression by students and too much oral expression by teachers. Most of the questions shows a typical IRE pattern, a sequence like teacher's question - student's response - teacher's feedback.

Besides them, there are 48 repaired sequences. By observing previous segments and following segments of repairing sequences, we tried to explore teachers' motivation of self-question repairing. The results showed that the teachers modified their own question because they failed to get immediate responses after the question, and the sequence was question – repair 1 – repair 2 – repair 3 – response; sometimes teachers modified his/her own question without any interval. These repairs indicate that teachers strive to simplify their own questions by applying different types of question (e.g., Yes/No question – Wh-question – Uncompleted statements; Yes/No question – Yes/No question – Uncompleted statements), or making the questions more specific, by doing so, teachers help students keep thinking during the class and have more chance to express themselves in the classroom conversation.

1. Introduction

Classroom conversation is a kind of institutional interaction. It is a one-sided transfer process between two parties: teachers and students. Different from ordinary conversations, a classroom conversation aims to transfer knowledge. Due to the asymmetry of the knowledge in classroom conversations, teachers usually occupy the main voice (Heritage, 2005). The asymmetry feature of classroom conversation defines it as an interaction of institutions. However, for this kind of highly purposed conversation, cooperation between the parties is essential in order to accomplish the common goals of both participants. Interaction between teachers and students can provide an atmosphere of synergy for classroom conversation and help both sides think in sync (Brown, 2001). One of the ways to increase interaction is question. In a classroom conversation, which is a traditional institutional interaction, teachers have the right to ask questions freely. By making successful questions, they can not only encourage students to think and keep involved, but also promote classroom interaction. Moreover, teachers can measure student's knowledge and comprehension.

However, teachers do not always make a successful question. According to Garcia (2013), a "preferred responses" often tends "to be formulated quickly, simply, and directly, while dispreferred responses are characterized by delay, indirectness, explanations and mitigations." A successful question is supposed to be accompanied by answers, but teachers cannot always ask a successful question. "If an answer is not readily available, as indicated either in the form of silence, a repair initiator, or an inappropriate response", the question is failed one (Okada, 2010). The problem of the failed questions can include various errors, such as errors in grammar, pronunciation, or failure to adjust the difficulty level. These failed questions make interaction difficult, and if the time of thinking is unnecessarily long, it wastes time and decreases the efficiency of teaching. Immediate repairs are needed because when the correction is delayed and the distance between error and correction increases, the effect of correction decreases (Garcia, 2013). The same goes for the teacher's question in classroom teaching. Questions that are too broad, difficult to understand, or that require a long period of time to ponder will cause a delay in students' reactions. In time-constrained classroom teaching, this is not economical. As the result, teachers should dynamically monitor and modify questions and reactions in order to promote the interaction.

On the other hand, teachers can ask various types of questions in a classroom teaching. However, these questions are not randomly selected. Essentially, for obtaining reactions from students and to continue the interactions, a teacher should select a question with characteristics which is appropriate to the educational goal, teaching target, and the purpose of the question. It is verified that the factors such as question types, student's knowledge and language proficiency affect the interactive effects (Al-Zahrani & Al-Bargi, 2017). The smaller the gap between the complexity of the problem and students' knowledge and language ability, the better the interaction effect is attained (Al-Zahrani & Al-Bargi). On the other hand, teachers seem to have a preference for certain types of question. Hamiloğlu & Temiz's (2012) study proved that teachers quite frequently use Yes/No question. In their research, 11 English teachers in EFL English lesson were selected as the research objects. By observing the teacher's use of six question types including Yes/No questions, short answer questions, display questions, referential questions and imaginative questions, they studied which type of question did the English teachers prefer. The results showed that those teachers were highly inclined to use "yes/no" questions. They explained that the result might be caused by teachers' requirements of limited answers; and for students, Yes/No questions were not quite challenging as they only need to make short answers. Even

if they don't fully understand them, there is still a 50% chance of answering the correct answer.

Many research have already dealt with teachers' question (Okada,2010; Al-Zahrani & Al-Bargi, 2017; Hamiloğlu, 2012) or question repairing. However, these studies either focused on the interactive incentives of teacher questions (Al-Zahrani & Al-Bargi, 2017) or the repairs made by teachers in typical Initiation-Response-Evaluation (IRE) sequences (Lee, 2007), or explained repair as teachers' corrective methods to deal with his or her failed question (Okada, 2010). In 2010, for example, Okada found 22 cases of teachers' question repairing. He argued that "if an answer is not readily available, as indicated either in the form of silence, a repair initiator, or an inappropriate response", the question is a failed question. And teachers repair their own questions because they need to correct their question sentences so that students can understand the meaning of the question and complete the interaction. He listed three practices for teachers to deal with these failed questions: "a modification of the failed question in the target language, codeswitching into L1 as a further step of the modification, and proffering candidate responses to the failed question." (Okada, 2010) According to his research, teachers' question repairing occurs after a failed question and plays a role of corrective method.

In this article we try to observe teacher's questions during the classroom conversation, mainly target on the phenomenon of question repairing. As "Conversation analytic methods also been used to study talk in a wide range of organizational and institutional contexts" (Drew and Heritage, 1992), we apply conversation analysis method, and aim to answer this one research question: in what kind of question sequence, the teachers' question repairs occur? This article will mainly analyze the previous segments and following segments of repairing sequences to determine that induce repair and the motivation of the teacher using repairing.

2. Data

Two English classroom videos were selected from YouTube websites. All of these data are English instructions in Chinese high schools. One video is an English course at a high school in Huangshan city. The reported class is about the history of English (48:55 minutes). In this course, the teacher played three voice recordings about English history to students (1-3 minutes), and after each record, the teacher explained the content. The second video is an English course in NO.1 Middle School Affiliated to Central China Normal University. This recorded class is a course about earthquake (37:10 minutes). Teacher used the text in the textbook as the material. In the first half, she asked students to structure the text according to the content to familiarize themselves with the content, while in the second half, she asked students to analyze the writing skills of several sentences.

3. Methodology

The two English classroom teaching videos have been transcribed. Since we should focus on the sequence of the question repair, the translation does not contain too many non-verbal details, such as rush through, increased volume etc. The included script items are: the content of the discourse, short pause and long silence, simultaneous speech as well as immediately following words etc. (Garcia, 2013)

After the transcript, the number of sequences containing questions are counted. The sequences are distinguished according to the topic of the question. For example, in the earthquake classroom video, a series of teacher's questions about "the purpose of the author using a lot of numbers in a sentence of the

text" and the students' responses are treated as one question sequence. The total number of questions and the number of various types of questions were also counted, then the repairs were selected.

4. Results

All questions made by teachers are calculated and the target of this paper is repaired questions. There are 345 questions in the collected video data. The most common question types are Wh-questions (145) like *why it is impossible*, and the second most frequently used question is Yes/No question: a total of 79. The reason teachers use Wh-questions more frequently is that the answer to these questions is not short-answered, and students must understand the learning content so that they can make an answer. In contrast, although Yes/No question is easy for students to answer, it takes longer to ask questions than to answer for teachers, which may result in too little oral expression by students and too much oral expression by teachers.

Table.1 Numbers of each type of questions used by the teachers in the classrooms

	Wh-questions	Yes/No questions	…, right/ok?	Uncompleted statements	Statement as questions
English history	80	30	42	27	1
Earthquake	65	49	27	20	4
Total	145	79	69	47	5

Most of the questions shows a sequence as: teacher's question - student's response - teacher's feedback. Specifically, teachers initiated a question, then it is followed by students' answer. And in the next segment, teachers correct students' answer and make evaluation or feedback. This is a typical IRE pattern in pedagogical discourse. (Johnson, 1995) Among the whole questions made by the two teachers, 48 sequences are found containing self-repairs.

4.1 Repairing failed question

20 of 48 are cases of failed question modifications, the case which is similar to the one in Okada's study. Excerpt 1 below is a dialogue taken from the video of NO.1 Middle School Affiliated to Central China Normal University. In this part, the teacher is analyzing the writing skills of the textbook sentences.

Excerpt 1.

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→303    Teacher:    that's right. so can you tell me why does the
→304                author list so many numbers? what is the use of
 305                the numbers?
→306                (1.0) think about it. why does the author list
 307                so many numbers? ((a student's name))
→308                (1.0) why are so many numbers here in paragraph two?
→309                (1.5) as a reader as a reader. when you read these
 310                numbers what is your feeling? what is your feeling?
 311                what is your feeling?
 312    Student:    feel stress as well as uh:: terrible.
 313    Teacher:    it is very: terrible. okay. and it is very real.
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In lines 303 and 304, the teacher asked the same question twice, but no student answered. She repeated the same question as in 306 "*why does the author list so many numbers*?" and then asked one student to answer the question, but still failed to get an immediate response. For this failed question, the teacher specified the scope of "paragraph two" in line 308. However, there was still a 1.5 second silence in line 309, and the teacher further repairs the question. She finally succeeded in eliciting the student's answer (line 312) by replace a question which alternated the student's position from the author to a reader.

By examining 48 repairs in more detail, it is found that the teacher not only modifies the question when he/she confirms that the question is a failed question, but also modifies it without verifying whether the question needs to be repaired. That is to say, before getting (or not getting) the students' answers, the former questions are modified immediately after the questions are given.

4.2 Repairing Questions before Response

However, by examining those 48 repairs in more detail, we find that teachers repair their own questions not only when they made failed questions, but also before the question was verified as a failed question. That is to say, before getting (or not getting) the students' answers, the former questions are modified immediately after the questions are given.

Excerpt 2.

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 91                 you- we may just guess. okay? now we have
→92                 three pictures here. can you: can you put them
→93                 in order. can you put them in order.
→94                 abc which one comes the first according to time.
 95     Students:   c
 96     Students:   c
 97     Teacher:    which- which comes the first.
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  98      Students:   c
  99      Teacher:    yeah. picture c. you can see this is a picture
 100                  in (.) okay. in the picture uh there are some
→101                  signs. before the earthquake right? and which
 102                  one comes as the second?
 103      Students:   (.) b
 104      Students:   b
 105      Teacher:    uh b is when the earthquake is happening during
→106                  the earthquake right? and picture: a is (.)
 107      Students:    [after
 108      Teacher:     [after the earthquake. yes now let's get on to
```

In this part, the teacher gave her students three pictures and conducted the practice of putting the pictures in order according to the timeline: before, during, and after the earthquake. The teacher repeated the Yes/No question "*can you put them in order*" twice in lines 92 and 93. Instead of waiting for the students' answers, the teacher reconstructs the question. The repaired question no longer asked students to arrange the order as shown in line 94, she asked which picture should be the first. By doing this, the question became smaller and more specific. Students don't have to do three tasks at once, they just have to choose the picture that should come first. From line 101 to 102, the teacher again asked the same question with only one task, although there was a small pause, but it received the students' responses. And finally, the teacher instructed students to complete this practice with the uncompleted statement question in line 106. The reason why the teacher repaired the question at the beginning is that it is more economical to repair the question and divide the practice into small questions so that students can answer one by one, rather than try to decide the time of three pictures simultaneously.

Another example is illustrated in excerpt 3.

Excerpt 3.

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 154     Teacher:    which- which kind of language? English good
 155                 English. so now we have two cl- two kinds of
→156                 language. and which class prefer to which language?
→157                 =okay first one, high class people spoke which
 158                 language?

 159     Students:   French
 160     Teacher:    French, good. and how about low class people at
 161                 that time?
 162     Students:   [Engli
```

In this excerpt, the repair proceeds very quickly. As soon as the teacher asks the question "*which class prefer to which language?*" at line 156, he immediately repairs the question. The teacher divided the original question into two parts. In other words, the "*class*" was specifically classified into "high class" and "low class", and a separate question was asked: in line 157 "the high class" preferred language, and line 160 "the low class" preferred language. It cannot be verified whether the original question "*which class prefer to which language*?" is a failed question here (i.e., it is not known whether silence appeared), but if we try to answer this question, we will notice that we need to actually resolve two problems and we have to make a long answer. In other word, this kind of question is potentially failed question. However, what is clear is that the replaced question is successful.

We found that the sequence structure typically showed as: question–repair 1–repair 2–repair 3–response. Noticeably, those original questions made interaction difficult while the question after each repair was more specific or easier to answer than the previous one. In a classroom conversation, if the time to think is unnecessarily long, it is not economical for the time-constrained classroom teaching, so that it would decrease the efficiency of teaching. Therefore, teachers need to achieve higher teaching efficiency through question repairing.

4.3 Repairing for Evoking correct answer

In addition, teachers repair their own questions despite their original question attained an answer. By deeply observing the transcribed conversation, we noticed that when it was an unsatisfactory response, repairs also happened.

Excerpt 4.

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124     Student:   paragraph two and three.
→125    Teacher:   paragraph two an:d three. do all the other
 126               students agree? two and three are talking
→127               about what's happening in the earthquake. and all
 128               of you agree? (1.0) two and three belong to part two.
 129               (2.0)
 130               okay. so the- the last paragraph i:s part three
→131                is the after. okay. thank you. do other students
 132               have different opinions? sit down please. (1.0)
→133               do you think part uh paragraph three talks about
 134               what was happening during earthquake
 135               or after the earthquake?
 136    Students:  after
→□137   Teacher:   so paragraph three belongs to:
 138    Students:  after
 139    Teacher:   o°k° after the earthquake. yes. okay. paragraph
 140               two is during the earthquake. and paragraph three
 141               and four belongs to after the earthquake. yeah so
```

In this excerpt, the teacher analyzes the sentence structure along with the students according to the timeline of the earthquake. The teacher was not very satisfied with the student's answer in line 124. According to the student's answer, paragraphs 2 and 3 in the textbook describe the period of the earthquake, while the paragraph 4 describe the period after the earthquake. In line 125, the teacher required a different opinion by repeatedly asking "*does all the other agree?*", "*do all of you agree?*". In line 126-127 and line 130, the teacher told the students, "*two and three are talking about what's happening in the earthquake*", "*so the last paragraph is part three is the after*" in order to let the students notice the problem. But there were still no students who have different opinions (silence in line 132). From line 133 to 135 the teacher changes her question to an easier one in order to stop wasting time here. She involved the correct answer and previous student's answer into this replaced Yes/No question. Then, it was easy to answer the question as there were only two choices. Finally, the teacher re-arranged the answers in line 137 with a shorter and simpler uncompleted statement question. An important point

is the repaired question in line 133-135. This type of question is kind of "bidirectional repair" Okada (2010): "it is not only a placement to the preceded problematical questions, but also helped the teacher get the right answer immediately." Different from the first excerpt above, in this case, the original question has followed by students' answer. However, when the answer is not a correct one, teachers still make question repairing in order to let students speak out the right answer.

5. Conclusion

This article put the targets on teachers' question repairing in classroom conversation and try to explore the motivations that teachers repair their own questions. After extracting the dialogue section of the teachers' question repairs in two Chinese high school EFL English teaching videos, through the conversation analysis theory, we analyzed the sequences' characteristics of the teachers' question repair. As the results, teachers modify their own questions in a classroom conversation not merely about correct the failed questions. Teachers will encounter various unpredictable events when asking questions in classroom teaching (Lee, 2007). The work of classroom teaching includes not only teaching, but also controlling various factors. And our research target, question repairing, is used by teachers for different purposes depending on the specific situations. Firstly, it is a way to fix a failed question, these repairs showed sequence structure like question–silence–repair 1–silence–repair 2–response. Secondly, it turns out that self-question repairing is used even if the question is not validated as a failed question, and the sequences showed as: question–repair 1–repair 2–repair 3–response. In the process of these revisions, the types of questions used by teachers are different, sometimes they are Yes/No question – Wh-question – Uncompleted statements as a question, while sometimes it is Yes/No question – Yes/No question – Uncompleted statements as a question. The questions after each repair are more specific or easier to answer than the previous ones. These repairs indicate that teachers strive to let students keep thinking during the class by applying different types of question or making questions more specific. Thirdly, when teachers got a wrong answer from student, they prefer to repairing their questions for evoking students speak out the right answer. In other words, teachers try to provide students more opportunities to express themselves in the classroom conversation, they even use the low-challenging question type Yes/No question, they avoid giving answers by their own. This is similar to that in the evaluation of IRE sequences, teachers avoid saying "no" or "wrong" to give negative evaluation, but rather use various strategies to correct the answers indirectly, so as to "avoid embarrassing and demotivating them"(Seedhouse, 1997). These are the practical teaching skills needed in the actual pedagogical process.

This study, however, has several limitations. The EFL classroom videos analyzed in this study were not recorded personally, so there must be some inevitable omissions in the transcription. For example, some students' answers being masked by noise and therefore cannot be recognized. The students' English ability in the two videos cannot be provided. Moreover, this article does not make a clear distinction between Yes/No question and alternative question. The difficulty of these two types is not the same. Yes/No question "*can you put them in order*?" is not actually asking students to answer "*yes*" or "*no*" but asking them to "*put them in orde*r"; while the alternative questions like "*do you think XXX was happening during earthquake or after the earthquake*?" is a question of choosing one of two, which is much low-challenging than the previous Yes/No question type.

The data analysis of this research shows that the most frequently used question type by teachers is Wh-question, which is different from Hamiloğlu & Temiz's results. The reason may be that Hamiloğlu & Temiz's data are collected from elementary school EFL classrooms, while the objects of this paper

are high school students. These two groups have gaps on the cognitive level. Teachers will encounter various unpredictable events when asking questions in classroom teaching (Lee, 2007). The work of classroom teaching includes not only teaching, but also controlling various factors. For example, in our data, we observed that teachers use question repairing to motivate students to interact in the classroom, additionally, repairing is also a kind of strategy for controlling classroom time. Therefore, in further research, after controlling the time of the EFL English classroom with several certain proportion, the observation of the number of questions used by the teacher and the type of question used can provide more adequate data to support the assumption that teachers need to control the time allocated to each question by dynamically changing various question forms.

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