

A comparative analysis of teacher talk in solo and team teaching*

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Kim, Jeong-ryeol and Bryan Stoakley. 2016. A comparative analysis of teacher talk in solo and team teaching. *Linguistic Research* 33(Special Edition), 29-51. Despite the benefits of team teaching, it poses significant challenges to the role of local English teachers. Teacher roles, one of such challenges by investigating interactive teacher talk comparing team teaching against solo baseline teaching of the English program in Korea (EPIK) was investigated via this paper. More specifically, instructional language (Korean/English), question types, instructional registers (regulative/instructional/feedback), and interactive feedback was addressed. The method employed was sampling three sets of team teaching and solo teaching of the same language skills and lessons using the same English textbook in the same area of elementary schools for an appropriate comparison. Their entire teacher talks of the lessons were recorded and transcribed. The transcription of two sets of data was compared by different categories of teacher talk. The analysis results show that native English assistant teachers (NEATs) are more alike to solo Korean teachers of English while Korean teachers of English in team teaching play assisting and mediating roles between NEATs and students. The currently observed role change between NEATs and Korean teachers requires serious attention since the national curriculum is designed for Korean teachers of English to play major roles in teaching English classes. (Korea National University of Education)

Keywords team teaching, pedagogic discourse, instructional language, meaning negotiation, teacher role, teacher talk, EPIK, NEATs

1. Introduction

Asian countries are increasingly hiring the number of native speakers of English to teach English to students in primary and secondary schools. Similarly, Korea has the English Program in Korea (EPIK), Japan has the Japan Exchange and Teaching

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Program (JET), and Hong Kong also recruits foreign teachers through Native English Teacher Scheme (NETS) for placement in both local primary and secondary schools. The JET, NETS and EPIK are nation-wide programs budgeted and executed by their respective governments introducing Native English Assistant Teachers (NEATs) in order to assist local English teachers via team teaching. NEATs are defined as qualified citizens of USA, UK, Canada, Australia, New Zealand, Ireland, and South Africa. Further, for example, in Korea they are required at a minimum to possess a bachelor degree and to have had residence in one of these English speaking countries from grade seven regardless of certification or experience in teaching students. Close to 10,000 NEATs are working in Korean classrooms, as it was last officially reported that 9,320 NEATs were working for public schools as of April, 2011 (MEST 2011). EPIK brought in close to 10,000 NEATs to Korean English classrooms, almost one native speaker per a school at its peak. As indicated by the word “assistant,” NEATs are hired to assist Korean teachers of English only in team teaching as opposed to solo teaching. Therefore, Korean teachers with teaching certificates and periodic curriculum training are expected to utilize the NEATs in their instructional contexts.

As such, the aim of this study was to explore the interactive teacher talk based on the comparison of teachers in team teaching and solo Korean teachers of English. Because the native speakers of English generally do not have the teaching certificate required to teach students in the host countries, and their teaching can be facilitated by the presence of local English teachers, they are employed to teach in a team with the country’s English teachers. If the host country adopts the national curriculum, the native speakers of English are generally lacking in the understanding the characteristics and methods of teaching the curriculum and textbooks compared to the teachers in the host country who underwent years of pre-service training and in-service training understanding the national curriculum as well as the implementation of English textbooks during their training. In the self-evaluation of teacher talk framework study (SETT), Ghafarpour (2016) demonstrated that a SETT framework is representative and useful in teacher talk research, but it is important to be cognizant that teaching settings such as team teaching or solo teaching and institutional requirements such as national curriculum and teacher roles affect teacher talk in the classrooms as well.

The local teachers of English have advantages over native speakers of English in

constructing lessons and activities since they experienced the language learning path that their students go through and share a common mother tongue, which facilitates communication with students. Conversely, NEATs have a good command of English in the classroom and can demonstrate and divulge authentic cultural aspects to students. In foreign language classes teacher talk in the target language is central to implement effective English classes in order to facilitate scaffolding for learners which makes their classroom English more meaningful and encourages students to participate in the classroom activities. Therefore, in this paper the investigation of the teacher talks of team teaching (NEAT and Korean) and solo teaching (Korean) in scaffolding of young learners of English in Korean elementary schools will be conveyed. Teacher scaffolding is more important to young learners of English (Cameron 2001) since early stages of English development require repetitive practices of new expressions and teachers' modification of new language to facilitate interaction with students (Long 2007; Nunan 1989; Kim *et al.* 2015).

In this paper it was investigated on whether or not the intended role sharing of NEATs and Korean English teachers (KETs) are practiced in the classroom by looking into the teacher talk of team teaching compared to solo English teacher talk with the following specific questions: (1) How does the instructional language (Korean/English) differ between team teaching and solo teaching? (2) How are question types different between team teaching and solo teaching? (3) How are the instructional registers (regulative/instructional/feedback) used differently between team teaching and solo teaching? (4) What types of interactive feedback are used in team teaching and solo teaching?

2. Theoretical background

Teacher talk has different characteristics from those communications outside the classroom, and the interactive modifications of teacher talk by the teacher facilitate students' comprehension (Ellis 1994). With reference to teacher talk, Chaudron (1988: 85) characterized teacher talk in terms of amount of talk, functional distribution, rate of speech, pauses, phonology, intonation, articulation, stress, vocabulary, syntax, and discourse. Additionally, the rate of speech is slower and pauses are more frequent and longer, while pronunciation tends to be exaggerated and simplified. Finally,

vocabulary and syntax are simpler, more basic with more declaratives are used than interrogatives, and teachers may self-repeat more frequently.

Wang (2015) investigated the factors that affected learners' attention to teacher talk. In said study it was discovered that learners paid more attention to teacher talk when they thought they did not understand a language feature, such as techniques to explain a language point, by the initiators of questions and the learners' subsequent reaction to their mistakes.

Bernstein (1996: 46) argued that pedagogic discourse consists of two discourses: the instructional discourse that creates specialized skills and the regulative discourse that defines social conduct. The regulative discourse is the dominant discourse always embedded in the instructional discourse. Bernstein further argued that a set of internal rules underpin both the instructional and the regulative discourse of pedagogic discourse. While the instructional discourse is underpinned by discursive rules or the rules of selection, sequencing, pacing, and evaluation, the regulative discourse, conversely, is underpinned by the rules of the hierarchy existing in the classroom discourse. Bernstein further identified yet a third set of rules underpinning the two discourses, namely: rules of criteria which define what is regarded as legitimate or illegitimate learning in the pedagogic relation. Bernstein (2000: 197) purported that the inner logic of any pedagogic practice consists of the relationship essentially between these three fundamental rules; and, that all modalities of pedagogic practice are generated from the same set of fundamental rules and vary according to their classification and framing values.

Drawing on Bernstein's work on the nature of pedagogic discourse, Christie (2002) contended that two registers operate in pedagogic discourse: a regulative register, and an instructional register. Furthermore, interactional feedback is considered as an additional category. Classroom discourse analysis started with an interactional analysis and was popularized with the move, Initiation-Response-Evaluation (IRE). In Christie's approach, for example, feedback routine would be looked at within a larger context of the total sequences of classroom talk before making judgments about one pattern, in this case, IRE. As such, three categories of classroom talk will be distinguished and analyzed under this study: instructional, regulative, and feedback.

2.1 Classroom questions

Studies relating to English teaching have showed the need for teachers' questioning, and emphasized how they are important to start communication and how they can help EFL learners to develop their competence in language. For example, "In second language classrooms, where learners often do not have a great number of tools, your questions provide necessary stepping stones to communication" (Brown 1994: 165). Similar remarks have been made in favor of providing feedback, certainly to EFL learners: "Such responsibility means that practically everything you say and do will be noticed" (Brown 1994: 28; Nunan 1991: 195).

It is also possible to glean from evidence that the questions a teacher asks in the classroom can be extremely important in helping learners develop their competence in the language. It is useful to observe if teachers put questions to learners systematically or randomly, how long they wait for a response, and the type of question(s) asked, from that of requiring a simple one-word reply to higher order referential questions where learners can provide information which the teacher does not know. Similarly, in the case of feedback and correcting learners, it can be observable how and when the teacher does this. Additionally, using the learners' answers marks as a juncture for the next question. To follow his/her plan, the teacher cannot proceed with the lesson until the expected answer is given by a learner. This approach can be referred to as the "Socratic Method" (Chaudron 1988: 129) or "elicitation method" (Nunan 1991: 195).

Richards and Lockheart (1996: 185) advise to classify questions into either convergent or divergent. The former type will most likely be found in lessons following a methodology of Socratic "elicitation" questions because they "encourage similar student responses or responses which focus on a central theme." The alternative type, divergent questions, are not designed to determine the ongoing aspects of the planned lesson, but to give the learners the possibility to establish real personal involvement during the lesson and thus to direct the learners' ability as an individual and to strengthen genuine motivation. Richards and Lockheart (1996: 165) call this "affective activities." This type of question can be expected to lead to more communicative use of language, but makes lesson planning difficult because the learners' utterances cannot be predicted and designed for a certain lesson topic or goal, and hence can lead the teacher to facilitate unnecessary conversational turns

until the expected answer is coming.

A third question type is introduced by Richards and Lockheart (1996: 185) under the term of “procedural questions.” Willis (1987) describes this type of language as “outer structure.” These questions are used in sequences of classroom organization and management.

Referential questions are questions asked by someone because they do not know the answer. In an ELT classroom, this can mean questions teachers ask learners and learners may ask each other. Referential questions can be compared to display questions, for which the answer is already clear, and teachers ask just to ascertain if the learners know the answer or for language practice. Display questions clearly lack the communicative quality and authenticity of referential questions, but they are an important tool in the classroom, not only for the teacher to be able to check and test their learners, but also as a source of listening practice. One of the first things a beginner learns in English classes is how to understand and answer display questions.

2.2 Meaning negotiation

Researchers such as Long (1996, 2007), Pica (1994), Gass (1997), and Mackey (2007) have argued that meaning negotiation contributes to second language learning in a number of crucial ways, in that negotiation often provides learners with modified or more comprehensible input and also pushes learners to produce output that is comprehensible to their interlocutor. Learners also often reformulate or modify their interlanguage in response to interactional feedback moves such as clarification requests, confirmation checks, and comprehension checks.

Clarification requests are feedback moves by which one speaker seeks assistance in understanding the other speaker’s preceding utterance through questions such as *What did you say?*, *Pardon?* and statements such as *I don’t understand*. Confirmation checks are feedback moves by which one speaker seeks confirmation of the other interlocutor’s preceding utterance through yes/no questions such as *Is Sarak a place name?* or repetitions with rising intonation. Comprehension checks are feedback moves by which one speaker attempts to determine whether the other interlocutor has understood a preceding message.

2.3 Previous studies

The most relevant recent study in team teaching is Kim (2014) wherein it was demonstrated exam-oriented curricular constraints, role conflicts between team teachers, and communication problems despite the contributions to the improvement of communicative competence of teachers and students. It reviewed team teaching practices in elementary and secondary schools in Korea, Japan, Hong Kong, and Taiwan. A subsequent germane study is Kim (2010) where he attempted to identify desirable roles of NEATs and KETs for the successful implementation of team teaching based on the survey. The study made it clear that NEATs and KETs should cooperate and prepare for the classes together, and problems in team teaching stem from a lack of preparation, poor communication, and misunderstanding between the two parties.

Other studies are centered around effects of team teaching (Park and Rha 2009), model development of team teaching (Kim 2009) and perception of team teaching by students and teachers (Jang and Lee 2016). Park and Rha (2009) reported the positive effects of team teaching on students' English proficiency. Kim (2009) proposed an effective model for team teaching in Korean middle school setting based on a questionnaire survey and English listening tests. Jang and Lee (2016) explored students' and teachers' perception on English team-teaching at a university level based on survey questionnaires wherein they call for more collaboration between team teachers and more interactive opportunities for students with NEATs.

3. Methodology

3.1 Subject

Three teams of Korean teachers and NEATs and three solo Korean teachers of English were selected from elementary school classes of a metropolitan city, a small city and a rural area based on the representative profiles of English teachers at the elementary level. The typical profile of English teachers in elementary school is Korean teachers in their 30s to 40s and a majority of females, while American NEATs are in their 20s to 30s and with slightly more males. All the selected

subjects belong to the group profile, and the profile is controlled to be the same across the team teaching teachers and the baseline teachers. The details of these teachers are in Table 1.

Table 1. Teacher profile

Baseline								
Teacher	Sex	Age	Experience	Grade				
Teacher	M/F	Age	E-Career	Grade				
A	F	30s	4	5				
B	M	40s	9	6				
C	F	40s	10	6				
Team teaching								
Teachers	Grade	Korean Teachers				NEATs		
Teacher	Grade	Sex	Age	Experience	Sex	Age	Nationality	Class
D	5	F	30s	3	F	20s	US	2+
E	6	M	40s	8	M	30s	US	1
F	6	F	40s	7	M	30s	US	2

The solo teachers of English (A, B, and C) consist of two female teachers in their 30s and 40s and one male teacher in his 40s. Teacher A has four years of English teaching experience and is currently teaching English to 5th graders. Teacher B has nine years of English teaching experience and is teaching 6th graders. Teacher C has the same profile as teacher B except one additional year of English teaching experience.

The three team teachers of English (D, E, and F) consist of one Korean teacher and one NEAT. Team D is teaching English to 5th graders and made up of a female Korean teacher in her 30s with three years of English teaching experience and a female NEAT in her 20s from the United States with class 2+ which equals one full year of teaching experience along with one of the following: Master's degree in any discipline, 100+ hours (TEFL, TESOL or CELTA certificate), bachelors degree in education, English, linguistics, or writing, and a valid teachers license. Team E is teaching English to 6th graders and consists of a male Korean teacher in his 40s with eight years of English teaching experience and an American male in his 30s with class 1 which equals to two years of full time teaching experience plus one of

the following: Master's degree in any discipline, 100+ hours (TEFL, TESOL or CEKTA certificate), bachelor's degree in education, English, linguistics, or writing and a valid teachers license. Team F is teaching 6th graders and made up of a female Korean teacher in her 40s with seven years of English teaching experience and an American male NEAT in his 30s with class 2 which means that he has 100+ hour TEFL/TESOL/CELTA certificate plus a bachelor's degree in any discipline.

Students participating in the study are two classes of fifth graders and four classes of sixth graders in Busan Metropolitan City elementary schools. The number of students ranges from 30-38 among different classes and the gender proportion is nearly equal. The area of schools are carefully considered for the influence of private education to offset any noise effects between the solo teaching classes and the team teaching classes. KETs teach one fifth grade class and two sixth grade classes, NEATs do the same composition of different classes. Teacher talk of team teaching is collected and analyzed against the baseline data collected from the solo teaching.

3.2 Data collection and analysis

Teacher talk of entire teaching hours for one lesson was recorded from solo teaching and team teaching, and a total of 24 class hours' recordings were transcribed for the analysis. The four recorded classes of solo teacher A and team D were the teacher talk teaching Lesson Five *I get up at seven every day*. The recordings of solo teacher B and team E were teacher talk teaching Lesson Five *May I help you?* The recordings of solo teacher C and the counterpart team F were the teacher talk teaching Lesson Seven *My father is a pilot*.

Teachers' classroom discourses were coded using the following coding scheme which generically emerged from the data: teacher categories, teacher's instructional language (Korean/English), speech acts (declaratives, interrogatives, and imperatives), question types (*wh*-/yes-no questions, display/referential), types of instructional language (regulative/instructional/feedback), interactive feedback types (clarification/confirmation requests/comprehension checks) and discourse complexity in terms of numbers of c-units, s-nodes, and words. It is noted that the distinction of *wh*- and yes/no question types are added to the traditional display and referential distinctions. The added distinction was made to show that the common intervention of KETs is noticed in different forms of yes/no display questions, whereas for NEATs' *wh*-referential

questions were utilized when students appeared to have problems answering to the NEATs' questions.

All 24 classes of transcription were analyzed by these coded criteria and presented in descriptive statistics for comparison and analysis. Chi-square verification was used to infer the statistical significance between and among different groups of teachers.

4. Findings and discussion

The analysis result is addressed in the questions: the proportion of Korean teachers' instructional language using L1 and L2 in team teaching, the proportions of different speech acts and question types between Korean teachers and NEATs, the proportions of different pedagogic registers between Korean teachers and NEATs, and the complexities of pedagogic discourses between Korean teachers and NEATs. This section is organized into discussions for the listed questions in the order as presented.

4.1 Analysis of instructional languages

Korean teachers are encouraged to use only English when they are in English classes, but they use both English and Korean to meet the instructional needs whenever and wherever appropriate and deemed more efficient as the choice of language is in complex instructional contexts. Table 2 shows the mean utterance frequencies of using each language by Team teaching of domestic teacher and a NEAT, and the baseline solo domestic English teacher's teaching.

Table 2. Instructional languages

Teacher		English	Korean	Total
Team (Korean)	freq	1132	282	1414
	%	80.1%	19.9%	100%
Team (NEAT)	freq	1301	0	1301
	%	100%	0%	100%
Solo Teaching	freq	2741	215	2956
	%	92.7%	7.3%	100%

Korean teachers of English in team teaching shows an average of 1,132 English utterances and 282 Korean utterances for the recorded four class hour sessions while

NEATs utter an average of 1,301 English utterances for the same period. Korean teacher’s classroom utterances consist of 80.1% of English and 19.9% of Korean. Conversely, solo Korean teachers of English make an average of 2,741 English utterances and 215 Korean utterances which equates 92.7% of English and 7.3% of Korean.

The result indicates that Korean teachers use more English when they teach solo rather than they teach in team with NEATs. A reason why Korean teachers use more Korean in team teaching is because Korean teachers in team teaching play mediational roles between students and NEATs, which require them to interpret the utterances of NEATs into Korean for students to understand as the needs arise during the course of the classes. Whether the discrepancy in the utterance frequencies obtained is of statistical significance or not is tested using a chi-square test. The result is shown in its value, degree of freedom, the probability of confidence interval and post-hoc grouping as found in Table 3.

Table 3. Chi-square and post-hoc of teachers’ languages

	value	df	<i>p</i>	post-hoc
chi-square	361.17	4	.000	NEATs >Solo> Korean

The chi-square test shows that the value 361.17 is statistically significant on the probability of confidence 99.9%. Additionally, the post-hoc result indicates that three teachers belong to different groups, which means that Korean teachers in team teaching significantly differ in their utterances of instructional languages from that of the solo Korean teachers. As such, Korean teachers in team teaching play a markedly different role than the solo Korean teachers. The different roles are the basis of the role-reversal of Korean teachers and NEATs wherein NEATs become the main teacher while Korean teachers play the assistant role.

4.2 Analyses of classroom questions

Investigating question types will reveal the quality of interrogatives and different roles NEATs and Korean teachers of English play in English instruction. Question types can be divided into *wh*-questions and *yes/no*-questions. Teachers who ask more *wh*-questions tend to address more open questions to students and thus lead the classroom instruction into a more student-centered format. If this happens in team teaching, teachers using more *yes/no*-questions interpret what the other teacher is

addressing and mediate the classroom instruction between the other teacher and students. Table 4 shows frequencies of different questions for each teacher group: Korean teacher of English and NEATs in team teaching and the baseline solo Korean teachers.

Table 4. *Wh*-question and yes/no question in teacher utterances

teacher		<i>wh</i> -question	yes/no question	Total
Team (Korean)	freq	152	155	307
	%	49.5%	50.5%	100%
Team (NEAT)	freq	191	100	291
	%	65.6%	34.4%	100%
Solo Teaching	freq	549	247	796
	%	69%	31%	100%

Korean teachers of English in team teaching uttered 155 times with yes/no questions (50.5%) and 152 times with *wh*-questions (49.5%). Conversely, NEATs show 191 times of *wh*-questions (65.6%) and 100 times of yes/no-questions (34.4%). The baseline solo teachers used 549 times of *wh*-questions (69%) and 247 times of yes/no-questions (31%). The result shows that Korean teachers of English in team teaching use slightly more yes/no questions (50.5%) than *wh*-questions (49.5%), while NEATs utter substantially more *wh*-questions (65.6%) than yes/no-questions (34.4%). The baseline solo teachers use classroom questions similar to NEATs than Korean teachers of English in team teaching. Because of this, both NEATs and the baseline solo teachers use *wh*-questions about twice as frequently as yes/no-questions while Korean teachers of English in team teaching address *wh*-questions significantly less frequently than yes/no-questions.

The fact that NEATs address *wh*-questions similar to the baseline solo teachers indicates that NEATs lead the instruction and Korean teachers of English assist the classes. NEATs contextualize questions to connect the current instructional content with students' daily life, and Korean teachers of English use questions to check or encourage students to utter appropriate forms of English in response to NEAT's questions to facilitate and mediate the classes. Example excerpts supporting this are as follows:

NEAT: *What do you like about the character?*

Students: ???

Korean Teacher: *Is he brave?*

Students: *Yes, he's brave.*

NEAT: *How did you like the movie?*

Students: ???

Korean Teacher: *Was it interesting or sad?*

Students: *It's interesting.*

The chi-square test was conducted to infer the statistical significance of these differences regarding different question types among different groups of teachers. The result is shown in its value, degree of freedom, the probability of confidence interval and post-hoc grouping as in Table 5.

Table 5. Chi-square of *wh-* and yes/no questions

	value	df	<i>p</i>	post-hoc
Chi-square	51.82	2	.000	Solo> NEAT > Korean

The result shows that the difference in the question types of teacher utterances is significant in that Korean teachers in team teaching belong to a different group from the baseline solo teachers than NEATs at the level of 99% probability confidence. This indicates that Korean teachers in team teaching often play a mediating role for NEATs by translating the questions into more closed yes/no questions. Referential questions are questions you ask someone because you do not know the answer. Referential questions can be compared to display questions, for which the answer is already clear and teachers ask just to see if the learners know the answer, or for language manipulation. Display questions clearly lack the communicative quality and authenticity of referential questions, but they are an important tool in the classrooms, not only for the teacher to be able to check and test their learners, but also as a source of listening practice. One of the first things a beginner learns in English is how to understand and answer display questions. Examples of referential questions are if the teacher asks a learner “*What did you do over the weekend?*,” or a learner asks another “*Why are you so sad?*.” These examples clearly facilitate what and why for the choices of learners or peers who are addressed. In contrast, an example of display question is in asking the learner “*How do you answer back to ‘Happy birthday?’*” and “*What is the past simple form of leave?*” is obviously not for the information, but for checking whether or not the student knows the answer.

One of the main differences in teacher utterances is the dominance of display

questions to students as indicated in Table 6, which makes teacher utterances not so authentic unlike what is going on in real life interactional talks. The teachers under this study showed the same tendency using more display questions than referential questions.

Table 6. Display and referential questions

Teacher		display question	referential question	Total
Team (Korean)	freq	204	102	306
	%	66.67%	33.33%	100%
Team (NEAT)	freq	197	96	293
	%	67.24%	32.76%	100%
Solo Teaching	freq	488	287	775
	%	57.81%	42.19%	100%

Within this commonality of a high use of display questions, however, the team teaching shows higher percentage of display questions (average of 66.95%) than the baseline solo teaching (57.81%).

NEAT: *What's this?* (pointing to a picture of doll.)

Students: *It's a doll.*

NEAT: *Good. What's this?* (pointing to a picture of robot)

Students: *It's a robot.*

NEAT: *What's this?* (showing a pair of glasses)

Students: *It's a glass.*

Korean Teacher: *A pair of glasses.*

Students: *It's a pair of glasses.*

The excerpt shows that the NEAT asks display questions and checks if students know the words to be used in the class ahead of presenting birthday gifts in the lesson. The Korean teacher plays a mediating role by presenting a right form of language “*a pair of glasses*” to students.

Conversely, the team teaching shows lower percentage of referential questions (average of 33.04%) than the baseline solo teaching (42.19%). It can be hypothesized that the baseline solo teaching is more communicative than the team teaching. The

classroom procedure engaging students in the classes with open-ended questions on and around students' daily life was often used to elicit students' experiences and opinions in a communicative setting. In a relative term, however, the team teaching is more structured so that it limits teachers in interacting with students with freedom of giving sufficient wait times and exchanging opinions and thoughts for open-ended questions. This can be exemplified in interactions as follows:

Solo Teacher: *Did you all enjoy the sports festival last week?*
 Students: *Yes.* (in chorus)
 Solo Teacher: *Junhee, what did you play?*
 Junhee: *I played soccer.*
 ...

This is an excerpt from the solo teaching showing referential questions while no such interactional instances are found in the transcriptions of team teaching. The solo teacher's interaction with students clearly shows that she has more chances to converse with students via open questions related to students' daily school activities. Another possible reason for this is that NEATs teach more classes and they tend not to have the personal rapport with students as much as the solo domestic teachers do.

The chi-square test is shown to infer the statistical significance of these differences regarding the use of display and referential questions among different groups of teachers. The result is shown in its value, degree of freedom, the probability of confidence interval and post-hoc grouping as in table 7.

Table 7. Chi-square of display and referential questions

	value	df	<i>p</i>	post-hoc
Chi-square	21.424	2	.000	Solo> NEAT > Korean

The result of display and referential questions in teacher questions shows that the difference is significant across all different groups of teachers. One item noted here is that a NEAT is more alike the solo baseline teacher than Korean teacher in team teaching, which indicates that Korean teachers of English play more of an assistant role to the NEATs and distances the role further away from the baseline solo English teacher.

4.3 Analyses of different types of teacher talk

Teacher talk can be classified into different categories depending on what a researcher is looking for. In this paper, teacher talk will be divided into three categories: regulative, instructional, and feedback languages. Regulative teacher talk is mainly managerial talk as to how to maintain the necessary order and attention for classes to continue. Instructional talk is teacher talk related to the instructional content or activities for students to learn. Feedback is a type of teacher talk entertaining students' questions and comments. In this section, these three types of teacher talk will be analyzed to ascertain if there is a role change between Korean teachers and NEATs in team teaching.

4.3.1 Regulative, instructional, and feedback language types

The frequency of each type of teacher talk is recorded along with its percentile among different teacher talks for regulative, instructional, and feedback respectively. Table 8 shows that each group of teacher shows their frequency followed by the percentile for regulative, instructional, feedback and total figure.

Table 8. Ratio of regulative, instructional, feedback languages

Teacher		Regulative language	Instructional language	Feedback	Total
Team (Korean)	freq	803	475	185	2956
	%	53.9%	31.9%	12.4%	100%
Team (NEAT)	freq	314	647	250	1226
	%	25.6%	52.8%	20.4%	100%
Solo Teaching	freq	1164	1247	529	1489
	%	39.4%	42.2%	17.9%	100%

It is noted that Korean teachers in team teaching articulate proportionally more regulative language (53.9%) compared to both NEATs (25.6%) and baseline Solo Korean teachers (39.4%). On the contrary, Korean teachers in team teaching utter instructional language in a significantly less (31.9%) than the NEATs (52.8%) and the baseline teachers (42.2%). Feedback language also shows the same tendency where Korean teachers in team teaching (12.4%) use less than NEATs (20.4%) and the

baseline teachers (17.9%). This indicates that Korean teachers take over a large portion of regulative roles from NEATs during the classes in team teaching. However, instructional and feedback utterances, otherwise Korean teachers' role, are handed over to NEATs. The following excerpt data show the NEAT plays an instructional role while the Korean teacher uses regulative language to control the class.

NEAT: Now, we will do the musical chant. Do you know how to play?

Students: murmuring

NEAT: Circle around the chairs.

Korean Teacher: 조용히하세요(Be quiet). Musical chant 게임할거예요 (will do the musical chant). 의자주위에동그랗게둘러주세요 (Circle around the chairs).

NEATs take the main instructional and feedback roles to students, and Korean teachers take the assistant roles of regulating classes and getting classes going to facilitate NEATs conducting the English class. If Korean teachers and NEAT utterances are combined, the ratio and amount of three different types of teacher talk reach near the same ratio to the baseline Korean teacher talk.

The chi-square test is shown to illustrate the statistical significance of different teacher groups regarding the teacher talk. The result is shown in its value, degree of freedom, the probability of confidence interval, and post-hoc grouping as in Table 9.

Table 9. Chi-square analysis of feedback, instructional, and regulative languages

	value	df	<i>p</i>	post-hoc
chi-square	248.586	6	.000	Solo > NEAT > Korean

Data gleaned from the chi-square test indicate that the differences of teacher utterances are significant at the level of statistical significance across different groups of teachers in their regulative, instructional, and feedback of classroom languages. It is seen in the post-hoc result that Korean teachers in team teaching belong to different groups even further away from the solo Korean teachers than NEATs, which indicates that NEATs play instructional roles that the baseline teachers do in the classes while Korean teachers in team teaching do something other than playing the main instructional role.

4.3.2 Teacher feedback utterances

The frequency and percentile of teacher feedback language is analyzed into the table crossed by the teacher type vertically and feedback types horizontally. Table 10 shows that the analysis of confirmation checks, clarification requests, and comprehension checks are tabulated into frequency and its percentile among different feedback languages for each teacher type.

Table 10. Analysis of confirmation checks, clarification requests, comprehension checks

Teacher		confirmation checks	clarification requests	comprehension checks	Total
Team (Korean)	freq	51	36	47	134
	%	38.06%	26.86%	35.08%	100%
Team (NEAT)	freq	37	52	27	116
	%	31.89%	44.83%	23.28%	100%
Solo Teaching	freq	131	169	187	487
	%	26.90%	34.70%	38.40%	100%

Korean teachers in team teaching use significantly more confirmation checks (38.06%) than NEATs (31.89%) or the baseline teachers (26.90%). It is also noted that the average of confirmation checks in team teaching (34.98%) is much higher than the solo teaching of English (26.9%). This leads to the conclusion that team teaching or NEATs cause confirmation checks to occur more frequently than the solo Korean teaching of English. Clarification requests show a sharp contrast between Korean teachers of English and NEATs in team teaching whereby NEATs make significantly more clarification requests (44.83%) than Korean teachers in team teaching (26.86%). The baseline solo Korean teachers show 34.7% of feedback utterances for clarification requests, which is roughly the combined average of Korean teachers and NEATs in team teaching. The reason why feedback utterances between Koreans and NEATs in team teaching show the role changes between said teachers in team teaching is sought for by comparing the data against the baseline data so that the solo English teacher feedback language is used. NEATs tend to make more clarification requests because NEATs do not understand what the students say more often than Korean teachers in team teaching. For example:

NEAT: *What kind of pet animal do you have?*

Student A: *I have a sasumbeoley.*

NEAT: *What did you say?*[clarification request]

Korean Teacher: *Do you have a beetle?*[confirmation check]

Student A: *Yes, I have a beetle.*

When NEATs request clarification of student's utterance, it is often the case NEATs do not understand student's talk either because of the pronunciation, words, or structure. In this situation, the Korean teacher in team teaching often intervenes by translating her understanding into confirmation checks in the form of scaffolding the utterances of students. This causes more confirmation checks on the part of Korean teachers. Thus, the nature of NEATs' inexperience with Korean students results in more clarification requests in their utterances. If Korean and NEATs' feedback languages are collapsed, team teaching feedback in total shows similar distribution to the baseline teacher feedback languages.

Korean teachers in team teaching tend to request more comprehension checks (35.08%) than NEATs in team teaching (23.28%), while the baseline solo teachers use comprehension checks (38.4%). Therefore, it can be stated that Korean teachers tend to utter comprehension checks more often than NEATs in general. Comprehension checks of the lesson content seem predominantly performed by Korean teachers in team teaching, and it is possible that comprehension checks are often a part of regulative language, which becomes an important contribution to the increase of regulative language by Korean teachers in team teaching.

The chi-square test is shown to demonstrate the statistical significance of different teacher groups regarding the teacher feedback language. The result is shown in its value, degree of freedom, the probability of confidence interval, and post-hoc grouping as found in Table 11.

Table 11. Chi-square test of confirmation checks, clarification requests, comprehension checks

	value	df	<i>p</i>	post-hoc
chi-square	79.358	4	.000	Solo> Korean> NEAT

It can be inferred from the chi-square test that the difference of teacher feedback

utterances is significant at the level of 99.9% statistical significance across different groups of teachers. Each teacher group belongs to different groups in terms of the feedback language use. Within these differences, the post-hoc analysis indicates that the overall feedback utterances of Korean teachers in team teaching is more alike the baseline teachers of English than NEATs do, which is different from other instances of analyses.

5. Conclusion

Previous studies on team teaching are threefold: effects of team teaching (Park and Rha 2009), model development of team teaching (Kim 2009), and perception of team teaching by students and teachers (Jang and Lee 2016). Team teaching has advantages of students being exposed to native speakers in English and their respective culture, as well as allowing students to adhere to the national curriculum. It also narrowed the gap in terms of accessibility to native speakers across different regions and social classes within a country. However, team teaching also demonstrates significant challenges that local teachers should be cognizant of. Kim (2014) lamented the role-conflicts between NEATs and KETs. It was explored via this paper the English Program in Korea (EPIK) as an example to show such role-conflicts in the comparative analysis of teacher talk in the team teaching against the solo teaching. The stake holders in foreign language education must consider such challenges in a planning stage before a program like EPIK is implemented.

The EPIK program is reported for its overall positive effects in that it alleviated students' anxiety of the exposure of native English and English speaking cultures, and raised the English proficiency of Korean students and teachers (Jeon 2009). However, the current study raises important concerns that host English teachers tend to take assistant roles instead of intended commanding roles, and NEATs play instructional roles instead of assisting role in team teaching due to the imbalance of language power between native speakers and local English teachers in English classrooms. The analyses of L2 use, teacher questions/feedback and types of teacher talk indicate that NEATs in team teaching possess the leading instructional roles more akin to the solo Korean teachers of English, and Korean teachers of English play roles assisting students and intermediating between NEATs and students. If this continues the way it is been described in the analysis, the teaching ability of Korean

teachers of English will be seriously compromised, and this will lead to the loss of respect and authority generally maintained by solo teachers in the English classrooms. Despite the benefits of EPIK, it is important to raise awareness to the disadvantages of the EPIK program by looking into teaching practices in team teaching. Korean teachers who underwent the training necessary to teach the new national curriculum do not take the instructional role and leave it to NEATs who stay in Korea only few years and without the national curriculum-related training. Korean teachers engage in mostly regulative and intermediate roles in the instruction. From the observed data, a call for both a remedial policy and a team teaching training in order to realign the roles between Korean teachers and NEATs in team teaching is being conducted.

The current study has limitations in area selection, number of classes, and target school level. To draw more generalized conclusions, a further study is in demand to cover multiple sites, more classes, and different levels of schools compensating the limitations of this study. It is also notable that the Ministry of Education has reduced the budget for EPIK and the number of NEATs is rapidly decreasing. This creates confusion in the classrooms regarding the implementation of classroom English before the teaching English in English (TEE) settles in English classrooms wherein NEATs have contributed to TEE as a part of classroom culture.

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