Reconsidering IRF Sequences:
A Focus on Team-Teaching Classrooms

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The most common feature of classroom interaction involves a teacher asking a question, a student providing a response, and the teacher deploying feedback in the third turn. This 3-turn sequence is often referred to as initiation-response-feedback (IRF). Most contemporary studies focus on how IRF sequences are accomplished by a single teacher interacting with a single student or a group of students, but research that focuses on how IRF sequences are performed in team-teaching classrooms is still scarce. In this study, we analyze how teachers in a team-teaching EFL classroom perform IRF sequences and examine how various interactional contingencies affect what occurs in the subsequent turn. We also investigate how the teachers co-manage classroom activities as well as how their roles in the classroom affect the IRF sequences.

教室内インタラクション（相互行為）で最も一般的な特徴は、教師による質問、学生による応答、及び教師によるフィードバックの三部構成のシークエンスである。このシークエンスは多くの場合、Initiation-Response-Feedback (IRF)と呼ばれる。ほとんどの研究は、一人の教師と一人学生、または一人の教師と学生のグループとの対話で達成されたIRFシークエンスを中心に行っているが、チームティーチングの教室でのIRFシークエンスに焦点を当てた研究はまだ不足している。本研究では、チームティーチングのEFL教室でIRFシークエンスがどのように実行されているのか、また、相互行為内の偶発事象がその後のターン〔行為〕にどのように影響するかを検討する。また、どのように教室でのアクティビティを実施するのか、教師たちが教室でどのような役割を担当するのかを検討し、その役割がIRFシークエンスに与える影響を考察する。

Team-teaching in language classrooms has become predominant in many East Asian countries. The Japanese Ministry of Education, Culture, Sports, Science and Technology's (MEXT, 2012) guidelines for foreign languages stated that team-teaching classes are to be conducted with native speakers "in order to develop students' communication abilities" (p. 4). However, the roles for teachers in the team-teaching classes are not clearly outlined. Gorsuch (2002) pointed out that the lack of clarity regarding each teacher's role in the classroom as well as teachers' inexperience has created some problems in team-teaching classrooms. Our data suggest that teachers do have clearly defined responsibilities, but at times they are blurred because of various interactional contingencies.

In addition to the studies discussing the roles of team-teachers (e.g., Carless, 2006; Tajino & Tajino, 2000), some conversation analytic studies that examined how team-teachers coteach exist. Aline and Hosoda (2006) observed how interaction is accomplished between a homeroom teacher, an Assistant Language Teacher (ALT), and students in Japanese elementary English classrooms and found that the ALT was more concerned with the language-related actions whereas the homeroom teacher managed the overall classroom interaction. Furthermore, Park (2014) demonstrated how two teachers cooperate in order to manage the lesson: the nonnative English teacher in charge of classroom management and the native English-speaking teacher managing the activities. We found similar results in our data, although our focus differed from previous research in that we focused on the interactional patterns surrounding initiation-response-feedback (IRF) sequences.

IRF Sequences

The most common interactional pattern in classrooms includes: (a) a teacher asking a question, (b) students providing the response, and (c) the teacher acknowledging the student response. The teacher's question, which is primarily understood as a known-answer question (Heritage, 2005; Hosoda, 2014; Lerner, 1995; Schegloff, 2007), is predom-

inantly used to check student understanding. This three-part sequence is referred to as IRF (Sinclair & Coulthard, 1975), initiation-response-evaluation (IRE; Mehan, 1979), question-answer-comment (QAC; McHoul, 1978), and triadic dialogue (Lemke, 1990) and is "the most commonly occurring discourse structure to be found in classrooms all over the world" (Walsh, 2011, p. 23). For example, Ohta (2001) analyzed the interactional structure of Japanese as a foreign language in classrooms and focused on the third turn of the IRF sequence. Her research revealed that teachers' *ne*-marked utterances following student responses displayed the teachers' agreement and affiliation to the students' utterances. According to Nassaji and Wells (2000), IRF structures can undergo different forms and have varying functions. In this paper, we attempt to reveal the several functions of IRF sequences in interactions between a native English-speaking teacher, a nonnative English-speaking teacher, and the students.

Classroom interaction is different from mundane conversation, which refers to ordinary, noninstitutional interaction, with regards to the interactional rights of the participants (Drew & Heritage, 1992). According to Heritage (2004), ordinary conversation "has come to denote forms of interaction that are not confined to specialized settings or to the execution of particular tasks" (p. 104). In interactions in the classroom, a specialized setting, it is the teacher who selects who speaks next, who controls the topic, and the amount of the attention that each student receives (Erickson, 2004). Furthermore, the teacher also initiates the sequence and provides feedback after the students' responses. Often after students respond, teachers provide feedback explicitly in the form of "great," "good job," and so on. However, teachers do not always provide explicit feedback. Seedhouse (2004) asserted that even if the teachers do not provide explicit feedback, a positive assessment is implied. Furthermore, sequence-closing thirds such as "oh" and "okay" expand the adjacency pair that precedes them and occupy the feedback position in IRF sequences (Schegloff, 2007). Beach (1993) pointed out that "okay" can indicate an activity shift, and our data also demonstrated that "okay" not only functions as a sequence closer but also as a device that opens a new sequence. In what follows, we examine how IRF sequences are performed in team-teaching classrooms as well as the actions that precede and follow them and how these actions affect and are affected by the IRF sequence.

In a study which focuses on the teacher's third turn in IRF sequences in college ESL classroom interaction, Lee (2007) demonstrated the various actions that third turns perform. Lee believed the turn was not merely limited to *evaluation*, *feedback*, or *follow-up*, rather it was the place for several tasks such as identifying and repairing trouble sources in previous turns. Wong and Waring (2009) investigated how positive assessments such as "very good," which occur in the third turn, can limit learning opportunities for students as they seem to close the sequence and therefore do not encourage students to produce or ask about alternative answers or ask questions if there are problems in understanding.

Data and Methods

In this study we analyzed data from one Japanese junior high school English class, which was 45 minutes long, and two senior high school English classes, which were 50 minutes each. In each lesson, a Japanese English teacher and an assistant language teacher, a native speaker of English, co-managed the classroom interaction. The junior high school class included approximately 40 students and in the senior high school classes there were approximately 14 students in one class and 30 students in the other class.

Our data was analyzed from a conversation analytic perspective, which is based on the idea of "unmotivated looking" (Psathas, 1995). This means that analysts do not predetermine what they are going to look for a priori; they let the phenomenon emerge from the data. The data were examined and were transcribed using the transcription conventions developed by Gail Jefferson (1984).

Analysis

This section presents examples of IRF sequences and shows how teachers expand or deviate from a particular IRF sequence pattern. We analyzed the deviation in relation to who initiates the sequence, who provides feedback, and who closes the sequence. Our discussion focuses on three basic patterns. The first pattern is IRF sequences that are performed by one teacher. The second pattern is IRF sequences done collaboratively when repair is performed within the IRF. The third pattern is collaborative IRF sequences in which there is no occurrence of repair. In all of the extracts that follow, the nonnative English-speaking teacher is represented as JET, the native English-speaking teacher is represented as NET, and students are S1, S2, and so on.

IRF Sequences with Single Teacher Initiation and Feedback

In traditional classrooms, one teacher initiates the sequence and provides feedback. In team-teaching classrooms as well, occasionally one teacher produces the I turn and the F turn of IRF sequence. The following extract begins with the NET questioning students about a particular reading.

Extract 1

```
01  NET:    okay: number six. (1.1) oh sorry number five. did black people
02          enjoy freedom in those days?
03          (1.8)
04  S1:     I know.
05  JET:    hm
06  S1:     eh: no they didn't
07  NET:    right. no they didn't.
```

In Extract 1, the student self-selects after the NET asks a question. After the self-selection by S1, the JET provides a go-ahead response and the student produces the answer in line 06. The NET explicitly accepts the answer and provides feedback as a sequence closer. Similar to single teacher classrooms, this example demonstrates the same teacher, the NET, producing both the I turn and the F turn..

However, positive assessments of a student answer do not always close the sequence. Waring (2008) argued that assessment in classroom interaction "does not automatically engender sequence closing" but "it is a particular kind of assessment that achieves sequence closing" (p. 581). Extract 2 also supports Waring's argument that mere assessment is not sufficient for closing the sequence because it is necessary for the teacher to say something in order to close the sequence. The extract comes from an activity called "criss cross" in which all the students stand up, and after they provide a correct answer to the teacher's question, they are able to sit down. Students providing the right answers select whether the students in the front and back (criss) or to the left and right (cross) can sit down with them.

Similar to the previous interaction, the IRF sequence in Extract 2 begins with the NET asking a question in lines 01 and 02. Three students say, "I know" and the JET selects S1 as the next speaker. S1 provides the answer and the NET accepts the answer by partially repeating it in the F turn.

Extract 2

```
01  NET:    okay: next question. what did black people always have to carry
02          with them
03          (1.2)
04  S1:     I know
05  S2:     I know
06  S3:     I know
07          ((JET points to S1))
08  S1:     to black people have to: um (1.4) carry the pass all the time.
09          um
10  NET:    the pass right. who should sit down?
11          (0.9)
12  JET:    you:: uh- uh boys only [boys or two girls
13  SS:                           [l a u g h t e r))
14  S1:     cr[oss
15  JET:      [which
16  STS:    ((laughter))
17  NET:    [cross
18  JET:    [cross
19  SS:     (([l a u g h t e r))
20  NET:     [okay:        [so:
21  JET:                  [not handsome boys?
22  NET:    sorry
23          (1.7)
24  NET:    okay:
```

In the basic IRF sequences, the sequence generally ends when the teacher accepts the student response in the F turn (line 10). However, because of the nature of the criss-cross game, the interaction needs something else in order for the sequence to close. Thus, the NET asks the student who provided the answer, "Who should sit down?" (line 10). This engenders continuation of the sequence, which Schegloff (2007) calls a sequence closing sequence. It is important to note here that it is the NET who asks the question in line 10, but the JET reformulates and simplifies the question (line 12). This demonstrates that the JET is in charge of classroom management and the progressivity of the interaction.

After the student chooses which students sit down, the NET accepts it with "okay" (line 20 and line 24) and moves on to another activity. Her *okay* here has two functions:

closing the sequence and opening a new one. Waring (2009) defined such *okays* as the teachers' *boundary-marking*. Schegloff (2007) asserted that *okay* "may mark or claim acceptance of a second pair part" (p. 120). The *okay* in line 24 seems both to indicate a boundary between the current and next sequence and to accept the second pair part.

Teacher Collaboration in IRF Sequences With Repair

The following are examples in which two teachers collaboratively perform IRF sequences. After a teacher initiates a sequence, the other comes in to initiate repair on a problematic part of a student's utterance. Thus, for the teacher initiating repair, it becomes relevant to accept the repair.

Extract 3 is the continuation of the activity in Extract 2. The NET asks another question, which initiates the IRF sequence.

Extract 3

```
01  NET:     okay fourth paragraph. (0.8) what was Mandela when he fought
02           against injustices?
03           (3.5)
04  NET:     what was Mandela when he fought against injustices?
05           (0.9)
06  NET:     what was his job?
07           (1.8)
08  JET:     what was his job? job
09           (0.5)
10  JET:     wah: jo(h)b
11           (1.1)
12  S2:      I know
13  JET:     un. uh huh
14  S2:      his job is lawyer and leader of the (.) a:- anti? ((said antee))
15  JET:     anti
16  S2:      ah anti apar- apartheid
17           (0.9)
```

```
18  (JET):   (  [ ) ((inaudible))
19  S2:         [movement
20  JET:     hm
21  (   ):     ah
22  NET:     RIGHT. he was a lawyer and leader of the anti apartheid
23           movement
24           (0.5)
25  JET:     so you save two: student or (.) (hh) fi(h)ve stu(h)dent
26  S2:      hh criss
27  JET:     oh cri(h)ss. ok so very (.) kind person
28  NET:     how nice
```

In Extract 3, the NET questions the students in lines 01-02 and after students fail to respond, the NET repeats the question in line 04. Because none of the students self-select to answer the question, the NET scaffolds by repeating the question in order to help students understand her question. Nystrand and Gamoran (1991) asserted that when the student response is insufficient or incorrect, teachers restate or rephrase the original question. After the NET rephrases her question, "What was his job" (line 06), the JET redoes the question, focusing on the main words *his job? job* (line 08). Then, S1 self-selects and provides a response. In his response, he pronounces *anti* as *antee* (line 14) and the JET corrects it by stressing the final sound in *anti*. When both native and nonnative English-speaking teachers are present, it is likely that language-related matters fall in the epistemic domain (Heritage, 2013) of the NET. However, in the interaction, it is the JET who corrects students' language-related mistakes and thus she asserts herself as the main teacher in control within this team-teaching context.

After the repair, S1 produces the more appropriate version of the answer and the JET accepts the answer with a minimal response, "hm," (line 20). This utterance is understood to be confirming the student response. It is relevant for the JET to accept the student utterance at this point because she initiated the repair and it is her job to accept the repaired utterance. The NET also provides feedback but does not move to the closing of the activity as seen in previous activities. Instead the JET asks the student to choose who should sit down with "so you save two: student or (.) (hh) fi(h)ve stu(h)dent" (line 25). Once S1 chooses "criss" (line 26), both teachers accept this and the sequence closes.

Extract 4 occurs later in the activity. It highlights a similar phenomenon in which the two teachers collaborate to accomplish the IRF sequence.

Extract 4

```
01  NET:     o:kay. next question
02           which was earlier?
03           the freedom of Mandela from prison or
04           the abolishment of apartheid
05           (0.4)
06           which was earlier
07           (1.2)
08           freedom of Mandela from prison or the abol[ishment of apartheid
09  S1:                                                 [I know
10  JET:     (  )
11  S1:      ah- (0.2) one more ple[ase
12  NET:                           [one more time
13  STS:     ((laughter))
14  NET:     okay. which was earlier the freedom of Mandela from [prison
15  S2:                                                          [I know
16  S2:      the freedom.
17  JET:     of?
18  S2:      ((looks at her worksheet))
19  JET:     the freedom (.) of.
20  S2:      Mandela.
21  JET:     uhm
22  NET:     okay. good job. that happened first.
23  S2:      ((starts sitting))
24  JET:     you always. (0.2) want to: sit down. (.) not (.) please choose.
25  JET:     so, (     ) or (      )
26  SS:      ((laughter))
27  JET:     ((inaudible))
28  S2:      criss
29  JET:     criss. oh:
30  SS:      ((chorus laughter))
```

The interaction begins with the NET initiating the sequence with a question. As the student response does not occur immediately, the NET redoes the question to the students after providing wait time (Rowe, 1974). During the repetition of the question, S1 demonstrates his readiness to answer with "I know" (line 09) and begins answering the question. However, he experiences a problem in producing the answer and asks for the repetition of the question. Other students respond to this with laughter as he self-selected to answer but failed to do so. The NET restates the question but S2 displays readiness to answer before the question finishes and provides the answer, "the freedom" (line 16). S2 treats his answer as a complete answer as demonstrated by the turn-final intonation. However, the JET produces "of?" (line 17), thereby treating S2's answer as insufficient. The JET's action causes confusion to S2 and she looks at her worksheet. The JET again produces another designedly incomplete utterance (Koshik, 2002) by using a part of the student's answer (line 19) and then S2 provides the missing element in the teacher's utterance (line 20). The JET treats this as a complete answer as shown by her receipt of it (line 21). Because the JET joins the interaction in order to perform repair, her receipt of the repair is relevant. In single teacher classrooms, one teacher performs the I and the F in the IRF sequence. However, as demonstrated in the interaction in Extract 4, team-teaching classrooms occasionally deviate from such a pattern and two teachers do the IRF together.

Teacher Collaboration in IRF Sequences Without Repair

In the previous sections, we presented examples in which a single teacher preformed the I and the F, as well as examples in which teachers collaborate in performing the IRF sequence when repair was involved. Extract 5 is an example of how teachers collaborate to perform the IRF even when repair does not occur.

Extract 5

```
01  NET:     =okay. what is the date today.
02  JET:     ((clap clap))
03  SS:      it's July the seventeenth.
04  JET:     okay, good.
```

In this interaction, the NET asks the class, "What is the <u>date</u> today?" After the JET provides a go ahead signal for a collective response with a double clap (line 02), the students produce the response turn. In this example, the NET provides the I and the JET provides the F after acknowledging the student's response (line 04). This example demonstrates how teachers collaborate in performing an IRF sequence. Extract 6 is another example of the same phenomenon.

Extract 6

```
01  NET:    and how is the weather today.
02  JET:    ((clap clap))
03  SS:     it's sunny and hot.
04  JET:    very good.
```

The NET initiates the sequence with another question, "How is the weather today?" and again the JET provides the go ahead for the collective response. In this example as well, when the students produce their collective response, the JET provides the positive assessment, "very good," in the feedback turn (line 04).

However, in the above two examples, it could be understood that the JET's double clap is interpreted by the students as an initiation move. But in our analysis of the interaction, our focus is on the overall structure of the IRF sequences. Thus, the NET's turn in line 01 is the initiation of the sequence with a question and the JET's action occurs only to pursue the collective response.

Conclusion

In this study we focused on the organization of IRF sequences in a team-teaching context. We demonstrated what occurs before, during, and after the IRF sequences and as well as how the IRF sequence is affected by what precedes and follows it. We also showed how teachers collaborate to manage the classroom, start a new activity, allocate turns, and repair students' problematic utterances. The data demonstrated that the JET was primarily in charge of classroom management and the NET was mainly in charge of managing the activities. The roles that the teachers assumed became relevant with regard to who initiated and closed the sequence as well as the deviations from the patterns that we observed (e.g., when the teachers collaborate in the IRF sequences with repair).

Within the IRF sequences, our analyses identified two basic patterns: a single teacher doing the IRF, and two teachers collaboratively doing the IRF. The former pattern resembles IRF sequences commonly seen in single teacher classrooms. However, the second pattern includes two different subtypes. In the first subtype, the NET initiated the sequence and the JET provides the feedback. The JET's feedback was made relevant because she performed repair. However, in the second subtype, the NET initiated the sequence and the JET gave feedback even though repair did not occur.

The majority of studies to date have focused merely on the first, the second, and the third turns of IRF sequences. We focused on the overall management of the interaction before and after the IRF. In all of the extracts presented here, the interaction proceeds fairly smoothly despite the fact that different teachers occasionally perform different parts of the IRF sequence. Analysis of a larger data sample of team-teaching classrooms may benefit teachers as it could reveal a variety of teaching techniques and interactional patterns that could enhance the efficiency of team-teaching classrooms. Further studies are needed from various types of classrooms and cultural settings in order to determine if our findings are specific to the interactional settings that we analyzed or if they are generalizable to a variety of settings.

Bio Data

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