

Learners' perception toward written languaging in the form of metanotes

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Abstract

Language production, namely output, has been identified to be a contributor to language learning as the output hypothesis claims. Moreover, not only learners' output from a task (i.e., primary output) but also language produced to complete the task (i.e., metalinguistic output) has been identified to facilitate language learning. This study focused on the latter type of language use (languaging). Despite its positive role as a facilitator of language learning, encouraging learners to engage in languaging is also believed to have negative effects, taxing learners' attentional resources. Therefore, learners' perception toward languaging was investigated. Compared to well-researched oral languaging, little seems to be known about written languaging. In this context, the current study employed such languaging in the form of "metanotes," that is, metatalk in a written modality, in a decontextualized setting. The questionnaire result was examined to identify how the participants perceived the taking of metanotes. In addition, differences related to learners' proficiency were investigated. Two groups of 24 Japanese EFL learners with two different levels were instructed to engage in languaging by taking metanotes while they were doing a translation task and checking a native-speaker's model afterward. The questionnaire results revealed the participants' generally positive perception of languaging. Moreover, it was found that the higher-level participants perceived metanote-taking more positively compared to their lower-level counterparts. This paper examined these results, by reviewing the findings from studies that investigated language use in second language education, in order to explore the potential function of written languaging.

1. Introduction

Although output is now generally considered to be an important part of language learning (Izumi, 2003), when Swain (1985) first proposed her comprehensible output hypothesis, “the word ‘output’ was used to indicate the outcome, or *product*, of the language acquisition” (Swain, 2005, p. 471) in the field of second language acquisition (SLA). In fact, in the 1980s, SLA research revolved around Krashen’s (1981, 1982, as cited in Krashen, 1994) input hypothesis, which explained that the only necessary and sufficient condition for second language (L2) learning was comprehensible input. While acknowledging the importance of input, Swain argued the importance of producing language. In their more recent studies, Swain and her colleagues (e.g., Swain, 1998; Swain & Lapkin, 2008) concluded that not only language production resulting from a task (i.e., primary output) but also language production used to complete the task (i.e., metalinguistic output) can contribute to L2 learning. Referring to metalinguistic output, Swain (2006) introduced the term “*linguaging*.” The current study investigated learners’ perception toward written *linguaging*.

2. Background of the study

2.1. Output Hypothesis and metalinguistic function of output

Pointing to French immersion students who had native-level reading and listening skills, but not speaking and writing skills in spite of having received a sufficient amount of input, Swain (1985) argued that solely providing input was not enough for L2 learning. Further arguing that these students should have been given enough opportunities for output for them to acquire native-level speaking and writing skills, she proposed the comprehensible output hypothesis.

In approximately ten years, Swain (1995, 1998) refined her hypothesis and proposed the three functions that output plays in enhancing accuracy: the noticing function, the hypothesis testing function, and the metalinguistic function. According to Swain, the noticing function enables learners to notice the difference between what they want to say or write and what they are actually producing. The hypothesis testing function plays a part in enabling learners to form a hypothesis about comprehensibility or linguistic well-formedness based on what they noticed in their initial output and to test it in their following output. Finally, the metalinguistic function, which will be discussed below, enables learners to control and internalize their linguistic knowledge by reflecting their language use.

So far, many SLA studies (e.g., Swain, 1998; Swain & Lapkin, 1998, 2007) have provided evidence to prove the metalinguistic function of not only primary output but also metalinguistic output. For instance, in Swain's (1998) study, the learners were instructed to engage in metalinguistic talk, or "metatalk" using Swain's term, while they worked in pairs on a reconstruction task. Examination of the metatalk, namely, "talk about the language of the text they were reconstructing" (p. 70) revealed that the learners solved many of their problems by metatalking to each other. Pointing to this finding, Swain stressed the significance of the metalinguistic function which the learners' metatalk played. Though metatalk did not solve all the problems, it seems to have helped the students to reflect on the language which they were producing, leading them to L2 learning.

Subsequently, referring to the fact that the term "metatalk" tended to be misinterpreted as if it referred only to speaking, Swain (2006) introduced the term "languaging" and stressed that languaging includes both speaking and writing.

2.2. Learners' perception toward written languaging

To date, languaging in spoken modality has been well investigated, demonstrating language use could be a source of L2 learning (e.g., Storch, 2008; Swain, 1998; Swain & Lapkin, 1998, 2007). On the other hand, relatively few studies have investigated languaging in written modality (e.g., Suzuki, in press; Suzuki & Itagaki, 2007, 2009), which might reflect researchers' greater interest in oral languaging. That said, if languaging includes speaking and writing as Swain (2006) maintained, languaging in written modality should have a comparable effect to that of a spoken modality.

Examining the psycholinguistic mechanisms that underlie the output hypothesis, Izumi (2003) stated that providing learners with "a meaningful context for language use" (p. 190) is one of the factors for optimal conditions of L2 learning, further stating "reflection on language may deepen the learners' awareness of forms... if the context of production is *communicative* [emphasis added] in nature" (p. 170). In this regard, written languaging may not lead to the optimal condition for learning which Izumi suggested. Nonetheless, written languaging may have an advantage over oral languaging in that it enables learners to language at their own pace (see Suzuki, in press, for a review). This does not seem to be the case with oral languaging because of its very communicative nature; learners are often under time pressure to communicate with their interlocutors.

Despite the function of languaging as a contributor to L2 learning, it

has been pointed out that encouraging learners to engage in languaging might be an extra workload for learners, taxing their attentional resources. (Leow, 2001; VanPatten, 1990). For example, online think-aloud (i.e., oral languaging) is considered to involve reactive effects. Namely, the act of thinking aloud is believed to induce changes in learners' cognitive processes while performing a task, further inducing reactive effects on the task performance (Gass & Mackey, 2000). The studies which investigated this issue have produced inconclusive findings with respect to the existence of reactivity and its nature, namely, whether it is positive or negative (e.g., Bowles & Leow, 2005; Gass & Mackey, 2000; Goo, 2010; Leow & Morgan-Short, 2004; Sachs & Polio, 2007). On the other hand, learners' perception toward languaging do not seem to have been examined much.

With these contexts in mind, learners' perception toward written languaging in the form of "metanotes," a term coined in Ishikawa (2011), as opposed to metatalk, was investigated in this study, which is part of a wider investigation into written languaging aimed at investigating if metanotes could function as a learning tool (Swain, 2005).

Thus far, the relationship between learners' languaging and their linguistic level has been examined (e.g., Kim & McDonough, 2008; Qi & Lapkin, 2001). However, little research seems to have been conducted with respect to the relationship between learners' perception toward languaging (especially in written modality) and their proficiency level. As such, it was examined in the current study.

2.3. Learners' perception and their level of L2 proficiency

To date, the potential impact of learners' proficiency on their languaging has been examined (e.g., Kim & McDonough, 2008; Qi & Lapkin, 2001; Suzuki & Itagaki, 2009). In their study examining learners' verbalization while writing a report, Swain and Lapkin (1995) found that more advanced learners produced more metatalk than their lower level counterparts. Furthermore, in their study examining the quality of noticing with two learners at different levels, Qi and Lapkin (2001) pointed out that the quality of noticing was related to a learner's level, an advanced learner noticing more forms. These findings can be explained by VanPatten (1990), who stated that higher proficiency learners possess more attentional resources than their lower level counterparts, enabling them to engage in languaging more and to notice more forms. Given these findings, learners' perception toward languaging may differ depending on their proficiency levels.

2.4. Research questions

In light of the above discussion, this study addressed the following research questions:

1. How do learners perceive the taking of metanotes?
2. Do learners' perception vary depending on their proficiency levels?

3. Method

3.1. Participants

The participants were 24 (19 male and five female) Japanese EFL learners majoring in business administration at a university in Japan. They were enrolled in two of the author's required freshman English classes that focused on the Test of English for International Communication (TOEIC) and they volunteered to participate in this study. Half of them (eight males and four females) belonged to the highest-level class and the other half (11 males and one female) belonged to the lower-intermediate class where they had been placed based on the results of a placement test given at the beginning of the school year. Their TOEIC scores ranged approximately from 200 to 500. These two groups of participants will be called the higher level group (HG, n=12) and the lower level group (LG, n=12), respectively. It was made clear that the result of the task would not affect their grades.

3.2. Task and Linguistic Target

A translation task was given to both groups. The participants were instructed to translate into English five Japanese sentences that included a target linguistic structure. The rationale of using a translation task was to facilitate the participants' cognitive comparison between output and input by having control over the content.

The targeted structure was tense consistency, as inconsistent verb tense use had been observed in the author's classes. All the participants had studied English for six years before they entered their university. Therefore, they were assumed to have grammatical knowledge on tense consistency and tense inconsistency was considered to arise from lack of control over the use of knowledge. Thus, employing a supposedly familiar, but not fully acquired, form with the participants was determined to be an appropriate structure.

3.3. Procedures and Treatment

The experimental sequence of the study was carried out over a period of four weeks. Fig. 1 shows an overview of the sequence of the procedure for both groups.

Week 1	Metanotes Demonstration and Practice 1	(15 minutes)
Week 2	Metanotes Demonstration and Practice 2	(15 minutes)
Week 3	Grammar Test	(no time limit)
Week 4	Treatment with Metanotes and Exit Questionnaire	(30 minutes)

Figure 1. Flow of the procedure of analysis for the higher and lower groups

For the first two weeks, note-taking practices were given using the last 15 minutes of the regular class time. In Ishikawa (2011), not many quality metanotes were produced, which could have been due to the insufficient amount of practice (just one 10-minute practice). Therefore, more time was allocated for note-taking practices in this study (two 15-minute practices).

In the third week, again using the last 15 minutes of the class time, a grammar pre-test on the target form was given in order to verify a difference in level between the HG and the LG. The pre-test consisted of 12 recognition questions (Part 1) and another 12 production questions (Part 2) on the target form. The maximum possible score was 24. No time limit was set for this test and the participants were allowed to stay after class to finish; however, most of the participants finished it in ten minutes, ranging from seven to 13 minutes. The average score for the HG was 17.2 ($SD=1.8$) and that of the LG was 10.1 ($SD= 2.4$). A Welch's t-test showed significant differences between these groups; $x^2(1) = 9.42, p < .01$, verifying a difference in level between the two groups.

In the fourth week, the treatment was conducted, during the last 30 minutes of the regular class time. The participants were given a translation task, followed by a native-speaker's model (See Appendix A); they were instructed to metanote while they worked on a translation and checked the model. The time allotted for these two stages was determined based on the pilot test which had been conducted with a similar population beforehand. Finally, an exit questionnaire was given. No time limit was allocated for this final phase. Fig. 2 demonstrates an overview of the sequence of the treatment for both groups.

Stage 1	Translation Task with Metanotes	(9 minutes)
Stage 2	Comparison with a Model with Metanotes	(5 minutes)
Stage 3	Exit Questionnaire	(no time limit)

Figure 2. Treatment Sequence for the higher and lower groups

3.4. Questions Asked in the Questionnaire and Analysis of the Questionnaire Results

The questionnaire consisted of three multiple-choice questions on the translation task (Q1- Q3), three multiple-choice questions on the taking of metanotes (Q4-Q6) and one short-answer question which asked the participants to give comments regarding the taking of metanotes (Q7) (see Appendix B). The questions and the responses of the participants were in Japanese.

In the analysis of the questionnaire result, the responses to the multiple-choice questions (Q4- Q6) were converted to scores (6: strongly agree, 5: agree, 4: somewhat agree, 3: somewhat disagree, 2: disagree, 1: strongly disagree). The average score for each question was calculated.

4. Results

As stated above, an exit questionnaire was given at the end of the treatment. The first three questions, which were on the task, gathered somewhat similar responses. The participants in both groups found the task rather difficult, had high motivation to see the model and found the model useful.

Q4 to Q6 were questions on the taking of metanotes. Except for one participant in the LG who viewed it rather negatively by marking "somewhat disagree" to all the questions (Q4-Q6), all the other participants in both groups found it helpful to varying degrees. Generally, the participants in the HG found taking the taking of metanotes helpful to a higher degree than the LG and the difference was the greatest for identifying errors (Q6). Table 1 summarizes the results.

Table 1. Responses to the Questions about the Taking of Metanotes

		Strongly agree (6)	Agree (5)	Somewhat agree (4)	Somewhat disagree (3)	Disagree (2)	Strongly disagree (1)	Average
Q4: I found taking metanotes helpful for grammar.	HG	3 (25%)	6 (50%)	3 (25%)				5.0
	LG	2 (17%)	5 (42%)	4 (33%)	1 (8%)			4.7
Q5: I found taking metanotes helpful for vocabulary.	HG	4 (33%)	5 (42%)	3 (25%)				5.1
	LG	3 (25%)	5 (42%)	3 (25%)	1 (8%)			4.8
Q6: Taking metanotes helped me notice my problems.	HG	6 (50%)	6 (50%)					5.5
	LG	3 (25%)	6 (50%)	2 (17%)	1 (8%)			4.9

Note. HG=higher group, LG=lower group.

Q7 was a short-answer question on the taking of metanotes. As could be anticipated from the results of Q4 through Q6, all the HG participants' comments were positive. Nine of them commented that taking metanotes helped them to notice their linguistic problems, which enabled them to reflect on those problems. One of them even wrote that he might use metanotes as a new strategy in his daily learning. On the other hand, three participants commented that it helped them realize how low their English ability was, referring to their personal problems on language learning rather than the problems they encountered in this specific task. In contrast, the LG participants commented somewhat differently. The majority of the comments were positive; seven participants commented that the taking of metanotes was facilitative of noticing their linguistic problems. Meanwhile, one participant who responded to Q4 through Q6 rather negatively wrote, "Though I took metanotes of the questions and problems, I was not sure if the problems could be solved." The rest (four participants) did not seem to have read the question carefully, commenting that they found checking the model useful.

5. Discussion

This study attempted to investigate the nature of learners' perception toward written languaging in the form of metanotes. The findings from the questionnaire will be discussed below by answering the research questions.

The first research question addressed was: How do learners perceive the taking of metanotes? Overall, it received favorable comments. Judging from the answers for Q4 through Q6, most of the participants found the taking of metanotes helpful to identify and solve their grammatical and lexical problems. Both groups scored the highest on Q6, which asked them if taking metanotes had helped them to notice their linguistic problems (5.5 and 5.0 for the HG and the LG, respectively). In response to Q7, a short-answer question on the taking of metanotes, all the HG and most of the LG participants' comments were positive. For example, most commented that taking metanotes was helpful as they could go back to their metanotes as their external memory to reflect on their problems and think deeply to solve their problems, supporting the claims of the output hypothesis (Swain, 1985, 1995, 1998). Though negative comments were anticipated, there was none except for the comment from one of the LG participants, which will be discussed below.

The second research question asked if there was a relationship between the participants' levels and their perception toward the taking of metanotes. As stated above, judging from the questionnaire results, the HG

participants perceived the taking of metanotes more positively than the LG participants. The HG scored five or more on all the multiple-choice questions, whereas the LG scored less than five (see Table 1). There seems to be two potential factors to explain this difference. First, the HG may be more analytical thanks to their more abundant linguistic resources (Van Patten, 1990). Second, some LG participants' translations were rather different from the model. Therefore, the taking of metanotes while comparing their translations with the model might have been very difficult for these participants even though their comments were generally positive. On the other hand, as reported above, one participant in the LG commented rather negatively on the taking of metanotes and answered as such. When his metanotes were examined, it was found that out of his five metanotes, three did not reach any solution, which seems to explain his rather negative comment. As he commented, it is true that not all metanotes will find solutions, as is the case with oral languaging (Swain & Lapkin, 2006). However, an examination of his metanotes seems to reveal the process of his search for solutions. Though he might not have recognized it, his sensitivity to his linguistic problems appears to have heightened, which is likely to be a meaningful step to L2 learning.

6. Conclusion

Before concluding this paper, some limitations should be mentioned. First, the number of the participants was relatively small. A larger pool of the participants should have provided more reliable data. Second, the participants were in the author's English classes. Though it was made clear that the data obtained in the treatment would not be reflected in their grades, the situation might have introduced some bias into the results.

This study investigated the participants' perception toward written languaging. Examination of the questionnaire results revealed learners' generally positive perception toward the taking of metanotes. Overtaxing the participants' attentional resources was anticipated, however none of the answers mentioned it. Moreover, judging from positive comments in the questionnaire, there may be a chance of positive reactivity. Given the popularity of starting their own blogs or tweeting their thoughts on Twitter, learners may be used to expressing their thoughts in writing. If so, as one of the HG participants commented, written languaging could be considered as a learning strategy that could eventually improve the efficacy and efficiency of learning. Thus, it seems worthwhile to explore written languaging, particularly in EFL settings where learners do not have much chance for spoken languaging, especially in collaborative settings.

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Appendix A: Translation Task

英訳課題：下線部を英語にしなさい。その際、疑問や問題に感じたことを日本語で余白にメモすること。

Translate the underlined parts into English. Metanote any problems or questions that come to mind as you translate.

リサは先週高校の同窓会に行きました。 1. 彼女は親友のカレンが出席できないと知っていました。 でも、 2. 彼女はマイクが行くだろうと聞いたのでした。 3. 彼はとても人気があって、彼女は密かに彼が好きでした。 彼女が到着すると、彼は誰かと話していました。 4. 彼女は久しぶりに彼の美しい笑顔を見たので、興奮しました。 次の瞬間彼女は彼に話しかけましたが、 5. 彼は彼女のことを全く覚えていないと言いました。

Lisa went to her high school reunion last week. (1) She knew (that) her best friend Karen could not attend. But (2) she heard (that) Mike would go. (3) He was very popular and she secretly liked him. When she arrived, he was talking with someone. (4) As she saw his beautiful smile after a long time, she got excited. The next moment, she talked to him, but (5) he said (that) he didn't remember her at all.

Appendix B: Questionnaire**Retrospective Questionnaire**

最後にアンケートにお答えください。

1 から 4 の回答は以下の基準に従って、例のように数字を丸で囲んでください。

6. 全くその通りだ。 5. そうだと思う。 4. どちらかといえばそう思う。

Quite agree Agree Rather agree

3. どちらかといえば違う。 2. 違うと思う。 1. 全く違う。

Rather disagree Disagree Quite disagree

例：次回のTOEIC IPは、高得点を取る自信がある。 6 · ⑤ · 4 · 3 · 2 · 1

Example: I am confident that I will take a high score on the next TOEIC test.

1. 英訳課題は難しかった。 6 · 5 · 4 · 3 · 2 · 1

I found the translation task difficult.

2. 課題の後、モデル訳を見たいと思った。 6 · 5 · 4 · 3 · 2 · 1

I wanted to see the model after the task.

3. モデル訳を見ることは勉強になった。 6 · 5 · 4 · 3 · 2 · 1

I learned from the model./ The model was informative.

英訳・モデル訳を見ながらメモを取るのは、

Taking metanotes while translating and checking the model was

4. 文法（文の構造）を学ぶのに役立った。 6 · 5 · 4 · 3 · 2 · 1

helpful to learn grammar.

5. 単語学習に役立った。 6 · 5 · 4 · 3 · 2 · 1

helpful to learn vocabularies.

6. 自分の英語学習上の問題に気がつく助けになった。 6 · 5 · 4 · 3 · 2 · 1

helped me notice my problems.

7. 英訳・モデル訳を見ながらメモを取るについて、感想や意見を書いてください。

Please comment regarding the taking of metanotes.