

L2 LEARNING THROUGH INTERACTION:  
ENGLISH LEARNING IN AN ADULT IEP CLASSROOM

by

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(Under the Direction of Joan Kelly Hall)

ABSTRACT

With the emphasis on the classroom as one of the most important places where language learning occurs, the study presented in this dissertation looked at classroom interaction occurring in a class of adult ESL learners in a university-based intensive English language program (IEP). The study is based on the sociocultural perspective of language and learning, which views language learning as a process of socialization into competent participation in socioculturally significant language practices. Using the data collected during seven weeks, this research investigated 1) the functional characteristics of interactions that the participants construct in their classroom interactions with the emphasis on teacher's contributions that elicit students' contributions; 2) the characteristics of students' contributions in terms of lexical density and mean length of words, their functions, and any possible change in students' participation over time. Finally, the major turn-taking interaction pattern was Initiation-Response-Follow up (IRF) and the students differently responded according to the types of teacher's utterances. Generally, the changes in students' responses in terms of the number and quality of turns over the whole semester were not obvious. However this study is significant because it looks at how students' contributions change over time and it also documents their characteristics by using specific analytical frameworks. Since few studies of adult L2 learning have focused on interaction in the classroom from a sociocultural perspective, and even less on IEP, this study will contribute to the L2 learning literature by examining interaction in adult classroom in terms of getting at the micro details of what teachers consider exemplary. This study will also help ESL practitioners have more specific ideas (strategies) about how to guide culturally diverse adult ESL students in the classroom, showing some situations in the classroom where language learning occurs.

INDEX WORDS: Classroom Interaction, Discourse Analysis, IEP (Intensive English Program), IRE, IRF, ESL, EFL, L2 Learning, Sociocultural, Second Language Acquisition

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## DEDICATION

I dedicate this dissertation to my family: my parents, my aunt, my little sister Sumi, her husband Kidong, and my baby brother Kiljoon who always supported and prayed for me every moment. Appa and Umma , thank you for always being there as parents believing that I made a right choice and I could finish it. Imo, thank you for your incessant prayer for me. Sumi, thank you for your encouragement, understanding and love that helped me make this possible. Kidong, thank you for being a wonderful brother-in-law. Thank you Kiljoon, I know you have prayed for me. I love you everyone!

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## CHAPTER I: INTRODUCTION

### Introduction/ Background of the Study

Generally, learning other languages has been emphasized because of a general perception that people who can speak languages other than their first language (L1) have access to a greater number of career possibilities and can develop a deeper understanding of their own and other cultures. However, the importance of learning other languages has been emphasized more in other countries than in America. Due to its widespread use over the world, English has been considered the most highly regarded other language for people whose native language is not English (Kim, Lee, Jun, & Jin, 1992). When people from different countries want to communicate with each other, English is often the language of choice. More than half of the world's publications are written in English, and a significant amount of high technology is developed based on English (Kim et al, 1992)

To meet the demand for English learning, a number of intensive English learning programs exist throughout the U.S. Based on the information provided in brochures, booklets, and Internet sites, we can notice that almost every American college and university has its own program. A great number of people from different cultural backgrounds outside the U.S. have learned English in these programs. Some people just want to learn language and culture, while others have pursued advanced academic careers in American colleges and universities after they reach a certain level of English proficiency through studying in these programs. Intensive English Programs (IEP) have

made a significant contribution to English education for many non-native speakers of English.

However, despite the important role IEPs play, especially at colleges and universities, few studies have been conducted concerning language learning in these settings. Moreover, we can find that most of the existing second language (L2) studies that have been conducted have dealt with children and secondary students. We have been dependent on those few studies for developing applied ideas for better L2 acquisition. It is evident that we need more L2 studies not just on children but also on various learners in various learning settings.

One more thing we have to pay attention to is that IEP is a classroom-based setting. Classrooms have been considered the main arena where language learning occurs since the learners learn through interpersonal interaction with the teacher and peers. This reflects a view that language is not an individual phenomenon but a social one, comprised of linguistic resources whose meanings are both reflected in and made up of people's everyday practices, and, more generally, their social, cultural and political contexts (Hall, 1995). Recently in L2 learning the role of interaction has received significant attention.

A sociocultural perspective of language learning comes from the ideas of Vygotsky (1978), a Russian psychologist, who conceptualized learning and cognitive development as a result of social interaction between learners and teachers, including more able peers. This idea has also been the focus of more current work of others, such as Wertsch (1991), Nystrand (1997), and Wells (1993, 2001) who have all focused on speech activities in the classroom. However, the majority of studies have been based on L1 acquisition, and only recently the studies on the significance of this new sociocultural

perspective in L2 acquisition have been conducted (Hall, 1995, 1997, 1998; Lantolf 1995; Ohta, 2001). Studies of L2 learning from a sociocultural perspective were rare before the mid 90's (Hall, 2000). In other words, although we can infer what is important in L2 learning based on a great number of previous L1 studies, we are just beginning to investigate second and foreign language classrooms to see what the interaction looks like from a Vygotskian perspective. The study reported here investigated English learning as a second language in an IEP from a sociocultural perspective, focusing on the interaction in the classroom, which is the major place where language learning occurs.

### Theoretical Rationale for the Study

A sociocultural perspective pays attention to the fact that interactional routines and strategies used in language learning are part of a sociocultural structure and looks at how those routines operate in language learning. Specifically, a key premise of this perspective locates learning in learners' repeated participation in activities with other more expert participants (Vygotsky, 1978; Wertsch, 1991). With the help of experts, learners realize the communicative value of the linguistic resources constituting the activities and thereby develop their competence in these activities (Hall & Verplatse, 2000).

Researchers are deeply interested in sociocultural theory for its perspective on cognitive development and its emphasis on the relevance of social context and interpersonal relationships in the development of individual cognition. According to Vygotsky (1978, 1987), the relationship between the individual and the culture of which he or she is a member is interdependent; in his/her development, each shapes and is shaped by the other. Wells (2001) cited Vygotsky's notion that the capacities for acting,

thinking, feeling, and communicating that make us human are crucially dependent on cultural practices and artifacts and on interaction with others, through which they are appropriated and mastered in the course of goal-oriented joint activity.

More than other classrooms, L2 classrooms tend to have more diversity since most of students are from different cultures. Teachers and students from different backgrounds bring many elements of their own into the classroom. With all these elements, members of the classroom communicate with one another to reach the goals they have set. In L2 classrooms, the language, whether it is English or another language, is the medium through which teachers teach, and students demonstrate what they have learned (Johnson, 1995). The communication between teachers and students in L2 classrooms mediates between teaching, learning, and L2 acquisition. Teachers and students together develop particular understandings of what constitutes language and language learning (Hall, 1995). Communication in the classroom is the most critical condition for L2 acquisition, since knowledge is something generated, constructed, indeed co-constructed in collaboration with others (Nystrand, 1997; Wells, 1995, 2001). Therefore, investigating what kinds of factors play roles in the L2 learning & teaching process for learners is very important. Based on a great number of studies about classroom interaction in L1 learning (Cazden, 2000; Smagorinsky & Fly, 1993; Nystrand & Gamoran, 1991; Nystrand, 1997) and on some recent research on L2 learning through classroom interaction, we can say that classroom interaction is critically related to L2 language learning (Consolo, 2000; Donato, 1994; Ohta 1997; Verplaetse, 2000).

Many L2 learning studies from the sociocultural perspective have been conducted in elementary and secondary level classroom settings. One outstanding finding of these

studies is that the teacher is the main character who controls the classroom and responsible for facilitating students' participation in the classroom activities. It has been recognized that students learn more as they participate more in classroom activities. However, we do not know a whole lot about what occurs in different settings. We may predict similar findings in different settings but we do not know until we actually investigate them. Also, in the previous studies, while there has been evidence that students learn L2 through interaction in classroom, we do not know exactly what kinds of interaction lead to language learning. In an effort to explore this underdeveloped field, my research focuses on the classroom interaction occurring in a university setting in a class of adult L2 learners.

### Statement of Problem

#### Focus of Study

Acquiring language is the ultimate goal of second language education. In their interactions teachers and students construct certain ways of learning (how they learn), and what ultimately becomes learned (what they learn) (Nystrand, 1997). Both teachers and learners establish the norms and expectations for realization of their roles and relationships as teachers and learners (Johnson, 1995; Nystrand, 1997; Vygotsky, 1978; Wells, 1993, 2001).

Intensive English courses at American colleges and universities are examples of typical adult L2 learning settings in the U.S. In spite of their ubiquity, however, these programs have rarely been investigated in terms of L2 learning in the classroom. That means that there were almost no studies we can refer to in terms of language learning in the classroom setting. Considering the importance of L2 learning and the paucity of

research on adult L2 learners, I designed my study to investigate the language learning in this particular setting. Specifically, I was interested in examining the kinds of interactions occurring between a teacher and students, since I have considered student-teacher interaction critical based on my experience as a L2 learner. Two research questions with five sub-questions guided my investigation. They are:

### Statement of Research Questions

1. What are the functional characteristics of patterns of interaction found in one IEP classroom?
  - a. What are the typical patterns of interaction found in an adult IEP classroom?
  - b. What functions do teacher contributions serve to facilitate students' contributions?
2. What are the characteristics of students' contributions?
  - a. What are their typical characteristics in terms of lexical density and mean length?
  - b. What functions do they serve in the interaction?
  - c. What changes and developments occur over time in students' participation?

### Importance of the Study

Even though there has been a great deal of research on language learning in the classroom (L1, L2), most of it has dealt mainly with the learning that learners achieve through the exposure to the information offered by teachers or found during tasks (Leow, 1998; VanPatten & Oikkenon, 1996; VanPatten & Sanz, 1995). This study took a

sociocultural approach to focus on learning through dynamic interactions. In other words, this study put equal emphasis on interaction between the teacher and the students, rather than focus on unidirectional teacher influence.

### Anticipated Implications

There have been a great number of studies on classroom interaction of L1 learning in elementary and secondary school settings. Few studies from a sociocultural perspective have focused on adult L2 learners. Thus, this study contributes to the L2 learning literature by examining interaction at the micro level in an adult classroom: this study investigates the kinds of interaction patterns that emerges from the teacher and the students, and also looks at the specific characteristics and functions of interaction patterns. This study also adds to the research on interaction in terms of theory, and in terms of pedagogy, for example, teaching strategies. This study may also help ESL practitioners have more specific strategies about how to guide culturally diverse adult ESL students in the classroom, by showing some situations in the classroom where the language learning is achieved through interaction.

One more thing I count as important is that this research can be a model for teaching English as a Foreign Language (EFL) in Korea, where most learners learn their foreign language in the classroom, even though the context of the present study is the English as a Second Language (ESL) situation. It has only been a couple of years since the concept of foreign language education from the sociocultural perspective was introduced in Korea, where form-based unidirectional instruction has dominated for many decades. Moreover, the introduction of new pedagogical strategies has been controversial since teachers and students are unaccustomed to alternatives to the

traditional teaching methods described earlier. Since the EFL situation, as opposed to the ESL, offers few if any opportunities to encounter English in authentic situations outside of the classroom, the interaction between teacher and students becomes even more crucial. This study was conducted in the hope that it would give practitioners in Korea some initial thoughts to consider what they have to do in the classroom to help their students to reach the goal of being able to communicate in English.

## CHAPTER II: LITERATURE REVIEW

### Introduction

This chapter lays a foundation for the present study by reviewing previous studies examining classroom interaction from a sociocultural perspective. This chapter begins with a brief review of the sociocultural perspective of L2 acquisition and discusses many researchers' studies of language learning through classroom interaction, mostly L1 and some L2. This second section is divided into three parts, and each of them deals with patterns of verbal exchange, and their functions in the classroom: IRE (Initiation-Response-Evaluation), IRF (Initiation-Response-Follow-up), and ICs (Instructional Conversations) with the synthesis of studies conducted by various researchers in various classroom settings. A review on Intensive English Programs follows. A brief summary of findings concludes this chapter.

### Sociocultural Perspective of Second Language Acquisition

The major premises of the sociocultural perspective are based on the idea that human learning is mediated. Vygotsky (1978, 1981, 1986), who came up with this theoretical insight, articulated that human interaction, either with the environment, or with others, occurs through the mediation of technical and psychological tools or signs such as language, the most powerful of semiotic systems available in our social world (Anton, 1999; Hall, 2002; Lantolf, 2000). Influenced by our social, cultural, and historical setting, we learn the knowledge and skills that allow us to continue to participate in these activities through our relationships with more experienced or capable people (Hall 2002; Vygotsky, 1978; Wertsch, 1991). Through repeated participation with

various forms of assistance, such as scaffolding, modeling, and coaching, we internalize what we learn from our social interaction and transform it into our own version of knowledge and abilities (Hall, 1997; Hall, 2002; Hall & Walsh, 2000; Vygotsky, 1978; Wertsch, 1991).

According to Vygotsky (1978), this process occurs within the zone of proximal development (ZPD). This is defined as “the difference between the child’s developmental level as determined by the independent problem solving and the higher level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (p. 86). In other words, a knowledgeable participant provides support with which the novice can participate in social interaction, thereby extending the novice’s current skills and knowledge to a higher level of competence.

In the field of L2 acquisition, the psycholinguistic perspective has been the major approach in understanding language learning: it interprets language learning as triggering innate linguistic systems by input from outside; and the formulaic utterances and interactional routines enable learners to arrive at the rules of language, activating a linear mental linguistic process. However, the nature of L2 language learning is reconceptualized very differently by a sociocultural approach. From this perspective the development of language competence is located in the social context where a variety of linguistic signs are created, used, borrowed, and interpreted by the individual for the purposeful actions in which he or she is engaged. (Kramsch, 2000). Vygotsky’s perspective on cognitive development and his emphasis on the relevance of social context and interpersonal relationships in the development of individual cognition are summed up

in the following statement: “The internalization of cultural forms of behavior involves the reconstruction of psychological activity on the basis of sign operations” (Vygotsky, 1978 p. 57). This means that we learn language by extended participation in goal-oriented practical communicative social activities, such as schooling, shopping, and having conversation with friends, family and teachers, with the mediation of all kinds of signs and tools available. Through these mediational means, external social interactions become internalized as psychological processes—ways of thinking and modes of learning (Kramsch, 2000; Vygotsky, 1981).

From this perspective, “learning is not considered as the internal assimilation of structural components of language systems. Rather it is a process of changing patterns of participation in specific social practices within communities of practices” (Hall & Walsh, 2002 p. 187; Citing Gee & Green, 1998, p. 147). In this respect, the classroom is considered a very important social setting. In this setting language is acquired by learners during activities that are created through the face-to-face verbal interaction between teachers and students and among students.

#### Classroom Interaction

It may be true that the content and processes of language learning are fundamentally related to the instructional practices created in the classroom and that the learning is initiated and facilitated by teachers most of the time. However, it would be better to say that both teachers and students establish the norms and expectations for realization of their roles and relationships as teachers and learners. Both parties construct the degree and kinds of participation with respect to cooperation, involvement in learning language.

In the classroom, teachers and students are seen as members of the contexts in which spoken language has social and pedagogical functions (Consolo, 2000). In the language patterns of classroom communication systems, the role of language extends beyond communication of mere information to the establishment and maintenance of relationships in the classroom (Cazden, 2000). Cazden argues that carefully examining extended texts of teacher and learner discourse can provide an in-depth understanding of the processes of teaching and learning. Moreover, in L2 classrooms, from a sociocultural perspective, the language, whether it is English or another language, is the major medium through which teachers teach, and students demonstrate what they have learned (Johnson, 1995). Talk is even more important in the L2 classroom, if we consider the fact that so much of L2 learning occurs in the classroom (Hall, 2000, p. 4).

Learners learn through talking, in other words, through verbal interaction (Ernst, 1994; Goldenberg, 1991; Vygotsky, 1986; Wells, 1993). In addition to teacher talk, which has been considered to account for most of classroom discourse (Cazden 2000; Ernst, 1994), the importance of student talk in the target language also has been increasingly recognized in L2 learning. Through talk learners learn both the structural components of a language and its communicative application (Boyd & Maloof, 2000), and also share in the co-construction of knowledge (Verplaetse, 2000). Through classroom interaction, knowledge is constructed and reconstructed between participants in specific situations, using the cultural resources at their disposal, as they work toward the collaborative achievement of goals that emerge in the course of their activity (Wells, 2001): as Hall pointed out (1997) “L2 classrooms and learning communities constructed through their classroom practices are reconstructed as fundamental sources of learning,

shaping both the form and content of communicative competence and the processes of individual development” (p. 304).

As already mentioned, much language learning occurs in the classroom especially through the interaction. The teacher’s role is crucial since teachers integrate every element under their rule to create or facilitate an appropriate learning environment in the classroom. Teachers can foster classroom conditions that encourage or restrict successful student participation (Hall, 1998). The teacher is the one who should be aware of differences among learners in order to diagnose needs, apply the proper level of learning support (e.g. scaffolding) at any given time, and withdraw it at the right time. We can find the significance of the teacher’s role reflected on his/her utterances with the students. Of particular importance are the discourse patterns the teacher uses in the classroom, such as the IRE and IRF and IC. The next sections review studies related to these three discourse patterns. Due to the scarcity of research on verbal interaction in English as a Second Language (ESL) classrooms, I rely on the findings from previous studies focusing mainly on English as a first language and on studies focusing on foreign language classrooms.

#### IRE (Initiation-Response-Evaluation)

Earlier studies on classroom interaction found a common format of interaction between the teacher and students (Cazden, 1988; Lemke, 1985; Mehan, 1979). They found that the teacher usually begins conversations, the students answer, and the teacher provides evaluations. According to these studies, the format is ubiquitous in various classroom settings. Because of its ubiquity, researchers consider the pattern to be the unmarked mode of classroom interaction, a default mode adopted by teachers (Cazden,

2000; Sinclair & Coulthard, 1975). They also regard it as a typical means of monitoring learners' knowledge and understanding, guiding their learning (Mercer, 1992), and achieving the goals of education (Newman, Griffin, and Cole 1989). Lemke (1985) termed this pattern triadic dialogue.

#### Excerpt 2-1

1. Teacher: Does anybody know the plural of "wife"?
2. Students: Wives.
3. Teacher: Very good!

Excerpt 2-1 is an example of the IRE. In this format, the teacher initiates a sequence of conversation with a known-answer question, one or more students respond with answers, and the teacher ends by providing evaluations, either positive (e.g., "Good") or negative (e.g., "No, that's not correct"). In this pattern the teacher is the main figure who decides when and who can have the chance to talk and if the responses from the students are relevant to the theme of conversation.

Even though as Mercer (1992) argued, this triadic dialogue is an effective means of "monitoring children's knowledge and understanding," "guiding their learning," and "marking knowledge and experience which is considered educationally significant or valuable" (pp. 218-219), a number of other researchers have been critical of teachers' frequent use of this format, accusing teachers of having too much control of conversation without giving students chances to ask questions of their own (Wells, 1993; Wood, 1992).

An example of the critical view is from Barnes. Earlier in his research he criticized (1969) teacher's questions in the interaction for being open in form but closed

in function. This means that generally the teacher is clearly seeking one particular statement from all possible answers. He added later (1992) that the frequent use of the IRE did not allow for complex ways of communicating between the teacher and students (Hall & Walsh, 2002).

A similar case is made in Guttierrez's (1994) study. In this study, Guttierrez investigated the activity of journal sharing in English arts classes for Latino students in nine primary- and middle-school classrooms to find out how talk, context, and socially and culturally constituted collaboration shaped learning. She found that three different types of scripts, Recitation, Responsive, and Responsive/Collaborative, were used. Under the Recitation script, the teacher strictly adheres to the IRE and selects student speakers. The Responsive script allows more responses to occur between teacher's initiation and evaluation, more relaxed IRE, but the teacher still selects student speakers. The Responsive/Collaborative script is oriented to facilitate student collaboration and encourages the students to respond more. As a result, in the classroom where a strictly bounded recitation or IRE script was used, the teacher dominated talk and provided little or no acknowledgement of students' self-selection of speaker.

Excerpt 2-2 (p. 348)

4. T: Very nice Louisa...great...okay...she told us how he got burned and the  
[title.
5. L: [Oh yeah...and it took place at the [house
6. T: [At the house...great.

Excerpt 2-2 is an example of Recitation scripts. The teacher did not ask anything. Rather she began her remark with an evaluation (#4) as a response to L's book reading. L

was trying to say something (#5) based on what she read, but the teacher closed L's turn by finishing L's sentence with an evaluation (#6). Excerpt 2-2 shows that the teacher was the one who had the power to control the whole class. However, this study also showed cases of positive IRE use when it is combined with more open initiations eliciting freer responses and with evaluations expanding students' utterances. Excerpt 2-3 is an example.

Excerpt 2-3 (p. 358)

7. T: Ok...ok...I...I did say that you were suppose to...suppose to write about just...only one character. Cuz it's just...might be easier to write. If you try to show the thinking of more than...more than...of several people  
[then you...
8. S: [how...how you might get mixed up and forget which one you writing about.
9. T: Then you might not get to say...Let's...why...why
10. T: Don't we listen again to what Maria wrote and...and...then we can...[can
11. G: [we can...maybe  
maybe it makes more sense this time?
12. T: We can help her decide. Ok...ok...now read again.

In Excerpt 2-3, we can find that the students are supplementing (#8, 11) the information the teacher provides (#7, 9, 10). The teacher does not close the conversation, but rather opens it more to get responses from the students.

A similar effect of recitation is found in Nystrand and Gamoran's (1997) two-year study which investigated 58 eighth grade and 54 ninth grade English language arts classrooms. They found that overall classroom discourse was overwhelmingly monologic since the teacher hardly ever followed up student responses and never asked any authentic questions. That means that the students in classrooms whose interaction

patterns more closely mirrored the recitation script and so were IRE-bounded had fewer opportunities for learning than students in classrooms where more authentic questions, uptakes, and high-level evaluations were provided. This phenomenon was found more in the lower-track classes. Discussion with lower-ability students “almost always turned out to be what one teacher described as question-and-answer discussion involving a prescribed, teacher-set exchange” (p. 49).

Cazden (2000) also analyzed use of IRE. She looked at Mehan’s unpublished data of an L1 classroom and found typical IRE patterns of talk between the teacher and the students.

Excerpt 2-4 (p. 33)

13. T: Where were you born, Prenda?

14. S: San Diego

15. T: You were born in San Diego, all right.

16. T: Um, can you come up and find San Diego on the map?

17. S: (goes to board and points)

18. T: Right there, okay.

Cazden argued based on the data that the role of teacher is defined as a controller in this type of talk because the teacher usually considers herself as a stage director or a chief actor in the classroom. Excerpt 2-4 is an example of the pattern Cazden found. We see that the teacher initiated activities (#13, 14) and also finalized them (#15, 18) after students’ responses (#14, 17).

Lin’s (1999) research is interesting since it is one of few studies of interaction showing the prevalent use of IRE in L2 classroom. She investigated the interaction in four classrooms situated in different socioeconomic backgrounds in Hong Kong, one with

students of a high socioeconomic background and three with students from low socioeconomic backgrounds. She found that the degree of students' participation was controlled by the script the teacher used combined with their socioeconomic status. In two of three classrooms where there were students from a relatively disadvantaged class, the recitation script was more prevalent. The students from one of the three classrooms were easily bored and did not show much interest in lessons when their playful responses were not fully appreciated nor acted upon by the teacher, who provided only factual questions and simple evaluations such as "very nice." The factual nature of the questions and less elaborated evaluations by the teacher also left little room for eighth-grade students who had little opportunity to use their imagination. "By holding to the strict IRE pattern of interaction" (Hall & Walsh, 2002, p. 189) the teachers in those two classrooms pushed students "further away from any possibility of developing an interest in English as a language and culture that they can appropriate for their own communicative and sociocultural purposes" (Lin 2000, p. 75).

#### IRF (Initiation-Response-Follow-up)

Since Lemke (1985) termed it as triadic dialogue, the IRE has been considered the default form of interaction pattern in the classroom since a number of studies revealed the actual use of the IRE between the teacher and the students. More recently, researchers have looked more closely at the IRE and, based on their findings, have suggested a reconceptualization of this pattern. Earlier, there were studies that showed a different understanding of the IRE. Sinclair and Coulthard (1975) referred to the third move of the pattern as Follow-up and Mehan (1979) and others called it Evaluate. In a discourse structure model they developed, Sinclair and Courtland made a distinction in the third-

part of the pattern, Evaluate act and Comment act, explaining that the teacher's initiation leads to students' response and the students' response in turn results in the teacher's feedback. However, they remained bound to the IRE, and full-scale reconceptualization of the IRE has not been done until recently.

Wells was one of those researchers who conducted a reevaluation of the IRE. His study (1993) was conducted in a third grade classroom "in order to gain a better understanding of the various functions performed by the discourse genre of triadic dialogue" (p. 1). The study shows that within an interaction of IRE which usually allowed the teacher to control students' participation, some changes were clearly recognizable in the pattern. Those changes were found especially in the third part, and they were considered to cause more active participation among students. In the third move, the teacher checked the students' knowledge of what they were dealing with during the class, a typical evaluation. However, in dealing with certain topics, the third move functions much more as an opportunity to extend the student's answer, to draw out its significance, or to make connections with other parts of the students' total experience during the lesson. Wells termed this a follow-up.

Excerpt 2-5 (p. 18)

19. T: Here the picture (a cartoon of children doing the activity) suggests that you can clap, but are there other ways that you can use to figure out how...long it takes for the bottle to empty?

20. S: Stamp your feet.

21. T: Stamp your feet, good...another way?

22. S: Er snap

23. T: Snap... Ok, besides using your hands and feet, what other methods could you think of?

Excerpt 2-5 from this study shows that during the interaction the teacher asks for suggestions, evaluates student's answers (#20, 22) and even extends them (#19, 20, and 23). In analyzing the data Wells found that this three-part discourse could take a variety of shapes because the topic dealt with during the lesson can be co-constructed by the teacher and students with a variety of ideas together, rather than being pre-selected only by the teacher. Also the lesson takes on the different goals of the various tasks.

A couple of years later, Wells (1995) reached a similar conclusion from the analysis of the same data he collected in a third-grade science classroom. In the classroom the teacher and the students co-constructed the knowledge as they took roles of communicating with each other in the process of inquiry.

Excerpt 2-6 (p. 253)

24. T: That's right...and what about Lily's bottle?

25. S: She would fill her bottle half

26. T: Half...So all your three bottles must have the same amount of water.

Now how do you ensure the same amount of water?

27. S: Well.

28. T: Do you just estimate?

29. S: No.

Excerpt 2-6 from this study illustrates this process of inquiry. This process of inquiry proceeded within the structure of the IRF. The teacher's follow-up question (#24, 26, 28) after a student's response (#25, 27, 29) prompted the teacher or the student into a statement that shows that she has recognized the concept of the lesson.

Excerpt 2-7 (p. 253, 254)

30. T: The meaning of “fair test” is if you empty a bottle—say if you fill the bottle half...and Veronica fills her bottle full. Would it be a fair test?

31. S1: No.

32. S2: No, you have to—if I filled my bottle half and to make that a fair test she would fill her bottle half.

.....

33. S1: What we did—...what we did was we...did a method by timing.  
Now, d’you guys think it was a fair match?

In another example, Excerpt 2-7, another student took over the teacher’s concept “fair test” from the teacher’s follow-up question (#30) and assimilated (#33) it into her knowledge of a somewhat similar concept, “fair match.”

Tuyay, Jennings and Dixon’s (1995) study in a third-grade bilingual science classroom revealed a similar use of the IRF by the teacher. This study examined how the students and teacher, through their oral and written discourse, “co-constructed knowledge and “talked into being” particular opportunities for learning” (p. 75). During a 30-minute activity, instead of clarification of confusion among the students, the teacher usually used questions in her third-part follow-up move to focus them on the next possible stage. She helped them identify missing elements and encouraged them to elaborate on their ideas. Through this pattern of turn-taking, the teacher could “facilitate the accomplishment of the immediate task but also served to increase the students’ repertoire of ways of thinking about and strategies for solving problems that might also be used in future interactions” (p. 105).

As noted earlier, Nystrand and Gamoran’s (1997) study of an English arts classroom found the IRE pattern to be typical of lower-track English arts classrooms.

However, they found a slightly different pattern of interaction in higher-track classrooms. In these classrooms the teachers used questions that invited students to contribute something independent and original to the discussion that can change or modify it. And they also used high-level evaluations, a kind of follow-ups called uptake, asking a student about something the other person had said previously (Collins, 1982), and facilitating the negotiation of understanding. Even though this different type of evaluation is defined as high-level evaluation, it is very clear that their functions are almost the same as those of follow-ups in the IRF patterns. Similarly, Cazden (2000) also found small variations of the IRE in her analysis of Mehan's data. She noticed that they have different functions from evaluations. Realizing the importance of those functions, she added that the teacher can demand that students "act in certain ways and to refrain from acting in other ways" (p. 39), but should depend on the students in enacting an activity for learning since it is accomplished by the collaborative work of two or more persons.

Most recently, Nassaji and Wells (2000) conducted a six-year study in English (L1) classrooms in three different school settings, elementary, middle schools and universities. They found that the same IRF structure can take a variety of forms and is used by teachers for different functions, depending on the goal of lessons and activities.

Excerpt 2-8 (p. 399)

- 34. M: Well, if it was hanging on the side then it must have not had enough energy to get right to the top.
- 35. T: Ok, so you're—you're um concluding that it's dead.
- 36. T: How many people agree with Michael?
- 37. N: [signals that he agrees]
- 38. T: OK, why do you agree with Michael, Nir?

39. N: Because if it was hanging on the side and it fell it probably got dead like cause it should stay in the sample spot...without moving.

Detailed analysis of the IRE patterns in Excerpt 2-8 shows the different kinds of roles that each of teacher's follow-ups played. #35 acknowledged and amplified Michael's answer (#34). The teacher's follow-up questions, #36 and #38, served different functions and showed different effects. #36, asking opinions, elicited nonverbal signal while #38 drew a whole sentence of a student's authentic answer. This study also showed that the choice of follow-ups used by teachers led the following talk in a certain direction which was not pre-destined as it is in the recitation bound IRE structure. This study also emphasized the choice of initiations. It was critical in developing the sequence in certain ways: for example, a certain form of initiation question triggered more responses from the students; and Known-Information questions limited the students' opportunities to try out their own ideas. By presenting the various functions of triadic sequences, this study confirmed the teacher's role as a manager, primary knower, and initiator during interactions with the students. However, the roles of the teacher in the IRF are certainly distinguished from the standard role he/she plays in the IRE. This study can be regarded as one of rare studies providing comprehensive analytical frameworks for utterances in the IRF.

The teacher's role in the IRF patterns is reinforced even more in Patthey-Chavez's (2002) study to measure fourth-grade students' participation during an English writing conference. The findings from the data, analyzed by micro-analytic computer-assisted methods, revealed that "teachers don't just talk a great deal in class; through their questions and their activities

Excerpt 2-9 (p. 36)

40. T: and then because he came to his house late,  
what happened, the other detail?
41. S: he was sleepy the [next day.
42. T: [he was sleepy the next morning, okay?  
good! did he have a closing sentence?
43. S: yes
44. T: what was his closing sentence?
45. S: "I almost didn't want to go to school."
46. T: "I almost didn't wanna go to school."

Excerpt 2-9 shows some typical example of teachers' way of talk, questioning (#40, 42, 44). The teachers also set up communicative situations (#41, 43, 45) that continually give the authoritative teacher the last word (#42, 46)." (p. 2). This study also pointed out that the students showed different kinds of responses (#41, 43, 45) depending on teachers' utterances (#40, 42, 44). The program she used for computer-assisted analysis focused on formal lexical-grammatical or participatory characteristics of participants' utterances. Patthey-Chavez also used categories of linguistic features to investigate the nature of teacher's and students' utterances, such as filler words, function words, content words, and subordination. Students' utterances were counted by these categories and the mean numbers of lexical density and length of words were calculated. In this study we can actually look at how students' contributions to the teacher's contributions are different in terms of participation and linguistic quality. This study is very significant in that it actually measures student contributions in order to track learning.

The functions of the IRF are also found in FL (Foreign Language) classrooms. One of those cases is found in Hall's (1998) study of clarifying the differences between

IRE and IRF in a high school Spanish classroom. Hall investigated the turn-taking-patterns that developed between a teacher and four students, focusing on “a covert form of differential treatment within one particular instructional practice” (p. 288). She found that there were unique and dynamic aspects of teacher-student interaction in the classroom. By acknowledging or opposing the students’ responses, the typical form of three-part IRF, the teacher played a powerful role in distributing learning opportunities to learners as he created two different groups of learners, primary and secondary. Some students’ responses were completely ignored while some other students were encouraged to take the floor.

Excerpt 2-10 (p. 302)

47. T: si señor que te tajo Santa Clause (yes sir what did SC bring you)

48. R: San

49. T: Santa Claus

50. R: um I got some clothes and

51. T: como se dice clothes como dice clothes (how do you say clothes)

.....

52. T: que ropa

53. S: if you’re naked and you need clothing you wear a rope.

54. T: you’re right okay esta bien es bueno muy bien señor excelente  
(it’s fine it’s good very well sir excellent)

Excerpt 2-10 from this study shows how students were treated differently. The teacher responded with much praise (#54) to a student’s answer (#53) while the other student was not even allowed (#49, 51) to finish his sentence (#48, 49). The teacher differentiated learners by leading them, in his follow-ups, to divergent paths of language learning. Hall

concluded that “The differential treatment in terms of teacher attention to student turns in the IRF exchange facilitated some and limited other students’ participation in this practice” (p. 307).

The use of the IRF pattern has been found in EFL (English as a Foreign Language) and ESL (English as a Second Language: L2) classrooms in addition to FL classrooms. Musayeva’s (1998) study examined oral corrective discourse in preparatory EFL classes at a Turkish university through observations, interviews, and questionnaires. This study looked at IRF turn-taking between the two teachers and 74 students in four classes within the framework of the discourse analysis tradition.

Excerpt 2-11 (p. 141)

Teacher A

54. S: It is difficult to found it.

55. T: It is difficult to find it.

Teacher B (p. 143)

56. S: Quite easy

57. T: Yeah, how do you think it’s quite easy?

58. S: Because one president, one president.....

This study revealed how teachers’ follow-up moves acted upon students’ responses in providing corrective feedback. For example, sometimes the teacher provided corrective feedback in the way of repetition (#55), and sometimes went further by asking more questions (#57) based on the student’s answer (#56). When the students answered with grammatical errors teacher A repeated their sentences with corrections and frequently initiated another opening move for eliciting a new answer from the students. Teacher B

provided corrective feedback in a slightly different way. He usually accepted students' incorrectly- formed answers by saying "yes" or "aha", and, without any restatement, prompted the students to face a new task or to go further by asking subsequent questions or restating his instruction in follow-up moves. As a result, students showed different preferences in their responses for the teacher's different corrective treatments. So this is another study exemplifying the IRF.

Lin's (1999) study, reviewed in the IRE section above, also provides a case of IRF use in the EFL classroom. Though the students in two recitation-bounded classrooms had little opportunity to express their opinions, in contrast, in the third classroom the teacher's creative use of discourse enabled the students to remain actively engaged in learning and to transform their opportunities for learning.

Excerpt 2-12 (p. 401)

59. T: What happened?

60. L: Her old-man fell off to the ground.

61. T: What? Louder!

62. C: Her old-man fell off to the street!

63. S: Is there a street?

64. T: Is there a street? [in an amused tone, students laughing]

65. L: Fell into the sea.

66. T: Where did he fall into? [quite amusingly]

67. L: Sea that is

68. T: Yes...fell into the sea.

The teacher tried to get more participation from the students as she asked questions in an amused tone (#64, 66). Students felt free to provide what the teacher asked. Hence this

study shows that in recitation bound classes, the IRE can curtail students' opportunities for learning by denying their opportunities for meaningful interaction. However, when alternate discourse patterns are used students have more opportunities for active learning: one such pattern is the IRF.

In two more studies conducted in EFL classrooms, the teacher attentively used follow-up moves to amplify the participation of students. Consolo (2000) investigated nine Brazilian EFL classrooms and found that in the typical IRF pattern, teachers followed not only their agendas for the lesson, but also developed the topic according to the students' responses.

Excerpt 2-13 (p. 102)

69. S: I think for women, thirty, thirty-two

70. T: Thirty-two you're a spinster? [stressed tone]

71. T: I don't know. I'll kill myself.

((students laughing))

73. T: the word that comes after spinster ((chuckle)) ok, what is the how old is spinster in Brazil? Thirty-two you said?

74. F: for a womens or for men?

Excerpt 2-13 from this study shows an example of this kind of development. Rather than just teaching the meaning of "spinster" the teacher developed an interesting new topic (#73) based on the student's response (#69), the age of a spinster. This corresponds to Consolo's assumption that "the quality of teachers' classroom language can contribute to language development, insomuch as it fosters regular patterns of classroom discourse that favor learners' verbal contributions and active participation in discourse" (p.92).

Sullivan's (2000) research conducted in a university EFL classroom in Vietnam showed

an interesting aspect of interaction between the teacher and students. The teacher incorporated storytelling and wordplay in his teaching and challenged students to stretch their lexical knowledge and their ways of thinking about the meaning of words through playful verbal exchange. The teacher followed up students' playful amusing responses with affirmations and elaborations to forge a positive and enjoyable learning environment in the classroom by catalyzing students' motivation. In addition, "the playful exchanges add an atmosphere of rapport and group solidarity to the classroom discourse" (p.88). This is another good example of teachers' creative contributions in the IRF interaction.

The use of the IRF pattern in ESL classrooms seems to be prevalent based on recent studies. In their study conducted in a classroom of American language and culture for international graduate and undergraduate students, Boyd and Maloof (2000) found that the classroom teacher can orchestrate and support a kind of classroom discourse that engenders active student talk that leads to L2 learning based on the assumption that students learn through talking. This study examined the classroom discourse in an ESL classroom and focused on the role of the teacher in facilitating extended discourse: roles of affirmer, questioner, and clarifier. By engaging students in IRF patterns, the teacher shaped the classroom discourse and consequently the type of language learning that occurred.

Excerpt 2-14 (p. 175)

75. S: So I think this is because the..the sociocultural influence and it could be viewed as a *cultural shadow* I think of.
76. T: I love that, where did you get that phrase? That's beautiful. *Sociocultural Shadow*. Does he use that phrase?
77. S: Yeah.

In Excerpt 2-14, when the student used the metaphor “cultural shadow” in his talk (#75), the teacher interrupted to identify the source of this metaphor. In the process the teacher acknowledged and affirmed (#76) his selection of this phrase, even though she changed it from a “cultural shadow” to “sociocultural shadow.” Even though the teacher did not necessarily extend the discourse to a developed stage of discussion, the teacher was able to support student utterances by selectively acknowledging and incorporating student initiations into the classroom discourse, taking a major role in facilitating a better learning environment in the classroom.

IRF, the reconceptualized interaction pattern from the IRE, is very prevalent in the classroom. In particular, the third part of this pattern, the follow-up, has multiple functions of developing further discussions based on the students’ answers. It sometimes, clarifies, confirms, affirms, and extends students’ responses and leads them to different modes. The teacher’s follow-ups significantly contribute to facilitating students’ participation in classroom activities.

#### IC (Instructional Conversation)

It is assumed that what the teacher mainly uses to control the learners in the classroom is “talk”, which is also a medium of learning for the learners. During the exchanges, IRE or IRF, the teacher uses a certain way of talking to encourage students’ expression of their own ideas, and to guide them to a sophisticated level of understanding. That way of talking is defined as Instructional Conversation in Goldenberg’s (1991) study, which originated from Tharp and Galimore’s (1988) earlier study. ICs, based on Vygotsky’s (1978) sociocultural perspective of development, assume that the teacher facilitates and guides students in the course of extended verbal interaction to let them

play an important role in constructing new knowledge and in acquiring new understanding about the world. Through ICs, teachers and students construct practices that form a part of the routine of learning in the classroom. ICs are important to language teaching in more ways than solely being the conveyer of language content. Rather it is through the process of interacting that learners come to understand how to use language to build knowledge and achieve shared notions of interpretation (Takahashi, Austin, & Morimoto, 2000).

Excerpt 2-15 (Goldenberg, 1991, p. 10)

78. T: Why should Rob get mad?

79. C: Because because he cut his hair wrong. Awful  
[crooked, and

80. T: [Oh. Well, do we sometimes, [get mad at our friends?

81. C: [you have to forgive them, too, but.

82. T: do we sometimes get mad at our friends?

83. S: yes

84. C: yes, course.

85. T: when do we get mad at our friends, why d'you say "course like of course,  
what happens when you get mad at your friends?

86. C: They get mad at you.

87. T: oh, you get mad back at each other ((laughter)).

88. M: They do something [that you don't like or.

89. C: [they bounce the ball around

90. T: Okay. Tell me a little bit more about that.

91. M: They do something that you don't like or...they'll not talk to you...or not,  
share or not be a good friend.

92. T: Okay, so, friendship, I'm gonna add this time I'm gonna put it in capital letters the new ideas we got. ((writes on chart)) friendship, friends can get mad at each other, right? What else did you say, they,
93. M: they, they can not talk to you or don't share with you or nothing.
94. T: okay, so sometimes they don't share with you.  
Does that keep you from being friends?
95. S: yes

Excerpt 2-15 illustrates several IC features. During the discussion on friendship, the teacher used students' background knowledge as she calls on students to draw on their knowledge and experiences about friendship. The teacher tried to elicit more speaking as she said "tell me more" (#90) on comments the students made (#89). The teacher also asked questions that allowed different answers (#94). This excerpt is from a set of data from the interaction between a teacher and fourth-grade students with Spanish background in an English (L1) reading classroom. Goldenberg found that the teacher who employed ICs used student background knowledge and asked open questions for which different answers acceptable. Another finding was that the teacher and students were responsive to each other, so that each statement or contribution was built upon, challenged, or extended a previous one, and topics were picked up, developed, and elaborated. Both the teacher and students presented provocative ideas or experiences, to which others responded.

Nystrand and Gamoran (1991) supported Goldenberg's findings based on the results from analyzing data from 58 eighth-grade English classes in 16 schools. They mainly focused on the differences between students' Procedural Engagement and Substantive Engagement. Procedural Engagement is defined as casual engagement of

students with school tasks, such as doing homework, asking questions, and thinking about what they have to do for their school work. In contrast, Substantive Engagement indicates more elaboration for achieving significant academic goals that require more than school procedures. It seemed that the students achieved more when they were in substantive engagement mode in which their teachers asked open questions and probed what students knew and thought than when they were in procedural engagement mode, in which teachers “carefully rehearse students’ mastery of assigned material through recitation in order to remedy what they do not know” (p.283). After all, it is teachers who must carefully and appropriately use questions and comments following student interests, expectations, and abilities. In other words, teachers are key to creating classrooms where reciprocity is respected and possible. To achieve that reciprocity “depends on what teachers and students do together and how they work in terms of each other; neither can do it alone” (p.284).

Goldenberg and Patthey-Chavez (1995) conducted research in a fourth-grade English reading and writing classroom. This study showed ICs how empirically can be achieved and realized in the classroom. Since the majority of the class population was Latino, even though it was an English arts course, the situation was similar to that of L2 learning: it was a transitional bilingual classroom<sup>1</sup>. The two researchers found that a female teacher skilled in using ICs during her lessons successfully established what Tharp and Gallimore (1988) called, “joint productive activity” with her students—for example “constructing the meaning of a text or understanding and applying a concept” (Goldenberg & Patthey-Chavez, 1995, p. 60)—by following up students’ utterances with

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<sup>1</sup> A transitional bilingual program, in other words, a subtractive bilingual program, aims at transiting non-native speakers of English from their L1 to L2, English

a combination of requests for elaboration (to the students), ratification, expansion, and lexical repetitions. Their IC use is in line with a rationale of providing opportunities to develop conceptually rich working vocabularies and forms of verbal interaction for language-minority students,

O'Bryan's (1999) study also grew out of insights of Tharp and Gallimore (1988). This study is unique in that it focused on the actual development of one teacher's skills at ICs over a certain duration of time with the assistance of another teacher (the researcher) who provided a model of IC-oriented instruction. During a three-month period, the teacher, in a literature class for fifth-year elementary students, experienced a transformation in her teaching practices from recitation to ICs. She tried to encourage the students to be active in sharing their original ideas by having them ask questions and using deliberate silence. During the conversation, her students actively constructed meaning in collaboration with others. This study showed that teachers also have zones of proximal development, therefore appropriate assistance or modeling is highly necessary for them as well as for students.

The use of ICs was also found in another transitional bilingual classroom. Goldenberg and Saunders (1999) demonstrated the efficiency of ICs in an English arts TBE<sup>2</sup> (Transitional Bilingual Education) classroom. This study employed ELD<sup>3</sup> (English Language Development through literature), ICs (discussions) plus a literature log<sup>4</sup> (writing). Use of the literature log was based on the concept that writing can make students "articulate their ideas, interpretations, and related experience," while

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<sup>2</sup> Refer to Transitional Bilingual Program in #1. In this study this program is designed as a 3-year program.

<sup>3</sup> An English program used in the pre-transition phase of the program. In this program, instruction is delivered to students in small, homogenous groups based on their levels. Lessons and activities are all drawn from a particular literature.

<sup>4</sup> A writing task the teacher asked students to do. It was based on the literature they were currently learning at that time.

“discussions provide a social opportunity for students and teacher to collaboratively build more elaborate and sophisticated understandings” (p. 281). The metaphor of this approach, IC plus literature log, is weaving (Tharp & Gallimore, 1988). Using discussions and writing as tools, students weave together new and existing knowledge, experience, and concepts with the assistance of the teachers. In this study the fifth-grade elementary students were divided in four groups according to their proficiency and treated during three phases of 10-15 days with different random combinations of the two instructional methods, ICs and literature logs. The results of the posttest indicated that the limited proficiency group treated by the teachers with the combination of ICs and literature logs showed significantly higher gains on understanding the story theme than other groups. Moreover, the effects of ICs were stronger than the effects of logs on factual and interpretive comprehension regardless of the proficiency level of students. The results of this study mirrored the influential functions of ICs that previous studies demonstrated.

The effects of ICs are also salient in non-English learning classrooms. Verplaetse’s (2000) recently-conducted study focused on one highly interactive male science teacher in a middle school. This study investigated what particular discourse strategies were used to create such an interactive classroom during full-class, teacher-fronted discussion. A total of three teachers were observed, but two of them were observed for the purpose of comparison. The teacher described in this study used interaction expertly. He used a variety of feedback features, such as questioning, drafting, repetition, back-channels, and paraphrases, especially after a student’s incorrect or insufficient answer.

Excerpt 2-16 (p. 236, 237)

96. L: This is just metosis

97. T: mm-hmm

98. L: but she wrote that (pointing to her notes)

99. T: Well, you better point that out when we're done.

100. L: What?

101. T: You say that when we're done

102. L: I don't know how to pronounce this word.

103. T: Meiosis. Oh, the hands are up. Somebody sees something they want to change perhaps or something to talk about. Lillia, nice and loud.

104. L: ...draw...

105. T: I asked her to draw mitosis.

In Excerpt 2-16, as the teacher approached the student, he used drafting (#99, 101), back-channel acceptance (#97), and paraphrase acceptance (#105) to draw the student into the full-class discussion. In so doing, he provided students the opportunities to produce extended output and to negotiate meaning through repair work. Verplaetse concluded that in this study, given the highly interactive practices of the teacher and students, particularly the nonjudgmental, listening nature of teacher responses, even the LEP students (Less English Proficient students) were drawn into participation, gaining confidence in their ability to speak in full-class discussion. His creative way of using ICs promoted interactive classroom atmosphere.

Takahashi, Austin, and Morimoto (2000) investigated language development in a Japanese as a Foreign Language classroom for very young learners—kindergarteners and first graders—through the analysis of ICs. This study looked at how teachers and students

construct knowledge about ongoing events, how they bring past knowledge into learning, and how they create a communal sense of what counts.

Excerpt 2-17 (p. 148, 149)

106. T: Hai (here you go)

107. S: Denisu wa ringo o tabemasu. Masu! (Denis eats an apple. Eats)

108. T: Denisu wa ringo o tabemasu, ii desune, Mary (...good, Mary)

109. M: Denisu wa ringo o tabe (Denis apple ea)

110. T: Tabe? (ea?)

111. M: Tabemasu. (he eats)

112. J: Tabetai. Tabemasu Tabemasen (he wants to eat. He eats. He doesn't eat)

They found that the teacher tried to facilitate students' full participation in classroom activities by offering repetitions and affirmations of right answers (#108) to ensure everyone's understanding and "opened up opportunities for other students to also repeat the correct answer and be affirmed as knowers" (p. 153). This repetition was used even when the student could not provide the right answer. The teacher then tried to elicit more from the student by repeating what she just said (#110). Analysis of ICs revealed that the values, knowledge, and skills important to learning are created in the conversations between students and teachers by teacher's use of ICs, identifying particular contexts and the variety and complexity of the participants' developing understandings and ways of making sense.

ICs, as elements of the IRF, have served to facilitate students' participation in a variety of activities in the classroom. The teacher knows when to draw out students' ideas and when to ease up, managing to keep everyone engaging in a substantive and extended conversation. The teacher weaves individual participants' comments into a large tapestry

of meaning by using ICs (Goldenberg, 1991). The use of ICs has shown its effectiveness, as seen above, in many studies on classroom interaction.

It is not an exaggeration to claim that the major device the teacher uses for teaching in the classroom is “talk.” The studies reviewed in this section dealt with the interaction between teacher and students, focusing on how teachers manipulate and develop “talk” in the classroom to control and facilitate the learning environment. Through the developed patterns of “talk” the teachers use, IRE, IRF, and ICs, the learners were, most of time, successfully led to active participation in the activities, by getting proper scaffolding, or sometimes marginalized from the main learning arena because of failing to follow the teacher’s stream of talking. Based on all the studies of teacher-student interaction reviewed above, the teacher has the major responsibility for students’ learning since he/she is usually in the position of authority and can guide the learners toward the direction considered desirable for the goals in the classroom.

#### Intensive English Programs

Despite the fact that there are many Intensive English Programs (IEP) in the U.S., very few studies have been conducted in this setting regarding classroom interaction. Since IEPs are usually located in colleges and universities, the students of the program are usually adults over age 18. Considering that the existing studies on L2 learning in the classroom mainly focus on elementary and secondary students, it is important to do research on L2 learning of adult learners in the IEP setting. While there have been some studies of IEPs, most have dealt with administrative aspects, curriculum, and cultural awareness (Soppelsa, 1997; Kunschak, 1998; Crookes & Arakaki, 1999; Gonzalez & Darling-Hammond, 2000). Only one study, by Milambiling and Plourde (2002), was

found that investigated the interaction of IEP classrooms. These researchers examined the discourse patterns from two classrooms in university IEPs in the United States. Through examining the verbal interaction among two teachers and their students and focusing on teacher talk specifically, patterns and features were found and categorized according to their functions. They found that the patterns and features categorized helped facilitate productive interaction and contributed to moving students and teachers closer to their goals in the classroom.

Excerpt 2-18 (p. 36)

Teacher A (Male)

113. T: Misanthropist, exactly, so a philanthropist loves people and a misanthropist is someone who doesn't like people. Do you remember what we call someone who doesn't like women?

(laughter)

114. T: Now you should remember.....(abbreviated) about those words, you know misanthropist, misogynist, they all start with mis-.....(abbreviated) they were talking about having a charter....

115. A: A rule?

116. T: Exactly, it's like a set of rules or a constitutions or something like that.....(abbreviated)..so United Nations has a charter. O, good, how lovely.

117. B: charter...is it the same as a chapter?

118. T: Ah, that's good...it's almost the same except one letter difference.....  
A chapter is similar to a branch...a chapter is usually a branch of say a church or of a volunteer association or something like that.....  
Do you know the other thing for the word chapter?

119. C: A book.....

120. T: Oh yeah....so books have chapters, so really chapters just basically means divisions...

Teacher B (Female) (p. 38)

121. B: Ah! If she is hungry, if she was hungry.

122. T: Right, Sid wanted to know if she was hungry of if I was hungry.

123. B: She was...okay?

124. T: Sure, we don't know who Sid is asking.

.....

125. A: Quotation marks.

126. T: Quotation marks, good.

127. B: Could I put an exclamation mark too?

128. T: Huh? You could put an exclamation mark if it were "Hey, there's a phone call for you." Maybe someone was waiting for a phone call from his girlfriend. Right.

In detail, as stated in Excerpt 2-18, this study revealed that a male teacher's consistent use of repetition of content words (#113, 114, 116, 118, 120) following students' answers (#115, 117, 119) and his frequent use of pauses and word fillers (#118, 120) allowed the students to have time to process what was being said and what had to be said. Moreover, He rarely interrupted a student who was talking and tended to wait until the student came up with any answer. He always tried to incorporate the student's contributions into the ongoing discussion by using appropriate following-ups: no dismissal of wrong answers (#118). As a result, the students always felt comfortable enough to sometimes interrupt their teacher's comments to have a chance to talk (#115). Meanwhile, the female teacher showed a rather traditional teacher-fronted way of teaching and had tendencies that were exactly opposite to those of the former teacher. She was terse in providing answers and guidelines for activities (#124, 126). Her traditional teaching behavior seemed to discourage students from asking and prevented her from being able to determine how much students actually understand (#122, 128).

This study showed that verbal interaction is also important in IEP setting. It found that the patterns of talk and their functions, especially utterances from the teacher, function similarly in IEP classrooms as they do in other classroom settings.

### Summary

From the review of previous studies on classroom interaction focusing on patterns of talk and their function between a teacher and students in different learning settings, mainly L1 and L2 learning, we can assume that the classroom is the place in which a variety of active verbal exchanges occur. Those studies investigated language learning in the classroom by examining the IRE, IRF, and ICs. They revealed one common result: with appropriate initiations and follow-ups by the teacher those exchanges can result in successful language learning outcomes. Even though very few studies on classroom interaction in IEP settings were found, based on findings of the previous studies reviewed above, we may speculate that analysis of L2 learning in IEP classrooms would yield similar findings.

We know that there are certain patterns of talk that facilitate learning, based on the literature looking at the IRE and IRF as reviewed above. But it seems that we need to go further than just finding “good” talk in learning. So I investigated the specific patterns of interaction, their functional characteristics, and how they prompted learning. To do these, solid analytical frameworks are necessary. Fortunately, Nassaji and Wells’ study (2000) seems to provide the most comprehensive analytic framework. One more thing I wanted to do was actual documentation of talk with certain frameworks. We’ve been told that, for example, Instructional Conversation is good because it facilitates students’ participation, but we do not know *how* good it is. Even Nassaji and Wells could not

provide any proper criteria for measuring the content of utterances. Pathey-Chavez's study (2001) did try to measure the content of talk, so I borrowed some parts of her analytical frameworks. In the present study, I documented the quality of students' utterances in terms of lexical density and mean length of words over the seven weeks, looking at how they are different according to categories and individuals. More detailed explanation is provided in chapter 3.

## CHAPTER III: METHODS

### Introduction

The purpose of this chapter is to present the research methods used in this study. This chapter starts with a restatement of the research questions and goes into detailed descriptions of the research setting and participants. Next, a review of the methods used to collect and analyze the data follows. The last part of this chapter provides the descriptions of the data collection and analysis of this study with specific frameworks. A summary paragraph is included at the end of the chapter.

### Restatement of Research Questions

1. 1. What are the functional characteristics of patterns of interaction found in one IEP classroom?
  - a. What are the typical patterns of interaction found in an adult IEP classroom?
  - b. What functions do teacher contributions serve to facilitate students' contributions?
2. What are the characteristics of students' contributions?
  - a. What are their typical characteristics in terms of lexical density and mean length?
  - b. What functions do they serve in the interaction?
  - c. What changes and developments occur over time in students' participation?

### Research Setting

This study was carried out in an adult classroom of an IEP at a southeastern American university. This IEP, like other ESL programs at other universities, was established to meet the needs of international students intending to study at universities and colleges throughout the United States. This program offers four levels of reading, writing, speaking, grammar classes and some additional advanced classes with another beginning level course. Lower division courses, which include the beginning level and Levels One and Two, focus on developing the language skills of beginning and low-intermediate students for the purposes of establishing a language base and providing the necessary experience and practice for interactions in English. Levels Three and Four are English for Academic Purpose (EAP) courses which are designed for the students pursuing advanced academic careers in American colleges and universities. Students of each level have four to five hours of intensive classes five days a week. According to the demographic information from this program, there has been a number of students from Asian and Latin American countries: 50.40% of the total students are from Asia (28.45% are from Korea) and 26.82% are from Latin America (based on 2002 spring enrollments). The faculty members of this program are all specialized in teaching English to the speakers of other languages. The classroom that was chosen for this study was an intermediate reading course (Level Two). During the eight-week summer session, the class met five days a week, one hour a day, in a little classroom which was designed for a formal meeting or class. The room was not in a typical shape, not a square or rectangle (Appendix 7), but was spacious enough for the students to move comfortably when they had to do group discussions or activities.

### Participants

The class was taught by a male teacher, who has been teaching English for 15 years to international students at this IEP. At the time of study he had a reputation as an excellent and experienced classroom teacher who had an open mind toward international students regarding their diverse cultures and their needs as language learners. He himself speaks French fluently and Spanish well.

The total number of students was eight. Originally, there were 11 students but three of them moved to a more advanced level one day after the class started. As expected based on the previous demographical information, a significant number of the students, four, were from Korea. There were also four other students from Japan, Brazil and Colombia; the age range was from 19 years to 29 years. Most of them came to this IEP to prepare for TOEFL or GRE. These tests are needed by students who intend to apply to American colleges and universities or graduate schools. Table 3-1 contains detailed information on each of the eight students.

Table 3-1. Details of Participants (students)

Name	Age	Gender	Nationality	Academic Level	Purpose
Hoon	19	Male	Korean	College student	Came here with his father who is a visiting scholar. He wanted to learn English while he was staying here.
Jiwon	25	Male	Korean	College student	Preparing for TOEFL to transfer to an American college.
Yuna	29	Female	Korean	College graduate Worked at a company before coming to the U. S.	Preparing for TOEFL and GRE to get into an American graduate school.
Sujin	21	Female	Korean	College student	Preparing for TOEFL to transfer to an American college.
Kenji	20	Male	Japanese	High school graduate	Preparing for TOEFL to get into an American college
Miho	20	Female	Japanese	College student	An exchange student learning English before the semester started.
Maria	19	Female	Brazilian	High school graduate	Learning English
Joyce <sup>5</sup>		Female	Colombian and U. S. resident	High school graduate	Learning English

In the following section, I provide an overview of methods that I used to inform my study: ethnography, classroom ethnography, and microethnography. I first provide explanations of how these methods are used in research, and then describe how they were employed in the current study.

<sup>5</sup> Joyce did not want to be interviewed, so information provided here is from observation.

## Ethnography

Definitions of ethnography vary. Generally, it can be said that ethnography is the art and science of describing a group or culture. The description may be of an exotic group of people living in a remote land or a classroom in middle-class suburbia. Patterns of human thought and behavior, such as the routine and daily lives of people, are the focus of inquiry in ethnography (Fetterman, 1998). In a more elaborated way, ethnography is the study of people in naturally occurring settings by means of methods that capture ordinary activities and their social meanings. It involves the researcher participating directly in the setting in order to collect data in a systematic manner but without meaning being imposed on them externally (Brewer, 2000). The objectives of ethnography are to understand the social meanings and activities of people in a given setting. The ethnography assumes that knowledge is constructed by individuals in their lived experiences, and so there can be many truths (Hall, 2002). Several methods of data collection tend to be used in ethnography, such as in-depth interviewing, participant observation, personal documents, and discourse analyses of natural language use. Researchers observe people's behavior, work closely with them and perhaps participate with them in the field.

This method of research, usually used in anthropology and sociology, has been actively adopted in the education field. Educational ethnography has been used to describe educational settings and contexts, to generate theory, and to evaluate educational programs. It has provided rich, descriptive data about the contexts, activities, and beliefs of participants in educational settings (LeCompte and Preissle, 1993). Studies for the purpose of educational ethnographies vary widely in focus, scope, and methods of

execution. In many cases, they are characterized by use of participant observation as the preferred data collection strategy supplemented with a variety of ancillary techniques (Wilson, 1977), by creation of a data base consisting primarily of field notes or interviews (Bogdan and Biklen, 1992), and by a preoccupation with the description and explanation of the culture, life ways, and social structure of the group under investigation (Wolcott, 1988). In an educational context, educational ethnography highlights common features of all teaching and learning situations such as construction of meanings and perspectives, adaptation to circumstances, management of interests in the ebb and flow of countless interactions containing many ambiguities and conflicts, strategies devised to promote those interests, and negotiation with others' interests (Woods, 1996).

### Classroom Ethnography

Many cases of ethnographic research in education focus on activities in the classroom. Classroom ethnography refers to the application of ethnographic and sociolinguistic or discourse analytic research methods to the study of behavior, activities, interaction. It usually looks at discourse in formal and semi-formal educational settings such as school classrooms and adult education programs, emphasizing the sociocultural nature of teaching and learning processes, incorporating participants' perspectives on their behavior, and offering a holistic analysis sensitive to levels of context in which interactions and classroom are situated (Watson-Gegeo, 1997). Classroom ethnography involves the intensive, detailed observation of a classroom over a certain period, recording a large sample of classroom activities on audio or videotape, and interviews with teacher and student as supplements. It includes a description of the classroom setting; a statement of the principles underlying classroom social organization; and an

account of the social norms guiding participants' behavior and shaping their interpretations of specific interactions (Erickson, 1985).

Watson-Gegeo (1997) notes that there are four approaches to classroom ethnography: *ethnography of communication*, *microethnography*, *discourse analysis*, and *critical ethnography*. According to Watson-Gegeo (1997), *ethnography of communication* is the method used to examine contrasting patterns of language use in a variety of ethnic and mixed-ethnic classrooms; *microethnography* is concerned with the formal analysis of interactional events and with understanding how lessons, classroom organization, and school success or failure are jointly constructed by participants as interactional accomplishment; *discourse analysis* focuses on language as a social practice occurring in social relationships; and *critical ethnography* focuses specially on the relations of power in language use, how social differentiation in the larger society is reproduced in the classroom through language and discourse, and the dialectical relationships between social structural constraints and human agency.

As all four approaches focus on culture and language data, we can find considerable overlap among them (Watson-Gegeo, 1997). In this section, *microethnography*, which is related to this study, is discussed in more detail. Considering its focus on language use in interactional and social events, *discourse analysis* can be considered a major part of *microethnography*.

### Microethnography

Microethnography draws on perspectives and methods in ethnomethodology, symbolic interactionism, and sociolinguistics. It is concerned with the local and situated ecology obtaining among participants in face-to-face interactional engagements and

constituting societal and historical experiences. Microethnography aims at descriptions of how interaction is socially and culturally organized in particular situational settings (Garcez, 1997). Researchers of microethnography typically work with audiovisual machine recordings of naturally occurring social encounters to investigate in minute detail what interactants do in real time as they co-construct talk-in-interaction in everyday life. They also use the methodology for the investigation of face-to-face interaction and a particular point of view on language in use in complex modern societies (Erickson, 1992; McDermott, Gospodinoff & Aron, 1978).

Microethnography involves a narrow focus, offering a detailed analysis of only one type of event or even a single instance of an event, sometimes contrasted with a second type or instance found in another context (Shultz, Florio & Erickson, 1982). Due to its narrow focus, common to the approaches used in ethnographical studies is a resolute attention to detail, and the use of quantitative as well as qualitative data (Gordon, Holland, & Lahelma, 2001). Considering its relevance to educational research, the microethnographic approach can be termed as a form of educational ethnography frequently conducted in educational settings.

#### Microethnographic Methods and Their Use in the Current Study

Even though the methods usually employed in microethnography do not seem to be much different from those in general ethnographic studies, they focus on narrow and in-depth aspects. For example, they might focus on the ability of students to recognize what teachers want, and teachers' reciprocal ability to recognize the competences that these students already have. They might also focus on how the language is used in the classroom, how teachers maintain classroom order, or how they define knowledge.

The methods used in this research are observation with field notes including video and audio taping, and interviews. By using these methods, this current research investigated how a teacher and the students use the language in their social interaction in the narrow context of classroom. I focused on the interaction occurring only in that setting, looking at the narrow aspects of participants' talk patterns. How those methods were used is explained in the next sections.

#### Data Collection Methods and Procedures

Data collection took seven weeks<sup>6</sup>, one week short of the eight-week summer semester. Methods included two to three hours per week of classroom observation with two to three hours of video-taping plus audio-taping, an interview with the teacher in the middle of semester, and two interviews with the students, one at the beginning of the session individually and the other at the end in groups. Field notes were taken during the observation.

#### Observation

Most qualitative research in education involves extended observation of some form. One important dimension along which observations vary is the role of the observer in the setting being observed (Slavin, 1992). In some studies, the observer is a full-fledged participant in the activity, and his or her role as observer may not even be known to the individuals in the setting. More commonly an observer is known to be an observer. Whenever the observer interacts with the people being observed, this is called participant observation. In contrast, in nonparticipant observation, the observer tries to interact as little as possible (Slavin, 1992).

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<sup>6</sup> I could not observe during the eighth week for personal reasons.

The intent of participant observation is to generate data through watching and listening to what people naturally do and say, but also to add the dimension of personal experiencing by sharing the same everyday life as those under study. The researcher's own attitudinal changes, fears and anxieties, and social meanings when engaging with the people in the field, all form part of the data. Thus researchers who become participant observers have to develop certain personal qualities: the primary one is to maintain the balance between "insider" and "outsider" status; to identify with the people under study and get close to them, while maintaining a professional distance which permits adequate observation and data collection (Brewer, 2000). Wolcott (1988) distinguished among different participant-observer styles as active participant, privileged observer, and limited observer. As an active participant, the observer assumes the role of a participant. For most ethnographic research in schools, the observer becomes a privileged observer. That is, the observer does not assume the role of a participant but has access to the relevant activity for the study.

Slavin (1992) discussed one kind of nonparticipant observation useful in many situations: naturalistic observation, in which the observer tries not to alter the situation being observed in any way but simply records whatever he or she sees. It emphasizes the "outsider" aspect of observer. He added that this type of observation is often used in studies of children's interactions and behaviors and is a primary tool used by psychologists. Maintaining a proper balance in the participant observer's dual role as part insider and part outsider gives researchers the opportunity to be inside and outside the setting, to be simultaneously a member and non-member, and to participate while also reflecting critically on what is observed and gathered while doing so.

One more fact to be considered is that participant observation involves not only gaining access to and immersing oneself in new social worlds, but also producing written accounts and descriptions that bring versions of these worlds to others (Emerson, Fretz & Stephen, 2001). This is derived from Geertz's (1973) early insistence on the centrality of inscription in ethnography, calling attention to the fact that the ethnographer inscribes social discourse.

Generally, I observed the course overall as a nonparticipant observer. However, at the request of the teacher I sometimes helped the students. I was trying to be open to every occasion occurring in the classroom. I followed the natural atmosphere in the classroom. When I was invited to participate, I joined them and fulfilled my duty as a teacher's aide. I did not have any problem with "insider" and "outsider" issues during the observation. Perhaps my status as an L2 learner made me comfortable in that atmosphere. The students I observed also seemed to be comfortable with my presence: they often ask me questions related to their tasks.

### Field Notes

In most kinds of participant or nonparticipant observation studies, field notes are a very important source of data. While actually observing a given setting, a researcher might take voluminous notes, if this is possible, but in some cases this is not possible. Either way, as soon as possible after the observation period, the researcher writes field notes to record what happened. Field notes usually contain descriptions of the key individuals being observed and of the physical setting and other contextual features such as time of day, events preceding or following the observation period, and so on. According to Hammersley and Atkinson (1995), field notes consist of relatively concrete

descriptions of social processes and their contexts. The aim is to capture these in their integrity, noting their various features and properties, though what is recorded will clearly depend on some general sense of what is relevant to the foreshadowed research problems.

Clifford (1990) describes three kinds of field notes. Inscription is the notation made in the midst of interaction and participation. These are quick jottings of key words and symbols or just a momentary self-prompt to remember something. The record resulting from inscription may be written fragments, the researcher's memory, or any other reminder of what occurred. The second kind of field note, transcription, is very different. Transcription is writing something down as it occurs, recording as much as possible as exactly as possible. To accomplish this, the researcher is fully observing and recording; participation is minimal, limited to occasional questions or nonverbal acknowledgements. Transcription is creating a text from what the observer is perceiving, from responses to questions, or from dictated narratives. Description, the third kind of field notes, occurs out of the flow of activity, sometimes even out of the field. Description is forming a comprehensible account of whatever has been observed. Descriptions are built on inscriptions and transcriptions, but all three constitute field notes. However, only the products of transcription and description have received much attention, probably because inscription has been considered too subjective for rigorous scientific discussion or presentation (LeCompte & Preissle, 1993).

Another way to classify field notes is Sanjek's (1990) vocabulary for field notes; scratch notes; field notes proper; field note records and texts; journals and diaries and so forth. From scratch notes researchers produce field notes proper—what Clifford labels descriptions. Field note records are collections of materials collected from the group

studied: documents solicited from participants or otherwise available from or about the group. Sanjek includes in field note records what he calls texts. These equate with Clifford's transcriptions, word-for-word replications of narratives spoken by an informant or precise recordings of conversations between the ethnographer and an informant. Journals and diaries are accounts of fieldwork from the researcher's own experiences and perspectives. Some are indexes, chronologies, and comments on the field notes proper. These may include a running record of inferences, hunches, and ideas to be pursued in data collection.

According to Emerson, Fretz & S (2001), field notes have some particular characteristics. As representations, field note texts are inevitably selective. The researcher writes about certain things that seem "significant," ignoring and hence "leaving out" other matters that do not seem significant. In this sense, field notes never provide a "complete" record (Atkinson, 1992). But field notes are also selective in what they do include, since they inevitably present or frame the events and objects written about in particular ways, hence "missing" other ways that events might have been presented or framed. Emerson et al. pointed out another characteristic: that field notes accumulate set-by-set over time into a larger corpus. That is, field notes are produced incrementally on a day-by-day basis (or regular base), without any sustained logic or underlying principle and on the assumption that not every observation will ultimately be useful for a larger/finished project. As a result, a field note corpus need have little or no overall coherence or consistency; it typically contains bits and pieces of incidents, beginnings and ends of narratives, accounts of chance meetings and rare occurrences, and details of a wide range of unconnected matters (Emerson et al., 2001). As a last point, in recognizing

“the field” as a construction, one can appreciate the ways in which the implicit assumptions and routine practices that produce it, in turn, shape and constrain the writing of field notes: unlike that of classic ethnographical approach that regards the field as a geographical place, the view of micro-ethnographical approach assumed that the field lies wherever reality-constituting interaction takes place (Gubrium & Holstein, 1997).

In recent years, field notes have been getting more attention since it can be argued that writing field notes, rather than writing finished ethnographies, provides the primal, even foundational moments of ethnographic representation: for most ethnographic monographs rely upon, incorporate and may even be built from initial field notes (Emerson et al, 2001).

During the observation I took as many notes as I could, describing what was going on, recording the characteristics of each activity and who was involved in what I was observing. Field notes included a description of the classroom atmosphere, what the teacher did, how the students reacted, and how the procedure of teaching and learning flowed. Since this is a locally oriented microethnographic study, description accounted for the greater part of the field notes. My comments on each occasion or activity were written next to the description. However, I also was able to find almost the same information in the audio- and video-recorded data.

### Video and Audio Taping

Ethnographers use a variety of mechanical devices to record data and preserve it intact (Erickson & Wilson, 1982; Jackson, 1987). They must decide what is going to be recorded and who is going to record it. Audio and video equipment indiscriminately record whatever is occurring within their purview. Transcription, coding, and analysis are

imperative to render material usable. Using mechanical recorders increases analysis time because researchers may observe events while recording and then repeatedly reobserve them while processing, coding, and analyzing data later (Erickson, 1992).

Audio recording is so widely used among the general population that obtrusiveness and reactivity are almost no longer the issue they once were, and the cost, ease of transport and handling, and quality are no longer issues for most qualitative researchers. (LeCompe & Preissle, 1993). The kind of equipment selected depends on the purpose of the recording, who is being recorded, and the circumstances under which the record is made: internal or external microphone, cassettes or microcassettes with different lengths and qualities. One thing researchers have to be careful about is that the dangers of misuse and overuse are greater than the possibility of underuse. So, researchers have to use their discretion wisely in choosing what to record and not to.

Videotape recordings are extremely useful in microethnographic studies (Fetterman, 1998). Ethnographers usually have a fraction of a second to reflect on a person's gesture, posture, or gait. Videotape provides the observer with the ability to stop them. The ethnographer can tape a class and watch it over and over, each time finding new layers of meaning, nonverbal signals among participants. Over time, visual and verbal patterns of communication may become clear when seen repeatedly and in stop action. The tapes can help researchers make sense of what is happening in a specific place, such as a classroom. For example, using videotapes, the researchers are able to identify specific behaviors the teacher uses to solicit information or to silence students (Fetterman, 1998 p. 68).

Videotape equipment is essential to any microethnographic research. Since the tunnel vision of videotaping can be problematic, the researcher may need months to develop a reasonably clear conception of specific behaviors before deciding to focus on them for a time. The videotape can focus on a certain type of behavior to the exclusion of almost all else in the classroom. Videotape recording, although not yet as accessible as audio tape recording, and still obtrusive, has become a routine way of collecting data. It is now true that the equipment is common in schools and other institutions where it is used for instruction and evaluation.

Even though the use of videotape has limitations; like not appropriate construction and sometimes concealing the reality which the actual experience brings, it is used to analyze nonverbal interaction as well as to strengthen the participant-observation and other methods of triangulation (Robinson, 1994). Visual records are excellent in recording the complexity of human interactions and conveying its reality.

Audiovisual documentation allows “vicarious revisiting” of the audience of the research at later points in time (Erickson & Wilson, 1982, p. 40): “because settings of social life are so complex and their details are so numerous, the ability to revisit an audiovisual record enables us to compensate for our limited human information processing capacities and to discover, after the fact, new aspects of meaning and organization that we did not realize at first.” (Erickson & Wilson, 1982, p. 40).

Since videotaping was the major source of data, I tried my best for good and elaborated coverage. Because the classroom was an unusual shape, it was difficult to capture the whole class at an angle. So, I used two video cameras in two corners of the classroom, one in front and the other in back which I considered to be the best spots to

show the widest angles. While I videotaped the classroom two to three times every week, I mainly left the video cameras in the corners of the room taping on their own, where they could catch the best scenes of classroom interaction especially between the teacher and students, and students and students. During the tapings I observed the classes and kept field notes.

As activities changed, I changed the camera angle, but in general tried to avoid standing behind the camera, since this seemed to be distracting for the students. Actually, the existence of the video camera was itself obtrusive the first time, however they seemed to get used to it and became regarded as part of the classroom: one day when I went to the class without the camera some of the students said that something was missing and that they could not concentrate during the class because of the emptiness. While videotaping the classroom activity, I also used an audio recorder to catch any sound that might not have been captured by video cameras' microphones. I found later that microphones attached to the two video cameras were not able to clearly catch some relatively quiet sounds. However, this was not a serious problem because I was able to rely on the audiotapes for transcribing small group discussions. However, even extra microphones could not catch every sound.

### Interviews

Interviews depend on face-to-face questioning of participants and eliciting data from them (Siedman, 1991). Through elicitation and personal interaction, the investigator is better able to obtain data addressing the questions asked in the study. However, the information obtained through interviews can be supplemented by corroborating the information from other forms of data collection, including observations.

I originally planned to interview the teacher twice: first, at the beginning of the study, and again at the end of semester. However, I interviewed him just once<sup>7</sup> in the middle of the semester. The interview focused on information about his background, professional growth, concept of teaching, self-esteem and self-image. The interview also included elements about interaction and teacher roles, questions based on my observation, and confirmation of observations. In conducting the interview I used an open-ended interview format. I interviewed him in an informal manner when it was about the teacher's personal matters, but I did so in formal manner when I had to get specific information related to the purpose of my study. To avoid possible discomfort, I contacted the teacher in advance to let him know about interview duration and how the interview would be used. I tape-recorded the interview and transcribed it for analysis. The transcribed interview with the teacher was helpful in gaining background information and information on issues like teaching philosophy and interaction, and in exploring how the teacher's values and beliefs were reflected in his classroom interactions.

In interviewing the students there were some particularities to consider. Even though the students were all adults, I thought that they might not be able to look at the whole picture of the classroom situation, that they might give me some narrow and local answers to questions—answers reflective less of general attitudes than of whatever they happen to be looking at, what they have done previously, or what they are just about to do. I interviewed all the students in groups and individually after the class or by appointment. For the first interview I met each student by appointment, and for the

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<sup>7</sup> His schedule was so tight that he could not find the time for two interviews.

second interview during the seventh week I met them in two groups. Seven<sup>8</sup> out of eight students were interviewed. Each interview was audio-taped and transcribed.

The students' interviews focused on how they perceived the classroom and the teacher, and how their knowledge and experiences as English learners played a role in their learning and their interactions with their teacher and their peers. I also used an open-ended interview format. The students' interviews were important in showing why they were in the course, their perception of their classroom and their evaluation of their teacher. The students' interviews helped me have a balanced view of the classroom where various kinds of interactions occurred. However, interviews were not the main data source but a supplementary part of other data sources, since the major focus of this study was the analysis of participants' talk.

#### Other Sources of Data

Sometimes, I was able to figure out what was under way during the class based on the information in handouts. Since the teacher used a textbook, short stories, and the book chapters of a movie for the main teaching materials, there were not many additional handouts or learning aid materials.

#### Data Analysis Procedures

The primary method of analysis in this study was microethnographic discourse analysis. Discourse analysis comes out of the qualitative paradigm but some people think that it has evolved into a discipline in its own right (Schiffrin, 1994). Discourse analysis is concerned with the study of the relationship between language and the contexts in which it is used. Discourse analysts study language in use: written texts of all kinds, and spoken data, from conversation to highly institutionalized forms of talk (McCarthy, 1991).

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<sup>8</sup> One student, Joyce, didn't want to be interviewed due to her busy working schedule.

Discourse analysis in microethnography emphasizes the research method of close observation of groups of people communicating in natural settings. It examines types of speech events such as storytelling, greeting rituals and verbal duels in different cultural and social settings (Gumperz & Hymes, 1972). Discourse analysis is the main analytic method in microethnographic studies.

In microethnographic studies of classroom interaction, discourse analysis can be conducted at macro and micro levels: the macro level looks at the big picture, exploring the social factors that influence the learning environment for learners, what types of student behavior a teacher appears to value, and the contextual or cultural gaps participants may have; the micro level looks at individual, identifiable constituents, such as intonations, particular grammatical structures, ways of talking, etc. (Riggenbach, 1999).

In macro level analysis, context is considered the most important term in discourse analysis. It refers to all the factors and elements that are nonlinguistic but which affect spoken or written communicative interaction. Context entails the situation within which the communicative interaction takes place. So, discourse may depend primarily on contextual features found in the immediate environment and be referred to as context-embedded, but sometimes it may be relatively independent of context and depend on the features of the linguistic code and the forms (Celce-Murcia & Olshtain, 2000).

Following Goetz and LeCompte's idea (1984) that in qualitative research all stages of research are interdependent, I tried to analyze data throughout the research process. Since data was collected over a period of time, previous observations gave me

either an idea, more focused questions, or an approach for the next round of observations. According to Robinson (1994), interdependence is perhaps the most exciting as well as the most frustrating and confusing element in undertaking an ethnographic study, as the amount and variety of data require that an overarching goal be kept in mind; otherwise the researcher can drown in a sea of details, with no land in sight. However, the authenticity of an ethnography arises out of the difficult dialectic between structure, openness to the details, and the flow of the material—between planning and flexibility, or between a clearly defined pathway and a willingness to deviate from that path when the data demand a detour (Robinson, 1994).

I tried to employ constant comparison and analytic induction, paying attention to the micro level in organizing, describing and interpreting the data and making inferences from the data. Qualitative studies are not structured like quantitative ones, and they are unpredictable. I frequently found myself in a state of self-doubt because of the constant questioning, comparing, scrutinizing and analyzing of all parts of my research design simultaneously. The data, mainly verbal interaction was analyzed and categorized through comparing, contrasting, and ordering. I discovered linkages and relationships in the gathered data. Discourse schemes I used are explained in later section.

#### Preparation for Data Analysis

In the spirit of preserving the data in a good condition, the entire set of audio- and videotaped data was digitized through computer work using audio and video editing programs. Since the size of video data was so big, it took about three hours to digitize a 30 minute chunk of video data. It was very convenient to keep files of digitized data in terms of finding specific parts of data I needed. This high technology is very compatible

and desirable for the researchers who need to keep their data safe and make it last a long time. And I also used a program specially designed for helping transcribing data: I could conveniently divide the segments of sound and listen each of them as many times as I wanted.

### Data Analysis

The total number of data videotapes was 17, and 15 hours<sup>9</sup> of data were selected for analysis. Transcriptions were made selectively after reviewing the videotaped data. Conversations among participants that I considered to be unrelated to the research, such as simple chats, were not transcribed. I also transcribed audio-taped interview data selectively, checking if the content was relevant to the research.

### Analytical Frameworks

To analyze the data, I referred to coding practices other researchers have already used successfully for two reasons: convenience and validity. It seemed to be very convenient and time-saving to refer to existing tools. Moreover these coding practices were all found in published studies and are relatively reliable; getting ideas from existing studies is what we do all the time in academia after all. Among many studies, I found two studies using analytic methods that seemed to work for my data.

One is Nassaji and Wells' (2000) framework used to explore the structure and purpose of classroom activities. This study focusing on the specific patterns of teacher's follow-ups and their functions seemed to have the most extensive categorizations of interaction. In their study, already reviewed in chapter two, the authors came up with a way of analysis based on activity theory (Engestrom 1990, 1991; Leontiev, 1981). Their basic concept of this approach is that "spoken discourse always occurs as mediator of

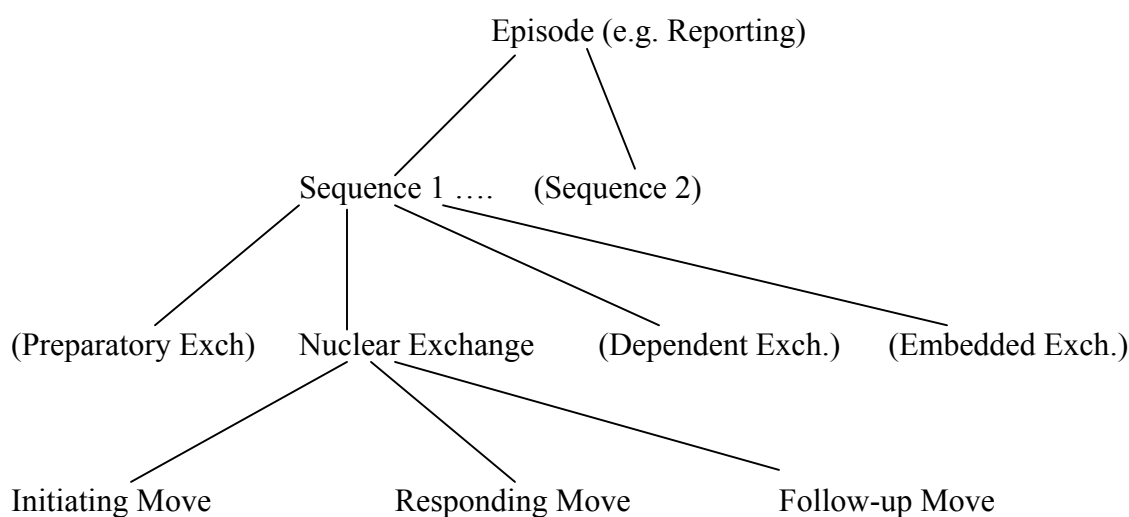
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<sup>9</sup> One hour was a full introduction for the course, and the other hour was a movie-watching session.

some purpose within a larger structure of joint activity” (p. 382). In other words, discourse is one of the operational tools for achieving the goal of the current activity, and this constitutive element of the activity can only be fully interpreted in relation to the purpose of the activity as a whole.

Figure 3-1 Nassaji and Wells (2000) Framework:

*Developing Inquiring Communities in Educations Project (DICEP)*



This approach provided them a principled basis for segmenting the stream of speech into units for analysis: the largest unit is an Episode, an activity that composed of Sequences that contribute to the achievement of the activity or task goal. Each Sequence also has its subcategories of specific verbal exchanges, such as Nuclear exchange and any Bound exchanges, Preparatory<sup>10</sup>, Dependent<sup>11</sup> or Embedded<sup>12</sup> associated with it. Finally, whether nuclear or bound, each exchange consists of Initiating, Responding and Follow-

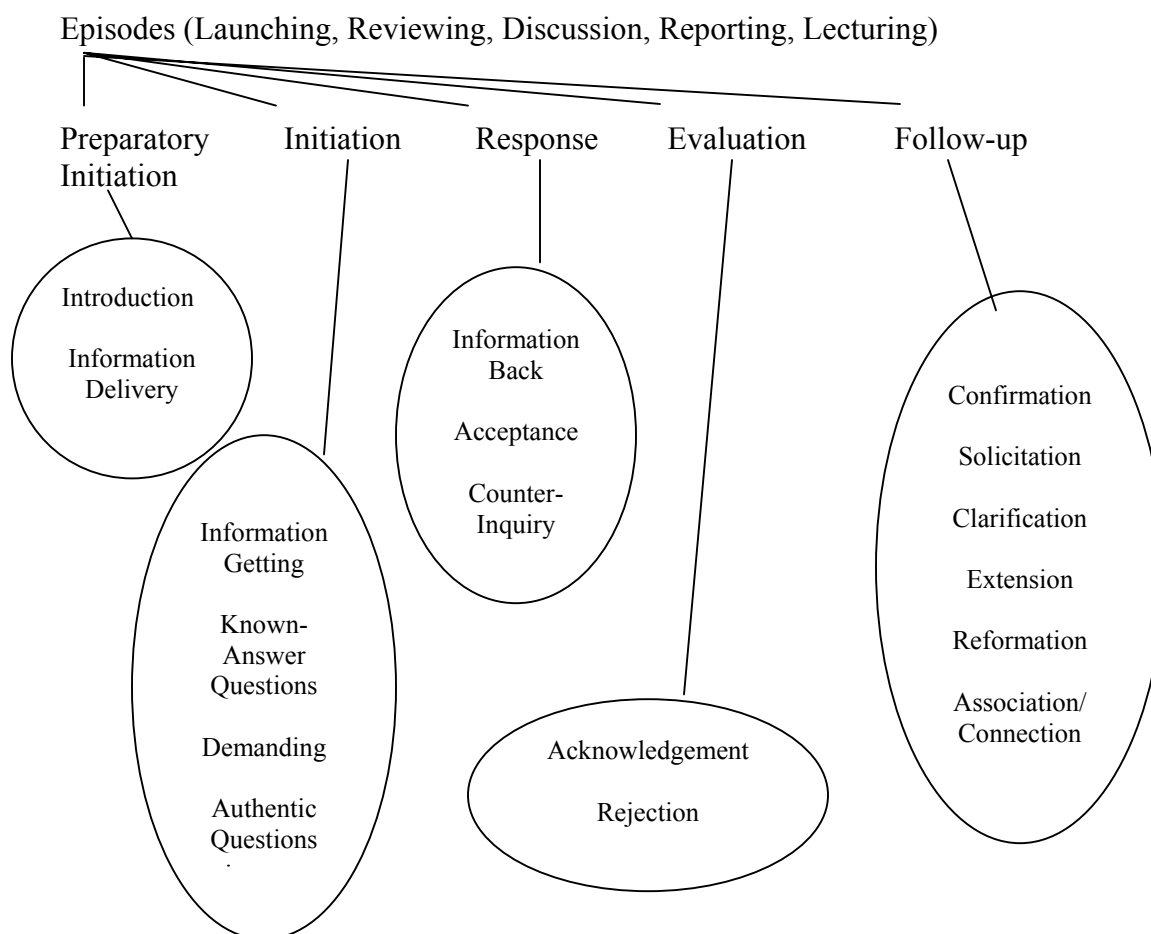
<sup>10</sup> To establish communication or to select a designated speaker.

<sup>11</sup> To give or seek additional information or justification for provided information

<sup>12</sup> To confirm uptake or to repair various types of breakdown (e.g. clarification)

up moves. Episodes and Sequences are defined following their characteristics, and Moves are coded for their Prospectiveness and for their Functions with respect to the commodity (Appendix 6). Especially, Follow-ups are coded more thoroughly (Appendix 6).

Figure 3-2 Analytical Framework (1): based on Nassaji & Wells' (2000) Study  
*In-Depth Characteristics of Data of Current Study*



I did not adopt the entire framework of Nassaji and Well's study, but used its overall skeletal structure and defined each segment and subcategory according to their functions. Their analytical framework focusing on the IRF fit my data.

As shown in figure 3-2 above, first of all, I divided the whole data into Episodes

according to themes of activities. Five characteristics of activities were found: Launching, Reviewing, Discussion, Reporting, and Lecturing. The teacher started the class with some opening information or pre-requisite information for the activity he was going to begin (*Launching*). He sometimes went through what his students had done for the homework he had assigned to them on the previous day (*Reviewing*). He also frequently had time for *Discussions* in a large group, or in small groups for their students to have their own discussions. He usually called for a *Reporting* session after small-group discussions. The students reported what they had done and talked about during the small-group discussion. Under the teacher's guidance, and from time to time, the teacher delivered the information in the form of a *Lecture* without asking for responses from the students.

Under each Episode, there were four types of turns from the teacher (Preparatory Initiation, Initiation, Evaluation, Follow-up) and one from the students (Response). The teacher, when necessary, provided pre-requisite *information* or a brief *introduction* before the discussion or new activities started (*Preparatory Initiation*). The teacher usually started conversations (*Initiation*) with lots of questions. His questions fell under four subcategories. He simply gathered information (*Information Getting*), asked questions for which he already knew the answers (*Known-Answer Questions*), requested students to do something (*Demanding*), and sometimes asked students' original and personal ideas on certain topics (*Authentic questions*). The teacher continued the conversation after students' responses by providing *Evaluations* or *Follow-ups*. He evaluated their responses with *Acknowledgements* or *Rejections*, and followed up in six ways: he confirmed students' responses by reiterating sometimes with a bit of additional information (*Confirmation*); asked students for more information to move on to a further phases

(*Solicitation*); clarified some confusion among students (*Clarification*); developed more concepts from students' responses (*Extension*); provided indirect correction by reforming students' incorrect answers (*Reformation*); and also provided additional information related to his prior personal and cultural knowledge (*Association/Connection*).

Students answered their teacher (*Response*) in three different ways according to the type of questions. They simply responded with the information the teacher wanted (*Information Back*), or just accepted what their teacher said (*Acceptance*), and sometimes posed questions when they needed to clarify confusions (*Counter-Inquiry*).

Table 3-2, 3-3, 3-4, 3-5, and 3-6 below provide summary.

Table 3-2 In-Depth Characteristics of Data (1)

Category	Functions
<b>Episode</b>	The whole data was divided into many chunks according to the themes of activities.
<i>Launching</i>	The teacher started the class with some opening information or pre-requisite information for the activity he was going to begin.
<i>Reviewing</i>	The teacher went through what his students had done for homework he had assigned to them on previous day.
<i>Discussion</i>	Two kinds of discussion types were found: large group and small group. The teacher led the discussion in the large group, while the students led their own discussion in the small group.
<i>Reporting</i>	In a large group, the students reported what they had done and talked about during the small discussion under the teacher's guidance.
<i>Lecture</i>	The teacher delivered the information in the form of a lecture without asking responses from the students.

Table3-3 In-Depth Characteristics of Data (2)

Category	Functions
<b>Preparatory Initiation</b>	It preceded Initiations before the discussion or new activities started
<i>Introduction</i>	The teacher provided a brief guidance before the activity started.
<i>Information Delivery</i>	The teacher delivered a whole body of related information before getting into an activity (shorter than lecture)

Table 3-4 In-Depth Characteristics of Data (3)

Category	Functions
<b>Initiation</b>	The teacher took the form of questions when he initiated the conversation with his students. This usually was the beginning of a sequence of turns.
<i>Information Gathering</i>	Literally, this kind of initiation was for gathering and requesting the information from the students.
<i>Known-Answer Questions</i>	The questions to which the teacher already knew the answers.
<i>Demanding</i>	It was when the teacher requested his students to follow his directions and urged them to do what he wanted, like imperatives.
<i>Authentic Questions</i>	These questions were for asking students' original and personal ideas on certain topics. The teacher can't predict the answer.

Table 3-5 In-Depth Characteristics of Data (4)

Category	Functions
<b>Response</b>	The students responded to teacher's initiations
<i>Information-Back</i>	The students provided simple answers at the request of the teacher.
<i>Acceptance</i>	The students accepted what teacher said as follow-ups.
<i>Counter-Inquiry</i>	The students asked back when they needed to clarify confusions or wanted to get more information related to their tasks.

Table 3-6 In-Depth Characteristics of Data (5)

Category	Functions
<b>Evaluation</b>	The teacher sometimes provided judgments.
<i>Acknowledgement</i>	When the teacher agreed with the students' responses, he acknowledged them.
<i>Rejections</i>	When the teacher found a wrong answer and disagreed with it, he rejected students' responses.

Table 3-7 In-Depth Characteristics of Data (6)

Category	Functions
<b>Follow-up</b>	This is the kind of remark leading the students to another level by providing various kinds of feedback.
<i>Confirmation</i>	The teacher confirmed students' responses by reiterating (sometimes with a bit of additional information).
<i>Solicitation</i>	The teacher solicited more information after students' responses to go to further phases. Interestingly this follow-up also has categories the same as Initiations.
<i>Clarification</i>	When the students seemed to be confused with some concepts or the procedure of the activities and their tasks, the teacher gave them this follow-up.
<i>Extension</i>	This occurred when the teacher gave the students the information extended from the students' response.
<i>Reformation</i>	It was provided when the students needed direction or further information. The teacher fixed and reformed students' responses.
<i>Association/Connection</i>	The teacher also provided additional information related to his prior personal and cultural knowledge, getting cues from students' answers.

The other study is Patthey-Chavez's (2002) recent study also reviewed in chapter two. Her coding measurements for teacher and student discourse during participation in classroom activities were very helpful references for my data analysis. She categorized discourse data according to speech events and lesson type: teacher-fronted lesson, small-group skill lesson, discussion group, writing conference, and small group interview. The

focus of analysis was on the proportion of talk by the teacher and students. She explored the extent to which turn-length was associated with activity, noting that turn-length can and does vary dramatically. By measuring lexical and syntactic components of talk, she demonstrated whether or not a change in the proportion of student contributions could be associated with a change in the language. I adopted parts of her ideas and analyzed the lexical contents of students' contributions according to her comprehensive categories of lexical features. Her framework was appropriate for measuring the quality of students' utterances. Detailed information is provided in Table 3-8. Her analytic framework is significant in that it actually provided a way of documenting talk.

Table 3-8 Analytical Framework (2) Linguistic features of students' utterances

Based on the study of Patthey-Chavez (2002)

Filler words (Fw)	The list of filler words is composed of those expressions used to signal conversational involvement. The list was composed by looking through the transcripts and includes: uh, uh-huh, huh, uuh, um, umm, oh, ah, mhmm
Function words (Fw)	The list of function words contains modals, pronouns, frequently used prepositions, simple conjunctions, articles, and "yes" and "no": can, could, will, would, may, might, must, shall, should, ought, I, you, we, us, me, my, your, myself, yourself, yourselves, ourselves, our, he, she, they, his, her, hers, himself, herself, themselves, them, their, him, it, at, above, about, against, around, before, below, between, by, for, from, in, of, on, over, through, to, toward, towards, under, with, out, the, these, those, a, and, or, but, yes, no
Subordination (Sb)	A very rough count monitoring only occurrences of "because" and "if", the two most unambiguous subordinators.
Content words (Cw)	Words other than filler words, function words, and subordinations
Lexical density (LD)	Estimates for lexical density were derived by dividing the number of content words by the number of turns.

Based on the analytic scheme used in Patthey-Chavez's study (2002), I analyzed the contents of students' talk. First I counted how many words each sentence had and then counted again according to the characteristics of words. I categorized five kinds of word's functional characteristics: Filler words (Fiw), Function words (Fw), Content words (Cw), and Subordinations (Sb). Patthey-Chavez looked at each contribution of participants and analyzed it in terms of these linguistic features. However, I did not look at every detail of each category, instead, I focused more on the number of Content words to get Lexical Densities (LD) for measuring students' speaking proficiency.

#### Validity of Data Analysis

Two female English native speakers served as interraters by analyzing my data with the information on analysis schemes I provided. Each of them analyzed one-hour of total data respectively, two hours from the total of 15 hours (around 14% of the total data). Resulting analysis from one rater matched 90.45% of my analysis and that of the other rater marked 93.33%. Thus, interrater agreement reached a very respectable 91.38%.

#### Summary

This study was conducted in a classroom of an adult Intensive English Program at a university with one male teacher and eight students from four different countries. Data was collected over a seven-week period and analyzed using microethnographic methods such as observation, video- and audio-taping, field notes, and interview. The data collected from this study were analyzed using the frameworks developed and adopted from two existing studies investigating verbal interaction among participants during classroom activities.

## CHAPTER IV: FINDINGS

### Introduction

This chapter presents the findings to the two research questions with five sub-questions. The questions are restated here as follows.

Question:

1. What are the functional characteristics of patterns of interaction found in one IEP classroom?
  - a. What are the typical patterns of interaction found in an adult IEP classroom?
  - b. What functions do teacher contributions serve to facilitate students' contributions?
2. What are the characteristics of students' contributions?
  - a. What are their typical characteristics in terms of lexical density and mean length?
  - b. What functions do they serve in the interaction?
  - c. What changes and developments occur over time in students' participation?

First of all, before presenting the findings, I provide a brief description of the context in the classroom of this intermediate ESL course. Each finding is provided under the relevant research question. A summary paragraph is also provided at the end of this chapter.

### Course Overview

Based on my observation and on the teacher's comments, this intermediate reading course seemed to mainly focus on helping students to prepare for tests, such as TOEFL and GRE that are required to get into American colleges/universities or graduate schools, even though this was not stated in the syllabus. During the first half of the semester, the teacher repeatedly emphasized finding main ideas and topic sentences from the readings with lots of comprehension checks, directing the students to understand how to do it. During the second half of the semester—the major instructional focus was the movie, Dead Poet's Society (DPS), and the book chapters on which the movie was based—he continued to emphasize finding main ideas along with the comprehension checks of the movie. The teacher also employed this teaching strategy even when he introduced a couple of poems related to the movie.

Throughout the semester, the classroom members (the teacher and students) shared their opinions in a large group and in small groups, and sometimes the teacher delivered lectures. The class usually proceeded with a combination of these three types of activities, using four different learning materials: the text book, story books, a movie, and DPS-related poems. Comprehension checks and discussion on issues related to content in the large group accounted for a large portion of activities during the classes. The teacher started the classes by asking questions on what the students had read for their homework and led the discussion with the students as a large group. The teacher often divided the students into small groups for discussion of their own with given topics. After a small-group discussion, there was usually a large-group session where the students reported what they had talked about, answering the teacher's comprehension-check and True/False

questions. Overall, the large group discussion accounted for a much larger portion of classtime than did the small-group discussion (detailed information is given below). The teacher lectured from time to time, around once a week. The class met everyday from Monday to Friday, from June 10 to August 1, and lasted an hour.

Question:

1. What are the functional characteristics of patterns of interaction found in one IEP classroom?
  - a. What are the typical patterns of interaction found in an adult IEP classroom?
  - b. What functions do teacher contributions serve to facilitate students' contributions?

I organized the following sections in the order of Discourse Pattern, Episode, Initiation with Preparatory Initiation, Response, Evaluation, and Follow-up. Within each Episode, there are sequences of talk consisting of Initiation with Preparatory Initiation, Response, Evaluation, and Follow-up. After introducing the characteristics of discourse, related findings are arranged under each section heading of those sequence turns.

#### Characteristics of Discourse

#### Characteristics of Episodes

Interactions among participants were organized around five instructional Episodes: discussion, reporting, launching, reviewing, and lecturing. The teacher employed several combinations of these Episodes according to the topics and content he chose for the day. Table 4-1 illustrates the number of each episode over the seven weeks.

Table 4-1. Episodes (Large Group = LG, Small Group = SG)

Weeks	Discussion	Reporting	Launching	Reviewing	Lecture	Total
W 1	4 (4)	0	4	3	1	12
W 2	3	1	2	1	1	8
W 3	3 (3)	2	1	0	1	7
W 4	3 (2)	2	0	2	0	7
W 5	2	3	1	0	0	6
W 6	3	3	1	2	0	9
W 7	5 (3)	4	1	2	1	13
Total	23 (12)	15	10	10	4	62
%	37.10	24.19	16.13	16.13	6.45	100

( ) = the number of Large Group discussions: included in each week's total number

As seen in Table 4-1, *Discussion* was the most frequent form of activity, comprising 37% of the total number of episodes. Over half of the total discussion sessions were presided over by the teacher (Large Group: 52.17%, 12 out of 23 total discussions) and the rest was given to students for them to lead the discussion (Small Group: 47.83% of total discussions, 23-12=11 out of 23). For small-group discussion the teacher provided the topics they had to talk about. The teacher used large-group discussion after the students finished tasks given from the students in the small groups. Excerpt 4-1-1 and 4-1-2 are two examples of discussion.

#### Excerpt 4-1-1 Small Group Discussion

Maria:	What are the qualities of good teacher?
Yuna:	Umm... teacher must understand students' mind.
Maria:	Uh... (long pause)
Yuna:	And teacher has to have good teaching skill.
Maria:	Uh?
Yuna:	Teaching skill, teaching technique.

## Excerpt 4-1-2 Large Group Discussion

T:	It's a school badge, some kind of success in some class and some activity. Ok, do you have things like that? Yeah.
Maria:	T, how I can explain because, I want to explain because I think the boy when he talk to Perry. It's possible, if I say, it's right If I say he is passive?
T:	He is very passive. Yeah
Maria:	[passive]
T:	That's a very good word to use.
Ss:	Oh, (laugh)
T:	It's the opposite of active. It's not grammar. Although it is related to the idea.

Ss = Students

*Reporting* was used to confirm or check what the students had talked about during small discussions. It accounted for a large portion of the total episodes (24.19%). The teacher adopted the large group format after the students shared their opinions on given topics or finished tasks in small groups. The teacher revisited each specific question and sub-category under the topics and tasks given to the students, gathering and organizing what they came up with during the discussion as they were reporting them. Excerpt 4-2 is an example from a Reporting.

## Excerpt 4-2 Reporting

T:	#4 How did Charlie and Knox react to Mr. P's request and attitude. Yuna, what did you put for that one, #4?
Yuna:	Um..
Hoon:	React.
Yuna:	They couldn't understand Mr. P's request and attitude so, they asked Neil just question, why doesn't he ever let you do one what you want, just question.

The third Episode characterizing the interaction was *Launching*. Launching was used to initiate a certain activity with new tasks. The teacher usually *Launched* the class by providing, at length, the pre-requisite information the students needed to carry on their class tasks. He did so by reminding them of the content they had covered in the previous class, and sometimes by checking whether they understood what they had to do. Launching accounted for 16.3% of the total number of episodes. He also gave the students directions and guidance. Excerpt 4-3 provides an example of Launching.

#### Excerpt 4-3 Launching

T:	We gonna start that today, some people have seen movie, have you ever seen the movie, “Dead Poet Society”?
Yuna:	Yeah
T:	You have, ok.
T:	(finding another student) You have also... ok, you have a little bit of an advantage cause you know the story more or less already. Ummm... and the book that we are using follows the movie very closely. So that’s good. The addition to the book is... the book has all the descriptions of everything that you don’t find in the text. For example I found this script, the screen play, the script off the Internet you can find that too. I may even ask you to do that at some point. The English is pretty basic because it is a conversation. So this part is very understandable to read. I thought about, thought about using this instead of the novel.

*Reviewing* was an Episode for going over the homework the teacher had assigned to the students on the previous day, or quizzes. The teacher reviewed them with the students. Reviewing accounted for 16.13% of the episodes. Overall interaction features during reviewing were simple with short responses from students since this session mainly focused on checks for homework and quizzes without any significant further discussion. Excerpt 4-4 is an example of Reviewing.

## Excerpt 4-4 Reviewing

T:	Ok, how is chapter 5* so far?
Jiwon:	little bit
T:	difficult?
Joyce:	I didn't understand chapter 5.
Jiwon:	Because girls' names
Sujin:	Some confusion
T:	For new people, what else was confusing?
Jiwon:	Virginia, peoples' names
T:	ok, people's name, there were some new characters and new people. Two girls. Ok, who are these girls?
Ss:	Chris and Jinny (not at the same time though).

Ss = Students \*chapter 5 was the assigned reading for homework

The least frequent form of activity was *Lecturing*, accounting for only 6.45% of the total episodes. In this activity, the teacher delivered information in the form of a lecture without soliciting any response from the students. There were lots of occasions of small lectures in the middle of large group discussions, reporting, and launching. In other words, the teacher frequently gave long follow-ups to the students' response.

### Characteristics of Discourse Patterns

This section is about the kinds of overall discourse patterns that were found within each episode. Almost all the interactions between the teacher and the students, whether they were simple or complicated, were characterized by one main pattern, the IRF. A variation of the IRE was also found but the frequency was much less. The teacher typically initiated the interaction, the students responded to his initiation, and the teacher

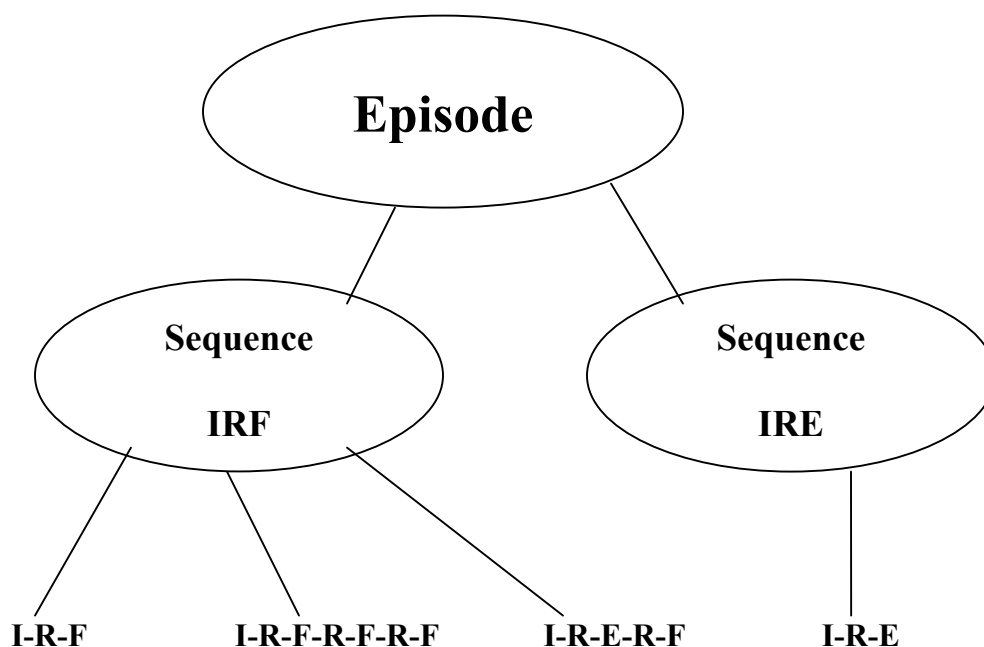
made a follow-up remark such as further questions. On occasion he provided an evaluation instead.

Table 4-2. Basic Numbers

N of Episodes	N of Sequences	N of IRE	N of IRF
62	562	34 6.05%	528 93.95%

As can be seen in Table 4-2, there were a total of 62 episodes (e.g. discussion, reporting, launching, reviewing, lecturing) that were categorized according to their themes found in the entire 15 hour-corpus of talk. The teacher and the students participated in 562 sequences of on-task interactions. Overall, IRF sequences dominated almost 94% of the whole interaction. Figure 4-1 is a diagram of patterns and examples of sequences.

Figure 4-1. Discourse Patterns



Four variations of IRF sequence were found. They were I-R-F-R-F-R-F, I-R-F, I-R-E-R-F, and I-R-F. Specific examples are provided in the next section. Table 4-3 summarizes the number of different sequences described below.

Table 4-3. The Number of Each Sequence Variations

IRF	IRFRFRF	IRERF	IRE	Total
34 (6.05%)	410 (72.9%)	84 (14.9%)	34 (6.05%)	562

Excerpt 4-5. I-R-F

	Transcription	Episode	Sequence
1. T	True. Todd was reluctant to join the group because he didn't like to miss sleep.	E60	F S522/I
2. Ss	False.		S522/R
3. T	The first part is true. He was reluctant but it had nothing to do with sleep. So, it's false.		S522/F

(T = Teacher; Ss = Students)

The first variation is a simple root form of IRF. As can be seen in Excerpt 4-5, the teacher initiates a test question (#1) and the students responded (#2) with the answer. A follow-up turn with elaborated feedback (#3) came after the students' response, finishing a comprehension check. The number of sequences found in the corpus with this pattern is not great, only 6.05% (Table 4-1)

## Excerpt 4-6. I-R-F-R-F-R-F

	Transcription	Episode	Sequence
4. T	Uh...Kenji? What about the first paragraph. Is there a topic sentence? Is there one sentence that seems to clearly state the topic?	E3	S13/I
5. Kenji	Uhhh...that depends on where in world you are.	E3	S13/R
6. T	Ok. So, you... this is the...the main idea. The topic sentence	E3	S13/F
7. Kenji	I think	E3	S13/R
8. T	Ok. Um...Maria and Joyce? Do you agree?	E3	S13/F
9. Maria	Yes, I agree.	E3	S13/R
10. T	Ok, Joyce?	E3	S13/F
11. Joyce	And I will agree.	E3	S13/R
12. T	Ok. And you're pretty much right. The only thing is...what is "that." You kind of have to go back to the first sentence to understand what "that" is. Which is... "What kissing is good for." That's what "that" represents in a way, it combines 2 sentences but that second sentence really tells you...	E3	S13/F
13. Kenji	Ok.	E3	S13/R

(T: Teacher)

In this second variation I-R-F-R-F-R-F, Excerpt 4-6, in addition to a root IRF sequence, the students gave responses (#7, 9, 11) even after the teacher's follow-ups. The teacher did follow-up (#8, 10, 12) each student's response with more information in order to lead the students to a further stage. The sequence above was finished when a student, Kenji agreed with what the teacher said. This variation is the most frequent one (410; 72.9%)

## Excerpt 4-7. I-R-E-R-F

	Transcription	Episode	Sequence
14. T	Why does it means?	E15	S137/I
15. Sujin	Wh..why is it means hurry up?	E15	S137/R
16. T	OK, there you go she's got it. Hurry up	E15	S137/E
17. Sujin	Why, why, why?	E15	S137/R
18. T	Why, why does this mean..I don't know. Why does (whistling) mean whistle and why does whit~(whistling) mean "come here dog" It's all arbitrary. Someone assigned that movement and that sound to certain meanings but yeah that does mean hurry up, all right? (pause) that's the most typical meaning.	E15	S137/F

The third variation of the sequence IRF, I-R-E-R-F is a kind of combination of follow-ups and evaluations with an initiation and responses. As can be seen in Excerpt 4-7, Even though the teacher evaluated a student's remark (#16), the student responded with questions (#17). Then, the teacher provided another follow-up (#18). Since this variation ended with follow-up, this variation is categorized under the IRF sequence. This variation accounts for the second largest portion of the total number of sequences (84: 14.9%)

## Excerpt 4-8. I-R-E

	Transcription	Episode	Sequence
19. T	An Ivy, and what is the Ivy by the way? I-V-Y (pause) Is it animal, vegetable, and minneral?	E42	S351/I
20. Jiwon	Vegetable.		S351/R
21. T	Vegetable. Very good, it's a plant, vine. That's Ivy League.		S351/E

This is one of two types of Sequences, IRE. As can be seen in Excerpt 4-8, the teacher questioned (#19), a student answered (#20), and the teacher evaluated the student's opinion (#21). This sequence only accounted for around 6% of the total number of sequences (Table 4-3).

### Characteristics of Initiations

This section explains the kinds of initiations that were found under each discourse pattern included in each Episode. Four kinds of initiation features were found over the whole corpus of data. Most frequently the teacher addressed the whole class but from time to time he singled out individual students to get them into the discussion. The teacher usually used questions to initiate interaction. There were four kinds of initiations found, *Information-Gathering Question*, *Known-Answer Question*, *Demanding*, *Authentic Question*.

Table 4-4. The Number of Initiations

	W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total	Category %
Info-G	76	33	28	21	43	54	117	372	59.52
K-Ans	15	19	18	18	19	21	18	128	20.48
Dem.	13	2	16	13	1	4	15	64	10.24
Authen.	8	5	7	7	9	9	16	61	9.76
Weekly	112	59	69	59	72	88	166	625	
%	17.92	9.44	11.04	9.44	11.52	14.08	26.56	100	

Table 4-4 provides figures that show weekly proportions of Initiations by each category. A total of 625 Initiations were provided by the teacher. As can be seen, the number of Information-Gathering Questions is significantly larger in the first week and in

the last week. Authentic questions were more used in later weeks. Overall, more initiations were found in the first and last weeks.

Excerpt 4-9, 4-10, 4-11, and 4-12 contain specific examples of the four kinds of initiations.

Excerpt 4-9. Initiations 1: Information-Gathering Questions (Info-G)

	Transcription	Episode	Sequence	Charact.
22. T	<b>Maria, do you have questions?</b>	E27	S256/I	<b>Info-G</b>
23. Maria	Yes, yes, I don't know if it's correct that sentence; I learned from the story what the people can do at a moment not thinking of consequences.	E27	S256/R	
24. T	(after reading quickly). I learned from this story THAT~	E27	S256/F	

*Information Gathering* (Info-G.) accounted for over a half of the total initiations (59.52%). Information-Gathering was used by the teacher to ask for simple information, to review homework, and to receive reports from the students on what they discussed during the small group activities. Excerpt 4-9 shows an example of an Information-Gathering Question (#22).

Excerpt 4-10. Initiations 2: Known-Answer Question (K-Ans)

	Transcription	Episode	Sequence	Charact.
25. T	<b>What do you do with your nose? What are some things you can do with your nose?</b>	E11	S80/I	<b>K-Ans</b>
26. Hoon	(Whispering)...smell	E11	S80/R	
27. T	You can smell...as it says here um...the word for kiss means smell. You can smell. Ok. So what does sniff mean?	E11	S80/F	

Excerpt 4-10 indicates that *Known-Answer questions* (K-Ans.) accounted for the second largest portion of total initiations (20.48%). This type of initiation is characterized by the nature of its questions. The teacher asked students questions about what he already knew in an effort to elicit more talk from the students (#25).

Excerpt 4-11. Initiations 3: Demanding (Dem)

	Transcription	Episode	Sequence	Charact.
28. T	Sounds pretty good one. That's how I remember that chapter. <b>Kenji, will you share yours?</b>	E50	S433/F S434/I	<b>Dem</b>
29. Kenji	Students have a PE class.....		S434/R	

*Demanding* (Dem.) initiations accounted for 10.24% of the total number of Initiations as indicated in Excerpt 4-11. These were characterized by their function of strongly requesting rather than merely asking information. This form of initiation was used by the teacher to request that the students do something (#28).

Excerpt 4-12. Initiations 4: Authentic Questions (Authen.)

	Transcription	Episode	Sequence	Charact.
30. T	What would you do if you were Knox in this situation? What would you do? You are in love with a girl who has a boyfriend. And the boyfriend is a son of your family's good friend. S? <b>What would you do?</b>	E53	S470/I	<b>Authen.</b>
31. Sujin	(laugh quietly)	E53	S470/R	
32. T	Nothing, you would do nothing, you would be passive, like Neil complaining to his father.	E53	S470/F	

The category, with the lowest number of Initiations was *Authentic Questions* (9.76%). Authentic Questions were a type of question used for eliciting genuine independent responses from the students. As indicated in excerpt 4-12 above, the teacher used them to ask students their personal opinions on a situation in the movie.

#### Characteristics of Preparatory-Initiation

There was a turn existing before the teacher's initiation which I call *Preparatory-Initiation* (Pre-I), even though the turn did not always precede initiations. This pattern appeared in two types, *Introduction* and *Information Delivery*. Table 4-5 below indicates the frequency of these patterns over the seven weeks. It indicates more Pre-Initiations in the first week of this course. This is possibly because the teacher needed to provide the students with more background knowledge since they were in the early stage of the course. Excerpt 4-13 and 4-14 explain these two types of Preparatory-Initiations.

As shown in the two Excerpts, below, the teacher made *Preparatory-Initiation* remarks before they started a discussion or got into a new activity. In the first example the teacher gave students some directions in starting a discussion, *Introduction* (#33); and in the second one the teacher delivered a whole body of information related to the chapters of a book based on the movie they were going to read, *Information-Delivery* (#37).

Table 4-5. The Number of Pre-Is

Week/ Catego.	W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total %
Introduction	22	7	6	6	4	4	6	55 67.9
Information-Delivery	9	3	1	4	4	0	5	26 32.1
Weekly %	31 38.27	10 12.35	7 8.64	10 12.35	8 9.88	4 4.94	11 13.58	81 100

Excerpt 4-13. Pre-I (1): Introduction (Intro)

	Transcription	Episode	Sequence
33. T	<b>We have 3 section A's, today (chuckles) And who has section B? One B. And section well at least we have all represented. Um...Ok... well let's look at section A first. Guys you, uh, you're going to share this information. Please remind the class what section A is about. Ok? And you can use your own words or if you feel that there is a sentence here that you want to use, you can use that.</b>	E3	S11  <i>Pre-I</i>
34. T	Joyce? What about section A? What's it about?	E3	S11/I
35. Joyce	Mmm... it talks about the different forms In different wor, in different parts of world...how they...say...the...the kiss... or what the kiss means in different world.	E3	S11/R
36. T	Ok	E3	S11/F

## Excerpt 4-14. Pre-I (2): Information Delivery (Info-D)

	Transcription	Episode	Sequence
37. T	<b>.....You've seen it, yeah. John Kitting is an English teacher. And he is not a typical English teacher. And at the first week of impression is it is a very good English teacher. Everybody would be going to have a teacher like this. But it's not so simple. Sometimes, by the end of the book, by the end of the movie...your mind maybe change.....</b>	E36	S359/ <i>Pre-I</i>
38. T:	(group assignment)...let's take about 5-8 minutes. Just quickly go through..		S359/I

Characteristics of Responses

This section provides information on student responses. They are divided into three categories: *Information Back* (Info-B.), *Acceptance* (Acpt.), and *Counter-Inquiry* (C-Inq.).

Table 4-6. The Number of Responses

Week Catego.	W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total %
Information-Back	169	115	125	97	174	164	334	1,206 82.71
Acceptance	58	19	11	10	16	10	5	129 8.85
Counter-Inquiry	19	15	15	17	17	20	20	123 8.44
Weekly %	246 16.87	149 10.22	151 10.36	124 8.50	207 13.31	194 13.56	359 24.62	1,458 100

Table 4-6 above gives specific figures for each week and each category. As can be seen, the first and last weeks have many more responses than the other weeks.

## Excerpt 4-15. Responses 1: Information Back (Info-B)

	Transcription	Episode	Sequence	*Charact.
39. T	Is that an advantage? Concentrated, is it an advantage?	E43	S354/I	
40. Jiwon	<b>Yeah. Concentrated is advantage.</b>		S354/R	<b><i>Info-B</i></b>
41. T	You mean people or material concentrated?		S354/F	
42. Maria	<b>It's like a don't have a lot of... I think they do that or school.</b>		S354/R	<b><i>Info-B</i></b>

\* Characteristics

The function of *Information-Back* responses was to provide simple information requested by the teacher. They came after the teacher's initiations and follow-ups as well. This type of student response comprised more than three fourths of the total number of responses (82.71%). Excerpt 4-15 contains examples of Information-Back that can be seen in #40 and 42. The teacher wants to clarify (#39, 41) what the students meant in their previous remarks, and Jiwon and Maria provided the information he wanted (#40, 42).

## Excerpt 4-16. Responses 2: Acceptance (Acpt.)

	Transcription	Episode	Sequence	Charact.
43. T	It's the year before the year that is currently taking place 1959, so 1958. Your answer is right.	E41	S342/F	
44. Sujin	<b>Ah~ ok. (saying in Korean but unrecognizable)</b>	E41	S342/R	<b><i>Acpt.</i></b>

When the teacher clarified students' confusion with some supplementary information (#43), the students tended to respond with acceptance of his follow-ups (#44). This kind of response was the second most frequent one (8.85%). Most instances of Acceptance were found during the first week according to Table 4-6.

Excerpt 4-17. Responses 3: Counter-Inquiry (C-Inq.)

	Transcription	Episode	Sequence	Charact.
45. T	Number 4. OK. Read that one to us.	E13	S115/I	
46. Joyce	..... ahoo, <b>how you pronounce?</b>	E13	S115/R	<b><i>Con-Inq</i></b>
47. T	Adventure.	E13	S115/F	
48. Joyce	<b>Adventure.....atems?</b> (Attempts)	E13	S115/R	<b><i>Con-Inq</i></b>

When they needed to clarify confusions or wanted to get more information related to their tasks, the students sometimes responded with Counter-Inquiry (#46, 48), in other words, asking-back, but the frequency was not that high (8.44%).

According to Table 4-6, as mentioned above, the number of Acceptances was much higher during the first week, but the number of Counter-Inquiries was fairly evenly distributed over all seven weeks. The ratio difference between Acceptance and Counter-Inquiries got bigger as time went by. Except for the first week, the students tended to use inquiries rather than accepting what the teacher said.

#### Characteristics of Evaluation

Overall, there were not many teacher's Evaluation remarks. They are divided into two categories: *Acknowledgement* (Ack.) and *Rejection* (Rejt.).

Table 4-7. The Number of Evaluations

Week Catego.	W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total %
Ack.	34	15	12	11	20	10	13	115
Rejt.	1	0	0	0	0	0	0	1
Weekly %	35	15	12	11	20	10	13	116
	30.17	12.93	10.35	9.48	17.24	8.62	11.21	100

According to Table 4-7, only one Rejection was found over the entire data. In other words, the teacher almost never gave his students any negative feedback. Evaluations showed up more during the first week (30.17%). Detailed information and examples are as follows:

Excerpt 4-18. Evaluations 1: Acknowledgements (Ack.)

	Transcription	Episode	Sequence	Charact.
49. T	Waste basket. Ok, Who drove Knox to the D's house Kenji?	E52	S470/I	
50. Kenji	Dr. H.	E52	S470/R	
51. T	<b>Good.</b> By what time he and Knox are supposed to be back at Welton, Joyce?	E52	S470/E S471/I	<i>Ack</i>

Excerpt 4-18 shows that when the teacher agreed with the students' response, he gave the students Acknowledgements (#51). The percentage of Acknowledgement was 99.14%. It means that the teacher almost always provided positive evaluations.

Excerpt 4-19. Evaluations 2: Rejections (Rejt.)

	Transcription	Episode	Sequence	Charact.
52. T	How many cultures?	E9	S58/I	
53. Ss	(Responds but inaudible)	E9	S58/R	
54. T	<b>No.</b> Here's one...the Enu people and what they do....	E9	S58/E S58/F	<i>Rejt.</i>

(Ss = Students)

Excerpt 4-19 is the only instance of the teacher (#54), rejecting a students' response (#53).

### Characteristic of Follow-ups

The teacher's follow-ups came in a wide variety of categories. The six categories of follow-ups, *Confirmation*, *Solicitation*, *Clarification*, *Extension*, *Reformation*, and *Association/Connection*, led the students to further phases of the discussion, providing them with supplementary feedback. When the students responded with some kind of information the teacher confirmed their response by reiterating what they said, solicited more information, clarified any concepts they found confusing, extended their limits with further knowledge, reformed what they said when it took a wrong direction, and associated their response with his personal or cultural knowledge. Detailed information is given in the Table 8 below.

Table 4-8. The Number of Follow-ups

	W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total %
Confirmation	63	40	54	44	53	64	114	432 37.11
Solicitation	39	32	35	19	37	28	56	246 21.13
Clarification	38	41	22	27	34	39	37	238 20.45
Extension	24	19	23	18	37	26	25	172 14.78
Reformation	8	5	8	8	6	4	6	45 3.87
Association/ Connection	9	4	5	2	6	2	3	31 2.66
Weekly %	181 15.55	141 12.11	147 12.63	118 10.14	173 14.86	163 14	241 20.7	1,164 100

As can be seen in Table 4-8, more follow-up turns were found in the first and last weeks. Excerpt 4-16, 4-17, 4-18, 4-19, 4-20, and 4-21 show examples of six follow-ups, respectively.

## Excerpt 4-20. Follow-ups 1: Confirmation (Confirm.)

	Transcription	Episode	Sequence	Charact.
55. T	Who does this more probably children or adult? ( <i>about sticking out tongue</i> )	E15	S136/I	
56. Ss	Children	E15	S136/R	
57. T	<b>Children do it seriously, adults do it as a joke usually. For adults, adults do it, too, but it's usually humorous. You do it to your friends.</b>	E15	S136/F	<b>Confirm</b>
58. Kenji	Humm...	E15	S136/R	

Excerpt 4-20 is an example of *Confirmation* taking over one third of total follow-ups (37.11%). It was used to confirm and support the students' answers. The teacher provided this form of follow-up when the students answer with certain information (#56) by reiterating their answer with a little bit of additional information (#57). This feature was used more when there were reviewing and reporting sessions consisted of true & false questions and simple comprehension checks.

## Excerpt 4-21. Follow-ups 2: Solicitation (Solicit.)

	Transcription	Episode	Sequence	Charact.
59. T	Is that an advantage? Concentrated, is it an advantage?	E43	S354/I	
60. Jiwon	Yeah. Concentrated is advantage.	E43	S354/R	
61. T	<b>You mean people or material concentrated?</b>	E43	S354/F	<b>Solicit</b>
62. Maria	It's like a don't have a lot of... I think they do that or school.	E43	S354/R	
63. T	Oh, concentration.	E43	S354/F	

The second category of Follow-ups, *Solicitation*, accounted for the second largest portion (21.13%). As shown in Excerpt 4-21, the teacher solicited more information

(#61) after Jiwon answered his question (#60). Since it took a form of questions, those questions for solicitation were also divided into their own categories. These categories followed those of initiations. Excerpt 4-21-1, 4-21-2, 4-21-3, and 4-21-4 are examples.

Excerpt 4-21-1 Solicitation 1 (Information-Gathering)

	Transcription	Episode	Sequence	Charact.
64. T	No. Ok. J? Why not K? Too dangerous?	E61	E S555/I	
65. Kenji	And I think it's not interesting.		S555/R	
<b>66. T</b>	<b>Boring?</b>		<b>S555/F</b>	<b>Solicit (info-G)</b>
67. K	yeah		S555/R	

Excerpt 4-21-2 Solicitation 2 (Known-Answer Questions)

	Transcription	Episode	Sequence	Charact.
68. T	Ok, he seemed to be a little bit reluctant, hesitated. What about Pitts? Was Pitt hesitaing or ready to join?	E61	S538/F S539/I	
69. Hoon	Ready to join.		S539/R	
70. Yuna	[ready to join]		S539/R	
<b>71. T</b>	<b>Ready to join? Who had a problem with grades? Who has some, who was struggling to keep his grades up?</b>		<b>S539/F</b>	<b>Solicit (K-Ans)</b>
72. Hoon	Pitts.		S539/R	

Excerpt 4-21-3 Solicitation 3 (Authentic Questions)

	Transcription	Episode	Sequence	Charact.
73. T	O.K. What do you think? Do you agree with her?	E13	S110/I	
74. Ss	Yeah, I agree		S110/R	
<b>75. T</b>	<b>What do you like about this sentence? Why does this sentence tell you the topic and what you are saying about the topic, the point about topic? Why do you think this one is the topic sentence?</b>		<b>S110/F</b>	<b>Solicit (Authen)</b>

## Excerpt 4-21-4 Solicitation 4 (Demanding)

	Transcription	Episode	Sequence	Charact.
76. T	Ok. Um...Holly, what did you choose?	E21	S193/I	
77. Jiwon	B.		S193/R	
<b>78. T</b>	<b>B. Read it to us.</b>		<b>S193/F</b>	<b>Solicit (Dem)</b>

As can be seen in Tables above, after students' responses, the teacher asked another question to elicit more information (#66), to encourage more student participations (#71), to get their original opinions (#75), and to have them follow his instruction (#78). Table 4-9 below indicates the distribution of Solicitations over the seven weeks.

Table 4-9. Solicitations

	W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total %
Information-Gathering Q	36	16	26	14	25	16	37	170
Known-Answer Q.	3	10	6	5	12	11	15	62
Demanding	0	0	2	0	1	0	1	25
Authentic Question	0	4	1	0	1	1	5	4
Weekly %	39	30	35	19	38	17	58	248
	15.73	12.1	14.11	7.66	15.32	6.86	23.39	100

According to Table 4-9, like the results of Initiations, Information-Gathering also comprised the largest portion of Solicitations. Known-Answer Questions took the next place with significant numbers. It was hard to find the Demanding Initiation form of Solicitation.

## Excerpt 4-22. Follow-ups 3: Clarification (Clarif.)

	Transcription	Episode	Sequence	Charact.
79. T	So...let's see...um...Hoon, would you do the first one? Part 2 subtitle, part 2 summary. And just come on up, um.	E32	S268/I	
80. Hoon	What's the subtitle?	E32	S268/R	
81. T	<b>The subtitle um...and..as it...I hope it explained it. The subtitle is... alright, there's a main title. Which...what was the main title of this article?</b>	E32	S268/F	<b>Clarif.</b>

Excerpt 4-22 provides an example of *Clarification*. The teacher clarified students' confusions or answer to the questions. It is another category accounting for nearly twenty percent of the total follow-ups (20.45%). It took the third highest rank among follow-ups. The number of solicitations and clarifications appeared relatively consistent over the seven weeks.

## Excerpt 4-23. Follow-ups 4: Extension (Extens)

	Transcription	Episode	Sequence	Charact.
82. T:	Does every paragraph always have a topic sentence? Hang on...let me... first, before we... let's make a little detour here. Does every paragraph have a topic sentence, always? Is there always a topic sentence in every paragraph?	E21	S189/I	
83. Sujin	No.	E21	S189/R	
84. Jiwon	No.			
85. T	<b>No. There isn't. In academic writing um, perhaps you will, you will find them more often. But in a lot, but you MAY NOT find them. It may not be there. Uh, it may be implied or it may not even be implied. (chuckles) Especially in, in fiction. (some student repeats the word "fiction" to pronounce it)</b>	E21	S189/F	<b>Extens</b>

As can be seen in Excerpt 4-23, *Extension*, provided when the teacher wanted to add more information based on students' responses, took the fourth place among follow-ups, not enough to be significant, but hard to disregard (14.78%). In Excerpt 4-23, the teacher extended Jiwon's answer with much more related information (#85).

Excerpt 4-24. Follow-ups 5: Reformation (Reform)

86. T	One moment. Stop. Did you put any pauses in there, Joyce?		S204/I	
87. Joyce	No.	E21	S204/R	
88. T	No.		S204/F	
89. Joyce	I continue.		S204/R	
90. T	<b>Ok. So, she, you would read that all together. Cats are also quieter than dogs. That's a pretty short sentence, you could do that.</b>		S204/F	<b>Reform</b>

Excerpt 24 shows an example of *Reformation*. It was used as a way of positive recast: when the students failed to follow teacher's instruction or provided wrong answers, the teacher reformed their answers in a way of correction without saying "no."

*Reformation* was relatively evenly scattered over the whole corpus of data (3.87%).

Excerpt 4-25. Follow-ups 6: Association and Connection (As/Con)

	Transcription	Episode	Sequen.	Charact.
91. T	Among private schools, in the past it was more common to have same sex school.	E36	S358/F	
92. Maria	(inaudible murmuring: agreement expression)	E36	S358/R	
93. T	<b>Now it's not common at all. However, in the news sometimes we hear that people are saying "oh we have a serious problem with American education. What could be the solution? Uniforms again? ...go back to same sex school When I was in a high school, kids went to private school because they flunked...they flunked out.... In another words, they failed in a public school.....</b>	E36	S358/F	<b>As/Con</b>

From time to time the teacher also provided additional information related to his prior personal and cultural knowledge, *Association/Connection*. This smallest category accounted for 2.66% of total follow-ups.

### Summary

In the 62 Episodes with five characteristics, *Discussion, Reporting, Launching, Reviewing, and Lecturing*, 562 sequences (of discourse pattern) were found. IRF accounted for about 94% and IRE accounted for only 6%. Each turn was categorized according to its function during the interaction. Initiation was categorized under four characteristics, *Information-Gathering Questions, Known-Answer Questions, Demanding, and Authentic Questions*. In addition, there was another occasionally existing turn, Preparatory Initiation: it functioned as pre-requisite before a certain conversation started. Responses from the students also took several characteristics, *Information-Back, Acceptance, and Counter-Inquiry*. Even though overall dominant pattern is IRF, we still could find some IREs. In IRE sequences, the teacher provided two kinds of Evaluations, Acknowledgement or Rejection. Follow-ups for the students had the most various categories, *Confirmation, Solicitation, Clarification, Extension, Reformation, and Association/Connection*. In addition, another category was found. A turn preceded Initiation, providing pre-requisite information before beginning a new activity, *Preparatory Initiation*. This turn was categorized in two characteristics, *Introduction and Information-Delivery*.

Question:

2. What are the characteristics of students' contributions?
  - a. What are their typical characteristics in terms of lexical density and mean length?
  - b. What functions do they serve in the interaction?
  - c. What changes and developments occur over time in students' participation?

#### Students' Utterances Corresponding to Teacher's Utterances

The following sections discuss the number and characteristics of students utterances corresponding to teacher's utterances. They are organized in the order of Initiation, Evaluation, and Follow-up. To find out the specific number of students' responses elicited by the teacher's utterances, Initiations, Evaluations, and Follow-ups, I counted them corresponding to each of the teacher's turns, and calculated how many times the students responded to them by percentage. The number of responses per each type of teacher's utterance was counted and the students' utterances were analyzed according to the categorization of lexical features they used, Filler words (Fw), Function words (Fw), Content words (Cw), or Subordinate words (Sb), along with the number of words in the students' and the teacher's utterances. .

#### Students' Responses to Initiations

Table 4-10 includes the information on the percentage of responses to teacher's Initiations over the seven weeks. For example, in the first week students responded to 72 out of the teacher's 76 Information-Gathering Questions. The number of students'

responses accounted for 94.74% of total teacher's number of Information-Gathering Questions.

Table 4-10. The Number of Turns (Rs to Initiations) (Rs = Response)

T Ss Ss/T	W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total
Info-G	76	33	28	21	43	54	117	372
Respon.	72	29	24	26	39	48	85	323
%	94.74	87.88	85.71	123.8	90.70	88.89	72.65	86.83
K-Ans	15	19	18	18	19	21	18	128
Respon.	14	22	18	20	21	33	21	149
%	93.33	115.79	100	111.11	110.53	157.14	116.67	116.41
Authen.	8	5	7	7	9	9	16	61
Respon.	6	3	7	7	5	10	15	53
%	75	60	100	100	55.56	111.11	93.75	86.89
Dem.	13	2	16	13	1	4	15	64
Respon.	11	1	11	12	1	2	16	54
%	84.62	50	68.75	92.31	100	50	106.67	84.38
Weekly	112	59	69	59	72	88	166	<b>625</b>
Total	103	55	60	65	66	93	137	<b>579</b>
%	91.96	93.22	86.96	110.17	91.67	105.68	82.53	<b>92.64</b>

As can be seen in Table 4-10, overall, students responded to almost all the teacher's initiations (92.64%). Among the four categories of initiations, Known-Answer Questions elicited the most responses from the students, even beyond the number of the teacher's initiations of this category (116.11%): this means that some of teacher's questions in this category got more than one answer. The second most frequent category was responses to Authentic Questions (86.89%). Information-Gathering Questions, accounting for the largest portion of Initiations, elicited as many student responses as Authentic Questions (86.83%). The number of responses to Demanding Initiation

accounted for the lowest percentage, but not much different from the previous two categories (84.38%)

Table 4-11. LD and SswM of Responses to Each Initiation<sup>13</sup>

	Responses to Information-Gathering Q.	Responses to Known-Answer Question	Responses to Demanding	Responses to Authentic Question	Total
LD	1.55	1.28	2.76	2.55	<b>1.6</b>
SswM	3.23	2.76	6.37	4.7	<b>3.51</b>

(LD: Lexical Density<sup>14</sup>, Ssw M: Mean of Students Words)

Table 4-12 LD and SswM of Responses to Initiations (Weekly)<sup>15</sup>

	W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total
LD	2.36	1.49	1.92	1.77	0.99	1.95	1.88	<b>1.6</b>
SswM	5.04	2.91	4.75	3.63	2.33	4.08	2.17	<b>3.51</b>

(LD: Lexical Density, Ssw M: Mean of Students Words)

Table 4-11 shows detailed information on the lexical elements of which the students' utterances were composed. The number of the words in the teacher's utterances is included in Appendix 1 (Tw: Teacher's word).

Not surprisingly, according to Appendix 1, compared to the number of the students' words in each category, the teacher spoke much more than the students. Even though there was little evidence indicating any patterned change of word number (Table

<sup>13</sup> Refer to Appendix 1 for more information

<sup>14</sup> Estimates for lexical density were derived by dividing the number of content words by the number of turns.

<sup>15</sup> Refer to Appendix 1

4-12) in a turn over the seven weeks, an obvious difference was found in the number of words according to each Initiation feature. The mean number of words was higher among responses coming after Demandings (6.37) and Authentic Questions (4.7) than in the other two categories (Information-Gathering: 3.23; Known-Answer: 2.76). And they are also higher in terms of Lexical Density (LD) (2.76, 2.55 respectively).

#### Students' Response to Evaluations

Table 4-13. The Numbers of Turns (Rs to Evaluations).

Ss/T	W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total %
Acknowledgement	34	15	12	11	20	10	13	115
Response	7	10	6	4	9	8	7	51
%	20.59	67	50	36.36	45	80	53.85	44.35
Rejection	1	0	0	0	0	0	0	1
Response	0	0	0	0	0	0	0	0
Weekly Total	35	15	12	11	20	10	13	<b>116</b>
	7	10	6	4	9	8	7	<b>51</b>
%	20	67	50	36.36	45	80	53.85	<b>43.97</b>

According to the Table 4-13, since Evaluations by the teacher in this data were used almost only as acknowledgements of students' responses to his initiations, not many further responses were made by the students. Compared to the percentage of responses to Initiations (92.64%), that of responses to Evaluations showed low numbers (43.97%). Especially, it hit the lowest point during the first week (20%). Except for the first and fourth week, a relatively consistent number of responses was found. However, larger portions of responses were found during later weeks.

Table 4-14. LD and SswM of Each Evaluation<sup>16</sup>

	Responses to Acknowledgement	Responses to Rejection	Total
LD	1.31	N/A	<b>1.31</b>
SswM	3.39	N/A	<b>3.39</b>

(LD: Lexical Density, Ssw M: Mean of Students Words)

Table 4-15 LD and Ssw of Evaluations (Weekly)<sup>17</sup>

	W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total
LD	2.14	0.9	0.67	2	1	1.25	1.71	<b>1.31</b>
SswM	4.29	2.5	2.83	5.5	2.33	2.88	5	<b>3.39</b>

(LD: Lexical Density, Ssw M: Mean of Students Words)

Based on the information included in Table 4-14 and 4-15 above, the mean number of students' words in Responses to Evaluations (3.39) was not much different from that in Initiations (3.51). And it was also hard to find the evidence of any particular patterned change over the seven weeks. One similarity to the Initiation cases is that the fifth week showed the lowest figures indicating the length of utterance (2.33) and LD (1, the second lowest). During the second and third weeks, the students responded with less than even one content word (0.9, 0.67 respectively) and the number of words in the students' utterances during those weeks was the second lowest and third lowest (2.5, 2.83 respectively). The responses of the first week showed the highest LD (2.14) and the third highest mean number of students' words (SswM). The average LD and SswM of students' Response to teacher's Evaluations is a little bit lower than those to teacher's Initiations. Over the data, Evaluation itself was not very visible because of its scarcity

<sup>16</sup> Refer to Appendix 2

<sup>17</sup> Refer to Appendix 2

and because this feature appeared in the middle of discussion transition and in the last finishing stage. So, students' number of Responses to Evaluations was also relatively scarce.

### Students' Response to Follow-ups

Table 4-16. The Number of Turns (Rs to Follow-ups)

Ss/T	W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total %
Confirmation	63	40	54	44	53	64	114	432
Response	33	19	35	24	52	35	41	239
%	52.38	47.5	64.81	54.55	98.11	54.69	35.97	<b>55.32</b>
Solicitation	39	32	35	19	37	28	56	246
Response	32	34	35	20	44	27	73	265
%	82.05	106.25	100	105.26	118.92	96.43	130.36	<b>107.72</b>
Clarification	38	41	22	27	34	39	37	238
Respon.	17	37	13	25	32	31	30	185
%	44.74	90.24	59.09	92.59	94.12	79.49	81.08	<b>77.73</b>
Extension	24	19	23	18	37	26	25	172
Response	11	7	7	9	30	11	12	87
%	45.83	36.84	30.44	50	81.08	42.31	48	<b>50.58</b>
Reformation	8	5	8	8	6	4	6	45
Response	6	3	5	6	5	3	6	34
%	75	60	62.5	75	83.33	75	100	<b>75.56</b>
Association/Connection	9	4	5	2	6	2	3	31
Response	4	2	2	4	4	2	0	18
%	44.44	50	40	200	66.67	100	0	<b>58.07</b>
Weekly	181	141	147	118	173	163	241	<b>1,164</b>
Total	103	102	97	88	167	109	162	<b>828</b>
%	56.91	72.34	65.99	74.58	96.53	66.87	67.22	<b>71.13</b>

Table 4-17. Overall Figures

	Initiations	Evaluations	Follow-ups	Total
T's Utterances	625 (32.81%)	116 (6.09%)	1,164 (61.10%)	1,905
Ss' Responses to	579 (39.71%)	51 (3.50%)	828 (56.79%)	1,458

As seen in Table 4-17, Follow-ups were the most visible features of the teacher's utterances. Follow-ups account for 61.10% (1,164) of the total 1,905 turns over the whole data, triggering 56.79% of total students' responses (828 out of 1,458) during the interaction between the teacher and the students. According to Table 4-16, even though the percentage of students' Responses to the teacher's Follow-ups (71.13%) was not as high as the percentage of Responses to Initiations (92.64% in Table 4-10), the number of students' elicited Responses From follow-ups was far more than those from Initiations.

However, there were indeed differences among the six sub-categories of follow-ups. According to Table 4-16, around 50-60% of Confirmations, Extensions, and Associations/Connections secured students responses (55.32%, 50.58%, 58.07% respectively), but the other three, Solicitations, Clarifications, and Reformations, were relatively more effective in eliciting students' corresponding utterances (107.72%, 77.73%, 75.56% respectively). Solicitations showed the most striking figures, 107.72%, which indicates that more than one students' response came after each of Solicitations. Looking at the weekly breakdown, there were no vivid differences except for the fifth week, which showed the highest percentage of responses (96.53%).

Table 4-18. LD and SswM of Responses to Each Follow-up<sup>18</sup>

	Respon. to Confirm.	Respon. to Solicit.	Respon. to Clarif.	Respon. to Exten.	Respon. to Reform.	Respon. to Asso/Con.	Total
LD	1.26	1.54	1.47	1.63	1.65	3.28	1.73
SswM	3	3.37	3.51	4.52	3.59	7	3.74

<sup>18</sup> Refer to Appendix 3

Table 4-19. LD and SswM of Responses to Follow-ups (Weekly)<sup>19</sup>

	W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total
LD	1.76	1.61	2.05	1.21	1.19	1.28	2.74	1.73
SswM	3.79	3.53	5.65	3.18	2.56	3.06	4.7	3.74

Table 4-18 shows that the length of students' utterances are overall within the range of three to five but the students showed a longer mean length of utterances after As/Con follow-ups (7). Except for the Association and Connection category, the other five categories showed similar numbers of LDs among students' utterances: all of them are between one and two. As stated in Table 4-19, over the seven weeks, the third and the seventh weeks showed the highest mean numbers of students' utterance words (5.65, 4.7), and the highest LDs as well (2.05, 2.74).

Again, it is easily noticed that Follow-ups are the most frequent type of utterances used by the teacher and the students also responded to them the most.

### Summary

Based on the findings, it is revealed that the students responded the most to teacher's Initiations. Their responses to Follow-ups and Evaluations follow. Overall, there was no patterned change over the seven weeks in terms of the number of their responses. LD (Lexical Density) and the mean number of students' words (SswM) were highest among the responses to Follow-ups. LD and SswM of Initiations, and those of Evaluations follow. Demanding among Initiations, Acknowledgement among Evaluations, and Associations and Connection among follow-ups elicited the longest and most lexically dense responses from the students.

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<sup>19</sup> Refer to Appendix 3

### Students' Utterances by Individual

The students' utterances were investigated individually, not as responses corresponding to the teacher's initiations or follow-ups to determine if there were any differences among students in terms of their performances and participations. The students exchanged their opinions and interacted with one another usually during the small-group activity, while they were only interacted with the teacher in the large-group activity. Whether in small groups or in a large group with the teacher, I was able to find that individual student's utterances had characteristics different from those of others. Since students' utterances in their own discussion group (small group) were not discussed in the previous sections, first of all, I describe the characteristics of small group discussions with examples from the data. After that the information of each student's number of utterances with the teacher and with peers is provided. LD and SswM are also calculated and provided for each student.

#### Characteristics of Small Group Discussion

There were many small group discussions in which the students discussed topics and did the assigned tasks. One of the group members took the role of leader. That person initiated the conversation and the rest tried to provide information and discuss together. But the teacher sometimes intervened from time to time or when the students actually asked for help. And, except for a couple of times, the discussion was conducted in the format in which the students read questions listed in a paper (including, for example, True and False questions) from their teacher and tried to find answers together. The focus here is the students' utterances. Before talking about that, here are some from small group discussions.

## Excerpt 4-26. Sample 1 (Small Group)

94. Hoon:	What are the advantage and disadvantage of a same sex school?
95. Joyce:	Disadvantage?
96. Hoon:	Joyce?
97. Joyce:	For both sex, they can't <i>comparte</i> (in Spanish)..wait a minute, <i>comparte</i> ?
98. T:	Share.
99. Hoon:	[Share.]
100. Joyce:	Share? They can't share with another people, just woman and just man sometimes it is good to share with different sex... <i>comparte</i> .
101. T:	Sujin, you are learning Spanish.
102. Sujin/Hoon:	<i>Comparte</i> ~ (laughing)

The first sample, Excerpt 4-26 showed a small group activity in which the teacher cut in (#98) and clarified the problem. Hoon initiated a conversation by reading a question (#94) from the list from the teacher

## Excerpt 4-27. Sample 2 (Small Group)

103. Yuna:	What do you think of number 1?
104. Kenji:	I think false.
105. Yuna:	False (she mispronounces)
106. Sujin:	False?
107. Kenji:	False, yeah, false.
(Yuna and Sujin repeat the word again with him)	
108. Yuna:	How about second. Second?
109. Sujin:	False
110. Kenji:	Yeah. False.
111. Yuna:	False? False?
112. Kenji:	False, yes.

Excerpt 4-27 is a group discussion dealing with simple True and False questions: this type of discussion was frequently found over the data.

Excerpt 4-28. Sample 3 (Small Group)

113. Miho:	What are the qualities of good teacher?
114. Yuna:	Umm... teacher must understand students' mind.
115. Miho:	Uh... (long pause)
116. Yuna:	And teacher has to have good teaching skill.
117. Miho:	Uh?
118. Yua:	Teaching skill, teaching technique.
119. Miho:	Ah, technique.
120. Yuna:	Yeah...(pause and laughing) (pause)

Excerpt 4-28 shows another typical form of small group interaction where one of students presided over the discussion (#113) as s/he read questions given by the teacher and gathered the information.

Overall Students' Utterances

To look at students' individual utterances, a table is provided here. It shows the number of turns, students' responses corresponding to the teacher's utterance (wT) during teacher-student interaction in a large group and their independent utterances (wSs) during student-student interaction in small groups. Those turns were counted for each student respectively.

Table 4-20. The Number of Turns for each Student

		W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total <sup>(20)</sup>
Hoon	wT	56	36	24	28	69	44	77	334(177)
	wSs	0	34	0	20	95	64	0	213
Jiwon	wT	14	33	26	24	18	25	101	241(100)
	wSs	0	73	0	61	46	122	0	302
Yuna	wT	17	9	37	7	12	14	27	123(35)
	wSs	0	88	0	0	54	67	0	209
Sujin	wT	24	30	14	13	8	11	31	131(49)
	wSs	0	43	0	0	10	64	0	117
Kenji	wT	18	12	19	5	20	8	16	98(40)
	wSs	0	54	0	0	35	14	0	103
Miho	wT	13	5	11	3	4	4	13	53(16)
	wSs	0	24	0	19	46	20	0	109
Maria	wT	2	17	40	49	103	60	42	313(229)
	wSs	0	56	0	59	162	74	0	351
Joyce	wT	19	40	8	15	31	21	31	165(107)
	wSs	0	49	0	30	9	22	0	110
Weekly	wT	163	182	179	144	265	187	338	<b>1,458(753)</b>
	wSs	0	421	0	189	457	447	0	<b>1,514</b>

(wT: with teacher, wSs; with students)

I did not find any wSs in the first, and third weeks since there were no independent small group activities. However some zeros for wSs are also found in the fourth week. This is because some small groups of students were not loud enough to be recorded and I could not catch their words. During the seventh week, even though there were two small group discussions, one of them was just reading a summary of book chapters within each group, and this could not be counted as interactive utterances; for the other group, due to the inaudibility of the sounds of some student's utterances in small groups, no utterance among students was detected in the seventh week. So, the

<sup>20</sup> The number of students' wT utterances that can be compared to the number of wSs utterances. During the weeks when there was no small group discussion wT and wSs cannot be fairly compared.

number of wSs turns, in general or per student, does not accurately reflect the utterances of some students.

Throughout the entire 15 hours of data, all the students were slightly more active when they were talking with one another. According to the Table 4-20 above, all students seemed to be more active during the peer interaction when we compared the number of wT utterances and that of wSs utterances<sup>21</sup>. Although there were more large group discussions than small group discussions in every week, the students tended to contribute more in the small groups. Most of all, Miho, who was very taciturn with teacher in the large group, expressed her opinions at least five times more in the small group (wT: 53(**16**); wSs: 109). Jiwon, Yuna and Sujin also performed much more actively during the small group discussion, especially during the sixth week (wT: 241(**100**), 123(**35**), 131(**49**) respectively; wSs: 302, 209, 117 respectively). Hoon and Maria also participated more actively with their peers, but their numbers of turns, wT and wSs, are relatively balanced over the seven weeks (wT: 334(**177**), 313(**229**) respectively; wSs: 213, 351 respectively). They were the most active participants in the whole class. Joyce also showed a stable number of turns with the teacher and with her peers respectively (wT: 165(**107**); wSs: 110)

#### Students' Utterances with the teacher (wT)

Table 4-21. Weekly Percentage of wT Turns

Weeks	W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total
wT (%)	163 (11.18)	182 (12.48)	179 (12.28)	144 (9.88)	265 (18.18)	187 (12.83)	338 (23.18)	1,458

(wT: with teacher)

<sup>21</sup> With the exception of weeks 1, 3, 7 and some parts of week 4 as described in footnote #13

Table 4-22. The Percentage of wT Turns for Each Student

Studs.	Hoon	Jiwon	Yuna	Sujin	Kenji	Miho	Maria	Joyce	Total
wT	334	241	123	131	98	53	313	165	1,458
(%)	(22.49)	(16.53)	(8.44)	(8.98)	(6.72)	(3.64)	(21.47)	(11.32)	

(wT: with teacher)

Table 4-21 and 4-22 show the percentages of turns from the previous table, and the data reveal that the number of wT turns is a way of providing information on how the students' verbal behavior was conducted over the weeks. The tables show the amount of students' talk over the weeks and its percentage for each week. No significant noticeable patterns were found except that more turns were shown in the seventh week when there were more large group reviews and report sessions than in other weeks.

Based on the percentage of wT turns for each student, it is obvious that Hoon (22.49%) and Maria (21.47%) were the most active participants. Kenji (6.72%) and Miho (3.64%), two Japanese students were not impressive in terms of the number of turns. More detailed information is provided in the next tables. They show the number of students' words and content individually, and weekly.

Appendix 4 shows very detailed number of words according to lexical categorizations of each student' utterances with the teacher (wT) per week, and weekly total. A simplified excerpt from Appendix 4 provided in another table, Table 4-23, with total LDs and SswMs that are already presented in Appendix 4. Individual weekly LDs and SswMs are additionally provided.

Table 4-23. LD and M of Ssw of each student per week (wT)

Students Weeks	wT	Hoon	Jiwon	Yuna	Sujin	Kenji	Mho	Maria	Joyce	Total
W 1	LD	2.73	0.64	1.65	3.25	1.39	2.31	0	2.74	2.30
	SswM	5.82	1.93	3.06	6.71	3.83	5.15	1.5	5.58	4.98
W 2	LD	3.34	1.15	1.11	1.57	1.08	2.00	0.47	2.78	1.96
	SswM	7.75	2.06	3.11	3.47	2.42	5.20	1.94	6.75	4.60
W 3	LD	1.46	2.19	1.92	1.07	2.74	3.09	1.13	1.75	1.80
	SswM	4.58	7.39	4.41	3.43	6.05	6.91	3.98	4.38	5.02
W 4	LD	1.54	1.29	0.71	1.31	0.40	1.33	0.88	1.67	1.18
	SswM	3.46	3.25	2.00	3.08	2.20	4.67	3.39	3.93	3.33
W 5	LD	1.09	1.11	1.25	1.75	0.05	1.00	1.21	1.45	1.13
	SswM	2.39	1.61	1.5	4.38	1.70	1.75	2.76	2.24	2.51
W 6	LD	0.64	1.88	1.93	0.82	4.13	2.00	1.85	2.95	1.74
	SswM	2.34	3.56	3.43	1.82	7.63	4.25	4.72	6.71	4.28
W 7	LD	1.44	1.25	2.07	1.52	1.94	0.23	1.83	1.97	1.52
	SswM	3.39	2.74	4.15	3.26	5.06	0.77	5.26	5.29	3.63
Total	LD	1.70	1.36	1.72	1.73	1.60	1.76	1.31	2.24	1.62
M	SswM	4.02	3.15	3.54	3.89	4.08	4.09	3.67	5.26	3.89

(wT: with teacher, LD: Lexical Density, SswM: Mean of Student Words)

According to the Table 4-23, except for Joyce, there was no outstanding student showing solid language ability defined in terms of high LD and SswM during the interaction with the teacher. Joyce showed the highest numbers of LD (2.24) and the mean of Ssw (5.26) during her interaction with the teacher. One interesting point is that Miho who contributed the least number of turns showed relatively high figures of LD (1.76) and SswM (4.09) that are the second highest number. Kenji also showed relatively impressive mean of Ssw (4.08), compared to the number of turns. Another interesting point is that Maria, who was one of the most active participants, did not show high LD (1.31) and high mean of Ssw (3.67) hitting the lowest level. In contrast, Hoon's figures relatively match his position as an active participant (1.70, 4.02 respectively). Jiwon was the third most active participant in terms of turns, but his LD (1.36) and the mean of Ssw

(3.15), both turned out to be the second lowest. Yuna and Sujin's LDs and the mean numbers of Ssw do not seem to be surprising considering their moderate number of wT turns (Yuna: 1.72, 3.54; Sujin: 1.73, 3.89 respectively). No significant patterns of change were found in any student's performance over the seven weeks.

#### Students' Utterances with the Students (wSs)

Table 4-24. Weekly Number of wSs Turns

Weeks	W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total
wSs	0	421	0	189	457	447	0	1,514

Table 4-25. The Number of wSs Turns for Each Student

Students	Hoon	Jiwon	Yuna	Sujin	Kenji	Miho	Maria	Joyce	Total
wSs	213	302	209	117	103	109	351	110	1,514

The information on the number of wSs turns per week per individual is provided again in Table 4-24 and 4-25 as a reminder of how much the students contributed during peer interaction. The percentage of turns per week for each individual is not provided. As I was unable to catch every individual's words, the results would be incomplete.

Table 4-26. The Comparison between the Number of wT Turns and of wSs Turns

Students	Hoon	Jiwon	Yuna	Sujin	Kenji	Miho	Maria	Joyce	Total ( <sup>22</sup> )
wT	334 (177)	241 (100)	123 (35)	131 (49)	98 (40)	53 (16)	313 (229)	165 (107)	1,458 (753)
wSs	213	302	209	117	103	109	351	110	1,514

As shown in Table 4-26, for recap, all students were more active in small groups. Above all, Miho showed outstanding performance with her peers, compared to her

<sup>22</sup> The numbers in parentheses are actual figures to be compared to the number of wSs. Refer to footnote #13

performance with the teacher (wT: 53(**16**); wSs: 109). Jiwon, Yuna, and Sujin showed more active performance during the interaction with their peers in small groups (wT: 241(**100**), 123(**35**), 131(**49**) respectively; wSs: 302, 209, 117 respectively). Hoon and Maria who were the most active participants with the teacher also had almost the same degree of participation (wT: 334(**177**), 313(**229**) respectively; wSs: 213, 351 respectively). Joyce similarly participated in the activities with the teacher and with other students at similar levels (wT: 165(107); wSs: 110).

Appendix 5 shows very detailed number of words according to lexical categorizations of each student' utterances with their peers (wSs) per week, and weekly total. Key information from the Appendix 5 is provided in another table, Table 4-27, with total LDs and SswMs that are already presented in Appendix 5, and also with additional Individual weekly LDs and SswMs.

Table 4-27. LD and M of Ssw of Each Student per Week (wSs)

Students Weeks	wSs	Hoon	Jiwon	Yuna	Sujin	Kenji	Miho	Maria	Joyce	Total
W 1	LD	0	0	0	0	0	0	0	0	0
	Ssw									
W 2	LD	1.32	1.75	1.91	1.86	1.41	1.29	2.96	3.39	2.04
	Ssw	2.71	3.27	4.09	3.95	3.07	2.88	8.14	8.33	4.66
W 3	LD	0	0	0	0	0	0	0	0	0
	Ssw									
W 4	LD	4.55	2.33	0	0	0	3.42	2.61	2.07	2.72
	Ssw	9.85	4.26				10.74	5.95	4.87	6.13
W 5	LD	1.05	1.24	1.67	1.00	1.71	1.91	1.57	0.44	1.45
	Ssw	2.48	2.20	3.50	1.10	4.43	3.96	3.60	1.33	3.21
W 6	LD	0.56	1.81	2.00	2.11	1.07	1.65	2.73	2.27	1.85
	Ssw	1.88	3.78	4.27	5.50	2.71	5.75	7.15	4.96	4.50
W 7	LD	0	0	0	0	0	0	0	0	0
	Ssw									
Total	LD	1.28	1.82	1.88	1.92	1.47	1.99	2.21	2.56	1.89
M	Ssw	3.03	3.51	4.00	4.56	3.49	5.23	5.46	6.14	4.36

(wSs: with students, LD: Lexical Density, SswM: Mean of Student Words)

The figures found in the results of LD and SswM regarding wSs turns do not seem to be completely consistent with the result of wT turns. Hoon also showed a high number of turns in this area (213 in Table 4-26), but he failed to show a robust number of content words (LD 1.28) and sentence length (SswM 3.03). Yuna and Sujin show the most consistent figures, not much different from those of wT turns in terms of comparison between LD and SswM, and in terms of ranks among participants (see Table 4-23, 4-27). As was stated already, Miho showed very high quality of talk (LD 1.99, SswM 5.23) in the wSs area, compared to the amount of turns. Maria did better job with wSs turns (LD 2.21, SswM 5.46). Jiwon also had better quality of talk with his peers (LD 1.82, SswM 3.51). Kenji's performance was not that impressive here but did a similar job (LD 1.47, SswM 3.49). Joyce showed the highest number of both wT and wSs turns (see Table 4-23 and 4-27). Joyce marked 2.56 LD and 6.14 SswM.

### Summary

Individual student's utterances were investigated to find out whether there were any significant differences among students in terms of their performance and participation. Overall, even though there was no significant change in their utterances over the seven weeks, the students tended to participate more actively when they were in small-group discussion on their own. Some students, like Hoon and Maria, were consistent as active participants in activities with the teacher or with other students. Meanwhile, some other students, such as Yuna, Sujin, Kenji, and Miho, were more active with their peers. Students' utterances were interpreted differently when they were investigated in terms of LD and SswM. The degree of students' participation did not necessarily correspond to LD and SswM of their utterances. For example, Hoon and

Maria were consistent active students but the quality of their utterances with the teacher and the peers was the lowest. However, in contrast, despite their relatively small number of contributions, Kenji, Miho, and Joyce showed a stable high quality of LDs and SswMs with both their teacher and their peers.

## CHAPTER V: DISCUSSION AND CONCLUSION

### Introduction

This chapter discusses the interpretation of findings and concludes by discussing possible implications. The interpretation of findings is organized around each research question. To make it easier to read, some indications, such as figures and table numbers are included as needed.

Question:

1. What are the functional characteristics of patterns of interaction found in one IEP classroom?
  - a. What are the typical patterns of interaction found in an adult IEP classroom?
  - b. What functions do teacher contributions serve to facilitate students' contributions?

### Interpretation of the Findings on Characteristics of Discourse

#### Interpretation of the Findings on Characteristics of Episode (Table 4-1)

Five instructional activities the teacher employed appeared evenly in different combinations in every class over the seven weeks. *Discussion* was the primary form of activity and in one third of them he led the students with learning topics for the day. He seemed to need occasions in which he could provide information, and clarifications as he discussed specific topics with his students. The reason why more large group discussions than small group discussions were found during the earlier weeks might have been that

more information and clarifications were needed by the students in the beginning of the course.

*Reporting* was another form of large group activity the teacher presided over. While gathering and organizing what the students came up with during the small group discussion on given topics, it might be that the teacher was using this form of activity as a good opportunity for offering clarifications, additional information, and suggestions. Maybe for a similar reason, *Launching* activities were found more during the first two weeks when the teacher had to provide warm-ups and every detail of all class activities. There were also a number of *Reviewing* activities over the semester. This could mean that the teacher also wanted to make sure his students followed the class without any specific problems.

Even though the frequency of *Lectures* was not that significant and found more in the first three weeks, it is considered a frequent form of activity because some similar parts, long follow-ups, were found almost every time in other activities. This could indicate that the teacher wanted to provide more information than the students needed; or the students were not following the class well; or the teacher just liked talking. However, based on the occasions and the information he provided during the lectures or during long follow-ups, the former two reasons seem to be more likely. The students on many occasions provided very short sentences or responded in one word to the teacher's questions, and the teacher was eager to provide some supplementary information.

#### Interpretation of the Findings on Discourse Patterns

As shown in other previous studies, it was found that the triadic mode was the major pattern of the talk in this study. I did not exclude the possibility that there might be

some other forms of discourse pattern but it turned out that the same triadic turn-taking form, which was considered a default mode of teacher's talk in the classroom by many researchers, was found.

Excerpt 5-1 (IRF)

1. T: Have you heard of Atlantis.
2. Kenji: Have you...?
3. T: Have—you—heard—of—Atlantis?

Excerpt 5-2 (IRE)

4. T: How many important ants are there?
5. Mt: Ah, important! Two
6. T: Yeah. Two.

The teacher typically initiated the conversation (#1, 4), the students responded (#2, 5), and the teacher's follow-ups (#3), sometimes evaluations (#6), followed. This triadic mode of talk was demonstrated again as the representative talk pattern during the classroom interaction. The teacher and the students communicated and shared the information through this form of talk.

Interpretation of the Findings on Characteristics of Initiations (Table 4-4)

Among the four kinds of Initiations, *Information-Gathering* (Info-G) questions, *Known-Answer* (K-Ans) questions, *Demanding*, and *Authentic* questions, Information-Gathering was the most frequent one in that it accounted for over a half of the number of total Initiations. It is understandable that there were more Information-Gathering questions found during the first week, considering that the teacher had to have basic information on how his students perceived the class and understood the lesson. They were also used a lot in the seventh week. That can be explained by considering the

contents of the lessons during that week: DPS (Dead Poets' Society) related topics were discussed with lots of inquiries by the teacher.

Excerpt 5-3

7. T: Confused, upset, frustrated. In fact, Mr. M. said "they will hate you, because you try to make them into artist .Wait a minute, is that really what Mr. Kitting wants his students become? Is he trying to make them artists?
8. Ss: No.
9. T: Right. That's the next question I think. Um. What's, first of all um. Let's answer that, second part. What did the boys want to learn?.....Kenji?
10. Kenji: Um..to think freely.
11. T: Yeah, to think freely to be free thinkers exactly. Not, he is not trying to make them into artists he says. He is trying to just teach them to think for themselves, not to just copy.

The teacher asked a *Known-Answer Question* (#7) about the content of DPS to make sure that his students are following him. After students' brief response (#8), the teacher developed another Known-Answer Question (#9) to narrow down students' answer (#10). Known-Answer Questions took a significant percentage of total initiations. These have been criticized among researchers due to their overuse of the teachers without giving students chances to ask questions of their own questions during the interaction. However, in this situation, it may mean that Known-Answer Questions might have an important role in carrying on the stream of the conversation. Because it is assumed that the amount of talk elicited from the students indicates the degree of their understanding

and learning, the teacher seemed to choose “asking” as a way of getting students to participate.

The form of *Authentic Questions* appeared less frequently than *Demanding*. So they did not contribute to eliciting more students’ responses compared with other Initiations. Since Authentic Questions were designed to get students’ original and personal opinions, it might have been difficult for the teacher to elicit such responses from his students who were mostly from the East Asian countries. In those countries, students are typically reluctant to express their opinions. It is noted, however, that the teacher used more Authentic Questions during the later weeks, perhaps partly because he thought that his students might have gotten used to the teacher’s questions and felt more comfortable in expressing themselves. Because of its infrequent appearance, *Preparatory-Initiation* was not counted as a part of turn taking, but it served a function in facilitating the interaction. It might have been that due to its function of providing the students with pre-requisite information of a certain topic, this supplementary type of Initiation was found the most during the first week when the students needed more background knowledge in the early stage of the course (Table 4-5).

#### Interpretation of the Findings on Characteristics of Responses (Table 4-6)

According to the findings, Responses outnumbered Initiations, by almost two-to-one since the students responded not only to Initiations but also to various Follow-ups. *Information-Backs* (Info-B) dominated Responses. *Acceptance* and *Counter-Inquiry* (Con-Inq) followed. Information-Back far outnumbered other forms. Having more frequent Information-Back responses may mean that the students were able to provide Information-Back responses or Acceptances to relatively simple questions and follow-

ups. It could also be interpreted that they simply answered those huge number of Information-Gathering Questions and Follow-ups, but they might not have felt competent enough to raise questions in response to teacher's remarks may be due to the lack of English proficiency.

Excerpt 5-4

12. T: Ok, where did you find it? Show me why it's false.  
 13. Maria: Uh... I don't know. Mmm... don't know.  
 14. T: Just a feeling.  
 15. Mt: Yeah.  
 16. T: Ok...well, it's a good feeling.  
 17. T: Anybody? Can you help, can you help Mt?  
 18. Kenji: 8.

To the teacher's Information-Gathering Question (#12) Maria responded without the content that the teacher wanted to hear. She just agreed (#15) with her teacher's interpretation (#14). Kenji also responded with a terse response (#18) to the teacher's other request (#17).

Excerpt 5-5

19. T: Is that an advantage? Concentrated, is it an advantage?  
 20. Jiwon: Yeah. Concentrated is advantage.

Excerpt 5-6

21. T: Yes, 1959 especially in private school, it's more common to have same sex school  
 22. Maria: Same sex? Mix?  
 23. T: Not mixed.  
 24. Maria: Ah, not mixed.

Many students' Information-Back and Acceptance answers copied the syntactic structure of the teacher's initiations or follow-ups. This case was obvious when the teacher asked Known-Answer Questions with a choice: in Excerpt 5-5, the teacher asked a Known-Answer Question (#19) providing two choices of answer, and Jiwon chose one of them (#20). Those choices were already well-structured phrases. Excerpt 5-6 also shows that a student answered (#24) by repeating a part of the teacher's follow-up (#23). Those two cases indicate that students take advantage of the models provided in the teacher's utterances in making their answers. Then, Known-Answer Questions are not necessarily negative things after all, since the students can learn from model structures their teacher provides in his questions.

Excerpt 5-7

25. T: Did everybody agree more or less? Do you have the same information?
26. Hoon: Yes.
27. T: Yeah, everybody finds the same main point?
28. Jiwon: How about you, how about this? The main point...this chapter.
29. T: How about the name for it?
30. Jiwon: Main point. How about..

The frequency of Counter-Inquiries increased a little bit and far outnumbered that of Acceptance during the last weeks. It is possible that the students became more comfortable with raising their voices so that they could choose to be curious rather than to be silent with simple acceptances. Excerpt 5-7 found during one of classes in the last weeks provides a piece of evidence. Jiwon asked a question that asked (#28) the teacher for further clarification, and persisted (#30) to make the teacher understand his question.

That is quite a different phenomenon, compared to the submissive patterns of the students' responses in earlier weeks.

Interpretation of the Findings on Characteristics of Evaluations (Table 4-7)

As mentioned already in chapter 4, the teacher almost never gave negative evaluations to the students. Even when the students presented incorrect answers, he recast or raised another question based on their answers. *Reformation* and *Solicitation* forms in Follow-ups also reflect this teacher's "never no" tendency. Excerpt 5-8, 5-9, and 5-10 show how teacher's positive evaluation and two follow-ups have in common.

Excerpt 5-8 (Acknowledgement)

31. T: which paragraph...which number paragraph is it?  
 32. Hoon: eight  
 33. T: Paragraph eight. Ok  
 34. T: Ok.... Um... is this still popular today...this kissing for good luck?  
 35. Jiwon: Oh yes.  
 36. Hoon: Umm... in Korea, soccer team, one of the player, whose name is Jung-Hwan Ahn. He is always kissing his ring. Left of the goal and touch the gate, and so...  
 37. T: Ok, ok

Excerpt 5-9 (Reformation)

38. Maria: Well prepared teach...  
 39. T: Well prepared

Excerpt 5-10 (Solicitation)

40. T: What do you think that means? Attempts to cash in on the same...  
 41. Hoon: Keep in..  
 42. T: Sorry?  
 43. Hoon: Keep in?  
 44. T: Keep in? What do you mean keep in?

Positive Evaluations were a small reflection of teacher's "never say no" tendency. Evaluations were found more during the first week than during other weeks. Based on Excerpt 5-8, it could be inferred that it is perhaps because there were many occasions when the teacher asked simple Information-Gathering Questions (#31, 34) that made the students respond with factual answers (#32) or something the teacher could not supplement with any further information (#36). The teacher may have said "not correct" or "no" in both Excerpt 5-9 and 5-10 situations but he seemed to keep the conversation going. Teacher's follow-up #39 functions as a kind of recast with no overt rejection of the student's structurally incorrect response (#38). When Hoon responded (#41) with information irrelevant to the intention of teacher's question (#40), the teacher did not dismiss Hoon's answer; rather he asked back to find out why Hoon answered like that (#44).

#### Interpretation of the Findings on Characteristics of Follow-ups (Table 4-8 and 4-9)

Since the major function of Follow-ups is to lead the students into another phase of conversation, the teacher often provided a great deal of Follow-ups instead of simple Evaluations. He must have been aware of "the more talk the better learning" assumption. As he *Confirmed* students' responses by reiterating them, he often provided brief additional information supporting the students' responses to provide a wider context where the students' answers could be situated as more relevant and solid.

#### Excerpt 5-11

45. T:           Ok, he seemed to be a little bit reluctant, hesitated. What about Pitts? Was Pitt hesitaing or ready to join?
46. Hoon:       Ready to join.

47. Sujin: [ready to join]<sup>23</sup>
48. T: Ready to join? Who had a problem with grades? Who has some, who was struggling to keep his grades up?
49. Hoon: Pitts.
50. T: What about Todd? Did Todd participate Hoon?

Except for avoiding “no,” as stated in the previous section with Evaluations, *Solicitations* also played a significant role in eliciting more responses from the students. Interestingly, these follow-ups appeared in four forms that are identical to those of Initiations, Information-Gathering, Known-Answer Questions, Demanding, Authentic Questions. As they are in Initiations, the percentages of Information-Gathering and Known-Answer were also higher in the form of Solicitations. Excerpt 5-11 provides a series of solicitations after students’ responses. The teacher asked a question (#45) based on book chapters from DPS and he asked further questions twice more (#48, 50) based on two students’ answers (#46, 47, 49). Based on the facts mentioned above, it is inferred that the teacher might have intentionally used the forms of inquires more as significant parts of Follow-ups to elicit more responses from the students.

*Clarification* was another important form of Follow-ups. The teacher corrected the students’ incorrect responses and sometimes provided clear information to Counter-Inquiries from the students. The teacher kept them focused on the main learning themes.

Excerpt 5-12

51. Joyce: What is av..avege?
52. T: Average. In the middle. Not better, not worse, just typical

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<sup>23</sup> Overlap

## Excerpt 5-13

53. T:           Ok, Are they suggesting something to Neil? Are they telling  
Neil don't be passive or they are saying obey your father?
54. Joyce:       In my opinion, I think they go mad with his father.
55. T:           Ok, ok. but they are giving Neil some kind of advice

Like the interaction in Excerpt 12, the teacher just provided simple clarification (#52) when the students are confused (#51). In Excerpt 5-13, Joyce answered (#54) with information that slightly digressed from the point of teacher's question (#53). However, the teacher quickly coped with this situation by reminding her of what the point is in his question (#55).

*Extension* was a form of Follow-ups, which was sometimes used. The teacher seemed to use it for providing the students with chunks of information, instead of a long lecture, as he did in Follow-ups to the responses from students. Even though the teacher had individual lecture sessions, from time to time he might have regarded a part of Follow-ups as an opportunity of providing an additional large amount of information.

*Reformation*, as briefly mentioned in the previous section, was used as a means of avoiding, saying "no" to students' responses. However this form of Follow-up was seldom found since Solicitations covered most occasions. With Reformations the students redirected their incorrect approach toward the learning goals of the class and were able to get into a further stage of interactions. Excerpt 5-14 shows examples.

## Excerpt 5-14

56. T:           What does it mean here when the writer puts  
the word "pilots"...

57. Maria: Is it an expression?  
 58. T: Yeah, what do you mean by it's an expression?  
 59. Hoon: Some kind of term.  
 60. T: It's a term, yeah. But, when, when the writer puts the quotation marks, should we accept this work...

To the teacher's question (#58) on the meaning of Maria's remark (#57), Hoon answered (#59) with the information which was not completely wrong but did not meet teacher's expectation. For the moment, the teacher accepted Hoon's answer but soon redirected him back to the right track of conversation (#60).

*Association and Connection* could be confused with Extension in that this form of follow-up also provided extended information, but is distinguished from them in terms of delivering the teacher's own prior or cultural knowledge. This classroom was full of the students from different cultures. So, from time to time the teacher and the students exchanged their cultural information during the interaction.

Interestingly, except for Confirmation, the other five categories of Follow-ups that were primary information sources were relatively evenly scattered over the whole seven weeks. It could be interpreted that the students needed incessant help regardless of what week they were in. It is easy to assume that the frequency of those information-providing occasions should be decreased because we can think that the students must have acquired a certain amount of knowledge by the later weeks, but that was not the case in this study.

A typical pattern of talk, the IRF dominated the interaction between the teacher and the students in this study. In each Episode, each turn was identified according to its functional characteristics, and some interpretations have been done. Here are a couple of interesting points. The teacher used the form of questions a lot including Initiations. He

continued to solicit more responses from the students as a way of providing Follow-ups, believing that “the more talk the better learning.” Another effort for eliciting more student responses is found in his use of Known-Answer Questions as a part of Initiations. Answering to this type of questions seemed to be easy for the students and they easily responded. Moreover, the teacher frequently provided well-structured form of sentences that the students could learned from: a new evaluation of Known-Answer Questions. And also, the teacher was reluctant to say “no” to the students answers. Rather, he asked again and reformed the incorrect student answers. Overall, the teacher was the main talker and tried to provide additional information as much as he could. This tendency reflected well on his frequent use of long Follow-ups and Lecturing.

Question:

2. What are the characteristics of students' contributions?
  - a. What are their typical characteristics in terms of lexical density and mean length?
  - b. What functions do they serve in the interaction?
  - c. What changes and developments occur over time in students' participations?

#### Interpretation of the Findings on Students' Utterances Corresponding to Teacher's Utterance

#### Interpretation of the Findings on Students' Responses to Initiations (Table 4-10, 11, 12)

Looking at the utterances of students in terms of length, content, and frequency seems to be a useful way to find out if the verbal interaction was working in this L2 classroom. As a result, I found that the students responded to almost all the teacher's initiations. But there was one Initiation that elicited students' responses most effectively,

*Known-Answer Questions*. They might have felt more comfortable with these questions than with other Initiations because the students were able to answer sometimes by copying words and structures from Known-Answer Questions. Excerpt 5-15 explains that.

Excerpt 5-15

61. T:            You wanted to row. Was he allowed to row?

62. Maria:      No, Mr, Nolan allowed to, Mr. want, want Todd to do soccer?

For a part of a comprehension check, the teacher asked a yes/no question (#61). Maria answered (#62) in a full sentence, not just with simple “no.” by taking advantage of the structure of her teacher’s question. It might have been easier for the students to answer with already available sources. Unlike the example presented in the excerpt above, most of the students’ answers to teacher’s Known-Answer Questions are fewer than three words. However, the students actively responded to them and sometimes tried to model structures they found in their teacher’s questions. Known-Answer Questions are not always negative after all.

Even though *Authentic* questions did not secure a significant number of students’ responses in terms of frequency, they seem to be relatively efficient in getting responses from the students considering the response rate (86.89%) to this form of Initiation. Surprisingly, the students responded with relatively long and fluent level of sentences determined by LD and SswM. They might have tried to think of better lexical and grammar structures as they expressed their own opinions. It was true that the students from the East Asian countries were reticent throughout the whole course, but, they were

less hesitant when expressing their own opinions. The transcription below would explain what the responses to Known-Answer and Authentic Questions were and what contents they had respectively.

Excerpt 5-16

*Comparison between Responses to K-Ans and Authentic Qs*

(K-Ans)

63. T: To the Europeans it means..it means come or don't come?

64. Jiwon: Don't come

(Authen.)

65. T: What's wrong with that? He wants the Buick.

66. Sujin: Chris's father want more safty car

Jiwon answered (#64) by taking one model structure provided in a teacher's question. He must have done quickly since he didn't have to come up with any additional lexical or syntactic structure. However, Sujin had to answer with her own sentence. Compared to what Jiwon said, Sujin's response is equipped with more complicated words and structure.

Why the responses to *Demanding* were the longest and had the richest contents is not hard to figure out once we look at what kind of requests and demands were exchanged between the teacher and the students.

Excerpt 5-17

67. T: Ok... Miho, would you read number one.

Just read the sentence?

68. Miho: Umm...on the faces people would just put  
their noses close to their lover's faces and sniff, kiss means no.

As indicated in the above Excerpt 5-17, the teacher usually asked the students to read exact sentences or to quote words in the textbook or in other class materials (#67). No wonder the structure of sentences was stable. Miho just read what was written in the text book (#68). So, students' responses to this category cannot be considered appropriate to measure their learning progress in this study.

*Information-Gathering Questions*, which accounted for around 60% of the total Initiations, failed to elicit responses equipped with complex structures and content, although the students responded almost every time when they were asked by the teacher with this form of Initiations. Looking at all the data, it was found that the teacher used lots of large group activities in which he requested simple information such as what the students' answers were to the list of questions he gave for the small group activities. This fact may explain why none of the students' responses to Information-Gathering questions are long or lexically rich. However, the students kept their response percentage rate steady over the whole seven weeks: It means that they never stopped participating. Excerpt 5-18 explains that.

Excerpt 5-18

*Excerpt transcription from the discussion on DPS*

- 69. T:            Todd, what do we know about Todd? Todd is..
- 70. Joyce:       Shy
- 71. T:            Seven, Neil was angry after his dad's visit?
- 72. Jiwon:       Yeah.

Joyce answered just with the minimum information (#70), and Jiwon also said simple “yes” (#72). Other than these, most of the time the students used words in the range of two content words per turn except for the first week when they had to provide the information that the teacher was not aware of.

Interpretation of the Findings in Students’ Responses to Evaluations (Table 4-13, 14, 15)

It is not surprising to see a very low percentage of students’ Responses to Evaluations, considering the function of Evaluation which usually finishes a sequence of talk between the teacher and the students. It could be hard for the students to feel comfortable in raising any kind of questions or response to “finishing-up” remarks. Moreover, since this feature appeared in the middle of discussion transition and in the last finishing stage, the students seemed to realize that no response was expected from them. That is really reflected well during the first week. But as time went by, once they got used to their teacher’s class management routines, the students seemed to be able to pave the way for confronting the teacher’s unilateral closure of conversation, or the way of supplementing teacher’s remarks with more information. Even though the overall percentage rate of Responses ended up around forty percent, the students might have been more willing during the later weeks to show what they thought about given situations.

Excerpt 5-19

73. T:           how did Neil suggest that they solve Todd's problem? Anybody?
74. Jiwon:       (saying something but not clear)
75. T:           Yeah. You've got it.
76. Hoon:       If other guys said. He didn't have to say, um then wil you come and join them.

77. T: Ok, ok.

78. Jiwon: He never talk to other. Maybe have to read maybe talking.

#74 and #76 students' responses are not just two pieces of basic information, but further and supplementary information supporting the teachers' acknowledgement (#75) of Jiwon's previous response (#74).

Whatever response to Evaluations was, it had more function words or filler words than content words because the students tended to answer with choppy and simple acceptance remarks, and also because teacher's Evaluation remarks could be regarded as a closure of the conversation. We can judge whether the students were engaged in the activities but it is hard to measure their learning progress, because the number of their responses did not showing any patterned change over the seven weeks. Excerpt 5-20 shows students' typical way of answering back to teacher's evaluations.

#### Excerpt 5-20

79. T: What are we looking for?

80. Miho: Phyllis Pitleuga.

81. T: Phyllus Pitleuga, yeah, that's what we need.

82. Yuna: Uh....15

83. T: Paragraph 15, ok.

84. Sujin: Mmm...

#82 and #84 are typical features of Responses to Evaluations (#82, 83). Yuna and Sujin just responded nothing but a word each.

Interpretations of the Findings on Students' Responses to Follow-ups (Table 4-16, 18, 19)

The number of Responses to Follow-ups was indeed the largest of all other types of Responses, but the percentage rate of Responses to Follow-ups was not as high as those to Initiations. It can be inferred that they basically included closing elements with directions leading to another phase or plateau of discussion. Confirmation, Extensions, and Associations/Connections were relatively less used in eliciting the students' responses than Solicitations, Clarifications, and Reformations in that the former three categories of follow-ups tended to close a sequence of conversation with additional information while the latter categories left room for possible responses from the students. Solicitations, to my surprise, were most successful in enticing students' responses. It can be inferred that the major reason for this high percentage is because of their characteristics as questions that were a basic form of Initiation.

Based on the figures of the lexical content of responses, it can be inferred that there were no significant particular patterned changes or any other high scores over the seven weeks except for unusually high LD and SswM of Associations/Connections. However, it is hard to regard those numbers as significant results because the number of teacher's and students' utterance turns were too few to count.

Those six categories of follow-ups were ranked in terms of efficiency of their functions according to the number of responses they elicited. However, according to the information on LDs and SswMs of Responses to each Follow-up, those responses overall had the same kind of lexical structure and the length, and the same characteristics. In addition, it might be interesting to consider the lower percentages in Initiations and Evaluations during the fifth week. Students might have compensated for their "quiet"

mood in Initiations and Evaluations by responding more in the follow-up area: during the fifth week, the students' response rates of Initiations and Evaluations were much lower than that of Follow-ups.

#### Interpretations of the Findings on Students' Utterances by Individual

##### Interpretations of the Findings on Characteristics of Small Group Discussion

Three types of small group activities found in this data tell us that the students were not able to manage small group activities by themselves: the teacher intervened in most of the activities at the request of the students; and the list of discussion questions was always given by the teacher. Overall they seemed to be more comfortable in their own small groups and interacted a bit differently, but did not show any startling differences. However, there were still factors to consider for interpreting students' discourse.

##### Interpretations of the Findings in Characteristics of Overall Students' Utterances

Based on the information in weekly breaks of Table 4-20, there were some interesting things found, not only the fact that overall students were a bit more active, but also the fact that some of them showed very different interaction tendencies in the interactions with their peers. Kenji and Miho cases are interesting enough to merit a closer look.

Table 5-1 Kenji and Miho's Utterances (Responses)

	Number of wT <sup>(24)</sup>	LD/SswM	Number of wSs	LD/SswM	Res. Total
Kenji	98 (16)	1.60/4.08	103	1.47/3.49	201
Miho	53 (40)	1.76/4.09	109	1.99/5.23	162

<sup>24</sup> The number of turns without those of week 1, 3, 7 and some 4. For more information, refer to footnote 17 and 18

These two reticent Japanese students definitely showed more participation during the small group activity, especially Miho. How could she become so active? Maybe her real utterance tendency was hidden during the large group activities with the teacher because of factors in their personalities or cultural differences or maybe something combined. A more surprising finding is that those two Japanese students were excellent in terms of LD and SswM. LDs and SswMs included in Table 5-1 tells us that their quality of talk is quite extraordinary compared to their number of contributions. For reference, already talked about in chapter 4, one of the most active participants, Hoon marked the lowest point of LD and SswM with 213 contributions during the small group activity.

I expected to find some patterned changes among students' utterances throughout the data because I took for granted the notion that "the more the weeks pass the more the students talk." However, there was no significant consistent patterned change over the seven weeks

#### Interpretation of the Findings on Characteristics of Students' Utterance with the Teacher

The students showed various degrees of involvement in the interaction with the teacher except for a couple of them in terms of the number of response turns. Kenji and Miho, who were considered taciturn based on the number of responses they made (98, 53 respectively), showed high LD and SswM (1.60, 4.08; 1.76, 4.09 respectively). Even though they talked less than others, whenever they spoke, they tried to speak in full sentences rather than in a couple of words. Since they were not active in terms of response frequency, they could have been considered having problems in following

lessons. However, they seemed to be attentive to the teacher's utterances. That's why they could make elaborated responses.

Maria actively participated in the discussion with the teacher, but can not be regarded as a robust talker based on LD (1.31). Her SswM was moderate among students (3.67). She used many more function words and filler words than content words (651, 73, 409, Appendix 4). In other words, although she actively participated in the conversations using many words, compared to the mean number of words, her utterances did not have many significant elements, such as content words, to make her utterances lexically solid.

One very interesting result is about Joyce. She was the one who showed unusually high figures in LD and SswM, compared to her peers. However, it is quite unusual to see her showing the best performance despite her frequent absences and seemingly indifferent learning attitude. She even outnumbered the frequencies of Kenji and Miho's responses even with her poor class attendance<sup>25</sup>. Kenji and Miho showed perfect attendance.

#### Interpretations of the Findings on Characteristics of Students' Utterance with Other Students

Generally the results indicated that the students also did not show any patterned changes in their utterances when they interacted with their peers except that they talked more with peers.

Hoon who was one of the most active participants showed similar behavior but did not show that he had a commensurate linguistic ability: he had the lowest LD and SswM (1.28, 3.03 respectively). However, it is hard to regard him as poor speaker in that he already showed a certain amount of proficiency in terms of LD and SswM (1.70, 4.02

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<sup>25</sup> She was not included in four hours of total data.

respectively) when he responded to the teacher. It might be that he just did not talk a lot or made only simple utterances during the small group activities.

Miho, one of Japanese students who were impressive regarding their LDs and SswMs when they talked with the teacher, continued to be impressive, even more so, with her peers. Table 5-1 includes the information on two Japanese students. Even though the number of turns in this category is not consistent since in some weeks some small group activities were not recorded because of technical problems, the fact that the number of her response turns doubled during small group work is significant. She was literally the most silent person among all the students (wT: 53, wSs: 109) even in the small group, but she was being active in terms of participation and even more solid in terms of language ability determined by LD and SswM (1.99, 5.23 respectively).

Kenji was not that impressive in the small group because he showed the second lowest LD and SswM (1.47, 3.49 respectively) among the students during the interaction with peers. But he seemed to be a little bit more comfortable with his peers (wT: 98, wSs: 103). Maria also seemed to be more relaxed when she talked with her classmates compared to how she did with the teacher, not in terms of the number of turns, but in terms of LDs and SswMs. Her LD with her peers was 2.21 and SswM was 5.46, while she scored 1.32 and 3.67 respectively in the large group.

Three Korean students, Jiwon, Yuna, and Sujin, overall showed more participations when they interacted with one another, but there was no particular performance that indicates progress in learning. Jiwon had better talk than when he did with the teacher in terms of LD and SswM, that are 1.82, and 3.51 respectively. However, the figures showing his performance during the small group activities indicate that he still

failed to rank as a quality talker among the other students. His LD and SswM were both scored as the third lowest.

Joyce's performance was ranked the top again here. It is hard to figure out why this should be considering her relatively not enthusiastic learning attitude. The only thing I can infer is that she might have had a certain amount of prior knowledge of English.

Table 5-2 is an excerpt from previous tables. It shows how the students did with the teacher and with one another.

Table 5-2. Comparison between wT and wSs

	<u>M</u>	Hoon	Jiwon	Yuna	Sujin	Kenji	Miho	Maria	Joyce	Total
wT	LD	1.70	1.36	1.72	1.73	1.60	1.76	1.31	2.24	1.62
	SswM	4.02	3.15	3.54	3.89	4.08	4.09	3.67	5.26	3.89
wSs	LD	1.28	1.82	1.88	1.92	1.47	1.99	2.21	2.56	1.89
	SswM	3.03	3.51	4.00	4.56	3.49	5.23	5.46	6.14	4.36

(M : Total Mean figures)

Throughout the seven weeks, Hoon and Maria were the most active participants showing relatively good command of proficiency; Jiwon, Yuna, and Sujin continued to be mediocre participants; Kenji and Miho were not active participants at all but showed very different behavior depending on the kind of activities, which is interesting; and Joyce showed unexpectedly high quality performance. The students' overall participation and language proficiency did not change over the seven weeks: their performance fluctuated a little, but remained fairly consistent.

## Conclusions

There are several conclusions drawn from this study. First, this research demonstrates that the teacher's contributions during the interaction elicit different kinds of talk from the students. The teacher in this study provided various kinds of contributions in Initiations and Follow-ups. Each of them acted differently in drawing Responses from the students. The teacher, being aware of the importance of talk in the language learning classroom, tried to make the students participate as much as he could. One prominent strategy he used was asking questions. The teacher usually initiated the interaction with inquiries. In this study, the teacher asked questions not just to initiate the interaction but also to provide follow-ups that led the students to a further stage. When he was not satisfied with the answer he received from the students, he solicited a variety of answers that could correspond to the learning goal of each activity. By asking questions, the teacher sometimes elicited from the students very simple monotonous information including even what he already knew, and sometimes highly independent original opinions. The teacher's questions sometimes even triggered inquiries among students who were curious. The teacher's contributions facilitated learning by eliciting a variety of responses from the students.

The second point this research indicates is a reevaluation of Known-Answer Questions, one of the frequent forms of inquiry used by teachers. Known-Answer Questions, also called display questions, have frequently been criticized by researchers for their overuse among classroom teachers requesting information that the teacher already knows and that sometimes students are presumed to know. However, this study suggests a different perspective for evaluating them for two reasons. First, Known-

Answer Questions are very effective in eliciting Responses from the students, because in many cases the questions asked students to answer what they already know. Thanks to the less complicated nature of Known-Answer Questions, the students answered with confidence and the teacher could continue to keep the stream of conversation. The second reason is that Known-Answer Questions often provide linguistic structures that can be models for the students to copy when they make answers. The teacher in this study often asked Known-Answer Questions that included model structures that are almost the answers he wanted, and the students took advantage of them to figure out the answers. No matter how short they are, those model structures in Known-Answer Questions are very valuable in that learners not only copy them but also learn new information from them.

The third important point we have to pay attention to in this study is the “never say no” tendency of the teacher. The teacher almost never evaluated the students’ answers negatively. Instead of “no,” the teacher accepted even irrelevant answers and asked again to find out what the intention of those answers was, or repeated them in corrected form. The teacher’s reluctance to use “no” took an important role in facilitating more participation among the students, encouraging them to speak out freely.

The fourth point we have to look at in this study is the variety of ways the teacher used to encourage the students to participate. There were no specific patterned or big changes regarding the number of students’ contributions over the seven weeks. In other words, there were a fairly evenly distributed number of students’ contributions over the seven weeks. That means that the teacher used good combinations of different ways of talk, such as Initiations, Evaluations, and Follow-ups. He was aware of how his

contributions work to elicit talk from the students, reading the pace of student participation. Meanwhile, for each student, there were some number differences in their turns. However, even though the teacher failed to encourage some students to participate actively in terms of turns, after all, these students did make very significant participations regarding lexical length and quality of their talk. We can infer that the teacher established a very supportive atmosphere in the classroom where the students could express themselves without hesitation or reluctance when they got the chance to talk.

One more important point is drawn from this study. Another turn proceeding the teacher's Initiations was found. Before the teacher started a certain activity, he sometimes provided a certain amount of information in the form of an Introduction or Information-Delivery. That was named Preparatory-Initiation. It was too long to be included in an Initiation and too short to be a lecture. It was impossible to measure the effect of Preparatory-Initiation on the students' talk, because the Initiation comes right after it and there was no chance for the students to respond to it. It was obvious that Preparatory-Initiation was used to help the students understand the activity they were about to begin. However, how it worked was not measured due to the lack of analytic framework. So, although this study found this new type of turn, more investigation is left for future study.

All findings from this study tell us that the talk is the main device used for language learning in this classroom, that the teacher is the one major figure who talks the most and controls the class, and that the responses from the students were different according to the characteristics of the teacher's Initiations and Follow-ups. The students' learning behavior depended on how the teacher interacted with them. This seems to be

significant in that this point, which was noted in many previous studies, can also be drawn from this study of adult ESL learners in an IEP classroom.

This study can be evaluated as one of the rare attempts to look at adult L2 learning focused on interaction in the classroom from a sociocultural perspective. Moreover, rather than a superficial analysis of the pattern of talk, this study went more deeply and looked at micro-analytic details of the function the patterns played and the substance of these contributions in terms of Lexical Density. This in-depth analysis and its documentation have almost never been done in prior studies. If I had just looked only at the contributions and the length of sentences, I would have concluded that some of students were really heavy participators. However, closer investigation of what constituted their utterances allowed me to see the real facts: students read the written texts following the teacher's Demanding. Sometimes we can think that something good is happening without understanding the context. In other words, without any specific context provided, and only based on written text, we might misunderstand the data.

#### Implications for ESL/EFL Teachers and Researchers

Five implications are drawn from this study. First, as a part of teacher preparation, we have to think about what kind of teacher contributions allow more talk to be produced by the students. In this study, there was no big change over the weeks, but we did notice that a certain kind of teacher utterances elicited more talk from the students, such as Known-Answer Questions. Although Known-Answer Questions have been perceived as negative because they deter students' creative opinions, they did play a great role in this study in providing the students with models of talk. His "never say no" tendency also played a great role in facilitating students' active participation.

Second, during an eight-week period, teachers can do various kinds of talk to have the students participate in activities, and they may feel that the students show different or improved talk and participation, but there might not be significant change as we see in this study. So in evaluating progress, teachers need to consider both the quantity and quality of student participation.

Third, since a great number of IEP courses are short and intensive we need to know what it is like to be in short intensive programs like IEPs. The practitioners of IEPs should be aware of what pedagogical behaviors in terms of interaction would facilitate students' greater participation.

Fourth, in America, students are accustomed to participating in class discussions and to voicing their own opinions. Yet in some cultures such as Korea, Japan, and China, students are accustomed to listening to their instructors more passively, without active participation. It would be good if researchers look at how the students, like Kenji and Miho, transform through interaction over a certain period time, maybe more than a year. As it is mentioned above, IEP courses are frequently available in the form of short sessions, but we need to investigate what kind of results can be produced in the studies done over a longer period of time.

A final suggestion is that although this study was conducted in the ESL situation, most of the students in the study will return to their countries where English will be a foreign language. So, the findings of this research will provide some guidance to the practitioners in the countries where there are people learning English as a foreign language. Since the classroom is the major environment for learning English in those countries, the findings, results, and implications will help in many ways.

### Limitation of This Study (Future Direction)

A couple of limitations are found in this study. First, the quality of talk can be defined differently. Measuring lexical density and the mean length of words was the way of defining the quality of talk used in this current study, but we can not exclude some other possible aspects, because long and complicated sentences are not necessarily good. For example, some questions from the teacher might require a simple short sentence rather than a long one. So, the quality of talk can be measured differently depending on the situation.

Second, in this study the existence of Pre-Initiation was found but the function of Pre-Initiation was not found because no response from the students was detected after Pre-Initiation. However, we might be able to find the function of Pre-Initiation once we consider some elements other than verbal responses, such as facial and kinetic expressions.

Third, this study did not examine whether there were different patterns of student participations for each gender as this was outside the focus of the present study. However, a reanalysis of the data focusing on gender might yield interesting results. More in-depth investigation is required to find what role gender plays in classroom participation.

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## APPENDICES

Appendix 1. Lexical Features of Responses to Initiations

		W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total	LD Ssw M
Response to Information- Gathering Question	Fiw	40	5	6	1	9	7	19	87	1.55
	Fw	135	28	72	52	46	92	27	452	3.23
	Cw	149	44	36	30	42	91	107	499	
	Sb	0	0	0	0	1	2	2	5	
	Ssw	324	77	114	83	98	192	155	1043	
	Tw	962	319	150	115	291	426	1073	3336	
Response to Known- Answer Question	Fiw	3	5	1	8	7	5	0	29	1.28
	Fw	16	34	25	32	16	32	36	191	2.76
	Cw	20	35	24	29	20	38	24	190	
	Sb	0	1	0	0	0	0	0	1	
	Ssw	39	75	50	69	43	75	60	411	
	Tw	263	205	310	290	285	260	217	1830	
Response to Demanding	Fiw	8	1	8	9	2	0	9	37	2.76
	Fw	33	2	41	55	1	5	21	158	6.37
	Cw	42	1	40	39	1	1	25	149	
	Sb	0	0	0	0	0	0	0	0	
	Ssw	83	4	89	103	4	6	55	344	
	Tw	166	14	149	357	10	109	206	1011	
Respon. to Authentic Question	Fiw	7	0	4	5	0	2	2	20	2.55
	Fw	34	2	13	9	7	52	33	150	4.7
	Cw	32	2	15	7	2	51	19	135	
	Sd	0	0	0	0	0	1	0	1	
	Ssw	73	4	32	21	9	56	54	249	
	Tw	53	24	77	119	92	184	322	871	
Weekly Total	Fiw	58	11	19	23	18	14	30	173	<b>1.6</b>
	Fw	218	66	151	148	70	181	90	924	<b>3.51</b>
	Cw	243	82	115	65	65	181	175	926	
	Sb	0	1	0	0	1	3	2	7	
	Ssw	519	160	285	236	154	379	297	2030	
	Tw	1444	562	686	881	678	979	1818	7048	
	LD	2.36	1.49	1.92	1.77	0.99	1.95	1.88	<b>1.6</b>	
	Ssw M	5.04	2.91	4.75	3.63	2.33	4.08	2.17	<b>3.51</b>	

(LD: Lexical Density, Ssw M: Mean of Students Words)

Appendix 2. Lexical Features of Responses to Evaluations

		W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total	LD Ssw M
Response to Acknowledgement	Fiw	4	0	5	2	1	1	1	14	1.31
	Fw	11	16	8	10	11	11	21	88	3.39
	Cw	15	9	4	8	9	10	12	67	
	Sb	0	0	0	2	0	1	1	4	
	Ssw	30	25	17	22	21	23	35	173	
	Tw	430	61	164	30	97	71	113	966	
Response to Rejection	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Weekly Total	Fiw	4	0	5	2	1	1	1	14	<b>1.31</b>
	Fw	11	16	8	10	11	11	21	88	<b>3.39</b>
	Cw	15	9	4	8	9	10	12	67	
	Sb	0	0	0	2	0	1	1	4	
	Ssw	30	25	17	22	21	23	35	173	
	Tw	430	61	164	30	97	71	113	966	
	LD	2.14	0.9	0.67	2	1	1.25	1.71	<b>1.31</b>	
	Ssw M	4.29	2.5	2.83	5.5	2.33	2.88	5	<b>3.39</b>	

Appendix 3. Lexical Features of Ss' Utterances to Follow-ups

		W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total	LD Ssw M
Response to Confirmation	Fiw	12	4	20	7	10	6	3	62	1.26 3
	Fw	53	32	98	31	34	42	65	355	
	Cw	47	26	74	20	57	35	41	300	
	Sb	0	0	0	0	0	0	1	1	
	Ssw	112	62	192	58	101	83	110	718	
	Tw	913	632	1040	399	321	707	1291	5303	
Response to Solicitation	Fiw	14	8	13	5	7	3	7	57	1.54 3.37
	Fw	57	35	49	41	66	41	131	420	
	Cw	72	49	50	29	59	36	112	407	
	Sb	0	1	0	1	1	0	6	9	
	Ssw	143	93	112	76	133	80	256	893	
	Tw	226	412	500+	337+	417	417	428	2737+	
Response to Clarification	Fiw	9	13	8	9	13	9	7	68	1.47 3.51
	Fw	10	54	40	43	25	67	67	306	
	Cw	8	56	20	28	39	53	67	271	
	Sb	0	0	0	0	0	3	2	5	
	Ssw	27	123	68	80	77	132	143	650	
	Tw	1005	697	1000+	492	636	592	958	5380+	
Response to Extension	Fiw	7	1	9	1	7	2	0	27	1.63 4.52
	Fw	18	28	95	21	29	15	18	224	
	Cw	12	20	42	16	24	11	17	142	
	Sb	0	0	0	0	0	0	0	0	
	Ssw	37	49	146	38	60	28	35	393	
	Tw	1571+	560+	1616+	1100+	1090	613	859	7355+	
Response to Reformation	Fiw	3	2	2	3	1	1	0	12	1.65 3.59
	Fw	10	3	13	4	13	0	10	53	
	Cw	12	2	10	8	12	3	9	56	
	Sb	0	0	1	0	0	0	0	1	
	Ssw	25	8	25	15	26	4	19	122	
	Tw	240	80	143	97	114	64	81	819	
Response to Association/ Connection	Fiw	3	1	0	1	0	0	0	5	3.28 7
	Fw	13	14	1	7	23	4	0	62	
	Cw	30	11	3	5	8	2	0	59	
	Sb	0	0	0	0	0	0	0	0	
	Ssw	46	26	4	13	31	6	0	126	
	Tw	410	83	356	100+	389	100+	181	1619	
Weekly Total	Fiw	48	29	52	26	38	21	17	231	1.73 3.74
	Fw	161	166	296	147	190	169	291	1420	
	Cw	181	164	199	106	199	140	444	1433	
	Sb	0	1	1	1	1	3	9	16	
	Ssw	390	360	548	280	428	333	761	3100	
	Tw	4311+	2384+	4655+	236	2967	2429+	3798	20780+	
	LD	1.76	1.61	2.05	1.21	1.19	1.28	2.74	1.73	
	Ssw M	3.79	3.53	5.65	3.18	2.56	3.06	4.7	3.74	

Appendix 4. Lexical Features of Responses to Teacher (wT)

Weeks		W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total	LD
Students										Ssw M
Hoon	Fiw	37	15	11	10	24	6	9	112	1.70
	Fw	135	142	64	44	65	69	137	656	4.02
	Cw	153	120	35	43	75	28	112	566	
	Sb	1	2	0	0	1	0	3	7	
	Ssw	326	279	110	97	165	103	261	1,341	
Jiwon	Fiw	9	9	19	7	2	5	17	68	1.36
	Fw	9	19	116	40	7	37	132	360	3.15
	Cw	9	38	57	31	20	47	126	328	
	Sb	0	2	0	0	0	0	2	4	
	Ssw	27	68	192	78	29	89	277	760	
Yuna	Fiw	9	3	10	2	0	2	5	31	1.72
	Fw	15	15	81	7	3	19	51	191	3.54
	Cw	28	10	71	5	15	27	56	212	
	Sb	0	0	1	0	0	0	0	1	
	Ssw	52	28	163	14	18	48	112	435	
Sujin	Fiw	14	4	5	3	1	2	1	30	1.73
	Fw	69	53	28	20	20	9	53	252	3.89
	Cw	78	47	15	17	14	9	47	227	
	Sb	0	0	0	0	0	0	0	0	
	Ssw	161	104	48	40	35	20	101	509	
Kenji	Fiw	9	2	18	1	9	2	5	46	1.60
	Fw	35	14	45	8	19	26	45	192	4.08
	Cw	25	13	52	2	1	33	31	157	
	Sb	0	0	0	0	5	0	0	5	
	Ssw	69	29	115	11	34	61	81	400	
Miho	Fiw	8	4	8	2	1	1	3	27	1.76
	Fw	29	12	34	8	2	8	4	97	4.09
	Cw	30	10	34	4	4	8	3	93	
	Sb	0	0	0	0	0	0	0	0	
	Ssw	67	26	76	14	7	17	10	217	
Maria	Fiw	2	7	14	12	26	6	6	73	1.31
	Fw	1	17	99	110	132	158	134	651	3.67
	Cw	0	8	45	43	125	111	77	409	
	Sb	0	1	1	1	1	8	4	16	
	Ssw	3	33	159	166	284	283	221	1,149	
Joyce	Fiw	7	10	0	2	3	3	2	27	2.24
	Fw	47	149	21	32	43	74	96	462	5.26
	Cw	52	111	14	25	45	62	61	370	
	Sb	0	0	0	0	1	2	5	8	
	Ssw	106	270	35	59	92	141	164	867	
Weekly Total	Fiw	95	54	85	39	66	27	48	414	1.62
	Fw	340	421	488	269	291	400	652	2,861	3.89
	Cw	375	357	323	170	299	325	513	2,362	
	Sb	1	5	2	1	8	10	14	41	
	Ssw	811	837	898	479	664	762	1,227	5,678	
Total M	LD	2.30	1.96	1.80	1.18	1.13	1.74	1.52	<b>1.62</b>	
	Ssw	4.98	4.60	5.02	3.33	2.51	4.28	3.63	<b>3.89</b>	

(M = Mean numbers)

Appendix 5. Lexical Features of Ss' Utterances to Peers

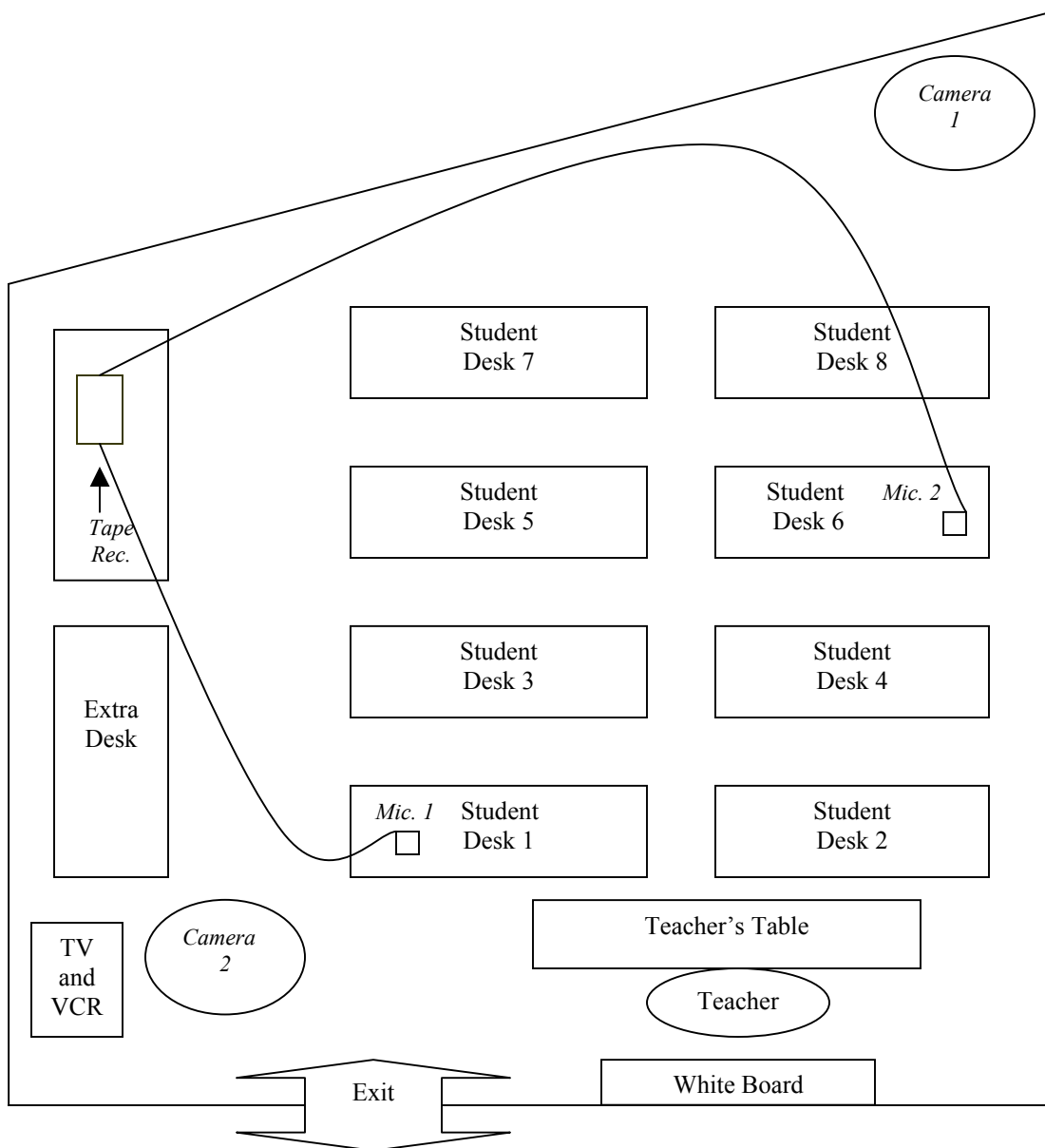
Weeks		W 1	W 2	W 3	W 4	W 5	W 6	W 7	Total	LD Ssw M
Names										
Hoon	Fiw	0	2	0	3	22	7	0	34	1.28
	Fw	0	43	0	100	112	77	0	332	3.03
	Cw	0	45	0	91	100	36	0	272	
	Sb	0	2	0	3	2	0	0	7	
	Ssw	0	92	0	197	236	120	0	645	
Jiwon	Fiw	0	23	0	12	3	4	0	42	1.82
	Fw	0	87	0	101	38	226	0	452	3.51
	Cw	0	128	0	142	57	221	0	548	
	Sb	0	1	0	5	3	10	0	19	
	Ssw	0	239	0	260	101	461	0	1,061	
Yuna	Fiw	0	17	0	0	14	19	0	50	1.88
	Fw	0	173	0	0	85	133	0	391	4.00
	Cw	0	168	0	0	90	134	0	392	
	Sb	0	2	0	0	0	0	0	2	
	Ssw	0	360	0	0	189	286	0	835	
Sujin	Fiw	0	6	0	0	1	10	0	17	1.92
	Fw	0	82	0	0	0	207	0	289	4.56
	Cw	0	80	0	0	10	135	0	225	
	Sb	0	2	0	0	0	1	0	3	
	Ssw	0	170	0	0	11	352	0	533	
Kenji	Fiw	0	14	0	0	16	3	0	33	1.47
	Fw	0	76	0	0	79	20	0	175	3.49
	Cw	0	76	0	0	60	15	0	151	
	Sb	0	0	0	0	0	0	0	0	
	Ssw	0	166	0	0	155	38	0	359	
Miho	Fiw	0	7	0	4	14	20	0	45	1.99
	Fw	0	31	0	134	80	62	0	307	5.23
	Cw	0	31	0	65	88	33	0	217	
	Sb	0	0	0	1	0	0	0	1	
	Ssw	0	69	0	204	182	115	0	570	
Maria	Fiw	0	29	0	12	33	11	0	85	2.21
	Fw	0	261	0	185	290	308	0	1,044	5.46
	Cw	0	166	0	154	255	202	0	777	
	Sb	0	0	0	0	5	8	0	12	
	Ssw	0	456	0	351	583	529	0	1,918	
Joyce	Fiw	0	6	0	5	0	2	0	13	2.56
	Fw	0	236	0	79	8	57	0	380	6.14
	Cw	0	166	0	62	4	50	0	282	
	Sb	0	0	0	0	0	0	0	0	
	Ssw	0	408	0	146	12	109	0	675	
Weekly Total	Fiw	0	104	0	36	103	76	0	319	1.89
	Fw	0	989	0	599	692	1,090	0	3,370	4.36
	Cw	0	860	0	514	664	826	0	2,864	
	Sb	0	7	0	9	10	19	0	45	
	Ssw	0	1,960	0	1,158	1,469	2,011	0	6,598	
Total M	LD	0	2.04	0	2.72	1.45	1.85	0	1.89	
	Ssw		4.66		6.13	3.21	4.50		4.36	

## Appendix 6 from Nassaji &amp; Wells (2000, p. 403)

## Developing Inquiring Communities in Education Project (DICEP) Coding Scheme Descriptions

1. Episode Activity Orientation
  - Organizing
  - Planning
  - Reporting
  - Launching
  - Monitoring
  - Problem-solving
  - Generating
  - Constructing
  - Formulating
  - Reviewing
2. Exchange Type
  - Nuclear
  - Preparatory
  - Dependent
  - Embedded
3. Prospectiveness
  - Demand
  - Acknowledge
  - Give
4. Function
  - (a) Teacher Only Moves
    - Nomination
    - Exposition
  - (b) Assumed Known Information
    - Fact
    - Connection
    - Conventional explanation
    - Rule-governed answer
    - Report of public event
  - (c) Personal
    - Experience
    - Imagination
  - (d) For Negotiation
    - Opinion
    - Conjecture
    - Connection
    - Prediction
    - Explanation
    - Suggestion
  - (e) Action
    - Action
    - Bid
    - Intention
  - (f) Clarification
    - Clarification
5. Follow Up: Give
  - (a) Evaluation
    - Accept
    - Reformulate
    - Reject
    - Praise
  - (b) Comment
    - Exemplification
    - Connection
    - Amplification
    - Summarize
  - (c) Metatalk
    - Metacognitive
    - Metaorganizational
    - Metatopic
6. Follow Up: Demand
  - (a) Comment
    - Exemplification
    - Connection
    - Justification
    - Amplification
    - Opinion
    - Summarize
  - (b) Clarification
  - (c) Repetition
    - Identification
    - Confirmation

## Appendix 7. Shape of the Classroom



Microphones were frequently moved to many different locations in the classroom for catching better sound.