Vocabulary Learning Through Oral Interaction

オーラル・インターラクションでの語彙学習

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この論文では、インタラクティブなタスクを用い、成人英語学習者の語彙学習についての実験研究を報告する。オーラル・インターラクションは、言語習得に有益な意味交渉を引き起こすという観点において第二言語学習を促進すると考えられている。意味交渉は単語の学習においても有効なのかを、3人の学習者とネイティブスピーカーのディスコース、学習者のアップテイク（学習者が学んだと思った事項の報告）、そして実験後の単語テストの結果を関連させて分析した。その結果、意味交渉中単語を繰り返すことが、その単語学習に役立っていたことが判った。また、学習者の個人差もこれからの研究課題として考慮すべき要素であることが判った。

Introduction

Interaction hypothesis and noticing

Vocabulary acquisition is no longer a neglected area in second language acquisition (SLA) research (Coady & Huckin, 1997); however, vocabulary acquisition studies have often been carried out in relation to textual input (i.e., reading). In particular, there are few studies that have explored vocabulary learning through verbal interaction.

Many researchers who investigate the role of oral input in the SLA process now agree that comprehensible input alone is not sufficient for L2 learning; rather, verbal interaction through which negotiation of meaning occurs between the learner and the competent target language speaker (e.g., a native speaker (NS)) is beneficial for L2 learning (e.g., Gass, 1997; Long, 1996). According to Long's (1996) Interaction Hypothesis, L2 acquisition is promoted if learners have opportunities to solve communication problems by means of conversational modification because such “interactional adjustments ... [connect] input, internal learner capacities, particularly selective attention, and output in productive ways" (pp. 451-2).

One of the few studies that focused on lexical acquisition through oral interaction was the research by Ellis and his colleagues (Ellis, Tanaka, & Yamazaki, 1994). The researchers aimed to test the Interaction Hypothesis. They investigated whether English as a Foreign Language (EFL) students learn new concrete referential nouns in an interactional context in which learners negotiate the meaning of unknown words. They found that the students learned new words.
through oral interaction, and the negotiation process facilitated their learning. The researchers discussed, based on their data, the importance of learners' mental involvement in the learning process, such as their abilities to identify the source of their comprehension difficulty, to recognize the meanings of the new items by relating the spoken forms to their pictorial referents, and to store the new items in their long-term memory (p. 478).

The roles of learners' mental involvement in L2 acquisition are more than ever becoming an important issue in recent SLA research (e.g., Breen, 2001; Ellis, Basturkmen, & Loewen, 2001; Schmidt, 1990, 1995). Schmidt (1990), for example, argued for taking learners' cognitive mechanisms into consideration in SLA research. He contended that learners' attention to and noticing of a target feature was necessary for learning. According to Schmidt (1990, 1994), two aspects of human consciousness are particularly relevant in SLA research: the state of consciousness and cognitive activities. The former is, in Schmidt's terms, awareness indexed on a level of sensitivity continuum, ranging from unintended attention to the highest level of overt understanding. The cognitive activities in Schmidt's description of human consciousness are paying attention, noticing and understanding. Attention is a "mechanism" (Jackendoff, 1987 as cited in Schmidt, 1995, p. 18) or a sense that triggers noticing, and paying attention is the activity with a range of intention to direct such sensitivity toward an object. Noticing is a consequence of paying attention; it is the "conscious registration of the occurrence of some event" (Schmidt, 1995, p. 29). Understanding is a more overt realization than noticing, or "recognition of a general principle, rule or pattern" (Schmidt, 1995, p. 29) that may be integrated into one's knowledge.

Schmidt (1990, 1995) claimed that learners need to pay attention and "notice" something in order to learn it. Under Schmidt's premise of a noticing hypothesis (1990, 1995), learners' noticing is available to researchers in their verbal reports. Thus, collecting learners' verbal reports may be a useful means for understanding their L2 learning processes.

**Learners' verbal reports of uptake**

Several L2 researchers have attempted to collect learners' verbal reports in various ways (e.g., Allwright, 1984; Cohen, 1983; Schmidt & Frota, 1986). For instance, Cohen (1983) interrupted a classroom lesson and surveyed the students' thinking at the moment. Schmidt and Frota (1986) adopted the learner's diary data.

Allwright (1984) introduced the notion of "uptake" which is defined as what learners claim to have learned from a lesson. Allwright's notion of uptake has been adopted in a few empirical studies, and the researchers have been able to relate the learners' claims to the sources of input, i.e., what has suggestively attracted the learners' attention in discourse (Slimani,
1987; Palmeira, 1995). Learners’ uptake claims are useful data for understanding and relating their attention and incidences during interaction.

**Learners’ attention and vocabulary learning**

Vocabulary learning may be an advantageous area for the investigation into the relationship between interaction and learners’ attention. Vocabulary is “an important concern” of L2 learners (Hatch, 1978, p. 430). Hatch (1978) observed that adult L2 learners frequently employed a strategy to elicit definitions of content vocabulary in oral discourse so that they would be able to sustain the conversation with native speakers. Ellis et al. (1994) also pointed out that L2 learners were more likely to be aware of a lexical source of their comprehension difficulties; therefore, they would seek clarification of its meaning. Because learners’ active involvement in verbal interaction in relation to new vocabulary is observed in other studies, I assumed vocabulary learning is a useful circumstance for investigating the relationship between learners’ attention and interaction.

Intending to explore the extent to which oral interaction might facilitate lexical acquisition by adult L2 learners, I conducted a small-scale experimental study. The research questions I addressed were:

1. Do L2 learners’ claims of learning after an interactive vocabulary learning task relate to observable characteristics of interaction (i.e., modification moves and/or repetitions)?
2. Is there a relationship between characteristics of interaction and learned vocabulary?
3. Is there a relationship between uptake recall entries and learned vocabulary?

**Research Design**

**Participants**

Three Korean-speaking learners of English and three native speakers of English participated in the study. The learners were in their early 20’s, and had been in Canada for about three to seven months at the time this study was conducted. They were enrolled in the low intermediate course in an intensive English as a Second Language (ESL) program in Toronto. They had taken academic English and business English courses for three months. The NS participants were three female ESL teachers. Their experience in teaching English ranged from five to fifteen years.
Procedures

The learners met twice for this study.

First meeting

In the initial meeting, the learners received a brief explanation about the research. They were told that the purpose of the research was to investigate the effectiveness of the vocabulary learning activity. Then, the learners moved into different rooms to engage in an interactive listening comprehension task with their NS partners.¹ The dyadic interaction in each room was audio-taped and later transcribed. Immediately after the task was completed, the learners were asked to fill out an “Uptake Recall Chart” (Slimani, 1987).

The task

The task used for this experiment was a direction-giving task from the NS to the learner. The target vocabulary consisted of 18 gardening-related words including names of gardening tools, flowers, and specific locations in the garden (see the list of vocabulary in Appendix A). This area of vocabulary was chosen because it was assumed to be less familiar for many adult ESL learners.

Two large garden pictures and 13 loose pictures of gardening items were prepared for the task. In the task, the NS participants gave their L2 learners directions to place the loose items somewhere on the garden pictures. In order to make the NS-learner interaction as natural as possible, there were no prescribed directions for the NSs to recite. The single requirement for the NSs in carrying out the task was to use all the target words during the interaction. The NSs’ directions were, therefore, spontaneous and different from one NS-learner pair to another. The typical directions given to a learner were:

“Take the wheelbarrow and put it on the lawn.”

“Now we have a flower pot. You’ll put it beside the tool shed.”

The task time was predetermined for thirty minutes; however, all pairs finished the task within 20 minutes.

"Uptake Recall Chart"

The “Uptake Recall Chart” (Slimani, 1987) was a questionnaire to elicit learners’ self-reports on their learning from a lesson or a task. The questionnaire asked the learners to write in detail what they thought they had learned. Adopting Slimani’s (1987) charts, I listed six
categories for recall: Grammar, Words and Phrases, Pronunciation, Usage, Other, and comments on instruction (see Appendix B). The categories were general because I did not want to make the learners too sensitive to vocabulary learning. The learners could write their uptake recalls either in English (L2) or in Korean (L1) because making introspective recalls was assumed to be cognitively demanding.

**Second meeting and the follow-up test**

Each learner had an individual meeting with me approximately one week after the first session. In the second session, each learner took a follow-up listening comprehension test. The learners had not been told about the follow-up test in the first meeting. The purpose of the test was to measure how many of the words the learners had negotiated during the interactive task were retained.

In the test, the learners listened to tape-recorded words and identified the items on the pictures they used for the task. They were given the same pictures of gardens and loose items as in the interactive task. As they listened to the tape, the students were asked to put the numbers of the items beside or on the images of the pictures. They listened to each word twice.

For the test, twelve out of the eighteen target vocabulary items were selected for each learner from the interaction. The selection of the test items was based on the preliminary analysis of the interaction. Since the target words were not necessarily introduced to the learners in the exact same way, the twelve words most commonly discussed in each pair were chosen.

**Analysis**

The discourse data was transcribed and coded in order to analyze the nature and degree of interaction and negotiation. The coding categories used for the analysis of interaction were the number of modification moves and the number of repetitions. The modification moves were clarification requests, confirmation checks, and comprehension checks. The number of modification move turns made either by the NS or the learner while they focused on one vocabulary item was counted. The modification moves identified in this dataset fell into three types. The first category includes the moves initiated by the learner who explicitly indicates he/she has a problem as seen in Turn 10 of Excerpt 1.

**Excerpt 1:**

7 NS: Take uh, the spade, the spade, and put it beside the hedge.

8 Learner: Spade? Hedge?
The second type includes the NS's modification moves triggered by the learner's repetition of unknown words. In Excerpt 2, the learner repeats "beds" which invited further explanation of the original, unknown word, "a flower bed" by the NS.

**Excerpt 2:**

102 NS: A trowel is also used for digging, only you use one hand. On flower beds.
103 Learner: beds ... beds ...
104 NS: A flowerbed is where flowers are all together in one place. They are growing close together.

The final type includes the modification moves made by the NS who explicitly checks the learner's comprehension as in Turn 97 of the following excerpt.

**Excerpt 3:**

93 NS: The lawn? The lawn is the ... like uh, is uh, grass
94 Learner: grass
95 NS: Yeah, a patch of grass
97 NS: Well, do you understand the lawn?
98 Learner: lawn, do you use ...
99 NS: lawn?
100 Learner: Lawn is kind of grass?

Such comprehension checks were made by the NS participants when they observed that their L2 partners were uncertain of the direction. In the example above, the learner indicated his misunderstanding by pointing at a different spot on the garden picture.

The second coding category was the redundancies of the target items since repetition was one of the major features of interaction and negotiation reported in earlier studies (e.g., Ellis et al., 1994). The target words were counted in the transcript and categorized under (a) number of repetitions of the target word made by the NS, (b) the number of repetitions of the target word made by the learner in the direction-giving context, and (c) the number of repetitions of the target word practiced by the learner outside of the direction-giving context. Category (b)
included the learner's repetitive utterances of the target word while the learner and his/her NS partner negotiated the meaning in order to complete the direction-giving task. If the learner repeated the item name that he/she had already placed on the picture, the repetition was categorized in category (c).

Since the number of participants and of target vocabulary items was small, no statistical analysis was carried out. The results reported in the following section reflect the raw data.

Results

Uptake recall entries

The three learners made their uptake claims in an idiosyncratic manner (see Table 1). The detailed uptake recall entries that I expected were provided by Learner 1. She listed individual lexical items she thought she had learned. The claims made by Learner 2 were rather general and superficial; instead of giving individual words (e.g., daisies, a watering can, and a lawn mower), he listed categories such as "flower names," "tools," and "machines." Learner 3 made his claims even more general manner: the claims were his general language learning experience.

Table 1: Summary of Uptake Recall Chart entries

<table>
<thead>
<tr>
<th></th>
<th>Learner 1</th>
<th>Learner 2</th>
<th>Learner 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammar</td>
<td>prepositions: next to, on, in, against, beside</td>
<td>Vocabulary used in the garden, around the house. For instance, flower names, tools used in digging, machines used (in the) garden.</td>
<td>Grammar looks very easy to Korean. But I have difficulties when I use relative clauses.</td>
</tr>
<tr>
<td>Words and Phrases</td>
<td>wheel mower, rake, garden shed, hose, gardening tools, lawn (grass), flower bed</td>
<td>It is hard to memorize every word we studied. In my opinion, we have to come across the same word at least 12 times to remember that word.</td>
<td></td>
</tr>
<tr>
<td>Pronunciation</td>
<td>&quot;th&quot;, &quot;ts&quot; I can learn these sound.</td>
<td>It is difficult to pronounce V, B, R, F.</td>
<td></td>
</tr>
<tr>
<td>Usage</td>
<td>When I don't know the word, imagine the other word of the same meaning, explain and ask.</td>
<td>Definition, and explanation. I can learn asking skill and explaining skill.</td>
<td>It takes time for me to express myself in English, especially when I have to switch the language suddenly from Korean to English.</td>
</tr>
<tr>
<td>Other</td>
<td>The new vocabulary is difficult for me to remember, but this activity is useful to remember and make them familiar.</td>
<td></td>
<td>The best way to acquire the language is to use it all the time. But the circumstance around me does not support it.</td>
</tr>
</tbody>
</table>

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Characteristics of interaction during the task

The interaction that individual learners engaged in with their NS partners did not greatly differ with respect to the number of modification moves. As seen in Table 2, each learner was exposed to 21, 18, and 19 moves respectively during the task.

Table 2: Summary of learners' interaction

<table>
<thead>
<tr>
<th></th>
<th>Learner 1</th>
<th>Learner 2</th>
<th>Learner 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modification moves</td>
<td>21</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>NS Repetition of target words</td>
<td>96</td>
<td>67</td>
<td>75</td>
</tr>
<tr>
<td>(Repetition category a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learner self-repetition</td>
<td>35</td>
<td>36</td>
<td>32</td>
</tr>
<tr>
<td>(Repetition category b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learner practice</td>
<td>21</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>(Repetition category c)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On the other hand, the frequencies of target word input were different in each pair. The NS partner of Learner 1 repeated target words more frequently than did the other NS partners. The individual learners repeated the target words about the same number of times during the task (35, 36, and 32 respectively); however, it was mainly Learner 1 who repeated some target words for practice purposes.

The data suggest that Learner 1’s detailed uptake recall entries may be connected to the interaction she experienced during the task. Learner 1 heard and repeated the target words many times, and she was able to remember and recall them more specifically after the interactive task.

Follow-up test results

Among the 12 target words used in the test, the learners recognized and related 8 to 10 words with images. As seen in Table 3, Learner 1 related 6 word items with correct images, 2 items with incorrect images. She did not retain four items (i.e., the retention rate was 67%). Learner 2 could relate four words with correct images, six words with incorrect images; he did not retain two word items (i.e., the retention rate was 83%). Learner 3 was able to correctly identify four words, and could not relate four items to any images (i.e., the retention rate was 67%). Given that the interaction took only 20 minutes, that the learners engaged in the task without knowing about the follow-up test, and that the test was conducted one week after the task, the retention rates were quite high.
Table 3: Follow-up test results

<table>
<thead>
<tr>
<th></th>
<th>Learner 1</th>
<th>Learner 2</th>
<th>Learner 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct identification</td>
<td>6</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Incorrect identification</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>No retention</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**Findings to the research questions**

Since the dataset is so small, it is difficult to make any conclusive argument. However, the data suggest that there are some connections among the learners' interaction, uptake claims, and word retention.

**The relationship between the characteristics of interaction and learners' uptake**

In general, the words repeated frequently during the interaction were related to uptake claims. This is clear in the data of Learner 1. As seen in Table 4, six out of nine items that Learner 1 claimed (i.e., *wheel mower, flower bed, lawn, grass, rake, garden shed*) were actually repeated by her NS partner more than five times. The uptake claim from Learner 2 also has coherence with the frequency of word repetition by his NS interlocutor (see Table 5). Flower names such as “hydrangeas,” “daffodils,” and “dandelions” were repeated at least four times. Tools for “digging,” such as “a trowel” and “a spade” were also repeated more than three times.

The number of times learners repeat words to themselves also seems to have some relationship with uptake. Again, Learner 1 repeated the six items she claimed more than five times on different occasions (i.e., self-repetition and practice) throughout the task. Learner 2 repeated to himself “trowel” four times and “spade” seven times.

The connection between the NS partners’ repetition and the learners’ uptake is not straightforward. For instance, Learner 3 repeatedly heard target words such as “a wheelbarrow” (twelve times), “lawn” (nine times), or “a spade” (ten times) (see Table 6); however, he did not make uptake claims in the same detailed manner as did Learner 1.

**The relationship between the characteristics of interaction and word retention**

The words that the learners learned were repeated frequently during the interaction, as well. For instance, Learner 1 correctly identified “gardening shed,” “a wheelbarrow,” “a flower bed,” “a rake,” “weed,” and “a lawn mower.” Her NS partner repeated these words more than six times (see Table 4). The words Learner 2 correctly identified (i.e., “a flower bed,” “a tool shed,” “dandelion,” and “hedge”) were repeated by his NS partner two to six times (see Table 5).
<table>
<thead>
<tr>
<th>Target words used in the task*</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>a lawn mower</td>
<td>a flower bed</td>
<td>a fern</td>
<td>a wheelbarrow</td>
<td>lawn</td>
<td>a rake</td>
<td>a trowel</td>
<td>a hydrangea</td>
<td>a tool (gardening) shed</td>
<td>a spade (a shovel)</td>
<td>weed</td>
<td>hedge</td>
<td>a daisy</td>
<td>a watering can</td>
<td>a garden hose</td>
<td>a path</td>
<td>a daffodil</td>
<td>a flowerpot</td>
<td></td>
</tr>
<tr>
<td>Uptake</td>
<td>wheel mower</td>
<td>flower bed</td>
<td>wheel mower</td>
<td>lawn</td>
<td>grass</td>
<td>rake</td>
<td>garden shed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>1</td>
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<td>0</td>
<td>3</td>
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<td>NS repetition</td>
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<td>7</td>
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<td>10</td>
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<td>8</td>
<td>1</td>
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<td>4</td>
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<tr>
<td>Self repetition</td>
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<td>6</td>
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<td>4</td>
<td>2</td>
<td>2</td>
<td>0</td>
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<td>-</td>
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<td>Practice</td>
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<td>5</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Test**</td>
<td>○</td>
<td>○</td>
<td>X</td>
<td>○</td>
<td>X</td>
<td>○</td>
<td>●</td>
<td>X</td>
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<td>○</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Images identified in the test***</td>
<td>a lawn mower</td>
<td>a flower bed</td>
<td>a wheelbarrow</td>
<td>a rake</td>
<td>a shovel</td>
<td>gardening shed</td>
<td>weed</td>
<td>fern</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: *The words in the parentheses are alternatives that the NS interlocutors used during the task.

**Test results: ○ = the learner identified the correct image, ● = the learner identified an incorrect image, X = the learner could not identify an image (i.e., no retention).

***The words in italics are incorrect images that the learner identified.
### Table 5: Learner 2’s case of interaction

<table>
<thead>
<tr>
<th>Target words used in the task*</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Uptake</strong></td>
<td>(m a - c h i n e)</td>
<td>(m a - c h i n e)</td>
<td>(d i g - g i n g tool)</td>
<td>(f l o w - e r)</td>
<td>(d i g - g i n g tool)</td>
<td>(f l o w - e r)</td>
<td>(f l o w - e r)</td>
<td>(f l o w - e r)</td>
<td>(f l o w - e r)</td>
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<td>(f l o w - e r)</td>
<td>(f l o w - e r)</td>
<td>(f l o w - e r)</td>
<td></td>
</tr>
<tr>
<td>Modification</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>4</td>
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<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>NS repetition</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>3</td>
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<td>1</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Self repetition</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>4</td>
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<td>4</td>
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<td>0</td>
</tr>
<tr>
<td>Test ***</td>
<td>●</td>
<td>○</td>
<td>X</td>
<td>●</td>
<td>●</td>
<td>X</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>●</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Images identified in the test****</td>
<td>lawn</td>
<td>a flow-er bed</td>
<td>fern</td>
<td>weedy grass</td>
<td>a wa-t er-ing can</td>
<td>d a i- sies</td>
<td>a tool shed</td>
<td>a trowel</td>
<td>dan-delion</td>
<td>hedge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: *The words in the parentheses are alternatives that the NS interlocutors used during the task.

** I tentatively listed Learner 2’s general uptake terms in relation to corresponding vocabulary items.

*** Test results: ○ = the learner identified the correct image, ● = the learner identified an incorrect image, X = the learner could not identify an image (i.e., no retention).

**** The words in italics are incorrect images that the learner identified.
### Table 6: Learner 3’s case of interaction

<table>
<thead>
<tr>
<th>Target words used in the task</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>15</th>
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<tr>
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<td>0</td>
<td>0</td>
<td>1</td>
<td>-</td>
<td>0</td>
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<td>a flower bed</td>
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<td>2</td>
<td>9</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>a fern</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<td>0</td>
<td>0</td>
<td>-</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>a wheelbarrow</td>
<td>○</td>
<td>X</td>
<td>X</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>X</td>
<td>X</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Uptake**

| Modification | 1  | 1  | 2  | 3  | 3  | 1  | 1  | 1  | 0  | 1  | 2  | 2  | -  | 0  | 0  | 1  | -  | 0  |
| NS repetition  | 4  | 3  | 3  | 12 | 9  | 5  | 4  | 2  | 1  | 10 | 10 | 2  | -  | 1  | 2  | 6  | -  | 1  |
| Self repetition | 2  | 2  | 2  | 9  | 4  | 1  | 2  | 1  | 0  | 1  | 2  | 3  | -  | 0  | 0  | 3  | -  | 0  |
| Practice       | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 2  | 0  | -  | 0  | 0  | 0  | -  | 0  | -  | -  |
| Test**         | ○  | X  | X  | ○  | ●  | ●  | X  | X  | ○  | ●  | ○  | ●  | -  | -  | -  | -  | -  | -  |

**Images identified in the test***

| a lawn mower | 1  | 1  | 2  | 3  | 3  | 1  | 1  | 1  | 0  | 1  | 2  | 2  | -  | 0  | 0  | 1  | -  | 0  |
| a flower bed | 2  | 2  | 2  | 9  | 4  | 1  | 2  | 1  | 0  | 1  | 2  | 3  | -  | 0  | 0  | 3  | -  | 0  |
| a fern        | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 2  | 0  | -  | 0  | 0  | 0  | -  | 0  | -  | -  |
| a wheelbarrow | ○  | X  | X  | ●  | ●  | X  | X  | ○  | ●  | ○  | ●  | -  | -  | -  | -  | -  | -  | -  |

Note: **Test results: ○ = the learner identified the correct image, ● = the learner identified an incorrect image, X = the learner could not identify an image (i.e., no retention).**

***The words in italics are incorrect images that the learner identified.
Similarly, Learner 3 correctly identified "a wheelbarrow" and "weed," which were repeated by his NS partner ten times or more (see Table 6).

However, the connection between the NS partners' repetitions and the learners' vocabulary learning is not straight-forward, either. The learners sometimes did not learn the words accurately even if they heard the words many times. For instance, Learner 1 did not remember "lawn" and "a fern" even though she heard them repeated by her NS partner nine and six times respectively. Learner 2 did not remember "a fern" even though he heard his NS partner repeated it six times. Learner 3 did not remember "lawn" and "a spade" even though he heard them repeated about ten times.

The relationship between uptake and learned vocabulary

There seems to be a relationship between learners' uptake and retention. The data from Learner 1 show some connections between uptake and retention. She correctly identified five images (a lawn mower, a flower bed, a wheelbarrow, a rake, and a gardening shed) which were listed as her uptake items. She did not retain at the follow-up test only one item that she had claimed after the task (i.e., "lawn").

However, uptake did not necessarily lead to vocabulary learning. Although Learner 2 reported that he learned "flower names," "tools for digging," and "machines used in the garden," he could not identify "a rake," "a lawn mower," and "a watering can." He could not recall what a rake was, and chose a different picture for "a lawn mower." He also confused the "watering can" with a trowel. In terms of flower names, he identified "a hydrangea" as a flower name, but could not exactly recall what kind of flower it was. He chose the image of daisies, instead of a picture of hydrangeas.

There were also cases where the words were not reported on the uptake chart, but the learners remembered the words. Learner 2's general uptake notes did not include "a flower bed" and "hedges," but he identified them correctly in the follow-up test. Learner 3 correctly identified "a wheelbarrow," "a lawn mower," and "weeds." Learner 1 also identified "weeds" correctly although she did not report it in the uptake recall.

Idiosyncratic performance

Along with the frequency of word repetition (i.e., the quantitative difference of negotiation) during the interaction, the quality of negotiation, particularly the learners' initiation in the process, seemed to play an important role in L2 vocabulary learning. The data need careful interpretation because the experimental condition allowed each pair individually unique
interaction, but in some cases the learners’ involvement in discourse appeared to have had an important impact on their learning. Learner 1 was involved in an extensive negotiation of meaning about “weeds” and “dandelions.” As seen in Excerpt 4, Learner 1 identified her comprehension difficulty (Turn 153) during the task, and tried to clarify its meaning (Turn 157). The learner even disagreed to the NS’s explanation about the image (i.e., a dandelion) (Turns 161 and 163).

Excerpt 4:

152  NS1:  When they cut the grass, they find many weeds in the grass

153  Learner 1:  Weed? Which weed?

154  NS1:  What do you think might be a weed?

155  Learner 1:  This?

156  NS1:  No.

157  Learner 1:  Mmmmm. Can you repeat again the thing?

158  NS 1:  Sure. It is something that grows in the garden but it is not a flower. It’s not a plant. It’s something people don’t want. And they usually try and kill it with fertilizer to prevent it from growing. So can you see an example of what might be a weed?

159  Learner 1:  Is this flower?

160  NS 1:  That’s a flower. Good.

161  Learner 1:  This? (taking the image of a dandelion.) But this look is a flower. No?

162  NS 1:  It looks like a flower, but that’s sometimes a weed. Look like flowers because they are very small. Or may even be yellow, ... blue

163  Learner 1:  In my country, I think this kind still we have this kind of flower.

164  NS 1:  Right. You can tell by the leaves that it’s a weed.

165  Learner 1:  Oh.

166  NS 1:  So even though the flower might be a pretty color, or resemble like flower, the leaves give us some indicate that it is a weed.

167  Learner 1:  I did see that

168  NS 1:  Yeah, O.K. So that gives you, you can see the difference. So how about we put the weed next to the lawn mower.

169  Learner 1:  Here?

In this extensive dialogue, Learner 1 engaged in the negotiation so actively that her NS partner repeated the target word seven times. Learner 1 claimed “weed” in her uptake, and she successfully identified the image for the word. Her successful performance could not be simply attributed to the number of repetition. The learner’s persistence might also be related to her uptake and learning.

Similarly, Learner 2 initiated and elicited the name of the wild flower from his NS partner before she gave the direction. He had identified his communication difficulty by asking the NS
"What's name this?"

Excerpt 5:

171 Learner 2: What's name this? I know this name in ...
172 NS 2: Oh, that 'a dandelion
173 Learner 2: Dandelion
174 NS 2: It's not even on our list, oh, well. I think the dandelion would be on the lawn, probably. O.K.

Learner 2's negotiation of meaning about the image (i.e., a dandelion) was short, involving no modification moves and two repetitions of the word by the NS. Yet, taking initiation, he was well-prepared to learn the word. He correctly identified this item in the follow-up test.

The learners' autonomous and active engagement in the negotiation of meaning may be an important variable in their L2 learning process (Ellis et al., 1994). Ellis et al. (2001), for example, found that the students were more likely to incorporate a form if they initiated to discuss and solve the linguistic difficulty about the form. Indeed, the role of the learners' initiation in L2 learning process may deserve more attention from SLA researchers than it has received to date.

Conclusion

In this study, I investigated the relationship among the negotiation, the learners' verbal report of uptake, and their vocabulary learning. This study, along with Ellis et al. (1994), suggests that unfamiliar vocabulary could be learned through oral interaction. As Ellis et al. (1994) report, the negotiation context provides learners with ample opportunities to hear and utter difficult words. Studies in vocabulary acquisition have reported repetition of the word as the most popular mnemonic strategy learners use (e.g., Hatch & Brown, 1995; Hulstijn, 1997; Sanaoui, 1995). It was observed that the repetition of target words was one important condition for uptake and learning.

The idiosyncrasies in the individual learners' performance (i.e., interaction, uptake, and retention) suggested that the individual difference of the learners may be an extremely important variable in L2 learning process. Learners' involvement in the interaction as to identify their problem and to negotiate meaning, for example, appeared to be an important condition for learning new words. Because negotiation process can provide the learners with quick answers to their comprehension difficulties, their active engagement in oral interaction and attention to language may be additional facilitator for L2 learning.

Although the findings from this small-scale study cannot be generalized, it explored that
the complex role of interaction in L2 learning. Interaction, uptake and vocabulary learning is not an “all or nothing” relation. Further research with finely designed methodology to investigate the relationship among the interaction, the learners’ mental involvement, and learning outcome is desired.

Notes
1) The task was carried out by three different NSs interacting with three different learners due to time constraints. It would have been ideal that the same NS interacted with three learners individually, as it would have minimized the differences in directions and explanations that each learner received.

2) Despite the task instructions given to the NSs, not all the target items were used in the actual activity by every pair. The NS in Pair 1 did not include “hedge” and “daffodils” in her directions. She was also confused by the pictures prepared for the task when she tried to distinguish between a trowel and a spade. The pictures also influenced NS 2; she used “dandelions” instead of “weeds.” The NS in Pair 3 mistook “daisies” for “daffodils.”

3) An asterisk (*) indicates incorrect expression.

References


Appendix A

Target Vocabulary List

a spade  a trowel  a rake
a lawn mower  a watering can  a wheelbarrow
a garden hose  a tool shed  a flower pot
flower beds  lawn  a path
hedges  daffodils  daisies
hydrangeas  weeds  ferns

Appendix B

Uptake Recall Chart

Name: ______________________

Direction: What do you think you learned in English through this activity?
Please answer FULLY and in DETAIL. You may write in English or Korean. Try to remember EVERYTHING.

1. Grammar

2. Words and Phrases

3. Pronunciation

4. Ways of using the language

5. Other(s) ... (Please specify)

6. Comments on instruction:

Thank you for your cooperation!