Aware versus Unaware Learners in Subsequent L2 Learning of the English Passive

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This paper investigates the role of awareness in Korean high school students’ learning of English passives. Three first-year high school intact classes were assigned to three groups: the passive group (i.e., experimental group), the preposition group, and no treatment group. Students in the three groups were all pre- and post-tested by two types of assessment tasks (a multiple-choice recognition task and a written production task). The experimental exposure task which was given to the passive group consisted of reading an English text and answering several comprehension questions. The reading text contained English passive forms and the instructor provided students with brief but explicit explanation about the form and meaning of the English passive construction. The learners in the preposition group, who received the same reading text and comprehension questions, however, were provided with explanation about the use of some prepositions, not about the passive. The no treatment group did not perform any experimental exposure task. The results of the study confirmed the positive relationship between awareness and further processing of the target structure, claiming the crucial role of awareness in successful second language learning. However, the preposition group showed great achievement in the recognition task which was not statistically different from the passive group. Further research which will investigate longer-term effects of awareness is needed to explore the issue of relationship between awareness and L2 learning.

I. INTRODUCTION

One of the current issues in the discipline of second language acquisition is whether the learners’ awareness of the target structure is crucial for their subsequent processing of L2 data, which leads to the ultimate learning of the target structure. The debate regarding the role of the learner’s awareness started in early 1990s (Schmidt, 1993; Tomlin & Villa,
1994), but the ambiguity or vagueness of the term, awareness, or a related term, consciousness, has marred the argument on the role of awareness in the learning of second language. It was once agreed that it is impossible to exactly find out what is happening inside the learner, and therefore, the use of the vague terms such as awareness or consciousness were avoided by many researchers. For example, a term, consciousness raising, which was suggested in the late 1980s and used to refer to a new way of grammar teaching, was replaced by input enhancement, since it was believed that the researcher could not control or raise the learner’s consciousness in the course of teaching grammar. However, many research studies have tried to reveal the effects of awareness in the L2 classroom setting (Alanen, 1995; Robinson, 1997a, 1997b; Rosa & O’Neill, 1999), and Leow (1997, 2000) made an attempt to operationalize and measure awareness in second language learning with success and provided empirical support for the facilitative effects of awareness on subsequent L2 learning.

The present study investigates the role of awareness in Korean high school students’ processing of English passives. The English passive construction has been regarded as a complex one since it requires the learner to attend to its semantic restrictions or functions as well as syntactic structures. Learners’ awareness is believed to play a certain role in the acquisition of complex rules which require higher understanding of their syntactic or semantic behaviors. This study is designed to distinguish aware learners from unaware learners by exposure to and brief rule explanation of the English passive, and the learners’ awareness is expected to be revealed through a questionnaire immediately after the exposure task. The effects of awareness are assessed by pre- and post-exposure assessment tasks which include two different types of tasks: a multiple-choice recognition task and a written production task. The present study addresses the following research questions to reveal the role of awareness in L2 learning:

1. How do aware and unaware learners show different ability to learn the English passive?
2. Does the difference of awareness differentially affect the learners’ recognition and production of the targeted form?

II. BACKGROUND

The dissociation of awareness and L2 learning has been raised and supported by many researchers which are based mainly on experimental studies of cognitive science and cognitive psychology (Carr & Curran, 1994; Curran & Keele, 1993; Marcel, 1983; Tomlin & Villa, 1994; Velmans, 1991). Tomlin and Villa (1994), criticizing the lack of scientific
definition of attention in most of research studies on attention in the field of SLA, argued that second language acquisition research should gain insight from cognitive psychology, and even from neuroscience. In their cognitive model of SLA, attention, specifically detection, can be dissociated from awareness even if they are related to each other. In other words, Tomlin and Villa (1994) maintained that detection is different from awareness, and detection of input, not awareness, is a necessary and sufficient condition for any type of learning, including L2 learning, to take place.

The dissociation between awareness and L2 learning has been indirectly supported by several empirical studies on general cognitive learning (Curran & Keele, 1993; Nissen & Bullemer, 1987; Velmans, 1991; Willingham, Nissen, & Bullemer, 1989). For example, Nissen and Bullemer (1987) investigated the relation between learning and awareness through a serial reaction time task in which a light appeared in one of four locations and learners were asked to press keys to indicate the presence of the light. The group of learners exposed to a repeating sequence improved their performance significantly better than those who were exposed to a random non-repeating sequence, which indicates that the former group learned the sequence and could anticipate where the next light would appear. When the same task was done under dual-task conditions combined with a tone counting task, the subjects who were trained under the dual-task condition were no better in their reaction time response in a subsequent single task condition than subjects who had no experience at all. Nissen and Bullemer interpreted these results as emphasizing the importance of distinguishing between attending to the task itself (i.e., detection of input, following Tomlin and Villa (1994)), and being aware of information carried by the task (i.e., being conscious of the regularities of the sequence in the experiment).

On the other hand, Schmidt and his colleagues have maintained, based on the so-called noticing hypothesis, that noticing or awareness of some particular form in the input is the necessary and sufficient condition for any subsequent processing of that form to take place (Robinson, 1995; Schmidt, 1990, 1993, 1994, 1995; Schmidt & Frota, 1986). The noticing hypothesis seems to view awareness as playing a crucial role in L2 learning. Schmidt (1993) argued that learners must first demonstrate a conscious apprehension and awareness of some particular form in the input before any subsequent processing of that form can take place. Even if Schmidt suggested the noticing hypothesis, without any experimental attempts, on the basis of a diary study of his own personal experience to learn Portuguese (Schmidt & Frota, 1986), several classroom-based studies have supported the hypothesis, exemplifying the facilitative effects of awareness on foreign language learning (Alanen, 1995; Leow, 1997, 2000; Robinson, 1997a, 1997b; Rosa & O’Neill, 1999).

Robinson (1997a) explored the role of L2 learners’ awareness by comparing four different learning conditions: (a) an implicit condition, in which learners just memorized sentences containing the target structure without attracting the learners’ attention or
awareness to any formal features of the materials, (b) an incidental condition, in which learners were asked to focus on content, not on any formal features of the materials, (c) an instructed condition, in which learners’ awareness was explicitly directed to the target structures by formal instruction, and (d) an enhanced condition, in which learners’ awareness of the target structures was facilitated but not explicitly attracted by means of a box drawn around the target structures. Robinson found that the implicit enhancement of the target structures under the enhanced condition was most effective for getting learners to notice the targeted forms.

Rosa and O’Neill (1999) investigated how intake of L2 input was affected by awareness. Native speakers of English who were learning Spanish were exposed to Spanish conditional sentences under five different learning conditions. The learning conditions were made different in their degrees of explicitness through a different combination of teaching and task conditions: [±formal instruction] and [±directions to search for rules]. After the experimental task, the intake of the learners’ awareness was assessed by means of think-aloud protocols collected during input processing. Rosa and O’Neill maintained that the degrees of explicitness had a different effect on intake, and that the higher the level of awareness demonstrated, the stronger the effect on intake.

Leow (1997, 2000) confirmed the claim that awareness plays a crucial role in subsequent processing of L2 data. He investigated the effects of awareness on second or foreign language learners’ subsequent intake and written production of Spanish morphological forms through think-aloud protocol data and postexposure assessment tasks. The results showed that the learners who demonstrated awareness of targeted morphological forms in L2 data were able to take in and produce in writing significantly more of these forms, compared to the learners who were not aware of the forms during the exposure. In other words, the findings of the study did not provide empirical support for the dissociation claim that awareness is not related to L2 learning at all. Leow’s (1997, 2000) studies and their findings are worth our careful attention because the study investigated morphological irregularities of a natural language, while most of other studies (Carr & Curran, 1994; Curran & Keele, 1993; Tomlin & Villa, 1994; Velmans, 1991), which have been consistently mentioned to support the dissociation between awareness and L2 learning, have investigated general cognitive sequential learning, not a natural language.

III. METHOD

1. Participants

One hundred and four first-year students of a high school located in Seoul participated in the study. There were three more students at the beginning of the experiment, who were
eliminated due to absence from the post-exposure assessment task. The participants were from three intact classes which were randomly assigned to three groups of the study. The first group (the passive group, N = 36) was exposed to an English text including the target structure, the English passive, and received brief explanation about the target structure. The second group (the preposition group, N = 32) was exposed to the same English text that the passive group received and received grammar explanation not about English passives, but about some English prepositions. The third group (no treatment group, N = 36) was not exposed to any instructional materials of the present study. They were just pre- and post-tested on the use of English passives.

The participants were all male students, and they were in the middle of the first semester of their first year in high school. None of them had had experience of being exposed to English in an English-speaking country, and in an interview with an English teacher in the high school prior to the experiment, the participants revealed that they had not received any formal instruction about the use of English passives. Several students who had had enough formal knowledge about the English passive and were believed to acquire the English passive were excluded from the experiment, since the present study was designed to reveal the effects of awareness in the acquisition of the English passive.

2. Materials

1) Exposure Task

The instructional material which was designed to expose the participants to the targeted grammatical form consisted of one reading text and two comprehension questions. Two versions of the same reading text were prepared for the two groups of the study: the passive group and the preposition group questions (See Appendix A and B). The reading text for the passive group included nine blanks to be filled with correct active or passive forms of the given words in parentheses, which was expected to help the participants to be aware of the targeted form, the English passive. For the preposition treatment group, nine blanks to be filled with appropriate prepositions were included in the reading text, which was expected to distract the participants’ attention from the targeted form, the passive. The two versions of the reading text were followed by two comprehension questions which were the same for the two different groups. The two questions were made to direct the participants attention to the contents of the reading material by requiring the participants to find out some details.
2) Pre- and Post-exposure Assessment Tasks

Participants’ learning of the targeted form was measured in terms of recognition and production of the form before and after the exposure task (See Appendix C and D). The multiple-choice recognition task comprised twenty four items, among which eight items were used to measure the learners’ knowledge of the use of the English passive and sixteen were distracters. For each of the twenty four task items, participants were asked to choose one out of four choices to complete a grammatical sentence. The production task required the participants to fill in the blank with an appropriate form of a given verb. It also comprised twenty four items, among which eight were regarding the use of the English passive and the other sixteen were distracters.

The two tasks before and after the exposure treatment were different from each other in the items for the targeted forms, that is, the questions about the English passive. For the other items, distracters, the identical questions were used twice in the two tasks.

3) Awareness Questionnaire

Even if the two different exposure tasks for the two groups were designed to differentiate the degree of the participants’ awareness of the target structure between the passive group and the preposition group, the actual awareness could not be controlled by the researcher. The present study, therefore, made use of a questionnaire by which whether the participants were aware or not aware of the target structure could be demonstrated. The questionnaire included the two questions: (1) “What do you think was the purpose of the previous instruction?” and (2) “What have you learned through the previous task?”

3. Procedure

One class hour before performing the experimental exposure task, the participants of the three groups were tested on the English passive through the pre-exposure assessment tasks. For about twenty minutes, the participants were given both the multiple-choice recognition task and the production task. The participants were allowed to ask questions about the meaning of vocabulary that they were not sure of, but they were told not to use a dictionary. They were instructed not to talk with each other during the task.

On the second day of the experiment, the two groups, the passive and the preposition group, participated in the instructional exposure task which was designed to make the participants aware of the English passive and English prepositions, respectively. The task consisted of reading a given text and solving comprehension questions. The participants were instructed to primarily focus on the comprehension of the given reading text. While
reading the text, the learners were asked to fill in the blanks for English passives or prepositions, respectively for the passive group or the preposition group. The grammar explanation about the form and meaning of the English passive or the meaning of prepositions lasted less than three minutes when the participants felt difficulty filling the blanks. The whole instructional exposure task took about 20 to 25 minutes. The no treatment group received no instruction at all.

Immediately after the experimental exposure task, the participants were asked to respond to two questions of the questionnaire which was intended to find out whether the participants were aware of the use of the targeted structure of the study, the English passive. It took only two to three minutes for the participants to answer the two questions.

On the third day of the experiment, the participants of all the three groups were tested on the English passive through the post-exposure assessment tasks which also consisted of the multiple-choice recognition task and the written production task. The procedure of the testing was exactly the same as the pre-exposure assessment tasks. It also lasted about 20 minutes.

The whole procedure of the present study can be summarized as in Figure 1.

FIGURE 1
Overall Design of the Experiment
4. Analysis

The present study quantitatively analyzed the role of awareness in Korean high school students’ learning of English passives. The study included three independent groups who performed both pre- and post-exposure assessment tasks. It first analyzed the overall effects of awareness by comparing the three groups’ performance in the post-exposure assessment task. It also focused on comparing the learners’ performance in the two different types of tasks, which were a multiple-choice recognition task and a written production task. All the three comparisons were performed by adopting a pre- and post design of statistical analyses, that is, an analysis of covariance (ANCOVA), which was expected to reduce the probable effects of the pretest. The scores of the pre-exposure task were used as a covariance of all the statistical analyses of the study.

The questionnaire of the present study was expected to confirm the validity of the experimental task for inducing the learners’ awareness to the targeted form. The passive group of the study received instruction on the English passive, the targeted form of the study, while the preposition group, though they were exposed to the same reading material, did not receive any explicit instruction on the English passive. The two group learners’ responses to the two questions were compared to reveal the difference of the learners’ awareness.

IV. RESULTS

1. Overall Effects of Awareness

The mean scores and standard deviations for the pre- and post-exposure assessment tasks are presented in Table 1. The recognition task and the production task were combined in the results of Table 1. The mean scores in the pre-exposure assessment task showed very small differences between the three groups. The largest difference is 5.36 between the passive group and the no treatment group (62.77 vs. 57.41), and the gap between the passive group and the preposition group is only 1.14 (62.77 vs. 61.63). However, the mean scores of the three groups for the combined task of the post-exposure assessment task are very different from each other. The passive group showed the highest score (73.88) and the no treatment group, the lowest (55.48), the gap being as much as 18.40.

The results of the ANCOVA for the three groups’ post-exposure assessment task are presented in Table 2. A significant difference was found between groups ($F(2, 100) = 9.52$, $p < .05$), which just signifies that the three groups’ performance in the post-exposure assessment task were not the same.
A post-hoc pair-wise comparison using Tukey’s HSD was performed to locate the significant difference between the three groups. There existed significant differences between the passive group and the no treatment group ($p = .000$) and between the passive group and the preposition group ($p = .005$), but no significant difference was found between the no treatment group and the preposition group ($p = .115$).

<table>
<thead>
<tr>
<th>TABLE 1</th>
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<tbody>
<tr>
<td><strong>Descriptive Statistics for Pre- and Post-exposure Tasks</strong></td>
</tr>
<tr>
<td>N</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Passive Group</td>
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<tr>
<td>Preposition group</td>
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<tr>
<td>No treatment group</td>
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</table>

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<tr>
<th>TABLE 2</th>
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<tbody>
<tr>
<td><strong>ANCOVA Summary for the Post-exposure Task</strong></td>
</tr>
<tr>
<td>Source</td>
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<tr>
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</tr>
<tr>
<td>Prescore</td>
</tr>
<tr>
<td>Group</td>
</tr>
<tr>
<td>Error</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

2. Effects of Awareness in Recognition Tasks

The role of awareness was expected to produce different results depending on the type of experimental task. The mean scores and standard deviations for the multiple-choice recognition task in both the pre- and post-exposure assessment tasks are presented in Table 3. As was in the combined results shown in Table 1, the mean scores for the recognition task of the pre-exposure assessment task showed very small differences between the three groups. The largest gap is 4.88 between the passive group and the no treatment group (72.00 vs. 67.12), and the gap between the passive group and the preposition group is only 1.43 (72.00 vs. 70.57). However, the mean scores of the three groups in the post-exposure assessment task are very different from each other. The passive group showed the highest score (81.71) and the no treatment group, the lowest (67.84), the gap being as much as 13.87.

<table>
<thead>
<tr>
<th>TABLE 3</th>
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</thead>
<tbody>
<tr>
<td><strong>Descriptive Statistics for the Recognition Task of the Pre- and Post-tasks</strong></td>
</tr>
<tr>
<td>N</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Passive Group</td>
</tr>
<tr>
<td>Preposition group</td>
</tr>
<tr>
<td>No treatment group</td>
</tr>
</tbody>
</table>
Comparing the combined results in Table 1 and the results for the recognition task only in Table 2, the mean scores of the recognition task were much higher than the combined results. For example, the mean score for the passive group in the recognition task is 81.71, which is much higher than the mean score for the same group in the combined results, 73.88. These results are not far from the usual expectation that L2 learners feel more confident and perform better in the multiple-choice recognition test than the written production task.

The results of the ANCOVA for the three groups’ performance in the recognition task of the post-exposure assessment task are presented in Table 4. A significant difference was found between groups \((F(2, 100) = 4.95, p < .05)\), which just signifies that the three groups’ performance in the recognition task of the post-exposure assessment task were not the same.

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>(F)</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescore</td>
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<td>1</td>
<td>21763.605</td>
<td>74.206</td>
<td>.000</td>
</tr>
<tr>
<td>Group</td>
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<td>1450.341</td>
<td>4.945</td>
<td>.009</td>
</tr>
<tr>
<td>Error</td>
<td>28155.557</td>
<td>96</td>
<td>293.287</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>621250.000</td>
<td>100</td>
<td></td>
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</tr>
</tbody>
</table>

A post-hoc pair-wise comparison using Tukey’s HSD was performed to locate the significant difference between the three groups. There existed significant differences only between the passive group and the no treatment group \((p = .002)\) and no significant difference was found between the no treatment group and the preposition group \((p = .079)\) and between the preposition group and the passive group \((p = .134)\). Even if the difference between the passive group and the preposition is as much as 6.30, it should not be big enough to be significantly different. Considering the statistically significant difference between the two same groups in the combined results, it is revealed that the learners’ performance was different depending on the type of the task, that is, whether it was a recognition task or a written production task.

3. Effects of Awareness in Production Tasks

Considering the results in the previous section that the mean scores for the multiple-choice recognition tasks of the pre- and post-exposure assessment tasks were higher than the combined mean scores for both the recognition and the production tasks, it is expected that the mean scores for the written production tasks of the pre- and post-exposure assessment tasks are much lower than those for the recognition tasks. The results for the
written production tasks are presented in Table 5. The mean score for the passive group in the production task is 66.69, which is much lower than the mean score for the same group in the recognition task of the post-exposure assessment task, 81.71 and than the combined mean score for the same group, 73.88.

As was in the combined results shown in Table 1 and in the recognition tasks shown in Table 3, the mean scores for the recognition task of the pre-exposure assessment task showed very small differences between the three groups. The largest gap is 3.10 between the passive group and the no treatment group (53.55 vs. 50.45), and the gap between the passive group and the preposition group is only 0.87 (53.55 vs. 52.68). However, the mean scores of the three groups in the written production task of the post-exposure assessment task are very different from each other. The passive group showed the highest score (66.69) and the no treatment group, the lowest (42.04), the gap being as much as 24.65. The gap between the passive group and the no treatment group is much larger in the production task than in the recognition task.

<p>| TABLE 5 |
| Descriptive Statistics for the Production Task of the Pre- and Post-tasks |</p>
<table>
<thead>
<tr>
<th>N</th>
<th>Pre-task</th>
<th>Post-task</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Passive Group</td>
<td>36</td>
<td>53.55</td>
</tr>
<tr>
<td>Preposition group</td>
<td>32</td>
<td>52.68</td>
</tr>
<tr>
<td>No treatment group</td>
<td>36</td>
<td>50.45</td>
</tr>
</tbody>
</table>

The results of the ANCOVA for the three groups’ performance in the production task of the post-exposure assessment task are presented in Table 6. A significant difference was found between groups ($F(2, 100) = 9.98, p < .05$), which just signifies that the three groups’ performance in the production task of the post-exposure assessment task were not the same.

A post-hoc pair-wise comparison using Tukey’s HSD was performed to locate the significant difference between the three groups. There existed significant differences between the passive group and the no treatment group ($p = .000$) and between the passive group and the preposition group ($p = .002$), but no significant difference was found between the no treatment group and the preposition group ($p = .201$). This pattern of significant differences between the three groups is different from that of the recognition task, which showed a significant difference between the passive group and the no treatment group.
TABLE 6
ANCOVA Summary for the Production Task

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>p</th>
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<tbody>
<tr>
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<td>4982.210</td>
<td>9.984</td>
<td>.000</td>
</tr>
<tr>
<td>Error</td>
<td>47904.419</td>
<td>96</td>
<td>499.004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>403437.500</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Awareness of the Targeted Form

Two groups of the present study, the passive group and the preposition group, received instruction on two different structures, the passive and the preposition, respectively. The passive, not the preposition, is the targeted form of the study, so only the passive group learners were expected to be aware of the English passive. However, even the preposition group learners could have been aware of the targeted form since they received the same material that the passive group learners received. In other words, the instructional material also contained the use of the English passive.

Participants’ answers to the two questions were analyzed to find out whether they were aware of the use of the targeted form and to compare the degree of awareness between the two groups. The first question explored the awareness of the overall purpose or goal of the instruction. Most of the participants, regardless of the group they belonged to, answered that the main purpose of the instruction was to improve their reading skills with some grammar practice. They did not specify which grammatical structure they had been taught and gave very general answers.

The other question of the questionnaire, “What have you learned through the previous task?” was supposed to reveal whether the learners were aware of the targeted form of the present study. All the thirty-six students in the passive group responded, with no exception, that they had learned English passives. Two students in the passive group added one more grammatical structure, agreement between subjects and verbs, to the English passive.

The participants of the preposition group showed that they were mostly aware that the goal of the instruction was the use of English prepositions, not the English passive, the targeted form of the study. However, the interesting thing is that, among the thirty-two participants of the preposition group, seven students answered that they had also learned the English passive through the classroom instruction. It can imply that even though the instructor did not give any explicit instruction on the English passive, it was possible that the learners in the preposition group incidentally notice the target structure which was included in the instructional material.
V. DISCUSSION AND CONCLUSION

The present study explored the role of awareness in subsequent processing of L2 data or learning of L2 structure by comparing aware and unaware learners of the target structure. The learners of the passive group were intended to be the aware learners who participated in the treatment session with their attention on the targeted form, while the participants in the preposition group received instruction on English prepositions and were unaware of the targeted form were regarded as unaware learners. In addition, the learners of the no treatment group were also regarded as unaware learners, who had had no chance to be aware of the targeted form through the instruction. The results of the questionnaire which aimed to measure the participants’ degree of awareness confirmed the distinction between the groups because only the learners of the passive group revealed their awareness of the goal of the instruction.

The findings of the present study appear to indicate that L2 learners who demonstrated awareness of the targeted form during exposure in the classroom were able to recognize and produce significantly more of the form immediately after the exposure, compared to learners who did not show any awareness of the form during the treatment session. The passive group learners who demonstrated awareness of the target structure performed the post-exposure assessment task with greater success than those of the other two groups in all the three analyses of the results, that is, in the analyses of the recognition task, the production task, and the combination of them. These results can be interpreted as providing empirical evidence for Schmidt’s noticing hypothesis, which maintains that awareness plays a crucial role in subsequent L2 processing and that no L2 learning takes place without awareness (Schmidt, 1990, 1993, 1994, 1995).

The facilitative effects of awareness were profound in this study when considering that the learners’ exposure to the targeted form in the treatment session lasted only 20 to 25 minutes. The participants of both the passive group and the preposition group received the identical reading material and they were asked to focus on the interpretation of the text and to solve comprehension questions. While the learners were trying to understand the text, the passive group learners’ attention or awareness was directed to the form and use of the English passive and the preposition group learners’ attention was directed to the use of English passives. The only difference between the passive group and the preposition group was whether the learners were aware of the targeted form or not. Therefore, the passive group learners’ superior performance in the post-exposure assessment task over the learners of the preposition group and the no treatment group signifies the learners’ awareness in the passive group played a crucial role in their L2 learning of English passives.

In Leow’s (1997, 2000) consecutive studies, significant differences were found between aware learners and unaware learners in both the recognition task and the written production
task. However, the present study showed the differential effects of awareness between the recognition task and the production task. The combined results of the two tasks revealed significant differences between the passive group and the preposition and also between the passive group and the no treatment group. Such differences between the three groups were also found in the written production task. In the multiple-choice recognition task, however, the significant difference was found only between the passive group and the no treatment group. There was no significant difference between the passive group and the preposition group. In other words, the preposition group learners, who were exposed to English prepositions, not to the English passive, performed as well as the passive group learners, who were exposed to the English passive, in the post-exposure assessment task that tested the form and use of the English passive. How can we explain these rather surprising results? A clue to answer this question may be found in the results of the awareness questionnaire. Seven out of thirty-two students of the preposition group answered that they had learned the English passive even though it was not explicitly taught in the treatment session. It was possible for them to notice the English passive during exposure to the same reading text that the passive group learners received, and it may lead to their proficiency gain in the recognition task, but not in the production test. The different results between the recognition test and the production test may result from the difference of cognitive processing. Syntactic processing required in the production task must be felt more difficult than just comprehension or recognition which is related to semantic processing. So, in the present study, some or many of the learners in the preposition group may have noticed the use of English passives during their exposure to the reading texts including passives, and the noticing must have helped the learners of the preposition group successfully recognize the form of the English passive in the recognition task. If so, the duration of exposure matters here. Considering that the learners’ exposure to the instructional material was about twenty to twenty-five minutes and that the explicit attraction of the learners’ attention or awareness lasted less than three minutes, more exposure to the targeted form would have led to even successful production of the targeted form, the English passive of the present study. Further research in the future should address this point.

The results of the present study appear to provide supporting evidence for the association between awareness and L2 learning. However, a word of caution is needed. It does not provide any evidence against the dissociation between awareness and L2 learning. The findings of the present study just do not provide empirical support for the dissociation theory. In order to verify or reject the dissociation theory, a careful research design in which the L2 learners’ attention, awareness, or detection in Tomlin and Villa’s (1994) definition, could be managed by the research method should be developed. If the learners do or do not learn any L2 grammatical features in such an attention-controlled environment, it can be concluded that L2 learning do not or do require the learners’ conscious awareness.
As was mentioned before, however, the management or control of the learners’ attention or awareness is not an easy problem to solve. As Tomlin and Villa (1994) insisted, a more cognitive research study might be required to solve that problem.

Another limitation of the present study is about the duration of exposure to the targeted forms. The learners of the present study received the instruction for twenty to twenty-five minutes only. With one day instruction of less than thirty minutes, the passive group learners who were exposed to the targeted form showed greater success in the post-exposure assessment task, which may imply superior effects of awareness on L2 learning. However, it should also be emphasized that, with just one day instruction of less than thirty minutes, the preposition group learners showed great achievement in the multiple-choice recognition task of the post-exposure assessment task. As was discussed before, more exposure to the targeted form would have led to even successful production of the targeted form. Further research which will investigate the effects of awareness in longer instruction is needed to explore this issue.

REFERENCES


**APPENDIX A**

**Instructional Material for the Passive Group**

**The British Museum**

The British Museum ____________(establish) in 1753, and visitors can view three famous treasures there. The Elgin Marbles ____________(create) under the supervision of the great sculptor Phidias almost 2,500 years ago. At one time, they ____________(decorate) the exterior of the Parthenon in Athens, Greece. However, the Parthenon ____________(destroy) by an earthquake in the nineteenth century, and the Elgin Marbles ____________(remove) by Lord Elgin, the British ambassador. The British Museum also has a superb collection of Egyptian relics. The most prized Egyptian piece is the Rosetta Stone, which ____________(discover) near Rashid, Egypt, in July 1799. this stone ____________(provide) the key for deciphering ancient Egyptian
hieroglyphic writing. The third treasure in the British Museum is one of the original copies of the Magna Carta; this famous document _________ (sign) by King John more than seven hundred years ago. It _________ (guarantee) the rights of the common man. These three archaeological treasures are among thousands of items on display at the British Museum.

Question 1: Write down the three famous treasures of the British Museum.

Question 2: Who brought the Elgin Marbles to the British Museum?

APPENDIX B
Instructional Material for the Preposition Group

The British Museum

The British Museum was established ________ 1753, and visitors can view three famous treasures there. The Elgin Marbles were created ________ the supervision of the great sculptor Phidias almost 2,500 years ago. At one time, they decorated the exterior of the Parthenon in Athens, Greece. However, the Parthenon was destroyed ________ an earthquake in the nineteenth century, and the Elgin Marbles were removed by Lord Elgin, the British ambassador. The British Museum also has a superb collection of Egyptian relics. The most prized Egyptian piece is the Rosetta Stone, which was discovered near Rashid, Egypt, ________ July 1799. This stone provided the key ________ deciphering ancient Egyptian hieroglyphic writing. The third treasure in the British Museum is one of the original copies of the Magna Carta; this famous document was signed by King John more ________ seven hundred years ago. It guaranteed the rights ________ the common man. These three archaeological treasures are ________ thousands of items on display ________ the British Museum.

Question 1: Write down the three famous treasures of the British Museum.

Question 2: Who brought the Elgin Marbles to the British Museum?

APPENDIX C
Pre-exposure Assessment Task

I. Recognition Task
Fill in the blanks.

1. ______ he is poor, he is happy.
   ① Though  ② When  ③ Because  ④ While
2. French ______ in many parts of the world.
   ① speaks   ② is spoken   ③ is speaking   ④ spoken

3. She said nothing, ______ made him more angry.
   ① that   ② which   ③ when   ④ who

4. We ______ in Rome the other day.
   ① meet   ② have met   ③ met   ④ had met

5. The moon ______ by scientists around the world.
   ① is studied   ② studied   ③ is studying   ④ studies

6. I ______ such an animal before.
   ① never meet   ② never met   ③ have never met   ④ had never met

7. Please do the work the same way ______ I did mine.
   ① how   ② which   ③ for which   ④ that

8. This is the village ______ the poet was born and grew up.
   ① which   ② where   ③ through which   ④ when

9. I don’t know whether he ______.
   ① comes   ② will come   ③ came   ④ has come

10. In 1990, the giant Hubble telescope ______ into space by the U.S.A.
    ① launched   ② was launching   ③ was launched   ④ has launched

11. If he ______ the fact, he would not do so.
    ① knew   ② knows   ③ has known   ④ will know

12. I would not like to swim in this pond ______ the water is dirty.
    ① although   ② for   ③ despite   ④ when

13. Powerful telescopes ______ to observe Neptune.
    ① are used   ② used   ③ have used   ④ are using

14. The City of Las Vegas ______ by thousands of multi-colored lights at night.
    ① illuminated   ② is illuminated   ③ illuminating   ④ is illuminating

15. He is, ______ it were, a bookworm.
    ① for   ② what   ③ as   ④ because

16. I will start tomorrow ______ all events.
    ① for   ② against   ③ through   ④ at

17. As part of their project, the students ______ on a tour of the museum by a guide.
    ① taking   ② took   ③ were taken   ④ have taken

18. I visited the village ______ he lived.
    ① in which   ② which   ③ while   ④ what

19. He failed in his business. He is worse ______ now.
    ① of   ② off   ③ on   ④ out

20. Ellen’s essays ______ with humor and wit.
    ① are written   ② are writing   ③ have written   ④ wrote
21. I saw the strange man ______ by the store.
   ① to pass  ② passed  ③ passes  ④ passing
22. He was absent from the meeting, ______ is often the case with him.
   ① as  ② but  ③ what  ④ that
23. ______ returning back his hometown, he began to meet all the people he had known.
   ① As soon as  ② On  ③ Where  ④ While
24. Many dinosaur bones ______ by paleontologists in China.
   ① discovered  ② are discovering  ③ were discovered  ④ have discovered
25. We cannot live ______ happy friends.
   ① with  ② for  ③ because  ④ without

II. Production Task
Fill in the blank with an appropriate form of a given word.
1. ______ (write) in easy English, this book is very easy to read.
2. The laser ______ (create) in 1960 by Dr. Theodore Maiman at the Hughes Research Laboratories in Malibu, California.
3. Strictly ______ (speak), your answer is not correct.
4. ______ (travel) by car is not exciting.
5. A traditional breakfast ______ (prepare) by the chef for the hotel’s special guests.
6. I remember ______ (see) him last summer.
7. I am sure of his ______ (be) successful.
8. The computer ______ (move) to a safer locations yesterday.
9. As soon as I ______ (finish) my homework, I will join you.
10. I ______ (begin) to read the novel last week.
11. The planet Venus ______ (cover) by a heavy atmosphere.
12. My father ______ (come) just now.
13. I ______ (lend) you the book as soon as I will have done with it.
14. The first European expedition to reach the Mississippi River ______ (lead) by Hernando De Soto.
15. I ______ (be) back in a while.
16. If I ______ (be) rich, I could buy anything I want to.
17. Flowers ______ (deliver) to my office every day by the florist.
18. Don’t forget ______ (hand) in your homework by tomorrow.
19. We watched the birds ______ (fly) into the forest.
20. Peggy will ______ (surprise) with the gift we sent her.
21. I had my house ______ (paint).
22. He is proud of his son ______ (be) a doctor.
23. Let me know as soon as he ______ (arrive).
24. The priceless diamond ______ (steal) by a professional thief.
APPENDIX D
Post-exposure Assessment Task

I. Recognition Task
Fill in the blanks.
1. He ______ a fortune by means of industry.
   ① had  ② made  ③ gave  ④ accomplished
2. The cars ______ every week by John.
   ① are washed  ② are washing  ③ washing  ④ wash
3. Bread ______ butter is my favorite.
   ① and  ② but  ③ for  ④ with
4. Please do the work the same way ______ I did mine.
   ① how  ② for which  ③ that  ④ which
5. The piano ______ to the lobby so that everyone could enjoy the music.
   ① moved  ② was moved  ③ was moving  ④ have moved
6. If you ______ in my shoes, how would you do?
   ① are  ② will be  ③ have been  ④ were
7. She did ______ I told her to.
   ① what  ② that  ③ which  ④ whether
8. Flies can walk ______ the ceiling.
   ① under  ② to  ③ at  ④ on
9. She got married ______ a rich man.
   ① to  ② with  ③ in  ④ for
10. In 1990, the giant Hubble telescope ______ into space by the U.S.A.
    ① launched  ② was launching  ③ was launched  ④ has launched
11. We are looking forward to ______ you soon.
    ① see  ② seeing  ③ have seen  ④ saw
12. They proposed that the man ______ their hometowns.
    ① visited  ② visits  ③ visit  ④ had visited
13. Powerful telescopes ______ to observe Neptune.
    ① are used  ② used  ③ have used  ④ are using
14. The wheel ______ early in the history of human civilization.
    ① has invented  ② invent  ③ invented  ④ was invented
15. The officer ordered his men ______.
    ① to fire  ② firing  ③ fire  ④ fired
16. Have you already finished a letter ______?
   ① write  ② to write  ③ writing  ④ wrote

17. The computer ______, but it is working now.
   ① was damaged  ② was damaging  ③ damaged  ④ damages

18. Riding a horse is a fun ______.
   ① friend  ② hobby  ③ experience  ④ beetle

19. Too much sunlight can be ______ to your skin.
   ① strange  ② danger  ③ harmful  ④ clever

20. My hometown ______ between two large rivers.
   ① has situated  ② is situating  ③ is situated  ④ situates

21. People in Korea enjoy ______ kites in winter.
   ① fly  ② to fly  ③ flying  ④ flown

22. They watched the house ______ by bombing.
   ① destroy  ② to destroy  ③ destroying  ④ destroyed

23. It ______ for four days.
   ① has been raining  ② is raining  ③ has rained  ④ rains

24. My car ______ last weekend by a thief.
   ① was stolen  ② stole  ③ stolen  ④ was stealing

25. The train ______ when we arrived at the station.
   ① left  ② had left  ③ has left  ④ was leaving

II. Production Task

Fill in the blank with an appropriate form of a given word.

1. Imagine how hard it ______ (be) if you had no textbook.

2. The children ______ (look after) by their grandmother.

3. You can improve your English by ______ (writing) to English-speaking pals.

4. Try ______ (avoid) too difficult or boring books when you learn English.

5. This report ______ (prepare) with a grant from the Ford Foundation.

6. Without water, nothing ______ (live).

7. People killed animals to make it ______ (rain).

8. We ______ (warn) about the dangerous areas in that city.

9. Mom is answering the phone, ______ (watch) TV.

10. The planet Venus ______ (cover) by a heavy atmosphere.

11. All he wants ______ (do) is seeing his daughter again.

12. People ______ (involve) in farming hope for rain when there is no rain for long.

13. The first European expedition to reach the Mississippi River ______ (lead) by Hernando De Soto.

14. Rain helps plants ______ (grow).

15. I came across the bank robber whom I ______ (see) the other day.
17. The details of the moon’s surface ______ (reveal) by small telescopes.
18. Jim was made ______ (clean) the classroom.
19. We saw a boy ______ (steal) some candies in that store.
20. The Great Wall of China ______ (build) to keep out invaders from the North.
21. I was so sad when I heard my close friend ______ (cry) with pain.
22. Did you finish ______ (do) your homework?
23. He is in deep thought with his arms ______ (fold).
24. The first astronomical telescope ______ (invent) in 1611 by Johannes Kepler.
25. My teacher always encourages us ______ (speak) English.

Applicable levels: secondary, university
Key words: awareness, subsequent L2 learning