

幼稚園イマージョン・プログラムにおける
教師の発話

Teacher Talk in Kindergarten Immersion Program:
Teacher's Speech Modification over Time

渡邊時夫・酒井英樹・浦野 研

Tokio Watanabe, Hideki Sakai, & Ken Urano

中部地区英語教育学会 紀要 第25号 別刷

Reprinted from Bulletin of The Chubu English
Language Education Society. No. 25(1995)

幼稚園イマージョン・プログラムにおける教師の発話
Teacher Talk in Kindergarten Immersion Program:
Teacher's Speech Modification over Time
KEY WORDS: インプット 言語習得 授業分析

渡邊時夫・酒井英樹・浦野研

Tokio Watanabe, Hideki Sakai, & Ken Urano

I. INTRODUCTION

In order for second language acquisition (SLA) to take place, a learner needs to take in a variety of the target language input in a large amount (e.g. Krashen, 1982). Thus it has been one of the central issues to date to explore specific features of the linguistic and/or environmental input to which a second language (L2) learner is exposed. Along this line, teacher talk has been examined from various viewpoints (for a review, see Chaudron, 1988).

From a perspective of the relationship between teacher talk and SLA, it is possible to assume that if certain characteristics of teacher talk are related to L2 development, then it follows that they can be expected to change according to L2 development. Kleifgen (1985) and Ellis (1985), cross-sectionally and longitudinally respectively, found that teachers are successful in adjusting their speech in an appropriate way for an individual learner in a one-to-one interaction.

However, there seems to be little research that shows developmental features of teacher talk in a classroom situation, that is, in a one-to-many interaction. One exception we are aware of is Tardif's (1994) study of the language used by immersion teachers. Yet, one problem inherent in his study is that he presupposed that his students developed during the observation period and did not provide details of their development. In other words, there still remains the question of whether a teacher shows a change in the use of teacher talk in the classroom in accordance with SLA.

II. PURPOSE

In a study of L2 development in a kindergarten immersion program, Sakai & Oyanagi (1994) found that the children went through three stages: in the first stage, the children's utterances were typically controlled by the teacher; in the second stage, the children began to make spontaneous utterances that chiefly consisted of formulaic expressions, and; in the third stage, they started to make novel utterances spontaneously for communicative purposes. Based on Sakai & Oyanagi's (1994) findings on L2 development, the present study focused on their teacher, called L. That is to say, it

attempts to find out whether Teacher L changed the characteristics of her speech through the three stages according to the development of the children's proficiency of L2 and to discuss the relationship between the quality of input and L2 development.

III. METHOD

A. Subjects

The data analyzed in this study came from observation of a private kindergarten immersion program in Nagano City. Teacher L, an English-speaking Canadian, taught a class which consisted of 20 children aged four or five. During her lessons from Monday through Friday, she gave all her instructions in English. Her lesson in the morning was between 10:30 and 12:00. Then came a lunch time of one hour. After lunch, there was nap time for one hour. The lesson in the afternoon lasted for about half an hour. The time of exposure to English can be estimated to be two hours per day.

B. Data

The data consisted of six transcriptions of videotapes, audiotapes, and notes taken during Teacher L's lessons. The first 30-minute part of each transcription was coded for this study, except for the transcription of October 15, when the observation lasted for 10 minutes. This 30-minute part involved similar activities across the observations, such as calendar activities, book activities, songs, and the like.

On the basis of the L2 development as described above, the six observations were grouped into three: Period I (5/27, 6/15), Period II (9/27), and Period III (10/15, 11/4, 12/7). The analyses were made to examine the differences in the teacher's speech between the periods.

C. Procedures

1. Analysis Units

The teacher's speech was divided into analysis units in terms of linguistic structure, intonation, pause, interjection, or interruption by another speaker. Each unit contained one of the following structures: (1) clause structure, (2) phrase structure, or (3) other. The largest possible unit was a T-unit: "any syntactic main clause and its associated subordinate clauses" (Chaudron, 1988, p. 45). Therefore, compound sentences were analyzed as two simple sentences (see Table 1).

2. Categories of Teacher Talk

A brief explanation of the categories used for coding is presented in Table 1. The system of categories consists of three levels: (1) function, (2) discourse modification, and (3) utterance structure. This system was developed in order to clarify linguistic features of teacher talk.

Table 1. CATEGORIES OF TEACHER TALK

FUNCTION	DISCOURSE MODIFICATION	STRUCTURE
<p>TALKING: T's speech for conveying information without any expectation of C's response</p> <ol style="list-style-type: none"> 1. MANAGING/ STRUCTURING T's speech to indicate the opening of a new activity, that is, a boundary marker 2. INFORMATION/ EXPLANATION GIVING information or explanation subcategorized as text itself, text-related information, or text-free information <p>EVOKING: T's speech requiring C's verbal or non-verbal response</p> <ol style="list-style-type: none"> 1. NONVERBAL-RESPONSE EVOKING <ol style="list-style-type: none"> (A) DIRECTING/ INSTRUCTING T's speech to elicit C's behavior directly (B) PROMPTING T's speech to elicit C's behavior indirectly 2. VERBAL-RESPONSE EVOKING <ol style="list-style-type: none"> (A) MODELING T's speech to be repeated by C (B) QUESTIONING T's speech to elicit responses from C (C) PROMPTING T's speech to require C to speak; but not by questioning <p>RESPONDING: T's speech responding to C's verbal or non-verbal behavior</p> <ol style="list-style-type: none"> 1. REACTING T's comment on C's behavior 2. EXPANDING T's repetition or reformulation of C's utterance 3. REWARDING/ EVALUATING T's positive or negative feedback 	<p>SELF-EXPANSION: T's modification of his/her own utterance within 5 units</p> <ol style="list-style-type: none"> 1. NO MODIFICATION 2. REPETITION exact repetition of a preceding utterance 3. PARAPHRASE reformulation of a preceding utterance <p>(A) GRAMMATICAL P. correction of an ungrammatical utterance into a grammatical one</p> <p>(B) CONCEPTUAL P. reformulation or elaboration of an utterance without changing the main proposition</p> <p>(C) TRANSLATION reformulation of an utterance from one language to another</p> <p>(D) REDUNDANCY repetition of a preceding utterance with addition of some items, or repetition of part of an utterance</p> <p>4. USE OF L1</p> <p>OTHER-EXPANSION: T's modification of a C's utterance within 2 analysis units</p> <ol style="list-style-type: none"> 1. REPETITION 2. PARAPHRASE <ol style="list-style-type: none"> (A) GRAMMATICAL P. (B) CONCEPTUAL P. (C) TRANSLATION (D) REDUNDANCY 3. USE OF L1 	<p>CLAUSE STRUCTURE: structure including a verb</p> <ol style="list-style-type: none"> 1. COMPLEX SENTENCE 2. SIMPLE SENTENCE <p>PHRASE STRUCTURE: structure intended to be part of a clause structure, which includes no verb</p> <ol style="list-style-type: none"> 1. WORD/ PHRASE <p>OTHERS: structure that cannot be a part of a clause structure</p> <ol style="list-style-type: none"> 1. INTERJECTION 2. PROPER NOUN

(T: teacher/C: child or children)

IV. RESULTS

Analyses were made in terms of the following six viewpoints: (A) distribution of functions in each period, (B) responding, (C) frequency of other-expansion, (D) frequency of self-expansion, (E) utterance structure, and (F) average number of words per unit. The Chi-square test was carried out on the frequency of the category in question as compared with the frequency of the rest.

A. Distribution of Functions (Talking/Evoking/Responding)

Responding acts increased remarkably in the third period; accordingly, Evoking acts decreased.

TABLE A-1. DISTRIBUTION OF FUNCTIONS

TABLE A-2. THE CHI-SQUARE TEST

PERIODS	I	II	III	I	II	III
TALKING	236 (16.4%)	81 (13.5%)	199 (15.7%)	1.10 ns	-1.58 ns	0.14 ns
EVOKING	798 (55.4%)	341 (56.7%)	564 (44.5%)	3.98 **	2.85 **	-6.32 **
RESPONDING	406 (28.2%)	179 (29.8%)	504 (39.8%)	-5.08 **	-1.81 +	6.61 **
TOTAL	1,440	601	1,267	$\chi^2(4)=51.49, p<.01 + p<.10 * p<.05 ** p<.01$		

B. Responding

Interestingly, Expanding acts, which are considered to be of great help for language learning (Brown & Bellugi, 1964), decreased over time.

TABLE B-1. RESPONDING

TABLE B-2. THE CHI-SQUARE TEST

PERIODS	I	II	III	I	II	III
REACTING	134 (33.0%)	72 (40.2%)	248 (49.2%)	-4.48 **	-0.44 ns	4.67 **
EXPANDING	137 (33.7%)	49 (27.4%)	80 (15.9%)	5.52 **	1.00 ns	-6.10 **
REWARDING	135 (33.3%)	58 (32.4%)	176 (34.9%)	-0.34 ns	-0.46 ns	0.67 ns
TOTAL	406	179	504	$\chi^2(4)=44.75, p<.01 + p<.10 * p<.05 ** p<.01$		

C. Frequency of Other-Expansion

Repetition decreased remarkably, while paraphrase did not change.

TABLE C-1. OTHER-EXPANSION

TABLE C-2. THE CHI-SQUARE TEST

PERIODS	I	II	III	REPETITION: $\chi^2(2)=10.73, p<.01$		
REPETITION	114 (7.9%)	41 (6.8%)	61 (4.8%)	I	II	III
PARAPHRASE	23 (1.6%)	8 (1.3%)	19 (1.5%)	REPETITION 2.84 **	0.32 ns	-3.15 **
OTHERS	1,303	552	1,187	OTHERS -2.84 **	-0.32 ns	3.15 **
TOTAL	1,440	601	1,267	PARAPHRASE: $\chi^2(2)=0.20, ns$		

D. Frequency of Self-Expansion

Similarly, repetition decreased significantly.

TABLE D-1. SELF-EXPANSION

TABLE D-2. THE CHI-SQUARE TEST

PERIODS	I	II	III	REPETITION: $\chi^2(2)=32.46, p<.01$		
REPETITION	146 (10.1%)	32 (5.3%)	61 (4.8%)	I	II	III
PARAPHRASE	90 (6.3%)	33 (5.5%)	60 (4.7%)	REPETITION 5.68 **	-1.99 *	-4.22 **
OTHERS	1,204	536	1,146	OTHERS -5.68 **	1.99 *	4.22 **
TOTAL	1,440	601	1,267	PARAPHRASE: $\chi^2(2)=2.96, ns$		

E. Utterance Structure

There was a significant decrease in the frequency of phrase structure.

TABLE E-1. UTTERANCE STRUCTURE

TABLE E-2. THE CHI-SQUARE TEST

PERIODS	I	II	III	I	II	III
CLAUSE S.	454 (39.4%)	209 (44.7%)	466 (48.1%)	-3.87 **	0.50 ns	3.58 **
PHRASE S.	698 (60.6%)	259 (55.3%)	502 (51.9%)	3.87 **	-0.50 ns	-3.58 **
TOTAL	1,152	468	968	$\chi^2(2)=16.55, p<.01 + p<.10 * p<.05 ** p<.01$		

F. Average Number of Words Per Unit

Table F shows the average number of words per unit in each function. A two-way analysis of variance test revealed that there were significant differences among Talking, Evoking, and Responding ($F(134,2)=53.40, p<.01$). In the third period, there was a significant increase in the average number of words per unit in Talking ($F(134,2)=8.28, p<.01$); in contrast, those in Evoking and Responding did not change dramatically ($F(134,2)=1.10, ns; F(134,2)=0.07, ns$).

TABLE F. THE AVERAGE NUMBER OF WORDS PER UNIT

PERIODS	I	II	III
TALKING	2.84	2.51	3.60
EVOKING	2.25	2.51	2.65
RESPONDING	1.33	1.40	1.43

V. ANALYSIS & DISCUSSION

In general, the results clearly show that certain characteristics of teacher talk changed over time. It is possible to single out three points among the changes.

First, the drill-like nature of teacher talk became more natural in character. As Results A-C indicate, Teacher L paraphrased and made comments about children's utterances and behavior more frequently during Period III; while more Evoking acts and exact other-repetitions were observed during Period I. That is to say, Teacher L paid more attention to controlling the children's behavior and tried to reinforce the children's repertoire in L2. Moreover, the analyses of Responding Acts (Results A & B) showed that the children started to elicit L's talk more often in later periods.

Second, teacher talk became more complex as time passed. According to Results C & D, it was observed that the frequencies of other- and self-repetition became less. Accordingly the opportunities to receive a variety of expressions became greater. The analysis of utterance structure (Result E) clearly shows the steady growth of complexity.

Third, these changes in complexity can be said to reflect the development of the children's competence. This is supported by comparing the features of each function

(Result F). The length of Teacher L's Talking utterances was beyond the competence of the children. However, she could adequately adjust the length of her Evoking utterances by making good use of children's verbal or nonverbal behavior. She did this because Evoking must be fully comprehended by children to fulfill its function. Teacher L had to take into account the comprehension ability of the children.

Regarding the above three points, a brief discussion on the relationship between the quality of input and SLA will be provided. Our results lent support to Ellis' (1985) suggestion that "different features may aid development at different times" (p. 82). Obviously, certain characteristics of teacher talk, such as Evoking, Expanding, Other-repetition, Self-repetition and Phrase Structures, were observed more frequently in earlier period. Conversely, others developed later; for example, Responding, Reacting and Clause Structures. Nevertheless, how these characteristics are related to SLA is not clear.

VI. CONCLUSION

In conclusion, our study found that in a classroom situation Teacher L was successful in adjusting her speech in accordance with the children's L2 development. In addition, her adjustment was made in order to facilitate the children's comprehension. Consequently, the quality of input is potentially related to L2 development on the basis of the assumption explained in the Introduction. In the future it will be necessary to study what kinds of input may affect SLA and how.

(信州大学・信州大学大学院・信州大学大学院)

References

- Brown, R., and U. Bellugi. 1964. "Three processes in the child's acquisition of syntax" in Lenneberg, E.H. (ed.), *New Directions in the Study of Language*. pp. 131-161.
- Chaudron, C. 1988. *Second Language Classrooms: Research on Teaching and Learning*. Cambridge: Cambridge University Press.
- Ellis, R. 1985. "Teacher-pupil interaction in second language development" in Gass, S.M. and C. Madden (eds.), *Input in Second Language Acquisition*. pp. 69-85.
- Kleifgen, J.A. 1985. "Skilled variation in a kindergarten teacher's use of foreigner talk" in Gass, S.M. and C. Madden (eds.), *Input in Second Language Acquisition*. pp. 59-68.
- Krashen, S.D. 1982. *Principles and Practices in Second Language Acquisition*. Oxford: Pergamon.
- Sakai, H., and A. Oyanagi. 1994. "SLA in a kindergarten immersion program: A study of the development of spontaneous production ability in English." *The Bulletin of the Chubu English Language Education Society*, vol.24. pp. 193-198.
- 田中 敏・山際勇一郎 1989. 「ユーザーのための教育・心理統計と実験計画法」 東京:教育出版
- Tardif, C. 1994. "Classroom teacher talk in early immersion." *Canadian Modern Language Review*, vol.50.3. pp. 466-481.