

The Roles of Output in Second Language Acquisition: A Case Study of Thai Learners

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Abstract

A debate in second language acquisition research is whether noticing plays a positive role in the acquisition of the second language (L2). Some researchers have argued that enhanced input, output, negotiation, and attention to form have positive effects while others are doubtful about such claims. In this small-scale investigation, the potentially facilitative effects of output on the acquisition of the English passive form by Thai English language learners was examined. Specifically, this inquiry addresses: (a) whether output promotes noticing of an L2 grammatical form, and (b) the relationship between noticing and subsequent production. Two groups of 20 Thai English language learners were placed in an output group and a non-output group, where they read two expository texts which focused predominantly on the choice of passive forms. The output group reconstructed a text after the first reading to provide opportunities for noticing through output, before they wrote a recall summary after reading the second text. The non-output group answered extended questions after the first reading, and wrote a recall summary after reading the second text. The results suggested that the two groups were not different in performance on recall summary, as well as in terms of the level of noticing and accuracy.

Introduction

In Second Language Acquisition (SLA), the global consensus that has emerged from decades of research is that input plays a crucial role in driving learners' acquisition of a second language (Krashen, 1985). Current research goes beyond general interest in the need for comprehensible input proposed by Krashen in 1985, which is regarded as necessary but inadequate (Ellis, 1994). There have been research studies in cognitive psychology and SLA examining the role of attention in mediating input and learning (Izumi, 2002). To illustrate, learners learn about the things that they pay attention to, but do not learn much about the things they do not attend to (Schmidt, 2001).

For many English language learners and teachers, producing language is generally considered to constitute an important part of language learning. However, how useful it is to produce language is often not evident. The Noticing Hypothesis of SLA (Schmidt, 1990, 1995, 2001) states that intake is the part of the input that the learner notices, and it requires focal attention and awareness on the part of the learner. Swain and Lapkin (1995) hypothesizes that output promotes noticing, and stated that the importance to learning of output could be that output pushes learners to process language more deeply, with more mental effort, than does input. The learners are in control when they produce language output, and can play more active roles in their learning. Output may play a role in promoting noticing (Swain, 1985). It makes a potentially important factor in the acquisition process (Izumi, 2002). This is important if there is a basis to the claim that noticing a form in input must occur in order for it to be acquired (Ellis, 1994; Schmidt, 1990).

In recent years, there has been a growing concern with the role of conscious processes in SLA, which are centered on the noticing hypothesis (Schmidt, 1990, 1995; Schmidt & Frota, 1986). The hypothesis is a claim about how input becomes intake – that part of the input that is used for acquisition. That is, conscious awareness of grammar plays an important role in the process. However, several researchers have preferred to omit any role of consciousness in language learning and have argued for a dissociation between learning and awareness (Velmans, 1991). Studies cited to lend empirical support for the dissociation between attention and awareness at the level of detection in language learning include studies that have used semantic priming tasks (Marcel, 1983), or a serial reaction time task to address learning sequences of input (Curran & Keele, 1993). However, these studies have several methodological problems (Schmidt, 1995) plagued both studies with the

categorization of participants' levels of awareness and the potential for other interpretations of the findings. Additionally, operationalizing and measuring the dissociation between attention and awareness at the level of detection remains a problematic and complicated issue.

Other studies on the noticing function of output investigated whether output would alter the learners' subsequent input processing and promote their language development (Izumi & Bigalow, 2000). Focusing on the English past hypothetical conditional, these studies compared a group that was given output opportunities and subsequent exposure to relevant input and a group that received the same input for the purpose of comprehension. This basic format of the treatment was represented in two types of tasks: a text-reconstruction task and a guided essay-writing task that were delivered in reverse order in the two studies. From these two studies, the results revealed a significant improvement on the form only after the second phase of the treatment, which suggested the importance of extended opportunities to produce output and receive input in effecting substantial learning. In terms of task effects, both studies found that the essay-writing task was more effective to individual variation than was the text-reconstruction task. On the other hand, the reconstruction task may have an advantage in promoting noticing the gap when a specific form is targeted as these tasks maximize the similarities between the learner's production and the target language (TL) model. In general, however, output opportunities in these studies had variable effects on noticing and learning of the form for different learners.

Purpose Statement

In summary, previous empirical studies on the noticing function of output have produced mixed findings (Izumi, 2002). There have been few studies that demonstrates whether these output-oriented processes are facilitative of second language learning. Moreover, at present, operationalizing or measuring the potential for dissociation between awareness and detection in language learning poses difficulties. As a consequence, the effects of output need to be further investigated. The study contributes to the broader debate of the usefulness of explicit focus on form. The purpose of this inquiry is to examine whether output promotes noticing of a grammatical form in the second language. It seeks to obtain a more precise understanding of how learners process, or interact with input to develop their interlanguage competence. To be more specific, this inquiry examines whether output promotes noticing and learning of an L2 grammatical form.

Research Questions

Before the study could address the role of levels of awareness, it needed to establish that noticing did indeed occur. I defined noticing as some form of subjective awareness of new targeted linguistic forms in L2 data as revealed in learners' text production while they were taking notes and writing a recall summary. In the task, I operationalized noticing of the targeted form as learners were producing the L2 texts. This study investigated the role of awareness and its potential effects on learners' immediate behavior on both a recognition and written production task, addressing the research questions:

- 1) Does output promote noticing of an L2 grammatical form?
- 2) What is the relationship between noticing and subsequent production?

Review of Literature

Potential Roles of Output

The Output Hypothesis evolved out of criticism of the Input Hypothesis by Swain (1985). Swain argued for the insufficiency of comprehensible input based on result of her studies of Canadian students in immersion programs. It is reported that students in such programs have ample opportunity to receive comprehensible input; yet a number of grammatical errors are observed in their output even after as long as 12 years. Swain claims that for grammatical development, learners need to be pushed onto making their output: more precise, coherent, and appropriate. Swain argued that while comprehension of a message can take place with little syntactic analysis of the input, production forces learners to pay attention to morphosyntax. Swain (1995) has further revised the

Comprehensible Output Hypothesis, and suggests three functions which output serves in the Output Hypothesis. The three functions are (1) a noticing function, (2) a hypothesis formulation and testing function, and (3) metalinguistic function.

Noticing

Swain and Lapkin (1995) hypothesized that under certain circumstances, output promotes noticing. The sense in which Swain and Lapkin (1995) have used noticing coincides with that of Schmidt and Frota (1986), who state that by noticed, they mean “in the normal sense of the world, that is consciously”. There are several levels of noticing. Learners may simply notice a form in the target language due to the frequency or salience of the features themselves. Or learners may notice not only the target language form itself but also that it is different from their own interlanguage (Schmidt & Frota, 1986). Or, learners may notice that they cannot say what they want to say precisely in the target language (Swain & Lapkin, 1995). Under some circumstances, the activity of producing the target language may prompt second language learners to recognize consciously some of their linguistic problems; it may bring to their attention something they need to discover about their second language. This may trigger cognitive processes that might generate linguistic knowledge that is new for the learner (Swain & Lapkin, 1995).

Hypothesis Formulation and Testing

A second way in which producing language may serve the language learning process is through hypothesis formulation and testing (Swain, 1985). In normal circumstances, learners are able to obtain useful information for testing their hypotheses from other sources. When external feedback has been available, learners have also modified, or reprocessed (Swain, 1993), their output. For example, Pica (1987) found that in response to clarification and confirmation requests, more than one third of the learners’ utterances were modified either semantically or morphosyntactically. The fact that learners modify their speech in one third of their utterances suggested that they were testing out only some things and not others. It may be that the modified output can be considered to represent the leading edge of a learner’s interlanguage. Thus, learners may use their output as a way of trying out new language forms and structures as they stretch their interlanguage to meet communicative needs; they may use output just to see what works and what does not (Swain, 1985). That immediate external feedback may not be facilitative or forthcoming does not negate the value of learners having experimented with their language resources.

Metatalk

A third function of output is its metalinguistic function. In this case, the learners’ own language indicates an awareness of something about their own, or their interlocutor’s, use of language. That is, learners use language to reflect on language use (Swain, 1998). Thus, by encouraging metatalk among second and foreign language students, it is helpful for students to make use of second language acquisition processes. It is essential that this metatalk is encouraged in contexts where the learners are engaged in making meaning, that is, where the language being used and reflected upon through metatalk is serving a communicative function. Otherwise, the critical links between meaning, forms, and function may not be made (Swain, 1998).

Consistent with what Swain suggests, Izumi (2002) states that the current popular view of output posits that it constitutes not just the product of acquisition or the means by which to practice one’s language for greater fluency, but also a potentially important causal factor in the acquisition process. The importance of output in learning may be construed in terms of the learners’ active deployment of their cognitive resources. In other words, it is posited that the output requirement presents learners with unique opportunities to process language that may not be decisively necessary for simple comprehension. In proposing the Output Hypothesis, Swain and Lapkin (1995) express that producing the target language may serve as the trigger that forces the learner to pay attention to the means of expression needed in order to successfully convey his or her own intended meaning.

In psycholinguistic terms, it may be assumed that grammatical encoding and monitoring mechanisms (Levelt, 1989) play particularly important roles for learning purposes by functioning as an internal printing device for grammatical consciousness-raising for the language learner (Izumi, 2000). Research to date has provided descriptive evidence of the existence of learning processes stimulated by output (Swain & Lapkin, 1995). Of the three functions of output (noticing, hypothesis formulation and testing, and metatalk) specified in the current version of the Output Hypothesis (Swain, 1995), the present study focuses on its noticing function. The noticing function of output posits that learners may notice the gap in their target language knowledge in an attempt to produce the target language, which then prompts them to solve their linguistic deficiency in ways that are appropriate in a given context. For instance, if learners are left on their own to solve the immediate production difficulties, they may engage in various thought processes that can consolidate existing knowledge or possibly generate some new knowledge on the basis of their current knowledge (Swain & Lapkin, 1995). On the other hand, if relevant input is immediately available, the heightened sense of problemat�city during production may cause the learners to process subsequent input with more focused attention; they may try to examine closely how the target expresses the intention that they just had difficulty in expressing on their own. In either case, learning is believed to be enhanced through the act of producing language, which, by its mechanisms, increases the likelihood that learners become sensitive to what they can and cannot say in the target language, which leads to the reappraisal of their interlanguage capabilities.

Noticing in Second Language Acquisition

In the strong form of the noticing hypothesis, favored by Schmidt, noticing is a necessary condition for learning. The noticing hypothesis has acknowledged the role of consciousness in language learning and argued that learners must first consciously notice—that is, demonstrate a conscious apprehension and awareness of some particular form in the input—before any subsequent processing of that form can take place. In other words, noticing is the necessary and sufficient condition for the conversion of input to intake for learning. Noticing is often associated with the influential notion of consciousness raising (Rutherford, 1987; Sharwood Smith, 1981) or input enhancement (Sharwood Smith, 1991) and focus on form (Long & Robinson, 1998). According to Schmidt (1990), learners select specific parts of the input they are exposed to which then become available for further processing. Indeed, Schmidt argues strongly against any intake of input that the learner has not noticed. He appears to equate noticing with attention plus awareness. To support his argument for the role of consciousness in the sense of awareness at the level of noticing in SLA, Schmidt cites primarily a diary study of his own personal attempts to learn Portuguese (Schmidt & Frota, 1986) and SLA studies that have addressed (a) enhanced input designed to draw learners' attention to specific forms in the input; (b) discourse studies demonstrating limited occurrences of acquisition-enhancing negotiation sequences; (c) factors such as saliency of forms; (d) competition between form and meaning; and (e) uptake studies, that is, learners' claims regarding what had drawn their attention and what they had learned during the lesson. He operationalized noticing as a cognitive operation that takes place both during and immediately after exposure to the input that is available for self-report.

Proponents of noticing also give much attention to noticing the gap—learners' awareness of a mismatch between the input and their current interlanguage. Schmidt and Frota (1986) presented noticing the gap as an adjustment of Krashen's (1985) theory, the only difference being their additional claim that conscious awareness of the gap is a requirement. For example, noticing has been described as the part of the attentional system that involves the detection and consequent registration of stimuli in memory (Posner & Peterson, 1990). Noticing of stimuli makes it potentially available for inclusion in long-term memory and for further processing, hence Schmidt's (1995) claim that noticing is requisite for learning. Robinson (1995) distinguishes between noticing and detection on the basis on awareness. Noticing may then be conceived as detection accompanied by lesser and greater degrees or levels of awareness (Leow, 2000; Philp, 1998). Robinson (1995) suggests degrees of noticing may relate to the amount and nature of rehearsal in memory that occurs with detection. There are several levels of noticing. Learners may simply notice a form in the target language due to

the frequency or salience of the features themselves. Schmidt and Frota (1986) propose in their “notice the gap principle,” that learners may notice not only the target language form itself but also that it is different from their own interlanguage. In other words, L2 learners will begin to acquire the targetlike form if and only if it is present in comprehended input and ‘noticed’ in the normal sense of the word that is consciously. Their hypothesis is that output is one of the triggers for noticing. That is to say, in producing the target language, learners may encounter a problem leading them to recognize what they do not know, or know only partially. The activity of producing the target language may prompt L2 learners to consciously recognize some of their linguistic problems; it may bring to their attention something they need to discover about their L2 (Swain, 1985). Simply stated, learners may notice that they cannot say what they want to say precisely in the target language (Swain & Lapkin, 1995). The important issue is that it is while attempting to produce that target language that learners may notice that they do not know how to say (or write) precisely the meaning they wish to convey (Swain, 1998). This may trigger cognitive processes that might generate linguistic knowledge that is new for the learner or consolidate the learner’s existing knowledge (Swain & Lapkin, 1995).

The output hypothesis is that even without implicit or explicit feedback provided about the learners’ output, learners may still on occasion notice a gap in their own knowledge when they encounter a problem in trying to produce the L2. A study by Nobuyoshi and Ellis (1993) was suggestive. Their study indicated that pushing learners to improve the accuracy of their production resulted not only in immediate improved performance but also in gains in accuracy over time. Other research has described what learners do linguistically when pushed to modify their output. These studies indicated that during the process of negotiating meaning, learners indeed modified their output in response to such conversational moves as clarification requests or confirmation checks. The communication strategy literature (Kellerman, 1991) provided evidence that learners do notice problems as they speak, and do try to do something about them. But what do they do when they notice a problem? In this paper, I examined these processes as they were revealed through their text reconstruction produced by L2 students while writing.

Operationalizing and Measuring Awareness

The terminological and theoretical confusion in current psycholinguistic theory of attention in SLA appears to be mirrored in current empirical studies. There have been considerable controversy regarding the role of awareness in language learning, inconclusive evidence for its effects on L2 learners’ behavior, and two methodological problems in addressing its role in language learning: namely, defining precisely what constitutes awareness and operationalizing or measuring it (Leow, 1995). Operationalizing and measuring awareness in language learning have been largely problematic due to (a) different definitions of what constitutes awareness; (b) the rapidity of learner’s subjective experience of cognitive registration; and (c) the potential inability to verbalize one’s awareness (Schmidt, 1995).

Schmidt (1995) states that L2 learning must entail awareness and particularly that the noticing hypothesis claims that learning requires awareness at the time of learning. In short, according to Schmidt’s noticing hypothesis, consciousness, in the sense of awareness of specific forms in the input at the level of noticing (conscious attention), is necessary for language learning to take place. Tomlin and Villa (1994) provide a restricted definition of awareness derived from SLA (Schmidt, 1990) and cognitive science (Schacter, 1992): Awareness refers to a particular state of mind in which an individual has undergone a specific subjective experience of some cognitive content or external stimulus (Tomlin & Villa, 1994). They listed three criteria as important for establishing whether awareness is demonstrated or not: (a) a show of some behavioral or cognitive change due to the experience, (b) a report of being aware of the experience, and (c) a description of this subjective experience. In the review of the operationalization of awareness, Curran (1994) provided several methodological assessments of awareness that include noticing changes in learners’ behavioral patterns together with some form of meta-awareness; that is, reporting on their cognitive registration of the incoming stimuli. However, the timing of operationalizing awareness while exposed to L2 data or after such exposure appears crucial in addressing its role in language learning. If it is assumed that

learners create a mental representation of a detected or noticed form while interacting with such a form, then their level or degree of awareness should have an impact on what they encode and later retrieve from their memory. In measuring what role awareness plays during learners' actual interaction with L2 data, the use of text reconstruction should provide a clearer of learners' allocation of cognitive resources, the role of awareness, and potential levels or degrees of awareness while processing L2 forms.

Methodology

Participants

The participants ($N = 20$) were ninth grade students selected for the study. They had the same proficiency level based on the previous English course grade reports, and teacher recommendation. The number of the participants was relatively small, primarily because this study was intended as a small-scale study. Half of them were male and the others were female. Their ages ranged from 14-16 years. All of them were Thai. Ten students were randomly placed into the output-group, and the remaining students were selected as a non-output group.

The selection of the students was done in such a manner to ensure the equivalence of the participants in their knowledge of their English proficiency. From an informal conversation with the researcher, all of them demonstrated emerging knowledge of the English passive, but showed signs of insufficient knowledge of the correct usage of the target structure, which satisfied the requirements. Other general criteria included subjects had generally similar educational backgrounds in that all of them had studied English in their home country for a period of about 7 years.

Target Structure

The target form in this study was the English passive. The passive sentence in English exhibits the following features, which makes it distinct from its active counterpart. The internal argument of the verb, which occurs in the direct object position in the active sentence, appears in the subject position. The verb morphology in the passive also differs from the verb morphology of the active sentence. In addition to the presence of the passive auxiliary *be*, the main verb is realized in its passive participle form. Typically, the agents of the action denoted by the verb are phonologically suppressed. However, when they are overtly realized, they occur within a *by*-phrase in the postverbal position (Izumi & Lakshmanan, 1998). Because of its high complexity and frequent use, the English passive is one of the most difficult structural elements for EFL (English as a foreign language) learners (Izumi & Lakshmanan, 1998). L2 learners are likely to encounter a learnability problem in the acquisition of the English passive. In other words, this grammatical item was chosen because it was shown as being problematic for Thai students. Therefore, it was interesting to investigate if output would enable the Thai learners to notice the correct grammar of the English passive.

Research Design

The study used a pretest, posttest design involving one treatment group (output group) and one control group (non-output group). The treatment group differed with respect to output requirement. Output was operationalized as production of a text reconstruction after reading the first article, whereas the control group answered extension questions, without output. The output treatment required that the subjects had multiple opportunities to produce output tasks before writing a recall summary served as the posttest in the second reading in order to gain accuracy of the target form. No explicit instruction or metalinguistic information was given. Consequently, it was assumed that this condition provided opportunities for noticing the gap through output. Dependent variable of the study included the accuracy of the target form, which was used to address the extent of noticing induced by output tasks.

Materials

In this inquiry, two reading passages with approximately the same number of words were used to represent a continuum in terms of overt focus on the passive form. The first passage, "Soccer", was a

160-word expository passage. The second passage was a 165-word expository passage on “American Football”. The passages were taken from Mosaic One: A Content-Based Reading Book (Wegmann, 1996), which was suitable for low-intermediate students. The level of difficulty of the passages matched the level of the participants’ proficiency level of English. The texts also had the appropriate level of the structure focused predominantly on the choice of passive forms, which was the target for this study.

Data Collection Procedures

The students in each group met with the researcher separately, each group at a time. The researcher first met with the students in the output-group in the morning, and met with the other group in the afternoon. The subjects were requested to come to a classroom outside of class hours for the experiment. During the experiment, students first received a brief introduction in outlining the task which they would be expected to do. They were told that the researcher was interested in knowing what they were writing as they were taking notes during reading and performing assigned writing tasks after reading. The researcher explained the procedural steps with the purpose to familiarize them with the process of the treatment. The experiment procedures of the study could be summarized as follows:

Task 1

The subjects were first given the entire text on “Soccer” and were instructed to read it to get the gist of the text. They were given 3 minutes for this skimming phase. During reading the first text, the output group was instructed to take notes of any and every word that they thought was particularly necessary or useful to reconstruct the text as accurately as possible. Subjects in the non-output group were instructed to take notes of any and every word that they thought was important or useful to understand the text. Both of the groups were given note sheets to use for note-taking purposes.

To discourage copying of all words in the text, subjects were told not to write down entire sentences but rather to take notes of only those words that they found important or useful for their respective purposes. The control for time of exposure was set for in such a way that direct copying was not feasible, and long enough for them to make sense of the text.

After that, subjects in the output group were instructed to reconstruct the text they just read as accurately as possible in both content and grammar by writing on the reconstruction sheets. They were allowed to use the notes they had taken to help them with their construction. Subjects in the non-output conditions, on the other hand, were presented with extension questions that asked for their opinion related to the topic discussed in the text. The extension questions were used in lieu of comprehension questions to prevent inadvertently drawing the learners’ attention to form, which was a problem found in previous studies (Izumi & Bigelow, 2000). No time limit was set for either text reconstructing or answering extension questions.

| | | | |
|----------------------|--------------------|----------------|----------------------------|
| Output Group >>> | read a passage >>> | take notes >>> | reconstruct a text |
| Non-output Group >>> | read a passage >>> | take notes >>> | answer extension questions |

Task 2

In the second reading, the subjects read a text on “American Football”. Three minutes was given for the skimming of the text. During reading the text, they were directed to take notes as when they read the first text on another note sheet. The control for time of exposure was also set in such a way that direct copying was not feasible, with the time limit of 5 minutes.

After that, the subjects (in both groups) were instructed to write a recall summary of the text they just read on the summary sheets. They were allowed to use the notes they had taken to help them with their summary writing. This task was untimed. In general, the whole process took about an hour for each group. The time of exposure to the second text was exactly the same for both groups. After

the experiment, the students' production tasks: note taking from the second task, and the recall summary, were collected for further analysis.

| | | | |
|-----------------|--------------------|----------------|------------------------|
| Both groups >>> | read a passage >>> | take notes >>> | write a recall summary |
|-----------------|--------------------|----------------|------------------------|

Data Analysis

To establish that the subjects did indeed notice the targeted form, and address the levels of noticing, I examined the notes and recall summary produced by the learners from the point of view of Tomlin and Villa's (1994) restricted definition of awareness together with the following methodological criteria adapted from previous research: (a) a show of some behavioral or cognitive change (e.g., verbal or written production of the stem-change of the targeted form) due to the experience; and either (b) a report of being aware of the experience or (c) some form of metalinguistic description of the underlying rule. To measure noticing of the target form, two types of dataset were used: note-taking done by the subjects and immediate uptake of the form demonstrated in the subjects' recall summary.

In this study, the descriptive techniques were employed to analyze the data. I set out to explore the multiple ways that students signaled the noticing of the target form. The first step was to look at the broad patterns that emerged in the students' note taking and their recall summary performances they wrote. These indicators served as pieces of evidence as to what extent they noticed the target form. I was also able to compare each group's noticing of the form. The initial note taking helped the researcher gauge the content information in texts that lingered in the memories of the students. Likewise, the recall summary allowed me to examine not only how the subjects conveyed important content through their notes, but also whether the target language form was noticed.

Data were coded according to the degree of accuracy with which learners took notes as well as the number of corrections made in the recall summary. Two raters, the researcher and the other English expert who specialized in the field of linguistics, agreed upon the coding and scoring system. We looked through the notes and the recall summary of the participants and scored them separately. Inter-reliability was 100%. The procedures used in analyzing the subjects' data were as follows.

1) To answer the first research question "Does output promote noticing of an L2 grammatical form?", the words produced between the two groups in the recall summary were compared and analyzed to show awareness of the passive form by tallying the number of the following items: any type of the passive form attempted, and the correct use of the passive form. The 'correct' use of the passive form was applied to all instances with the presence of auxiliary *be*, and the main verb in its participle form (i.e., Unlimited substitutions *are allowed* ...). The verb in the past participle form functions as a modifier is also considered correct (i.e., ... or any *approved* materials). The noticing of the verb in the participle form without auxiliary *be* (i.e., Field *divided* goal line ...) was regarded as the passive form being 'attempted'.

The following excerpts from each group illustrated the correct usage of the target form found in the recall summary.

Samples of the Correct Usage of the Passive Form

Output Group

- "... in an *approved* manner ..." (modifier)
- "... 5 yard *intersected* by short inbound lines ..." (modifier)
 - "All measurements *are made* from inside edges.
 - "Unlimited substitutions *are allowed*, ..."
 - "The field *is divided* between ..."
 - "There *are intersected* by short inbound lines ..."

Non-output Group

- "... in an *approved* manner ..." (modifier)
- "There are unlimited substitution during the game when ..." (modifier)

- “ The field *is divided* with a parallel yard lines ...”
- “ Unlimited substitution *is allowed* but ...”
- “ American football *is played* by two teams ...”
- “ America football *is played* in the field that ...”
- “ There are 5 yard in each line and *intersected* by short inbound lines.”

Samples of the Passive Form Being Attempted

Output Group

“ Field *divided* between goal lines by parallel yard lines, ...”

2) In addition, the notes produced during the second reading session were analyzed with the purpose to be used in conjunction with the recall summary to answer the second research question: What is the relationship between noticing and subsequent production? From the notes, the number of instances that showed noticing of the passive form (auxiliary *be* + *verb in the past participle form*) and the number of idea units that indicated *only the verb in the past participle* were calculated to determine which group showed more cognitive change and greater noticed the gap of the target form. The idea units were roughly equivalent to a subordinate clause or a phrase and expressed a complete thought (Jetton & Alexander, 1997). Below illustrated the noticing of the target form found in the note-taking sheets.

Samples of the Correct Use of Passive Form

Output Group

“ ... behind their opponents’ goal in an *approved* manner.”

“ These *are intersected* by short inbound lines ...”

Non-output Group

“ ... or putting the ball behind their opponents’ goal in an *approved* manner.”

“ The field *is divided* between the goal line ...”

“ *Unlimited* substitution *is allowed*, ...”

Samples of Idea Units Showing Noticing of the Verbs in Past Participle

Output Group

“ ... putting the ball behind ‘s goal line *approved* no...”

“ Field *divided* ~ goal lines by ...”

“ ... 5 y apart *intersected* by ...”

“ All measurements *made* >> inside edges ...”

“ *Unlimited* sub allow, ...”

“ The field *divided* // the goal lines by ...”

Non-output Group

“ ... *unlimited* substitution ...”

“ ... *intersected* by short inbound lines ...”

“ Kickoff *determined* by the toss of coin”

Results

Analysis from the Recall Summary

The participants’ recall summary performances were analyzed by comparing the number of sentences and idea units of the students in both groups that indicated the correct usage of the passive form and the passive form being attempted. Based on the Output Hypotheses, I hypothesized that there would be differences in the recall performances between the two groups. However, such differences did not emerge. On average, the output group, with the text reconstruction treatment, recalled 3.5 correct sentences in the passive form, and 1.4 idea units as being attempted, whereas the non-output group produced 3.7 correct sentences in the passive form, and 0.6 idea unit being attempted.

| Student | Output Group | | Non-output Group | |
|---------|--------------|-----------|------------------|-----------|
| | Correct | Attempted | Correct | Attempted |
| 1 | 5 | 1 | 4 | 0 |
| 2 | 3 | 1 | 6 | 0 |
| 3 | 3 | 2 | 3 | 0 |
| 4 | 3 | 2 | 3 | 1 |
| 5 | 4 | 1 | 1 | 1 |
| 6 | 1 | 2 | 4 | 2 |
| 7 | 2 | 2 | 3 | 1 |
| 8 | 4 | 3 | 3 | 0 |
| 9 | 3 | 0 | 5 | 0 |
| 10 | 5 | 0 | 5 | 1 |
| Total | 3.5 | 1.4 | 3.7 | 0.6 |

Table 1. Number of Sentences and Idea Units in the Passive Forms Produced in the Recall Summary

As seen in Table 1, the differences in the correct passive sentences produced by the two groups were not apparent. It was noted that the student in the non-output group made the most corrections with the total of 6 sentences.

Analysis from the Participants' Notes

From the participants' notes analysis, the number of instances that showed noticing of the passive form and the number of idea units that indicated only the verb in the past participle were calculated to determine which group greater noticed the gap of the target form.

| Student | Output Group | | Non-output Group | |
|---------|-------------------|-----------------|------------------|----------------|
| | Noticing of pass* | Noticing of V3* | Noticing of pass | Noticing of V3 |
| 1 | 4 | 1 | 1 | 1 |
| 2 | 4 | 1 | 6 | 2 |
| 3 | 2 | 2 | 1 | 0 |
| 4 | 2 | 3 | 2 | 1 |
| 5 | 3 | 2 | 1 | 1 |
| 6 | 4 | 4 | 1 | 2 |
| 7 | 3 | 4 | 1 | 1 |
| 8 | 2 | 2 | 2 | 0 |
| 9 | 2 | 1 | 3 | 1 |
| 10 | 4 | 1 | 3 | 1 |
| Total | 3 | 2.1 | 2.1 | 1 |

Table 2. Number of Sentences and Idea Units Showing Noticing of the Passive Form During Note Taking

Note: Noticing of pass = Noticing of passive; Noticing of V3 = Noticing of past participle

As illustrated in Table 2, the output group noticed slightly more of the target form than the other group. On average, the output group scored 3 points in noticing the passive voice and 2.1 in noticing the past participles; whereas, the non-output group scored 2.1 in noticing the passive voice and 1 point in noticing the past participles.

The Relationship between the Notes and the Recall Summary

Overall, the findings suggested that the two groups did not differ in performances of producing the target form in the recall summary. However, it was noted that there was a slight difference in that the output group produced the number of the correct usage of passive form equivalent to the number

of their notes that showed the noticing of the target form, whereas the non-output students produced more correct sentences in the summary than what their noticing was recorded in their notes. To clarify, as shown in Tables 1, and 2, the total number of the correct passive sentences produced in the summary by the output group was consistent with the number of the noticing of the form in their notes. For students in the non-output group, the tables showed that they made the average of 3.7 corrections in the summary, but made only 2.1 notes of noticing in the note-taking sheet.

To sum up, the two groups were not different in performance on the recall summary tasks. There was no difference found between the level of noticing and accuracy between the two groups. And there was consistency between the effect of noticing and subsequent production—the students in both groups were able to produce their output task through their noticing of the target form.

Discussion

Three major findings were found in this study. First, in contrast to the positive effect of output, the non-output group outperformed the output group in the recall summary. Student 2 in the non-output group scored the highest. This was contrary to the hypothesis that output promoted noticing. Second, although the note score analysis did not reveal clear differences of noticing between the two groups, some evidence in the recall summary suggested that the output subjects attended to the form in their notes and used them in their output task, which was the recall summary. It was interesting to observe that most students in the output group produced very close number of the correct passive sentences in their summary as they took their notes. To illustrate, Student 1 took 4 notes of noticing the form, and made 5 corrections in the summary, whereas Student 2 produced 4 notes and 3 correct sentences. It was observed that Student 1 in the non-output group took only 1 note of noticing the form, but was able to produce 4 correct sentences in the recall summary. This student might have acquired the target form before the study.

Moreover, Student 2 in the non-output group showed the highest rate of noticing with the total of 6 times in the note. Third, Student 2 in the non-output group showed some cognitive knowledge in the correct usage of the passive form. This evidence could be found in the recall summary: American football is played by 2 teams. Even though that sentence did not exist in the original text, the student produced the correct sentence of his own but still kept the same meaning. It was not yet evident enough to conclude that the student noticed the form through the output task. More evidence was needed before such generalization was made.

In general, the results did not clearly support the claim that a considerable amount of noticing of an L2 form occurred through output in this study. That is, the output group did not perform better than the non-output group. The level of English proficiency of the subjects and the prior knowledge about the target form appear to constrain the effect of noticing through output in the context of note taking and recall summary writing. It was not evident that noticing at some level has taken place. It was believed that the subjects were able to produce the sentences in the passive form correctly due to their existing acquisition that they already had. Student 2 in the non-output group was a supportive assumption. It appeared that they already acquired the knowledge of the target form used in this study. The English proficiency of these students was at the intermediate level. Thus, it could be sad that the Output Hypothesis might work better for students whose English proficiency was low.

Limitations

Although researcher attempted to reduce variations of the study, there were limitations to this study that must be noted. First, due to the small sample size, it posed the issue of generalizability of findings. Another issue lay in the connection between output and noticing. More care should be taken to consider what type of output tasks stimulated the right kind of cognitive integration that was necessary for the form to be acquired. In this study, the researcher should have used more extended reading tasks with more length that occurred over a longer period. Subjects in the output group simply needed more output tasks to make sure that the language acquisition resulted from noticing the form through the language production. The next limitation dealt with the control of the note taking. Even though the participants were strictly instructed not to copy down the complete sentences from the

original texts during the note-taking period, some of them did not follow the instructions. This was a threat to the results in that their scores might not be due to the roles of output that promoted their noticing the form.

Implications

Three implications may be drawn from these studies for future research. First, it would be important to provide learners with extended opportunities to produce output and receive relevant input to ensure maximal benefit from the output-input treatment. Second, for output to promote noticing and learning of a specific form, relevant task characteristics need to be considered carefully. Also of interest in this regard is how output may be combined with other focus-on-form techniques to promote greater learning. Third, care needs to be taken to make sure that learners' processing capacity is not overloaded during output and input processing to allow for adequate allocation of attentional resources to forms.

Suggestions for Future Research

The study attempted to shed more light on the noticing hypothesis, especially on the facilitative role of awareness and its effects on L2 acquisition; however, it addressed methodological limitations. Operationalizing noticing in SLA still remains controversial. Future research should take into account the prior knowledge of the participants on the target form as I considered as the evident limitation in this study. Future studies should look closely how to select appropriate L2 participants to participate in the study. To me, I experienced that international students at college level should not be used as participants if the study was set to focus on the L2 forms because most of them have exposed, to some extent, to the forms when they study L2.

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