A Comparative Analysis of Questions
by Two English-speaking Teachers in a Kindergarten Immersion Program

I. INTRODUCTION

It is widely accepted among second language acquisition (SLA) researchers that a sufficient amount of comprehensible input is necessary for SLA (Krashen, 1981; 1985). As a means of making input more comprehensible, various aspects of speech modification have been examined so far. Long (1985), for example, compared the comprehensibility of input in two different conditions: unadjusted input and linguistically premodified input. The result shows that speech modification has some effect on facilitating learner comprehension.

Current research has revealed that teacher-learner interaction is beneficial in making linguistic input more comprehensible. Pica, Young, and Doughty (1987) examined the relative effectiveness of interaction on comprehension, and concluded that interactionally modified input is more comprehensible than linguistically premodified input.

One of the interactional behaviors which is thought to make input more comprehensible is questioning behavior (Long and Sato, 1983). However, there have been few studies done that examine its effects on SLA (Ellis, 1994).

The purpose of this study is to explore the relationship between teacher questions and SLA. This was done by analyzing the form and function of questions by two English-speaking teachers in an early immersion program, and comparing them with the English production ability of the children in each class.

II. METHOD

A. Subjects

The writer has been observing a kindergarten immersion program in Nagano City for four years. Children in the immersion classes are taught by English-speaking teachers all day long, except for music lessons and PE, from Monday through Friday. Observational data obtained from two classes were used for the study. One class, '93 Class, was taught by Teacher L, an English-speaking Canadian. The other class, '94 Class, was taught by Teacher R, who is also an English-speaking Canadian. Both classes were almost the same in terms of class size (about 20 children for each class) and curriculum. The lessons began at 10:30 in the morning and lasted until 2:30,
including a one-hour lunch time and nap time for another hour.

For ease of comparison, the observation sessions were divided into four periods, as shown in Table 1.

<table>
<thead>
<tr>
<th>Period</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
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<tbody>
<tr>
<td>'93 Class (L)</td>
<td>26</td>
<td>25</td>
<td>24</td>
<td>25</td>
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<tr>
<td>'94 Class (R)</td>
<td>26</td>
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(The numbers in brackets mean "minutes.")

B. Children's L2 production ability

The second language (L2: i.e., English) production ability of the children in the above two classes was studied by Watanabe, Sakai, and Urano (1996). Both similarities and differences were found between the two classes.

The children in both classes moved from the controlled utterance stage (i.e., Period I, in which most of their utterances were initiated by their teachers), to spontaneous utterance stages, in which they used their L2 spontaneously as a means of communication.

The most remarkable difference between the two classes is that the children in '93 Class came to produce more Novel Utterances, those produced originally by the children, in the latter two periods, whereas the children in '94 Class continued using Formulaic Utterances, set phrases originally produced by the teacher and memorized by the children. In other words, the children in '93 Class became able to produce more creative utterances than those in '94 Class.

C. Procedures

In the first place, in this study the word "question" is defined as any utterance produced by the teachers in order to elicit the children's verbal responses and which is in the form of an interrogative, or has rising intonation even if it is declarative in form.

The transcribed data of the first 30 minutes were taken into consideration. All the observed questions were categorized in terms of the following two aspects: function and form. Some observed examples from each category are shown in Table 2.

<table>
<thead>
<tr>
<th>Table 2. Question Categories</th>
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<tbody>
<tr>
<td>1. Function (from Long and Sato, 1983)</td>
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<tr>
<td>a. Echoic Question</td>
</tr>
<tr>
<td>Comprehension Check: (e.g., OK? Does everybody understand?)</td>
</tr>
<tr>
<td>Clarification Requests: (e.g., What? Huh? Yes?)</td>
</tr>
<tr>
<td>Confirmation Check: (e.g., Did you say ...? Really? You're hungry?)</td>
</tr>
<tr>
<td>b. Epistemical Question</td>
</tr>
<tr>
<td>Referential: (e.g., Who comes to Yochien by bus? Did anybody go outside yesterday?)</td>
</tr>
<tr>
<td>Display: (e.g., What's the date today? Is this a red bear?)</td>
</tr>
</tbody>
</table>
2. Form (from Quirk et al., 1985)
   a. Wh- Question
   b. Yes/no Question
   c. Alternative Question

   As for the function, the present study analyzes only epistemic questions. Epistemic questions are further divided into two subtypes, based on whether the teacher knows the answer in advance (display questions) or not (referential questions). Display questions are characteristic in the classroom situation; referential questions are thought to dominate in daily conversation outside the classroom.

   In terms of the form of questions, yes/no questions and alternative questions are significantly easier for learners than wh- questions in that learners are required only to confirm, deny, or select from a series of possible answers contained in the question itself (Long, 1983; Long and Sato, 1983), as in the following examples:

   T: Is this a red bear?
   S: Yes.

   T: Is this bear big or little?
   S: Big!

   On the other hand, in order to answer a wh- question, a learner must construct a new proposition, as in:

   T: Where are you from?
   S: I come from Japan. (Long and Sato, 1983, p. 269)

D. Hypotheses

   Focusing on the function and form of questions by the two teachers, the following section examines the relationship between teacher questions and children's English production ability.

   In terms of function, teachers tend to use more display questions at the beginning, since the children's English proficiency is not developed and they require more practice. On the other hand, the rate of referential questions will increase in accordance with the development of their English proficiency.

   As for the form, yes/no and alternative questions will be found to dominate at first, then gradually wh- questions will appear more often as the children become able to construct a full proposition by themselves.

   Two hypotheses are made:

   Hypothesis 1 (on the function): The teachers will use more display questions in the early stages; and gradually increase the frequency of referential questions in later periods.
Hypothesis 2 (on the form): Yes/no and alternative questions will be dominant at first; and the rate of wh- questions will increase later.

Also, if there is any difference found between questions of the two teachers, that difference may influence the children's English production ability.

Hypothesis 3: It is possible that the difference between questions of the two teachers, if any, causes a difference in the children's production ability.

III. RESULTS AND ANALYSES
A. Function

Figures 1-1 and 1-2 show the distribution of referential questions and display questions.

As for Teacher L, in the first two periods display questions significantly exceeded referential questions ($\chi^2(1)=13.127$, p<.01/ $\chi^2(1)=15.803$, p<.01). This difference cannot be seen in the latter two periods, however. In other words, the proportion of display questions decreased. On the other hand, questions by Teacher R indicate no significant difference throughout the four periods. That is, Teacher R did not change her questions over time in terms of function.

Hypothesis 1 was supported only by Teacher L's data; Teacher R shows no change all during the four periods. This difference in the function of questions may have had some influence on the difference in the children's English production ability (Hypothesis 3).

Brock's study (1986) provides some implications. She trained two ESL teachers to use more referential questions, and compared the students' responses in each class. The result was that the students in the target classes (with the trained teachers) produced significantly longer and more syntactically complex utterances.

From the results of the present study and Brock's study cited above, it can be concluded that Teacher L's increase in referential questions caused the children in her class to produce more creative utterances in later stages than '94 Class.
B. Form

Figures 2-1 and 2-2 show the distribution of wh- questions and yes/no questions. Alternative questions were counted as yes/no questions because of their relatively low frequency (less than 2 times per period).

It is apparent that both Teacher L and R, while using more wh- questions in Period I, gradually increased their use of yes/no (and alternative) questions. This result is contradictory to Hypothesis 2. If yes/no and alternative questions are easier for learners, there should have been more of them than wh- questions in the beginning stages, which is not the case in this analysis.

Focusing on the difference between production and comprehension level will explain this inconsistency. Hypothesis 2, which claims that yes/no (and alternative) questions are easier than wh- questions, looks only at production level and does not take the necessity of comprehension into account. Before responding to a question, any learner has to understand what the question means. In that sense, yes/no (and alternative) questions are not necessarily easier.

Let us take an instance of a teacher asking his/her students their birthday. Two questions are possible: "Is your birthday October sixteenth?", and "When is your birthday?" As for the first question, students have little difficulty in answering since the question itself contains the whole proposition; they have only to answer "Yes" or "No." However, when it comes to the matter of comprehension, the other question is easier: students can receive the content by catching only a few words, "when" and "birthday."

Most of the children in this study are pure beginners of English in the first stages; they may have had difficulty in understanding what their teachers said. Therefore, wh- questions were of more effect on the children, especially in the early stages.

The following analysis supports this assumption. Figures 3-1 and 3-2 show the distribution of referential/display questions in wh- questions.

The figures indicate that the majority of wh- questions are display questions, the answers to which the teachers know and which are characteristic in the classroom situation. On the contrary, yes/no (and alternative) questions consist mostly of referential questions, as in Figures 4-1 and 4-2:

From this analysis, it is found that wh- questions are desirable in the first stages in that they are easier to understand and contain more display questions.

Figures 4-1 and 4-2 also show an interesting difference between Teacher L and R. While Teacher R's yes/no questions contained more referential questions throughout the four periods, in Periods I and II of Teacher L's yes/no (and alternative) questions, there is no significant difference between referential questions and display questions. This means that Teacher L used comparatively more display questions in the first stages, even in yes/no questions, than Teacher R. Her frequent use of display questions might have been of benefit to the children in understanding her message more easily, and consequently in acquiring linguistic proficiency.

IV. CONCLUSION

The present study has tried to explore the relationship between teacher questions and children's English production ability. Two analyses were made to compare the two classes: '93 Class and '94 Class. With regard to the function of questions, Teacher L was found to change her
questions, using more display questions in the early stages and increasing the rate of referential questions in accordance with the children's second language development. On the other hand, Teacher R did not change her questions. This difference is expected to make a difference in the children's production ability: Children in '93 Class came to produce more creative utterances.

As for the form of questions, it was found that both teachers used more wh- questions in the early periods and gradually increased the rate of yes/no (and alternative) questions. This result implies that wh- questions are more appropriate for beginners in that they are easier to understand than yes/no questions.

In conclusion, the findings of the present study could be applicable to any teacher of English. Teachers must choose questions appropriate to the learners' proficiency, and change the quality of their questions according to the development of their students' ability both to understand and produce the language. Further research will be necessary to identify any direct relationship between teacher questions and learner responses.

REFERENCES


APPENDICES

A. Function of Questions

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<tr>
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<td>I</td>
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<tr>
<td>referential questions</td>
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<tr>
<td>display questions</td>
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<td>I</td>
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<tr>
<td>wh- questions</td>
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<td>50</td>
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<tr>
<td>yes/no questions &amp; alternative questions</td>
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C. Functional Distribution of Wh- Questions

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<td>display questions</td>
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D. Functional Distribution of Yes/no and Alternative Questions

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