Strategic and Discourse Competence
of Japanese Junior High School Students

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This article presents some characteristics of the English speaking of Japanese junior high school students. In order to improve the communicative competence of beginners of English, a board of education pioneered the "Interactive English Forum" in which students were required to participate in oral interactions. The conversations at the Forum were videotaped and analyzed for data to investigate certain conversation characteristics, with respect to strategic competence and discourse competence, of two levels of students, which were then compared with the data from conversations between native English speakers. Some phenomena are observed in their turn-takings, backchannels, and topics, and some suggestions are presented to improve students speaking ability.

1.0 Introduction

It was not until the last half of 1980s when the Japanese government began to take action on English education in regards to the internationalization of Japan. It was initiated by the theoretical and practical transition of second language acquisition (SLA) in foreign countries and by the globalization throughout the world. Within the scope of the new national curriculum in 1988, boards of education and schools started to work on a new English teaching style to enable students to acquire communicative competence. Following the key concept of the curriculum, "practical" communicative competence has been emphasized since the recent 1998 revision (Nagasawa, 2003). Having placed too much stress on grammar for a long time, the English education system in Japan is now on the way to reform.

Due to the shift in emphasis of the curriculum, Ibaraki prefecture, with 243 junior high schools in its jurisdiction, discontinued the speech contest and pioneered the "Interactive English Forum" to improve the students' interactive communication ability. In this Forum, students perform five-minute oral interactions in groups of three.

In this analysis, the two levels of the Forum participants (middle level and higher level: see 4.1 Participants) and the native speakers' conversations are examined to

determine the differences between the three groups regarding strategic and discourse competence.

2.0   Theoretical Background

Canale and Swain (1980) proposed the theoretical framework for communicative competence as follows:

1) Grammatical competence - knowledge of lexical items and of rules of morphology, syntax, sentence-grammar semantics, and phonology

2) Sociolinguistic competence - sociocultural rules of use and rules of discourse, cohesion, and coherence

3) Strategic competence - verbal and non-verbal communication strategies that may be called into action to compensate for breakdowns in communication due to performance variables or to insufficient competence.

In addition, Canale (1983) expanded upon discourse competence referring to cohesion and coherence.

Richards (1983) proposed some characteristics of conversation: the element of utterances is not a sentence, but a clause and it is ungrammatical; there are many topic changes; and there is a considerable influence from non-verbal communication.   The proposal made by Dörnyei (1995) was that "the correlation between speech rate and fillers is particularly high, implying that more fluent students tended to use time-gaining strategies."   Some of the characteristics in this study were analyzed according to their suggestions.

In this study, one of the characteristics that is examined is the "backchannel" of the students.   Schiffrin (1987) defined discourse markers as conjunctions, interjections, adverbs and lexicalized phrases; yet, the junior high school students, being beginners of English, have very limited use of these discourse markers.   However, Martin (2001) quoted Fraser: "Not only have discourse markers been called by various names (Fraser 1998: lists 15 different names)," which indicate there are diverse terms.   From among the diverse terms, analysis for this study was conducted based on discourse markers along the lines of backchannel response discussed by MacCarthy (1991).

Backchannel responses are usually defined as a linguistic means of not taking a turn when one has the opportunity, or simply making it clear to the speaker that one is attending to the message.   They consist of vocalizations such as mm, ah-ha, and short words and phrases such as yeah, no, right, sure, et cetera (Yngve 1970).   In his book, Yule (1996) noted that "...speakers still expect their conversational partners to indicate that they are listening.   There are many different ways of doing this, including head nods, smiles, and other facial expressions and gestures, but the most common vocal

indications are called backchannel signals, or simply backchannels."   Analysis in this study was based specifically on the following backchannels: short words and phrases, vocalizations, and, the most commonly used, head nods and smiles as body language.

Taking turns is another important factor in conversation.   Sato (1990) claimed that "Significant differences between the Asian and non-Asian students were found with respect to the frequency of turns taken" by language transfer.   Turn-taking in this study was analyzed according to the definitions of Sacks et al. (1974), that is to say, "People take turns when they are selected or "nominated" by the current speaker, or if no one is selected, they may speak of their own accord ("self-selection").   If neither of these conditions applies, the person who is currently speaking may continue."   In this study, the number of nominations and self-selections were counted.

Canale and Swain (1980) referred to cohesion and coherence as factors in sociolinguistic competence, and Canale (1983) referred to them as factors of discourse competence.   Cohesion refers to linguistic features such as pronouns and conjunctives; written text is often analyzed by examining these features.   On the other hand, coherence, according to Halliday and Hansan (1976), "refers to text that appropriately fits its situational context.   A coherent text is appropriate with respect to such situational features as the channel, the genre, the topic discussed...; when it is consistent with its context, it is coherent."   In light of these definitions, and since this is a study of oral interactions, the coherence, rather than the cohesion, was investigated.

3.0   Preceding Research and the Purpose of the Study

In Negishi (2002), the four categories below were investigated along the lines of Wiese (1984) to evaluate the communicative competence of the junior high school students and the native speakers:

1) Grammatical competence - the number of grammatical mistakes
2) Active vocabulary - number of words studied from their school textbooks and the number of words not found in their textbooks
3) Fluency - the rate of speech, the number of words per sentence, the length and the number of pauses that were longer than half a second, the number of sentences, and the number of repetitions and self-corrections
4) Strategic competence - the number of fillers, and the number of evasions, rephrases, and loan-words

The following three observations were made from the analysis:
a) Although the difference between the students and the native speakers was

evident (p 1), there was no significant difference between the middle level students and the higher level students (p>0.05).

b) The number of pauses and the length of pauses per sentence did not follow the level of fluency;

the middle level students > the native speakers > the higher level students (Figure 1).

c) Additionally, the number of sentences did not follow the level of fluency;

the higher level students > the middle level students > the native speakers (Figure 2).

Figure 1 The number of pauses and the length of pauses |
Figure 2 The number of sentences |
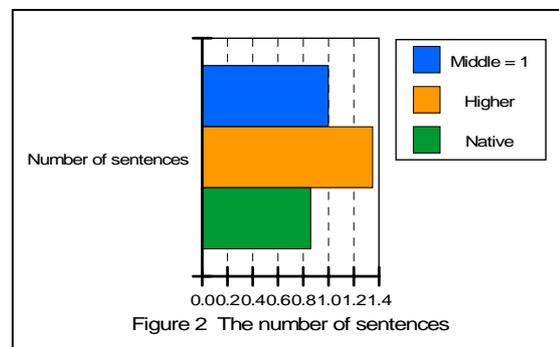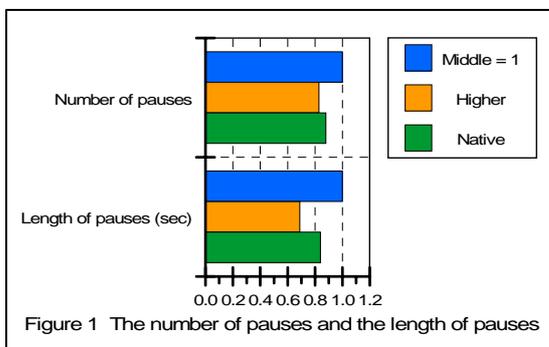
Given the observations above, the purpose of this study is as follows:

1) To determine the cause that discriminates the middle level students and the higher level students in order to solve a) above.

2) To investigate the cause of the sequence of the groups, which obliterates the assumption that the sequence should follow the speakers' fluency, in order to solve b) and c) above.

Considering these purposes, the participants' conversation data were analyzed with respect to their strategic and discourse competence.

4.0 Method
4.1 Participants

The English Interactive Forum, which has been conducted since 1998 by Ibaraki prefecture, is held every summer with second and third grade students representing each school.   Two second grade students and two third grade students from each of the 234 schools in the prefecture participate in the first level of the Forum held by city or by county, called the "County and City Forum."   About 40% (180 students) of those participants proceed to the second level of the Forum that involves five districts, called the "District Forum."   The students taking part in the District Forum are given the

name "middle level students (MLS)" in this paper. Twenty percent of the MLS (36 students) are selected to participate in the final level for the prefecture called the "Prefecture Forum." These participants are given the name "higher level students (HLS)" in this paper.

All the third grade students have studied English for nearly two and a half years by the time of the Forum, which is held just before and during summer vacation. Students who have studied abroad more than 6 months cannot participate in the Forum. They are not asked whether or not they studied English at private English schools, like cram schools, when they were in elementary school.

The students participating in the Forum are divided into groups consisting of three members, or four in rare cases, which are determined by random selection. A few minutes prior to the conversation, they are given a topic that they will have five minutes to discuss before a panel of judges. Prior to the free conversation in the group, each student is given 30 seconds to introduce him/herself to avoid taking too much time introducing themselves in the conversation. Only three topics – "family", "friends", and "school" - are used at the County and City Forums, as well as at the first round of District Forums; hence, students are able to practice, to some extent, what to talk about in advance. Nonetheless, students are required maintain interaction with others at the Forum, so if a student changes the topic suddenly, the judges are to deduct some points. Topics for the second round at the District Forums and all rounds of the Prefecture Forum are chosen from the words in their junior high school English textbooks, such as "useful," "holiday," and so forth, requiring students to carry out a more realistic conversation than lower level students are able to do.

Only third grade students' conversation data was used for this study. Among those students, twelve MLS were extracted from a District Forum, four of which were male and eight were female. Among thirty-six HLS from the Prefecture Forum, twelve students were extracted: five of them male and seven female.

The data of twelve native speakers (NS) are used for comparison with the students' data. The vocation of these participants is to speak English to help students who are studying English as a second language (ESL) accomplish their learning goals. Nine of them are teaching English to junior high school students in Ibaraki prefecture and three of them are teaching English to adults at an English school in Toronto, Canada. Out of twelve people selected for this study, seven were male and five were female. They were required to carry out conversations under the same circumstances as the students, that is, the same topics and the same length of time, as naturally as they could.

4.2   Procedure
4.2.1   Transcription

The conversations were videotaped and the sound was recorded on music discs (MDs) in the Forum halls for the students and in a meeting room for the NS.   For all the interactions, not only was the sound transcribed, but also the non-verbal expressions, such as body language.

4.2.2   Categories of analysis

Strategic competence and discourse competence are the main components of this analysis; the various communication abilities are analyzed based on these two components.   The concrete categories are as follows:

1) Turn-taking: Two kinds of turn-taking, "self-selection," where a speaker begins speaking of his/her own accord, and "nomination," where a speaker nominates another speaker, were counted; however, "backchannel," such as *aizuchi,* was not counted as turn-taking.

2) Backchannel: Of the various types of backchannels, the following three were counted and analyzed.

    a) Short words and phrases: One word interjections, such as "Really?" and repetition of another speaker (e.g. A: I like skiing.   B: Skiing?), and short sentences, such as "That's right."

    b) Vocalizations: A sound which a speaker produces such as "Yeah," "Oh," or "Mmm..." including laughter, but not "Mmm..." for hesitation.

    c) Body language: Gestures, including nods and smiles.

When b) and c) occurred simultaneously, only b) was counted.

3) Coherence of topics: According to the content of the participants' conversation, the following three elements were counted.

    a) Number of subordinate topics

    b) Number of words uttered in each subordinate topic

    c) Number of words related to the main topic (i.e. the topic given prior to the conversation)

5.0   Result and Discussion
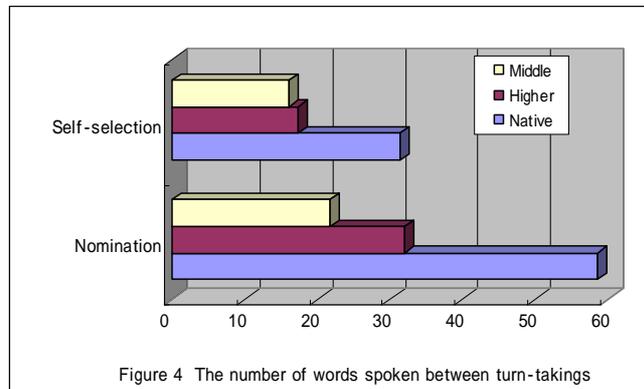### 5.1 Analysis of Each Competence

1) Turn-taking

Figure 3 shows the number of each type of turn-taking, self-selection and   nomination,   per   five   minutes.

Figure 3 The number of turn-takings per five minutes
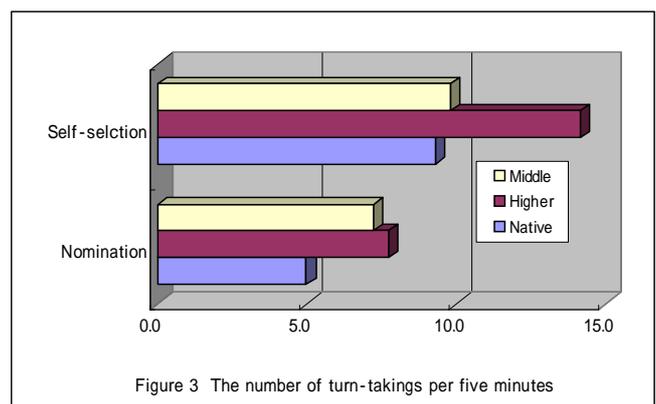
With respect to self-selection, the MLS and NS self-select 9.8 times and 9.3 times respectively per five minutes, whereas the HLS self-select 14.2 times. The MLS take approximately the same number of self-selected turns as the NS; the HLS take more turns than the other two groups. With respect to nomination, the MLS and HLS take nominated turns 7.3 times and 7.8 times respectively per five minutes, compared with 5.0 times for the NS. The students take more nominated turns than the NS.

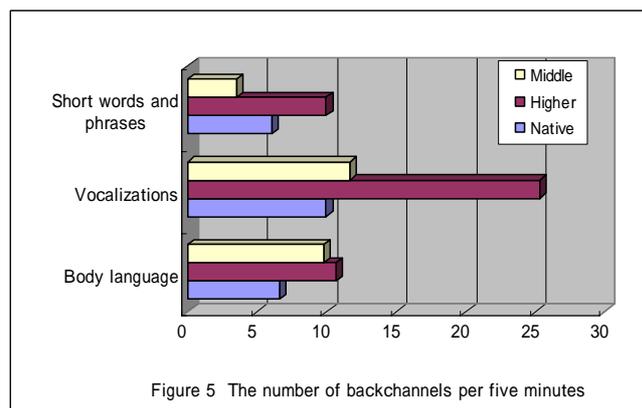Figure 4 shows the number of words between turn-taking. The MLS utter 16.2 words between self-selected turn and the HLS utter 17.5, whereas the NS utter 31.5 words, which is nearly double those of the students. With respect to nomination, the MLS utter 21.8 words between nominated turn and the HLS utter 31.8, whereas the NS utter 58.6 words, nearly tripling the number uttered by the MLS.

Figure 4 The number of words spoken between turn-takings

These results show that the more fluent the speaker, the higher the number of words used between turn-taking; the difference in the number of words between turn-taking between both levels of students and the NS is obvious.

2) Backchannel

Figure 5 shows how many backchannels are employed per five minutes. With respect to short words and phrases, the MLS uttered 3.6 "word and phrase" style backchannels per five minutes, and the NS uttered 6.1 words and phrases, whereas the HLS showed the highest number by uttering 10.0. The MLS and the NS use nearly the same number of vocalization-style backchannels; 11.7 and 10.0 respectively, whereas the HLS use vocalizations about two and a half times more than the other two groups, indicating a remarkable difference. With respect to body language, the NS employ the least number of body language gestures at 6.7 times, whereas both levels of the students

Figure 5 The number of backchannels per five minutes

show similar numbers: 9.8 for the MLS and 10.8 for the HLS. In short, the HLS have the highest numbers in each category of backchannels. The results of the former research, that the number of pauses and the length of pauses per sentence were the least in the HLS' conversation, seem to be primarily due to the vocalizations of the HLS.

Figure 6 shows the number of words spoken between backchannels. The MLS uttered 44.1 short words and phrases before using the next backchannel, which was close to the 48.0 uttered by the NS. The HLS uttered 24.8 words and phrases, which is

Figure 6 The number of words spoken between backchannels
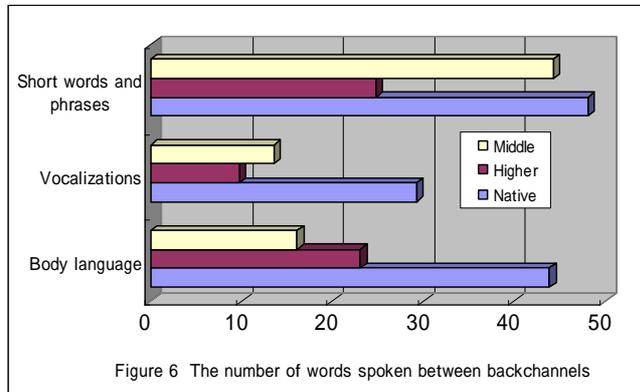
about half of the other two. With respect to vocalizations, the native speakers utter many more words by the time they use the next vocalization, 29.3, compared to the HLS, who uttered the least number of words and phrases, 9.81. Comparable to the HLS, the MLS uttered 13.6 words between vocalizations. The use of body language follows a natural progression; that is to say, the more fluent the speakers are, the more words they utter between gestures or body language.

In short, the HLS employ more backchannels, or they do not use as many words between backchannels, especially in the case of short words and phrases and vocalizations. It is evident on the videotape, as well, that the HLS showed the strongest enthusiasm in speaking, even if it was the slightest sound, compared with the MLS and the NS. It is undeniable that the enthusiasm causes "unnatural phenomena" in the Forum because the students are very conscious of ranking. Possibly, the students are striving to show their eagerness to speak to the judges.

It is said that Japanese use more backchannels compared to native English speakers; however, the NS used more backchannels than expected. The reason for this could be the length time three out of the four NS groups have dwelt in Japan, therefore

Figure 7 The coherence of topics
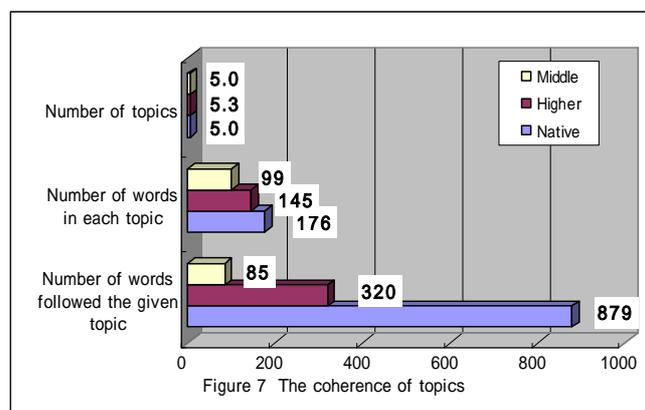
acquiring the Japanese convention.

3) Coherence of topics

As is shown in Figure 7, the number of topics discussed in itself does not show any marked difference between the groups; each level of speaker changed topics about once per minute on average. Nevertheless, concerning the number of words used for each topic, there are clear differences among three levels; most significantly, the difference in the rate of speech. The MLS uttered 99 words per topic, the HLS uttered 145, and the NS uttered the most at 176 words. The outcome that the less fluent students change topics even when the topics have not had enough discussion seems to be affected by insufficient volume of vocabulary and limited variety of expressions. Although there is not a category or number to reflect this observation, the MLS often changed subjects unexpectedly resulting in irrelevant interactions. The HLS' conversation, on the other hand, had a tendency to adapt a new subject with at least some overlap from the previous subject.

A clear distinction among the three levels was indicated by whether or not the speakers followed the topic given prior to the conversation. Of all three groups, the NS conversed consistently along the given topic, using 879 words. The junior high school students, however, digressed from the topic at an early stage with only 85 words used by the MLS and 320 by the HLS. A notable difference can be seen between the MLS and the HLS, though. The considerable difference between the NS and the students might be related to the fact that the NS were all adults; additionally, a claim can be made that the students cannot expand their conversation on a specific topic because of limited vocabulary and expressions.

5.2 Discriminant Analysis

As mentioned in 5.1, the differences among the three levels of speakers were distinct in all areas, excluding the backchannel category of short words and phrases and vocalizations. Approaching the data from a different perspective, discriminant analysis is carried out to determine 1) if these three levels are discriminated statistically, 2) and, if so, the items that discriminate them.

The reason for adopting discriminant analysis is that criterion variables are categorical data, namely, the three existing levels - MLS, HLS, and NS, and that predictor variables are measurement data, namely, the number of words, according to Kan (2003). The original data is on Table 1. With respect to the category of "topic", only the data from the group as a whole, not the individuals, can be obtained. In order to obtain uniform data in the other

Table 1 Original Conversation Data

				Turn-taking		Backchannel			Hesitation	Topic		
			Number of words	Self-selection	Nomination	Short words and phrases	Vocalisations	Body language	Hesitation	Number of topics	Number of words in each topic	Number of words which followed the given topic
Middle level students	GROUP A	1	196	11	5	2	12	10	8			
		2	152	7	12	2	18	13	19	4	116	94
		3	117	6	8	1	12	10	7			
	GROUP B	4	125	9	9	2	6	13	1			
		5	217	11	9	6	14	7	18	7	78	17
		6	203	17	2	9	10	17	2			
	GROUP C	7	121	5	6	1	6	11	17			
		8	201	10	7	6	18	5	19	4	107	37
		9	106	10	7	3	4	6	3			
	GROUP D	10	89	9	7	3	5	16	5			
		11	248	11	9	8	14	4	14	5	94	192
		12	131	12	6	0	21	6	8			
Higher level students	GROUP E	13	312	20	7	13	23	1	21			
		14	177	10	5	3	41	24	6	6	134	43
		15	317	20	7	5	32	8	12			
	GROUP F	16	203	14	13	4	19	21	10			
		17	255	22	4	10	27	3	16	5	142	711
		18	253	12	13	25	17	2	7			
	GROUP G	19	87	4	6	1	19	25	7			
		20	285	15	6	9	21	20	6	6	121	269
		21	355	15	6	12	39	3	13			
	GROUP H	22	322	16	9	8	15	2	17			
		23	152	6	10	15	26	3	5	4	184	258
		24	260	16	7	15	25	17	1			
Native speakers	GROUP I	25	326	11	4	5	9	7	8			
		26	64	4	6	0	4	11	4	5	162	809
		27	419	13	7	7	6	2	3			
	GROUP J	28	219	11	6	5	6	13	11			
		29	190	6	6	2	5	5	5	5	168	840
		30	431	5	6	2	9	10	8			
	GROUP K	31	457	13	7	10	12	2	4			
		32	311	14	4	27	13	3	9	5	187	934
		33	166	7	4	8	10	16	5			
	GROUP L	34	499	10	5	6	9	1	23			
		35	225	10	3	1	27	2	3	5	187	934
		36	210	8	2	0	10	8	15			

categories for comparison with the "topic" category, the mean value of the data for each category was calculated using the numbers for the individuals and averaging them for the group.   Discriminant analysis was conducted from the subsequent data.

Box's M test is a comparison between two groups to test whether or not population and covariance matrix are equivalent.   The groups used were as follows: MLS and HLS, MLS and NS, and HLS and NS.   As a result of the test, both groups' population and covariance matrix were proved to be equivalent.   Therefore, discriminant analysis was carried out by means of linear discriminant function with the results on Table 2.

	Variance-covariance matrix	Correlation ratio (indicates analysis precision)	F value		p
MLS-HLS	equivalent	0.98	89.7	Vocalizations	0.0007[**]
			53.4	Short words and phrases	0.0019[**]
MLS-NS	equivalent	0.99	564.4	Words followed given topic	2E-6[**]
			9.7	Vacalizations	0.0265[*]
HLS-NS	equivalent	0.99	102.6	Vocalizations	0.0005[**]
			68.3	Nomination	0.0012[**]

Table 2 The result of discriminant analysis

1) MLS and HLS

The correlation ratio between the MLS and the HLS is 0.98 indicating high correlation; moreover, the discriminant hitting ratio is 100% and the misclassification probability is 3.1%, which means a high analytical accuracy.

The F value of vocalizations is 89.7, and that of short words and phrases is 53.4, which show a high value. P values of vocalizations and short words and phrases are much smaller than 1%, 0.0007[**] and 0.0019[**] respectively. That is to say, the primary factors that discriminate the MLS and the HLS are, firstly, vocalizations and, secondly, short words and phrases.

2) MLS and NS

The correlation ratio between the MLS and the NS is 0.99 indicating high correlation. The discriminant hitting ratio is 100% and the misclassification probability is 0%, which also means high analytical accuracy.

The F value of the number of words that related to the given topic is 564.4, which is very high; the F value of vocalizations is 9.7. P values of the above categories are very low, 2E-6[**] and 0.0265[*] respectively. In other words, the primary factor that discriminates the MLS and the NS is whether or not the speakers can continue to converse along the given topic.

3) HLS and NS

The correlation ratio between the HLS and the NS is 0.99 indicating high correlation, and the discriminant hitting ratio is 100% and the misclassification probability is 1.1E-14%, which means high analytical accuracy.

The F value of vocalizations is 102.64 and that of nomination is 68.3.   P values of these categories are also much smaller than 1%, 0.0005[**] and 0.0265[*] respectively.   This shows that the primary factors that discriminate the HLS and the NS are predominately vocalizations and secondarily nominated turn-takings.

Discriminant probability is 100% for all four groups of the MLS and the HLS,

99.996% for one group of the NS, and 100% for the other three NS groups.

6.0　Conclusion

Some questions were raised from Negishi (2002) on the unnaturalness of the number and length of pauses and the number of sentences used by the HLS. This analysis shed light upon those questions in that the phenomena could be caused by backchannels. It would be natural that second language learners start speaking English slowly using short phrases or segments and gradually become capable of speaking English using long sentences with some pauses. Furthermore, in this situation, where students need to carry on a conversation in front of many people, including judges, within a limited amount of time, it is reasonable that the interactions may become frantic. In a normal learning situation, it would be considered a natural progress in light of what Chamber alluded to in 1997: " lengthy silences may be due to a very limited vocabulary (MLS in this case), and non-native speakers do not actually pause longer than native speakers (HLS in this case)."

If we define the students' goals as becoming more like that of native speakers, the following are some measures that teachers can take to improve students' communicative competence:

1) To significantly lengthen students' segments into sentences
2) To increase students' knowledge of expressions so they can expand their conversation relating to a particular topic
3) To increase their volume of vocabulary to enable them to carry on a conversation

It might be difficult for beginners of English to gain these abilities. The pedagogical suggestion in classrooms, however, is to give them tasks which require a set of activities related to problem solving rather than pattern practice. Students need to work on the problem consistently and frequently so that it is necessary for them to employ different expressions. In these realistic interactions, they will increase their volume of vocabulary instead of memorizing monotonously, which is, unfortunately, a common measure for learning in Japan.

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