

Interactionally Modified Input and Output in the Acquisition of New L2 Word Meanings

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According to Interaction Hypothesis (e.g., Long 1996; Pica 1994), *negotiation of meaning* facilitates second language acquisition (SLA) by providing learners with opportunities to receive modified input, modify their own output, and access L2 form. In fact, a series of studies by Ellis et al. (1994, 1999) showed the effectiveness of interactionally modified input on vocabulary learning over premodified input. Regarding the role of modified output, Swain (1995) contends that 'pushed output' promotes SLA. Although several studies (e.g., Izumi et al. 1999; Nobusyoshi & Ellis 1993) support the effects of pushed output on some L2 forms, little research has been done on the effects of output on vocabulary learning. Furthermore, reflecting on Vygotskian sociocultural theory, Swain claims that language development occurs through interaction between individuals, especially when a more knowledgeable participant provides 'scaffolding,' helping a novice build on their current skills and knowledge to achieve greater competency (Donate 1994). Therefore, the purpose of this study was to investigate whether modified input and output promote the acquisition of new L2 word meanings. In addition, learner-learner interaction was observed for any signs of 'scaffolding.' This study duplicated a part of He & Ellis's study (1999) in the environment of EFL (L1 Japanese) setting.

Method

Subjects Participants were 45 first year L1 Japanese students from two intermediate level English language classes at a private Japanese university. One class was designated the interactionally modified input group (IMI - 23 participants), and the other was designated the interactionally modified output group (IMO - 22 participants).

Design 1. The pretest: In order to identify target words that were unknown to the participants, the pretest was conducted three weeks prior to the treatment. The participants were asked to write the meanings of 50 English words, all of which were household items. Ten words were then selected for the treatment (the non-recognition level of these words was 99.9%). 2. Treatment: The participants in both groups engaged in a listening task based on directions containing the 10 target words. A paper with numbered pictures of the target words and a matrix of a house were distributed. In the IMI treatment, the teacher read aloud a direction and the participants were then required to choose the appropriate item from the picture list and write its number in the appropriate place in the house. The participants were allowed to ask the teacher questions if they did not understand her direction. The IMO group engaged in the same task in pairs. Before the pair work, the teacher read aloud the target words labeling the pictures, and the participants wrote down each word beside the corresponding picture. Then, they were asked to make a direction for each target word on their own. After writing 10 directions, the participants exchanged their directions orally in pairs. They were allowed to ask their partner questions regarding the directions, thus giving the participants opportunities to modify their output. Four pairs were randomly chosen and their interactions were recorded for analysis. The performance of the treatment in both groups was used as a measure of comprehension. 3. Posttests: two picture matching posttests were conducted to test the participants' ability to recognize the

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meanings of the target words. One test was administered a week after the treatment, and the other was administered a month after the treatment.

Results and Discussion

As Table 1 shows, the mean comprehension scores for IMI were 7.86 out of 10, and 9.81 out of 10 for IMO. These results indicate that both modified input and output greatly help L2 learners to comprehend new L2 word meanings. As for vocabulary acquisition (recognition), the mean scores for IMI in Posttest 1 were 1.84 and those of IMO were 7.50. A t-test showed a significant difference between the two groups ($p < .05$). The results of Posttest 2 were similar to those of Posttest 1. Therefore, it appears that in terms of retention of new L2 word meanings, experiencing modified output through interaction is much more effective than simply receiving modified input without producing output. In fact, some examples of 'scaffolding' that are said to assist learning in sociocultural perspective were observed in learner-learner pair work in the IMO group. In conclusion, this study supports the effectiveness of interactionally modified input and output on the acquisition of new L2 word meanings, which was also shown by He & Ellis (1999). As the results of this study indicate, it is important for learners to engage in a task that encourages interaction, providing them not only with modified input but also ample opportunities to modify their output.

Table 1. The mean scores of the treatment, Posttest 1, and Posttest 2 by the IMI and IMO groups

	Treatment (comprehension task)	Posttest 1 (vocabulary recognition test)	Posttest 2 (vocabulary recognition test)
IMI (N=23)	7.86	1.84	2.91
IMO (N=22)	9.81	7.50	7.00

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