

# The Effect of Input Flooding Guided by Form-Focused Activities: A Practical Report of Basic English Classes

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## ABSTRACT

This study examined the effect of input flooding combined with two form-focused activities, namely, vocabulary learning and a sentence interpretation task. In three experimental classes for novice learners of English as a foreign language, the instructor orally used the target structure—contact clauses—in a meaningful context at least 15 times within approximately 10 minutes, while the participants' attention was strongly drawn to the communicative context rather than the linguistic forms (i.e., input flooding). To reduce the burden of comprehending unfamiliar words and phrases used in the input, participants carried out a series of vocabulary learning activities before the input flooding. The input flooding was followed by a sentence interpretation task, which drew the participants' attention to the linguistic form. As a result, although the teacher did not give any explicit explanation of the target sentence pattern, most participants understood the meaning of the target structure from the context.

## KEY WORDS

input flooding, form-focused instruction, contact clauses, novice EFL learners

## 1. Introduction

This study investigated the effectiveness of a language teaching technique called *input flooding*. Input flooding is language input enriched by including plentiful exemplars of the target forms—sentence patterns or other linguistic features to be learned. Typically, the input flooding technique is not accompanied by any device to draw attention to the target linguistic structure. It is assumed that the high frequency of occurrence of the target form enhances structural saliency and promote the learners noticing the target. The primary purpose of the input flooding is to induce noticing the target form in the context of meaningful communication.

However, in the context of English as a foreign language (EFL) education in Japan, teachers may regard input flooding inadequate for introducing a new sentence pattern to novice learners such as junior high school students and students participating remedial English programs in high schools and colleges because of the following two major problems. First, input flooding does not work if the input—most typically the teacher's utterances—is not sufficiently comprehensible to the students. Indeed, according to the Benesse Educational Research and Development Institute (2016), 95.1% of junior and 92.7% of senior high school English teachers believe there are instances when it is difficult to conduct classes using English as the main classroom language because of the students' limited English proficiency. Second, learners do not always pay attention to linguistic forms spontaneously if the linguistic features are not salient or easy to notice. Therefore, it is advisable for teachers to combine input flooding with pre-learning tasks to ease the burden of comprehending the input and meaning-focused activity that incidentally assists learners to focus their attention on the target forms. This issue is further discussed in the literature review of this article.

This study explored a way of teaching a sentence pattern that is rather difficult for novice learners

without any explicit explanation of grammar. To make the input comprehensible, and to draw learners' attention to the linguistic forms, input flooding was accompanied by a series of vocabulary learning activities and a sentence interpretation task. This study selected contact clauses as the target structure (e.g., *Is this the card you chose?*), since it is often difficult for Japanese learners to acquire English sentences including relative clauses and contact clauses (Hashimoto & Hirai, 2007; Ohba, 2004). When learning complicated linguistic features such as relative and contact clauses, form-focused instruction might be more helpful than other types of teacher support (Robinson, 1997). To examine the effect of input flooding accompanied by the two form-focused activities, this study tested whether beginner-level learners can understand the meaning of English contact clauses even if the instructor does not provide any grammatical explanation.

This study conducted three experimental classes wherein the instructor uttered contact clauses at least 15 times within approximately 10 minutes. Hereafter, the three case studies are called Pilot Study and Experiments 1 and 2, respectively. To attract the students' attention to the communicative context rather than the linguistic forms, the instructor performed some magic tricks using a deck of playing cards. For example, when the instructor picked up a card and showed it to the students, he asked, "Is this the card you remembered?" In this way, the target form was used repeatedly in a meaningful context. The acquisition was assessed by the scores of a part of a sentence interpretation task and a posttest that asked the meaning of English sentences including contact clauses. After all activities, a questionnaire was used to collect data about students' feelings and perceptions about the activities they experienced.

## 2. Literature Review

This section considers the following three issues: (a) theoretical background of focus-on-form instruction, (b) the effect of input flooding on grammar acquisition, and (c) the difficulty of learning contact clauses in English.

### 2.1 Theoretical Background of Focus-on-Form Instruction

One of the most popular and influential models of second language acquisition is Stephen Krashen's *input hypothesis*, which makes the following claim: Comprehensible input—input that is "a bit beyond" one's level of competence—is the only true cause of second language acquisition (Krashen, 1985). He explains how learners can comprehend and learn new linguistic features in a foreign language as follows:

We are able to understand language containing unacquired grammar with the help of context, which includes extra-linguistic information, our knowledge of the world, and previously acquired linguistic competence. The caretaker provides extra-linguistic context by limiting speech to the child to the "here and now." The beginning-language teacher provides context via visual aids (pictures and objects) and discussion of familiar topics. (Krashen, 1985, p. 2)

His approach has been applied to many classrooms by means of meaning-focused instructions, where learners are not guided to attend to any particular linguistic forms but rather led to pay attention to the meanings or messages during communicative activities. Researchers have investigated the effect of meaning-focused instructions by comparing classes involving meaning-focused input-based activities with grammatical explanations. The results showed the effectiveness of comprehensible input on language acquisition. For example, VanPatten and Oikkenon (1996) found that two input-flooding classes (with and without grammatical explanation) were more effective than classes that deal with only grammar. A detailed description of the study and some of its problems are provided in the next section.

Later studies found that although learning much of a foreign language through experiencing its use is possible, it is "inefficient" (see Long & Robinson, 1998, p. 21). In particular, learners are not always able to

acquire some grammatical contrasts between the target language and their mother tongue from positive evidence included in the input (e.g., White, 1991). Language learning mostly happens when learners are paying attention to the relationship between the linguistic forms and their meanings and functions. Input flooding does not guarantee that the students spontaneously notice the linguistic features that teachers want them to learn.

One way to realize noticing the relationship between the linguistic forms and their meanings is called *focus-on-form* instruction, which refers to a teaching method in which teachers draw the learners' attention to linguistic form during communicative, meaning-focused classes (Long & Robinson, 1998). According to Ellis (2001, p. 15), two essential characteristics of focus-on-form instruction are as follows: (a) Attention to form occurs in lessons in which the overriding focus is meaning or communication and (b) attention to form arises incidentally in response to communicative need. For example, input flooding is regarded as a focus-on-form instruction because its overriding focus is the meaning and the learner's attention is directed to the target structure incidentally due to the target's high frequency of occurrence.

Recent studies have found that focus-on-form instruction may be most effective if the targeted linguistic form is emphasized and salient when the learners are primarily concentrating on the meaning (Robinson, 1997). For instance, Trahey (1996) suggested that input flooding should be combined with explicit instruction of the target form if there is a considerable gap between linguistic forms of the learners' first language and the target language. She argued that an input flood coupled with some "negative" evidence—explicit, form-focused instruction and error correction—might be necessary to enhance learning of unfamiliar grammatical features. However, it is still unclear whether explicit explanation of grammar is the only way to support learners. Given the current educational context in Japan, wherein junior and senior high school English teachers should conduct their classes predominately in English, one may wonder if there is another way of supporting students. Therefore, the present research explored the effectiveness of input flooding guided by vocabulary learning activities and a sentence interpretation task, instead of explicit explanation given in the learners' first language.

Past studies have reported rather mixed results with respect to the effects of input-based, meaning-focused instruction and explicit, form-focused instruction because there have been a number of variations by which specific instructions were operationalized. Ellis (2012, pp. 285–289) reviewed 10 major studies on the effect of giving input in different ways (Doughty, 1991; Hernandez, 2011; Jourdenais, Ota, & Stauffer, 1995; Loewen, Erlam, & Ellis, 2009; Reinders & Ellis, 2009; Takimoto, 2008; Trahey, 1996; Trahey & White, 1993; White, 1998; Williams & Evans, 1998) and tentatively summarized the research findings by six points. The two suggestions that are the most relevant to the present study are as follows:

2. Enhanced input involving text highlighting of features has also been found to promote noticing and to assist acquisition. (Ellis, 2012, p. 289)

6. If the input-based instruction makes the meaning of the target structure clear, it is as effective as explicit instruction and in some cases more effective. However, input-based FFI [form-focused instruction] appears to be less effective than explicit instruction when this is accompanied by production practice. (Ellis, 2012, p. 289)

In the above quotes, *enhanced input* refers to input in which the target feature has been emphasized through underlining, bolding, glossing, or other ways. Research findings suggest that input flooding may be effective in acquisition of a new sentence pattern particularly when the targeted linguistic feature is emphasized in some way and the meaning the sentence conveys is apparent from the extra-linguistic context and visual aids. In the present research, this condition was satisfied in the first part of the sentence interpretation task, in which the target structures (i.e., contact clauses) were emphasized by underlines and the participants were asked to comprehend the underlined parts.

## 2.2 Studies of Focus-on-Form Instructions

As mentioned in the previous section, several experimental studies have investigated the effect of focus-on-form instructions on grammar acquisition (see Ellis, 2012 for a review). However, VanPatten and Oikkenon (1996) noted that experimental studies comparing different types of grammar instructions often have the problem that the variable explicit information is not isolated from the type of practice. For example, if a researcher compares a class in which a teacher gives an explicit explanation of relative clauses and a grammar quiz with another class in which students read a short passage that includes many relative clauses, one cannot attribute an unambiguous cause to any significant difference found between the two groups. In this example, the explicit instruction class included not only explicit information but also a kind of practice. VanPatten and Oikkenon claimed, “one does not know whether the results obtained in such studies are due to explicit information or practice” (p. 496).

To determine the role of explicit information given to learners receiving focus-on-form instruction, VanPatten and Oikkenon (1996) compared three types of grammar instructions. One group received an explicit explanation of object pronouns and word order in Spanish (i.e., the *explanation-only* group). The explanation was given in the learners’ first language (English). Another group called the *processing instruction* group also received the same grammatical explanation. However, after the explanation, the learners received structured input activities in which they interpreted simple sentences first and then participated in more affective activities. In the latter activities, the instructor offered a series of statements with object pronouns in Spanish (e.g., *La respeto*, “I respect her”) to which the learners provided simple reactions such as “I agree” or “I disagree.” The learners were never forced to say or write the target structure in Spanish during the activities because the affective activities provided largely binary choices such as yes/no or agree/disagree. That is, the activities were carefully controlled so that the learners did not produce the target structure during the treatment phase. The other group received the same input-based activities; however, they did not receive any explicit information about object pronouns or word order in Spanish (i.e., the *structured input only* group).

In VanPatten and Oikkenon’s study, interpretation and production tests were carried out before and after the treatment. In the interpretation test, the participants heard sentences including the target structure (i.e., sentences including object pronouns) and were asked to indicate their interpretation by selecting one of two pictures. In the production test, the participants were asked to complete target sentences, including the target structure, by filling in the blanks. The target sentences were presented with two clue pictures that specified the situation described in the sentences. Based on the results, the authors argued that the beneficial effects of instruction were due to the input-based activities and not to the explicit explanation of object pronouns. However, the authors admitted that the result of the interpretation test, in which dramatic improvement was observed in the processing instruction group and the structured input only group, was not surprising because there was considerable overlap between the treatment and testing methods. Both the input-based activities and the interpretation test required the students to comprehend the spoken language including the target structure to make a simple response about their binary choice. Therefore, one may doubt if learners really become able to interpret target structures after input-based activities, even without explicit explanation of grammar. The authors recommended that further research should examine if their findings are generalizable to other types of focus on form.

Recent studies carried out in Japan have investigated the effect of different types of focus-on-form instructions. For example, Ogawa (2015) reported the effectiveness of oral repetition tasks and decontextualized presentation of target structures combined with a communicative English lesson in which approximately 70 or 80% of teaching was conducted in English. One of the oral repetition tasks asked the students to read target sentences with some blanks aloud by filling in the gaps (e.g., *A man ties tree vines to his legs jumps (h- )-(f- ) from a high tower*, the gaps should be filled with *head-first*). The other task required students to produce grammatical sentences by correcting presented sentences that included grammatical errors (e.g., *Orangutans use a strategy to stay dryly when it rains*; the underlined part should

be replaced with *stay dry*). The effect of these tasks was further enhanced when the target structures were presented in isolation at the beginning of the class. Unlike Ogawa's study, the present research avoided oral manipulation practice in order to examine a pure effect of input-based activities. However, similarly to Ogawa's and VanPatten and Oikkenon's (1996) studies, the present research presented sentences including target structures before all instructional treatments.

### 2.3 The Difficulty of Learning Contact Clauses in English

One of the most difficult features of English sentence construction for Japanese EFL learners may be post-modification. The examples of post-modification structures shown by Hashimoto and Hirai (2007, p. 203) are as follows:

- (a) The nurse [who kisses the doctor] treats the patient.
- (b) The nurse [whom the doctor kisses] treats the patient.
- (c) The nurse [the doctor kisses] treats the patient.
- (d) The nurse [kissing the doctor] treats the patient.
- (e) The nurse [kissed by the doctor] treats the patient.
- (f) The doctor treats the patient [who kisses the nurse].
- (g) The doctor treats the patient [whom the nurse kisses].
- (h) The doctor treats the patient [the nurse kisses].
- (i) The doctor treats the patient [kissing the nurse].
- (j) The doctor treats the patient [kissed by the nurse].

In the first four sentences, the subject *nurse* is modified by relatives and particles, whereas in the remaining four sentences, the object *patient* is modified by relatives or particles. However, the relative clauses in Sentences (c) and (h) do not include overt relative markers. This type of construction is called reduced relative clauses, or *contact clauses*. Based on the results of Hashimoto and Hirai's experiment with 18 first-year Japanese undergraduates, Sentences (b) and (c) were the most difficult to comprehend. Additionally, the observed reading time was the longest for Sentence (c), although the statistical analysis only suggested a significantly short reading time for Sentence (f). Given the comprehension and reading-time data, contact clauses seem to be one of the most difficult types of post-modification structures.

Typically, contact clauses are learned by Japanese students for the first time when they are ninth graders (i.e., third-year students in junior high schools). However, how to introduce the contact-clause structure varies among textbooks published at the different points in time. There is a clear difference among textbooks in the order of introducing relative clauses with relative markers and contact clauses. In Japan to date, all junior high schools use one of the following six series: *Columbus 21*, *New Crown*, *New Horizon*, *One World*, *Sunshine*, or *Total English*. In the latest versions of the six textbooks, three of them introduce relative clauses with relative markers earlier (i.e., *New Crown*, *Sunshine*, and *Total English*); the remaining three introduce contact clause earlier (i.e., *Columbus 21*, *New Horizon*, and *One World*). The order of the two types of clauses has been changed under the influence of the Course of Study, a standard curriculum guideline issued by the Ministry of Education, Culture, Sports, Science and Technology. Before the 1998 Course of Study was enacted, all textbooks except *New Horizon* introduced contact clauses first; however, until the Course of Study was revised in 2008, all textbooks except *Total English* introduced relative clauses with relative markers first (see Baba, 2009).

Researchers have investigated how well Japanese learners of English can comprehend sentences including contact clauses and other types of post-modification structures. For example, in Ohba (2004), grammaticality judgement tests were given to 287 adult native speakers of Japanese, who were divided into five proficiency groups (elementary, pre-intermediate, intermediate, post-intermediate, and advanced) based on their scores on the Oxford Placement Test. The average age of the elementary group was 19.11, which is close to the age of the present study's participants. The grammaticality judgement tests included

items asking whether contact clauses were grammatical (originally called *relative clauses with a null operator or null complementiser* in his article), such as *The friend they lent money to bought a very big house* and *The magazine we got the information from is useful*. The results indicated that only post-intermediate and advanced learner groups had acquired the feature-driven movement included in the contact clauses and other types of relative clauses. In fact, the maximum and minimum possible scores on the grammaticality judgement test were zero (all incorrect) and four (all correct), respectively, and the elementary group's average score for the contact clauses was 1.998. Considering the chance rate of judging items correctly, English contact clauses seem to be extremely difficult for novice EFL learners.

In spite of its complexity, the contact-clause structure is frequently used in daily communication in English. If college students cannot understand the meanings of contact clauses correctly, they may experience difficulty comprehending learning materials used in English class. It is necessary to develop effective teaching methods to introduce English contact clauses to beginner-level learners. Therefore, by incorporating input-based activities with form-focused tasks, the present research explored an effective way to introduce English contact clauses to beginner-level college students (Pilot Study and Experiment 2) and junior high school students (Experiment 1).

### 3. Research Questions

Based on the literature reviewed in the previous sections, two research questions (RQs) were addressed as follows:

RQ1: Do Japanese junior high school students become able to comprehend English sentences including contact clauses after receiving input flooding combined with form-focused instructions (without any explicit explanation of grammar)?

RQ2: Do Japanese college students with beginner-level English proficiency become able to comprehend English sentences including contact clauses after receiving input flooding combined with form-focused instructions (without any explicit explanation of grammar)?

In addition to these research questions, this study collected data to examine if the participants primarily attended to meaning, not grammar, during input-based activities.

## 4. Method

### 4.1 Participants

There were three experimental classes: Pilot Study, Experiment 1, and Experiment 2.

**Pilot Study.** Forty-one first-year college students (most aged 18 years), participated in the Pilot Study in April 2017, 40 of whom agreed that their data could be used for academic purposes. All participants were Japanese, none of whom was majoring in English. Before entering the college, the participants had studied English for at least six years in Japanese junior and senior high schools. The participants were told that any data obtained from this study would not affect their course grades.

The participants were asked to describe their English proficiency by choosing one of the five options as follows: (a) below junior high school graduate level (about Grade 4 or below the STEP Eiken test), (b) junior high school graduate level (Grade 3), (c) below high school graduate level (Grade Pre-2), (d) high school graduate level (Grade 2), or (e) English teacher level (Grade Pre-1 or above). Eighteen participants chose the first option and 14 participants chose the second; most of the participants regarded themselves as beginner-level learners. The remaining eight participants selected the third option. No one

described his or her English proficiency as intermediate. When they were asked to translate *I didn't see the card you chose* into Japanese before the instructional treatment, only 26 participants (65.00%) comprehended the sentence correctly. Based on these data, the present research regarded them as beginner-level English learners.

**Experiment 1.** Seven junior high school students took part in Experiment 1 in August 2017. All were second-year students of a junior high school affiliated with a national university in Japan. They took part in the experimental class as a part of their one-day campus visit experience. All participants agreed that their data could be used for academic purposes. At the time of the experiment, they had not learned contact clauses or relative pronouns at school. However, when they were asked to translate *I didn't see the card you chose* into Japanese before the instructional treatment, four participants (57.14%) comprehended the sentence correctly.

**Experiment 2.** Forty first-year college students (most aged 18 years) participated in Experiment 2 in April 2018. All participants agreed that their data could be used for academic purposes. The participants were told that any data obtained from this study would not affect their course grades. None of the participants had participated in the author's previous study. Because these participants belonged to the same department of the same college as the participants of Experiment 1, the two groups' English proficiency was assumed to be similar. When the participants were asked to translate *I didn't see the card you chose* into Japanese before the instructional treatment, only 19 participants (47.50%) comprehended the sentence correctly.

#### 4. 2 Instructional Procedure

The basic procedures of Experiments 1 and 2 were identical; additionally, the procedures of the Pilot Study were extremely similar. One instructor (the author of this article) conducted all procedures. His utterances were all English except for when he told the participants the meaning of the keywords during the vocabulary learning activities. However, the directions of each task were also written in Japanese on each worksheet. The whole process described in this section took approximately 50 minutes.

**Pretest.** The participants were given a worksheet and asked to translate four English sentences including contact clauses into Japanese. Across the three experimental classes, the first sentence was *I didn't see the card you chose*. In the Pilot Study, the other three sentences were adopted from Murphy (2004, p. 186; e.g., *The woman he fell in love with left him after a month*). However, because the sentences were found to be too difficult for the participants, these items were replaced with example sentences used in a junior high school's textbook, *Sunshine English Course 3* (p. 78) in Experiments 1 and 2 (e.g., *The baby you're looking at is my mother*). Students received no feedback regarding their answers. The pretest required approximately four minutes; the instructor collected the worksheets.

**Vocabulary learning activities.** The participants studied the following seven English words (and phrases): *choose*, *cut-point*, *decide*, *deck*, *put in*, *remember*, and *shuffle*. These seven items were selected because it would be very difficult for the participants to understand the instructor's utterances during input flooding or the sentence interpretation task if they could not comprehend the spoken and written forms of these basic words. They wrote each word (and phrase) on a worksheet once, heard the pronunciations and Japanese translations of the words and took notes, tried to memorize the spellings and meanings of the seven words by themselves, took a mini-test that required recalling the spellings and meanings, and practiced pronouncing the words four times. The time required was approximately 15-20 minutes to complete all steps. The instructor collected the worksheets at the end of this phase.

**Input flooding.** To attract the students' attention, the instructor demonstrated some magic tricks

using playing cards for approximately 10 minutes. He demonstrated the following trick: The key card, which had been selected randomly by an audience student, suddenly returned to the top of the deck after it was placed in the middle of the deck. During the performance, the instructor's utterances included at least 15 contact clauses such as "He chose a card. The card he chose is in the deck now." and "You remembered the card. But I didn't see the card you remembered." At this time, no instructions were given regarding English grammar; the students simply enjoyed participating in the magic show.

The instructor's utterances in Experiment 2 were audio-recorded and transcribed. The duration of the recorded data was approximately eight minutes and there were 18 contact clauses in the instructor's utterances. The total number of running words (i.e., tokens) in the transcript was 651. The transcription was analyzed using a free online program called *v8an 2015* (<http://mochvocab.sakura.ne.jp/cgi-bin/j8web/j8web.cgi>), which analyzes the lexical properties of input text based on the English vocabulary list called *The New JACET List of 8000 Basic Words* (Basic Word List Revision Special Committee, 2016). As a result, 576 tokens (88.48%) were Level 1, which refers to the 1,000 most frequent words (e.g., *card*), 14 tokens (2.15%) were Level 2 (e.g., *magic*), and 28 tokens (4.30%) were Level 4 (i.e., *deck* [9 times], *OK* [13 times] and *snap* [6 times]). There were 13 contracted words (e.g., *let's*). The remaining 20 tokens such as *shuffle*, *cut-point*, and *oops* were not included in the base list. From these data, the language used in the input flood was relatively straightforward and comprehensible for the participants.

**Sentence interpretation task.** Immediately after the input flooding, the students read the simplified script of what the instructor had said during the input flooding. The simplified script had four sentences including contact clauses. The students were asked to interpret the four sentences within approximately five minutes. The worksheet used in this task included some Japanese explanations of what the participants were expected to do. The worksheets were collected immediately after the task. Participants received no feedback on their answers.

**Posttest.** Subsequently, the participants were given another worksheet and asked to translate four English sentences including contact clauses, which were identical to the first task undertaken by the whole class. The two sentence comprehension tasks functioned as a pretest and a posttest of this study. The posttest required approximately four minutes; worksheets were collected thereafter.

**Questionnaires.** In Experiments 1 and 2, the students answered questions about the experimental class. In Experiment 1, there were two questions as to how enjoyable the class was, (b) how comprehensible the instructor's language was. In Experiment 2, the questionnaire included six questions. The first and second question asked how enjoyable the input flooding phase was and whether the participants paid attention to English grammar during the input flooding. The third and fourth questions asked how enjoyable the vocabulary learning activities were and whether the participants paid attention to English grammar during those activities. The fifth and sixth questions asked how enjoyable the sentence interpretation task was and whether the participants paid attention to English grammar during that task. All responses were collected via a 5-point Likert scale, with options ranging from 1 (*very boring/incomprehensible/little*) to 5 (*very enjoyable/comprehensible/much*).

## 5. Results

### 5.1 Pilot Study

Initially, the tests consisted of four English sentences that included contact clauses. However, only the first item, which was identical to an item used in Experiments 1 and 2, was scored because the other three items were too difficult for the participants. In the pretest, 26 participants (65.00%) correctly gave the meaning of the contact clause (i.e., *the card you chose*) in Japanese (e.g., *anata ga eranda card*). The

remaining 14 participants provided wrong answers, such as *mirukoto no dekinai card*, or no response. However, in the posttest, 32 participants (80.00%) answered correctly, although when the ratio of the correct and incorrect answers in the pretest and posttest was analyzed using a chi-squared test, the result was not statistically significant at the 5% alpha level,  $\chi^2(1) = 2.26, p = .133$ . The answers of the sentence interpretation task were not analyzed.

## 5.2 Experiment 1

**Pretest and posttest results.** The percentages of correct answers were 50.00% ( $SD = 43.30$ ) in the pretest and 71.43% ( $SD = 26.73$ ) in the posttest. Although the sample size was too small for statistical analyses, a two-tailed paired-sample  $t$  test showed a significant difference between the scores,  $t(6) = 2.52, p = .045$ . The effect size (Glass's  $\Delta$ ) was 0.495, which suggested the difference between the two scores was of "medium" magnitude.

The number of students who answered each item correctly in the pretest and the posttest, respectively, was as follows: for Item 1, four (57.14%) and seven (100.00%); for Item 2, five (71.43%) and six (85.71%); for Item 3, two (28.57%) and four (57.14%); and for Item 4, three (42.86%) and three (42.86%).

**Sentence-interpretation task results.** The percentage of correct answers was 60.71% ( $SD = 45.32$ ). The number of students who answered each item correctly was as follows: for Sentence (1), five (71.43%); for Sentence (2), five (71.43%); for Sentence (3), three (42.86%); and for Sentence (4), four (57.14%).

**Questionnaire results.** The average rating of the first question (how enjoyable was the class) was 5.00 ( $SD = 0.00$ ); all participants chose "very enjoyable." The average rating of the second question (how comprehensible was the teacher's language) was 4.71 ( $SD = 0.49$ ), which indicates that the language used during the input flooding was easy and comprehensible to the participants.

## 5.3 Experiment 2

**Pretest and posttest results.** The percentages of correct answers were 43.13% ( $SD = 31.51$ ) in the pretest and 59.38% ( $SD = 25.75$ ) in the posttest. A two-tailed paired-sample  $t$  test showed a significant difference between the scores,  $t(39) = 4.76, p < .001$ . Glass's  $\Delta$  was 0.516, which suggested the difference between the two scores was again of "medium" magnitude.

The number of students who answered each item correctly in the pretest and the posttest, respectively, was as follows: for Item 1, 19 (47.50%) and 37 (92.50%); for Item 2, 23 (57.50%) and 28 (70.00%); for Item 3, 9 (22.50%) and 9 (22.50%); and for Item 4, 18 (45.00%) and 21 (50.57%). As in the analysis of the Pilot Study data, the ratio of the correct and incorrect answers of Item 1 in the pretest and posttest was analyzed using a chi-squared test. The result was statistically significant,  $\chi^2(1) = 19.29, p < .001$ . However, when this test was performed using the data of Items 2, 3, and 4, there were no significant differences (all  $ps > .10$ ).

**Sentence-interpretation task results.** The percentage of correct answers was 64.38% ( $SD = 29.36$ ). The number of students who answered each item correctly was as follows: for Sentence (1), 20 (50.00%); for Sentence (2), 30 (75.00%); for Sentence (3), 21 (52.50%); and for Sentence (4), 32 (80.00%).

**Questionnaire results.** The results of the questionnaire are summarized in Table 1. As in Experiment 1, most participants enjoyed the input time. In contrast, during the input flooding, the participants did not pay attention to English grammar.

Two one-way repeated measures analyses of variance (ANOVAs) were performed to compare the data of the three different activities. The first ANOVA revealed a significant difference in enjoyment ratings among activities,  $F(2, 117) = 21.40, p < .001$ . To compare the enjoyment ratings for input flooding with the other two activities, two two-tailed paired-sample  $t$  tests were carried out using Bonferroni

adjustments (i.e., the  $p$  values were doubled and compared with the 5% alpha level). The difference between input flooding and vocabulary learning was significant,  $t(39) = 2.89$ ,  $p = .013$ . Further, the difference between input flooding and sentence interpretation was significant,  $t(39) = 5.99$ ,  $p < .001$ . The data indicate that the participants enjoyed the input flooding phase more than the other two activities.

Table 1.  
*Results of the Questionnaire in Experiment 2*

Activity	Enjoyment		Grammar attention	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Input flooding	4.50	0.78	3.13	1.28
Vocabulary learning	4.05	0.71	2.75	1.10
Sentence interpretation	3.45	0.88	3.70	1.04

*Note.* When rating how enjoyable the activity or task was (enjoyment), the participant used a 5-point Likert scale ranging from 1 (*very boring*) to 5 (*very enjoyable*). When rating how much attention the participants paid to English grammar during the activity or task (grammar attention), the participant used a 5-point Likert scale ranging from 1 (*very little*) to 5 (*very much*).

The second ANOVA revealed a significant difference in grammar attention ratings among tasks,  $F(2, 117) = 18.00$ ,  $p < .001$ . To compare the grammar attention ratings for input flooding with the other two activities, two two-tailed paired-sample  $t$  tests were carried out using Bonferroni adjustments. The difference between input flooding and vocabulary learning was significant,  $t(39) = 2.94$ ,  $p = .011$ . Additionally, the difference between input flooding and sentence interpretation was significant,  $t(39) = 3.22$ ,  $p = .005$ . The latter result shows that the participants paid more attention to English grammar in the sentence interpretation task than in the input flooding phase. No statistical comparison was performed of the two different types of rating data, namely the enjoyment versus grammar attention ratings.

## 6. Discussion

This research incorporated input-based activities with form-focused tasks; the main component of the three experimental classes was input flooding. Before discussing the two RQs, this section examines whether the input-based activity of the present research truly addressed the nature of input flooding and whether the instructional procedures as a whole can be viewed as focus-on-form instruction.

An activity can be regarded as input flooding if the activity is not accompanied by any device that draws attention to the target linguistic structure and if the high frequency of occurrence of the target form enhances structural saliency and promote the learners noticing the form. These two conditions are important in inducing noticing the target form in the context of meaningful communication. Concerning these points, the magic show performed in the experimental classes satisfied the conditions for input flooding. First, the questionnaire results showed that the activity did not draw the participants' attention to English grammar. The questionnaire results also suggested that almost all participants focused on meaning, namely what was happening and what the instructor was saying at that moment (in Krashen's terms, "here and now"). As in VanPatten and Oikkenon's (1996) study, the participants were never forced to speak or write in English during the input flooding phase; the activity was purely input-based. Furthermore, the target structure was repeated in the input flood at least 15 times. The high frequency of the target structure may have familiarized the participants with contact clauses. Given the results of the lexical property analysis and the enjoyment questionnaire, it appears that the input language was quite comprehensible for the participants.

With respect to the conditions of focus-on-form instruction, it is important to consider if the students' attention to form occurs in lessons in which the overriding focus is meaning or communication and if the

attention to form arises incidentally in response to communicative need (Ellis, 2001). The first point has already been discussed above. Additionally, the instructor never explained contact clauses in either English or Japanese. Concerning the second point, the results of the questionnaire showed that attention to grammar arose during the sentence interpretation task after the input flooding. In addition, some teaching techniques that are presumed to enhance noticing linguistic structure were used in the current experimental classes. For example, the target structure was presented at the beginning of the class in the form of the pretest, as in VanPatten and Oikkenon's (1996) study. The presentation of the target items had a positive effect in Ogawa's (2015) study. In addition, the present research asked the meanings of the underlined sentences including contact clauses during the sentence interpretation task, which would have drawn attention to the target structure. The series of vocabulary learning activities carried out in this research was not a method to enhance acquisition of contact clauses, although one may argue that this kind of learning activity can be seen as form-focused (as opposed to meaning-focused).

In this research, RQ1 asked whether Japanese junior high school students become able to comprehend English sentences including contact clauses after receiving input flooding combined with form-focused instructions. Although the number of participants in Experiment 1 was quite small ( $n = 7$ ), the participating students' comprehension of contact clauses improved after the input flooding combined with other instructions. The data obtained in Experiment 1 suggested the effectiveness of the input flooding. Future research should examine if this result is generalizable to other population of junior high school students.

In contrast, mixed results were obtained with respect to RQ2, which asked whether Japanese college students with beginner-level English proficiency become able to comprehend English sentences including contact clauses after receiving input flooding combined with form-focused instructions. The overall results of the posttest appeared to provide evidence of the effectiveness of input flooding. However, the detailed data showed that a dramatic increase in test scores was found only for Item 1 (i.e., *I didn't see the card you chose*), which resembled the situation in the input flooding phase and the sentences presented in the sentence interpretation task. The other three items (e.g., *The baby you're looking at is my mother*) did not show such a considerable improvement. Therefore, it is more reasonable to conclude that the college students became able to comprehend the target structure if the situations and expressions with respect to the sentence including the target structure are similar to those of the input. That is, the participants' ability to comprehend the target structure was context-dependent at the time of the experiment; they did not actually acquire the grammatical knowledge that was applicable to new contexts. To acquire grammatical rules, learners may need either explicit explanations of grammar (Trahey, 1996) or more input with a variety of situations and expressions.

Based on the results of Experiment 2, this research suggests that a flood of comprehensible input given in a short time has the effect of enhancing awareness of the target structure but the effect is not strong enough to make students acquire the syntactic rules without any other teacher support. This explanation is compatible with the results of Experiment 1, wherein the highest scores on the posttest were obtained for Item 1.

Furthermore, the above hypothesis may explain the results of the interpretation in VanPatten and Oikkenon (1996). In their experiment, the interpretation of the target structure was enhanced by structured input. As the authors admitted, the great increase was observed because of the considerable overlap between the treatment and testing methods. It is possible that the participants were familiarized with the target structure as long as the context of interpretation was similar to what they had experienced during the input phase. It is unclear whether the participants were able to interpret the target structure in a quite different context. One of the important differences between their study and the present research was the duration of the instruction. In VanPatten and Oikkenon's study, the instruction lasted for four class periods. Therefore, both the amount and variation of the input language was likely greater than that in the present research. Further research on the input flooding technique should examine the relationship between the quantity of input and the context-dependency of the learners' grammatical knowledge.

## 7. Conclusion

This research investigated the effect of input flooding accompanied by the two form-focused activities—vocabulary learning activities and a sentence interpretation task—through three case studies with beginner-level EFL learners in Japan. The results suggested that the learners may have become able to comprehend sentences including the target structures after the instruction. However, the learners' ability to interpret the target structure may have been context-dependent; therefore, the effect of short-term input flooding may not be strong enough to enable learners to comprehend the target structure in diverse situations.

The results of this research are consequential because they suggest that Japanese beginner-level learners of English do not always need Japanese translations to comprehend a written script that includes contact clauses if comprehensible input and appropriate teacher support are provided. As mentioned earlier, the sentence pattern including contact clauses is among the most difficult grammar taught in junior high schools. This research may be helpful for suggesting how language teachers might best conduct classes using English as the primary instruction language.

However, this research has at least three important limitations. First, the sample size was too small to generalize the findings. In particular, it was ambiguous whether the input flooding technique is effective for all junior high school students. The students' English proficiency or their motivation to learn English was not considered in this research. Second, an English magic show is not a typical method by which to introduce new grammatical concepts in schools. One may therefore question whether other methods of input flooding, such as extensive reading activities and the teaching technique called *oral introduction*, which refers to teacher talks based on the content of the textbook at the beginning of the class, have similar positive effects on acquiring a new sentence pattern. Third, this research did not compare longer and shorter duration of input flooding. The 10-minute input flooding performed in the experimental classes might have been too short for acquisition, but at the same time, too long to carry out in a 50-minute class in Japanese junior and senior high schools. Future research should investigate how the amount and variety of the input language affects comprehension of the target structure.

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