In this study the timing issue in form-focused instruction (FFI) was investigated from a practical pedagogical perspective by comparing one instructional procedure that integrated FFI into a communicative task and one that provided FFI following a task in a closely sequenced fashion. Learners’ production accuracy on two target forms—situational-the and experiential present perfect—was measured using two pretests and two posttests that imposed pressured and unpressured performance conditions. On situational-the, the only significant mean accuracy gain was recorded by the integrated procedure learners under unpressured test conditions, a gain that was significantly different to that made by the sequenced FFI group. On experiential present perfect, only the gains in production accuracy made by the integrated FFI treatment group were significantly larger than those made by a comparison group. The results challenge Spada and Lightbown’s (2008) assumptions about which type of FFI might be more effective for which type of grammatical language feature by showing that the procedure incorporating integrated FFI was more effective irrespective of language feature type and that the type of knowledge affected depends on target form.

本研究は、教育現場の観点から見た文法指導（FFI）のタイミングについて、コミュニケーションタスクに組み込んだFFIと、コミュニケーションタスクの直後に配置した2種類の方法を比較検討したものである。指導の前後に負荷ありと負荷なしのスピーキングテストを実施し、2つの文法
It is widely accepted that form-focused instruction (FFI) has a role to play in communicative and content-based instructional approaches to second language learning by helping learners to learn features of the target language that they might not otherwise acquire (Spada & Lightbown, 2008). However, the question of when best to provide this instruction—a choice sometimes referred to as the timing issue (Lightbown, 1998)—is unresolved. Grammar instruction, a type of FFI, can either be integrated into communicative use of the target language as learners engage in content or task-based communication, be closely sequenced with such interaction, or be completely separated. The first two choices fall under the umbrella of focus on form (FonF), and the third has been called focus on forms (FonFS; Long, 1991, 1997; Long & Robinson, 1998).

The choice between integrated and closely sequenced grammar instruction is important for teachers because it has considerable ramifications for how they plan and conduct their classes. For example, if teachers who are using an integrated FFI approach are to provide corrective feedback to pairs of learners engaging in a communicative task, they need to have the confidence and skill to manage what the other students in the class are doing. Instructors might legitimately want to know whether this intensive attention to pairs is time well spent. Closely sequenced FFI is easier to manage. The teacher can monitor the learners as they complete a task in pairs and can provide FFI to the whole class either before or after the task. The question in this case is whether the apparently efficient use of the teacher’s management resources pays off in an improvement in the learners’ ability to use the target form. Procedures that tie FFI to task-based practice seem to provide ways of helping learners to make form–meaning connections that enable them to improve accuracy in oral production. The purpose of this study was to investigate how differences in the timing of FFI and different target grammatical features might affect oral production accuracy under different performance conditions.
Background

Spada and Lightbown (2008) suggested that both integrated and closely sequenced instruction might have a role to play in FFI depending on a number of variables including the nature of the grammar feature in focus, learners’ developmental levels in acquisition of the feature, the relationship between comparable features in the learners’ L1 and L2, and other learner characteristics such as age, metalinguistic knowledge, and overall L2 proficiency. Although Spada and Lightbown used the term *isolated FFI*, it is clear that they meant closely sequenced grammar instruction that is taught in preparation for a communicative activity or following an activity in which students experience difficulty with a particular grammar feature.

**Integrated FFI**

In integrated FFI, teachers can correct learners’ errors as they engage in a communicative language-learning task or they can provide less explicit feedback by requesting clarification or by using recasts (Doughty & Williams, 1998). If the task is designed to make the use of a particular language form obligatory, the integrated FFI can be said to be *planned* or *proactive*. The integrated FFI is *reactive* if teachers deal with formal difficulties as they arise without planning (Doughty & Williams, 1998).

Theoretical support for integrated FFI is provided by the interaction hypothesis (Long, 1996). The hypothesis states that the negative feedback learners obtain in negotiation work is facilitative of second language development. Integrated FFI is a type of negotiation work and is thus thought to facilitate language learning. The interaction hypothesis also incorporates the concept of *noticing*. Schmidt (1990, 1992, 2001) proposed that acquisition of a linguistic form takes place if and only if it is consciously noticed in the input. Because integrated FFI involves negotiation work and interlocutors can reformulate erroneous utterances in the feedback they provide, it is thought to induce noticing (Long, 1996). Thus, in situations where the teacher is the primary provider of corrective feedback, integrated FFI is the most appropriate way of providing form-focused information to learners, according to this interactionist approach.

Spada and Lightbown (2008) suggested that integrated FFI might be more appropriate than closely sequenced FFI for teaching complex morphosyntactic features that have rules that are difficult to describe. Easy rules can be taught, but difficult rules can perhaps only be understood within the context of communication when learners have the opportunity to notice the subtle
ways in which a feature is used. For example, Ellis (1990) proposed that verb infinitive complements in English (e.g., I was happy to give you a ride home) are both formally complex and opaque in their form–function relationships and therefore have rules that are difficult to describe. Plural-s, by contrast, is relatively easy to describe, being both formally simple and functionally transparent. Spada and Lightbown argued that the use of integrated FFI might also be appropriate in helping learners to understand morphosyntactic features that can lead to communicative breakdown. When learners encounter such breakdowns while engaged in communicative interaction, the import of the error might become apparent to them and the chance of learning from feedback on the error is arguably greater than if the potential for misunderstanding were explained outside the context of communication through separated FFI. However, errors that do not cause communication breakdowns might need to be attended to through separated FFI because they will not be noticed while learners are involved in communicative practice.

Another suggestion is that learners who have already acquired some explicit knowledge of a language feature might benefit from integrated FFI to help them improve the fluency and accuracy with which they can use the feature (Spada & Lightbown, 2008). FFI is not limited to learners’ first encounters with language forms; it also extends to instruction intended to help learners proceduralize the declarative knowledge they possess so that they are able to deploy this knowledge in a timely and accurate way in real-time communication. Emergent interlanguage features over which learners have limited control might therefore benefit from integrated FFI when it facilitates production under pressured conditions.

**Closely Sequenced FFI**

Closely sequenced FFI occurs when teachers explain or exemplify a language point immediately before or after students engage in content-based or task-based communicative interaction (Spada & Lightbown, 2008). For example, a teacher might anticipate that students will have difficulties using a particular grammar feature when they engage in the task and will provide FFI to prepare them. Alternatively, the teacher might notice that a particular grammar feature causes learners difficulty when they engage in the communicative task and will follow up on this after the task by providing appropriate FFI. In closely sequenced FFI the emphasis is on directly tying the FFI to genuinely communicative practice (Spada & Lightbown, 2008), in contrast to Long’s (1997) FonFS, which refers to FFI that is clearly separated from
communicative practice. In this paper, closely sequenced FFI is investigated, not FonFS.

Arguments in support of using closely sequenced FFI are mainly based on weaknesses in the rationale for integrated FFI. In cognitive terms, a strong argument against integrated FFI and in favour of closely sequenced FFI is provided by information processing theory. VanPatten (1989) suggested that the simultaneous processing of forms, meaning, and function that needs to occur for integrated FFI to be successful is cognitively implausible given that a central assumption of information processing theory is that attentional resources are of limited capacity. Thus, FFI provided while learners are engaged in communication might fail to be processed because it overloads their attentional capacity. It has also been suggested that, because there might be a tendency for learners engaged in meaning-focused tasks to analyze the input semantically for comprehension and the immediate purpose of conversational interaction, it is unlikely that learners will be able to also analyze utterances syntactically (Gass, 1997). Partly based on these considerations, several writers (Richards, 1999; Skehan, 1996; Willis, 1996) have advocated separating FFI from communicative tasks in the context of task-based or task-supported language teaching, so that grammar instruction and language practice are sequenced.

It is also possible that separating FFI from communicative interaction makes learning objectives clearer and helps learners understand what to pay attention to. There is a danger, for example, that learners might not recognize that the FFI is focusing on form when integrated into communicative interaction, especially when the FFI is provided as recasts (Mackey, Gass, & McDonough, 2000). There is also the concern that integrated FFI might be demotivating for learners because it disrupts, or even undermines, their attempts to convey meaning during a communicative activity (Lightbown, 1998). For these reasons closely sequenced FFI appears to be a more attractive alternative.

Closely sequenced FFI might be particularly appropriate in certain situations. For example, Spada and Lightbown (2008) suggested that interlanguage errors resulting from L1 influence need to be pointed out to learners, especially in classrooms where learners share the same L1. Some separation might also be necessary, they suggested, for language features that have low salience, such as unstressed articles, or that occur infrequently in the input, such as subjunctives. In addition, learners with a weak aptitude for learning a second language and with poor metalinguistic skills might benefit from this type of FFI to help them identify some form-meaning connections.
**Research Into Integrated FFI**

One study of integrated FFI of particular relevance to the present investigation was conducted by Doughty and Varela (1998). In this study the teacher gave corrective recasts to 21 ESL middle school students in one intact immersion science class in the United States over 4 weeks. This group was compared with 13 students in another intact science class who received no corrective recasts. Corrective recasts were repetitions of errors in the target features by the teacher using stress and rising intonation followed by a recast, if there was no attempt at self-correction. Doughty and Varela found that the learners who received feedback dramatically increased their use of target-like and interlanguage forms and decreased their use of nontarget-like forms between pre- and posttests in both oral and written modes and these trends were mainly maintained 2 months later. The authors concluded that a task-natural and mainly incidental type of FonF was both feasible and effective in a communicative classroom.

In order to synthesize findings regarding the potential for feedback provided in interaction to facilitate L2 development, Mackey and Goo (2007) conducted a meta-analysis of 28 studies published between 1994 and 2007. One factor they focused on was whether or not feedback on grammatical or lexical features was provided during interactional tasks. They compared the mean effect sizes on immediate and short-term delayed posttests, but concluded that it would not be legitimate to make claims regarding the superiority of any one feedback condition because there were so few treatment groups involved in the no feedback category.

Mackey and Goo (2007) also looked at whether or not learners were given the opportunity to produce modified output. Swain (2005) argued that learners need to be pushed to produce and modify their output for further language development to occur, so feedback that requires learners to reframe an utterance would be more effective. Mackey and Goo found that the mean effect size for no modified output was, in fact, significantly larger than for modified output on immediate and short-term delayed posttests. The authors stressed, however, that because of methodological problems with the studies that included a condition in which learners were not required to produce modified output, it would be premature to conclude superiority for no modified output. They emphasized that only one researcher (McDonough, 2005) clearly investigated the efficacy of opportunities for modified output, finding a significant advantage for modified output over no modified output. In their conclusion, Mackey and Goo stated that more research specifically designed to examine the effects of different feedback types and opportunities for modified output is necessary.
Research Into Closely Sequenced FFI

It is difficult to identify studies in which the investigator has looked specifically at closely sequenced FFI. There have been many studies regarding the effectiveness of grammatical FFI, 45 of which were included in Norris and Ortega’s (2000) meta-analysis of the effectiveness of L2 instruction. However, to qualify as closely sequenced FFI, the grammar instruction needs to be closely tied to task-based communicative practice. Several investigators (e.g., Housen, Pierrard, & Van Daele, 2005; Macaro & Masterman, 2006; Master, 1994) have conducted classroom-based studies into how the provision of grammar rule presentation and explanation by the teacher might affect learning outcomes and have combined this FFI with some kind of practice. However, it was not the primary goal of any of these researchers to investigate closely sequenced FFI as such, and the practice involved was not oral task-based communicative practice, but individual written practice.

Research Into a Combination of Integrated and Closely Sequenced FFI

No direct comparison of integrated and closely sequenced FFI was identified in the literature, but two studies are highlighted here because they show how a combination of the two types of FFI can be effective.

In the first, Muranoi (2000) compared three groups of Japanese university students learning the English indefinite article. Learners in the first two groups initially experienced interaction enhancement (IE) that consisted of meaning-focused problem-solving tasks plus form-focused implicit negative feedback. The implicit negative feedback (enhancement) was in the form of requests for repetition and recasts by the teacher whenever there were errors with the indefinite article in obligatory contexts. If learners did not self-correct after receiving two requests for repetition, the teacher provided a corrective recast. Learners in the first group \( n = 31 \) then received a formal debriefing in which the teacher provided an explicit grammar explanation in Japanese of two functions of the indefinite article; the second group \( n = 30 \) received instead a meaning-focused debriefing in which the teacher provided feedback on students’ performance in terms of accuracy in communicating messages, not accuracy of the target forms. The third group was called the nonenhanced interaction (NEI) group \( n = 30 \). Learners in this group received no teacher feedback and had a meaning-focused debriefing.

Four pre- and posttests, an oral story description task, an oral picture description task, a written picture description task, and a grammaticality judgment task were used to assess performance. The first two main findings
were as follows: (a) the two IE groups significantly outperformed the NEI group on immediate posttests and delayed posttests 5 weeks later, and (b) the group that received a formal debriefing performed significantly better on all tasks than the groups that received the meaning-focused debriefing. Muranoi (2006) suggested that the combination of implicit and explicit instruction given to the first experimental group was particularly effective in helping learners learn the complex rules connected with articles.

In the second study, Lyster (2004) investigated the effectiveness of prompts, recasts, and FFI. A prompt is interactional feedback (a clarification request, repetition, metalinguistic clue, or elicitation) in which correct forms and other signs of approval are withheld and learners are offered an opportunity to self-repair. Lyster argued that prompts provide less ambiguous and more cognitively engaging feedback than recasts, although the two can be combined as corrective recasts. There were four treatment conditions: FFI + prompts; FFI + recasts; FFI only; and a comparison group. The FFI consisted of noticing activities, awareness activities, and practice activities aimed at helping learners to correctly assign grammatical gender to French nouns. FFI was provided for approximately 9 hours during a 5-week period to 179 Canadian fifth-grade immersion students studying L2 French. Two oral tests (an object-identification test and a picture-description test) and two written tests (a binary-choice test and a text-completion test) were used to assess uptake. It was found that the group that received FFI combined with prompts outperformed the other groups on both posttests. The results suggest that integrated implicit feedback in the form of prompts combined with types of FFI that were separated from direct communicative use was effective.

**Gaps in the Literature and Purposes of This Study**

The first gap in the literature addressed by this study concerns the timing issue. In none of the studies reviewed above, nor in those studies included in Mackey and Goo’s (2007) meta-analysis, did the researchers set out to directly address the timing issue by comparing corrective feedback integrated into task interaction with that provided outside such interaction. The first aim of this study was therefore to make this direct comparison to see how a procedure including integrated FFI might differ from a procedure including closely sequenced FFI in terms of their effects on two types of target form. The second gap addressed was in how production accuracy was measured. It was noted above that Doughty and Varela (1998), Muranoi (2000) and Lyster (2004) all assessed oral production accuracy, but all did so in a planned
monologic format. A secondary aim of this study was therefore to test both monitored oral performance and performance under more demanding, pressured conditions that are similar to natural conversation.

The first research hypothesis was that the two procedures would differ in their effects on production accuracy. Spada and Lightbown (2008) argued that integrated FFI might be more effective with forms that are difficult to teach because feedback provided in the context of communicative interaction can help learners understand how the form is used at precisely the time that they need to use it. The assumption is that integrated FFI is more effective than providing a complex explanation separate from actual communicative interaction. Given that the two target forms differed in complexity, a difference between the two instructional procedures was to be expected. The second research hypothesis, which follows from the same argument, was that the integrated FFI procedure would have a greater effect than the closely sequenced FFI procedure on production accuracy of situational-the, the target form that has rules that are more difficult to teach and learn.

Method

Participants

The study was conducted with intact classes at a private university in Japan. In this faculty, the curriculum is equally divided between English, media-related, and IT-related courses. Students take eight compulsory English courses in their first 2 years as part of the English program. Four are oral communication courses, three are written communication courses, and one is a listening skills course. In the oral communication classes, students are paired randomly and speak on a predetermined topic. The length of the conversations they have with different partners is timed and recorded. The teacher terminates a conversation if there is a mistake that the students do not self- or other-correct. The teacher does not correct learners during the conversation or explain the mistake after the conversation. None of the English courses is specifically grammar focused, although students do have their grammar corrected in the written communication courses when they make an error. The mean TOEIC score (Listening & Reading) on entry to the faculty was 392 for the participants in this study.

Complete sets of data from 134 students were used in the final analysis. Sets of data from learners who failed to switch the tape recorder on or who spoke too softly were rejected. There were 90 first-year and 44 second-year students. Ninety-two were women and 42 were men. The average age was
19 years 8 months. All were Japanese and all had studied English for 6 years at junior high and high school before entering university.

**Design and Schedule**

A pretest–posttest–comparison group design was employed in this study. The schedule for the tests and treatments is presented in Figure 1. First, I explained the study to the learners. Then their agreement to participate was sought. All but one student consented to take part. One test familiarization session was then carried out in a regular 90-minute class with each individual having approximately 10 minutes to practice listening to questions on the computer, responding, and then imitating. After taking the pretests, participants received one treatment each week for 5 weeks. Each integrated FFI treatment was approximately 15 minutes long and each closely sequenced FFI treatment was approximately 25 minutes. One week after the last treatment, the posttests were administered.

<table>
<thead>
<tr>
<th>Week</th>
<th>Session content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Explanation/permission/test familiarization</td>
</tr>
<tr>
<td>2</td>
<td>Pretests</td>
</tr>
<tr>
<td>3~7</td>
<td>Instructional and comparison treatments 1 to 5</td>
</tr>
<tr>
<td>8</td>
<td>Posttests</td>
</tr>
</tbody>
</table>

**Figure 1. Test and treatment schedule.**

**Targets of Instruction**

The two target forms chosen for this study were situational-*the* and experiential present perfect (see Figure 2). Situational-*the* is particularly difficult for Japanese learners to acquire (Swan & Smith, 2001). This is partly because Japanese has no article system and partly because the English article system is notoriously complex. It was believed that improved spoken production accuracy on both these target features would enhance the learners’ communicative ability in English.
Situational-the

1. I’m going to the post office. (You know which one—the one near here.)
   vs.
   I’m looking for a post office. Is there one near here? (I don’t know if there is one.)
2. I didn’t like the film. (= the one that we saw)
   vs.
   Let’s go and see a film. (Any one is OK!)

Experiential present perfect

1. Have you ever climbed Mt. Fuji? (Have you done this at any time in your life?)
   vs.
   Did you climb Mt. Fuji last summer? (Did you do this then?)
2. How many times has he phoned you? (How many times ever?)
   vs.
   How many times did he phone you yesterday? (In the 24-hour period which finished at midnight.)

Figure 2. Examples of the target forms (in bold) contrasted with other forms. Examples adapted from Swan and Walter (2001).

The two targets arguably present quite distinct learning challenges. The article is a formally simple feature made up of one element. However, the rules governing the use of situational-the are complex, being essentially pragmatic in nature, and require an awareness of what contextual information is shared by one’s interlocutor.

Experiential present perfect, by contrast, is formally more complex than an article. The experiential present perfect has two elements, an auxiliary verb (has or have) and the past participle. The auxiliary has to agree with the grammatical subject and the past participle is inflected with a regular -ed ending unless it is an irregular form. The pronunciation of the -ed ending depends on the final sound of the base form of the verb. However, experiential present perfect expresses a meaning that has a common correlate in Japanese (V-ta koto ga aru [past tense verb-thing exists]), and is thus easy to learn compared to situational-the.
Both language features often lack phonological salience (Goldschneider & DeKeyser, 2001) in normal speech, making both forms difficult to notice. This might lead learners to conclude that they have little communicative import and might mean that they underuse them.

**Materials**

Each set of materials used in the five input sessions consisted of a grammar explanation sheet, a task instruction sheet, and a task sheet for each learner. (An example set of task materials is provided in the Appendix). The grammar explanation sheet and the task instruction sheet were written mainly in Japanese. Three of the five tasks were information exchange tasks, one provided word prompts for mini conversations, and one was a role-play requiring use of the target forms. In previous investigations carried out by the author, the tasks were found to elicit multiple examples of performance on the target forms.

**Instructional Procedures**

Two instructional procedures were contrasted: One included a type of integrated FFI and the other included a type of closely sequenced FFI. The instructional treatments and comparison treatment were delivered over 5 weeks when the learners were in regular English classes. The language feature in focus in the task alternated for the first 4 weeks and the final task focused on both target features. On each occasion, the procedure in Figure 3 was followed.

**The Integrated FFI Procedure**

In the integrated FFI treatment, pairs of learners were taken to a nearby empty room while the rest of the class continued normal class activities under the supervision of the regular class teacher. Each pair first read a grammar explanation sheet in Japanese. Examples of situational-*the* were contrasted with sentences in which *the* was replaced by *a/an* or *some* and were presented in the same table form as Figure 2. Examples of experiential present perfect were contrasted with sentences containing simple past. Further explanatory notes were presented from Berry (1993) and Biber, Johansson, Leech, Conrad, and Finegan (1999). The learners then engaged in a picture difference, role-play, or conversation prompt task (see Appendix). When there were problems with a target form, I provided feedback in the form of corrective recasts such
<table>
<thead>
<tr>
<th>Step</th>
<th>Integrated FFI</th>
<th>Sequenced FFI</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The learners were each given a grammar explanation sheet for the target in focus (either situational-the or experiential present perfect) written mainly in Japanese (their L1) and were asked to read it through.</td>
<td>Learners each received a worksheet consisting of grammar explanations and sentence completion exercises on the simple past.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The learners were given the task materials mainly written in the L1 and read through the instructions.</td>
<td>The learners completed the worksheet individually.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The learners completed the task one pair at a time. If there were errors on target forms, the researcher used a corrective recast, stopping to elicit the target form from the learner and providing the correct form if there was no self-correction. Accurate production was praised, particularly as the task got underway.</td>
<td>The learners completed the task in pairs simultaneously. The researcher circulated to monitor progress on the task, to offer help on how to conduct the task and to praise learners’ efforts. At no time did he correct grammar. The worksheets were collected and marked by the researcher. Comments were written praising high marks or indicating how performance could be improved.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>After the task had been completed the researcher summarized the information about the grammar point given on the grammar explanation sheet, often using examples from the task to reinforce contrasts between potential forms.</td>
<td>After they had all completed the task, one pair of learners was asked to perform one short exchange from the task. If there was an error, the researcher used a corrective recast. If a self-correction was not offered, the researcher asked the other learners for a correction. One or two more pairs were then asked to perform different exchanges and the procedure repeated. Completed worksheets were handed back in the following class a week later before a new worksheet was distributed and the same procedure repeated.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Same as Step 4 for the Integrated FFI procedure.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3. The integrated FFI, sequenced FFI, and comparison procedures.
as those used by Doughty and Varela (1998). Two examples of the corrective recasts used are shown in Figure 4. Following the task-based practice, I summarized the grammar points by going over the information on the grammar explanation sheet and using examples encountered in the task. These sessions were held once a week for 5 weeks. The 42 learners in the integrated FFI group were spread across several classes, so it was possible for me to spend 15 minutes each week with each pair of learners.

Example 1: Target form: situational-*the*

R: You could say “Ah in my picture the mug is . . .”
S1: next to kettle
R: next to?
S1: ket
R: the [with emphasis]
S1: the kettle
R: the kettle

Example 2: Target form: experiential present perfect:

S3: How many times have you been off sick in 12 months?
R: Good!
S4: I have never sick.
R: I have never ...?
S4: I have never...
R: I have never been sick [slight emphasis on *been*]
S4: I have never been sick.
R: Wow.

Figure 4. Example corrective recasts (underlined). S = student; R = researcher.

The Sequenced FFI Procedure

In the sequenced FFI procedure (see Figure 3), 40 learners first read the same grammar explanation sheet as the integrated FFI procedure students
and then the entire class engaged in the same paired tasks as in the integrated FFI procedure. I monitored the learners, but did not provide feedback. After the task-based practice, several pairs of learners were asked to perform one short exchange each from the task. In the task in the Appendix, for example, one learner asked about an object in the picture and the other replied. If there was a problem with use of the target form, I provided the same type of corrective recast as in the first procedure, eliciting corrections from other students if the learner performing the exchange could not self-correct. Finally, I summarized the grammar points in the same way as in the integrated FFI procedure. These sequenced FFI sessions were conducted once a week for 5 weeks for an average of around 25 minutes each time. The extra time needed for this procedure is partly accounted for by the need to distribute materials to a class of 25 students and to get them arranged in pairs.

The Comparison Group

The 52 learners in the comparison group were required to complete worksheets focusing on the use of the simple past tense. They completed five worksheets—one each week for 5 weeks. Each worksheet consisted of sentence completion exercises and took approximately 20 minutes to finish. These learners received no instruction on situational-the or experiential present perfect. After each class, I marked the worksheets and wrote comments on the overall performance of each student, similar to the ones I wrote for the sequenced FFI group, praising high marks or indicating how performance could be improved. The marked worksheets were handed back to the students the following week.

Tests

Learners took two elicited imitation (EI) pretests and two posttests designed to measure production accuracy under pressured and unpressured conditions. The tests had similar characteristics to the tests designed by Erlam (2006). The timed EI test, for example, required learners to perform an intermediate step between the stimulus and the imitation to force them to focus on the meaning of the stimulus, not just the form. EI tests were chosen because they require oral production, because they allow specific target forms to be elicited, and because they can be manipulated so that they impose quite different performance conditions. All items were in the form of a question. Items in both tests contained situational-the and experiential present perfect targets and there were a number of distractor items (see
Table 1). Instructions for all tests were provided on a cover sheet in both English and Japanese. Two versions of each test were made and were administered in a counterbalanced fashion so that learners took a different version of each test pre- and posttreatment. Learners were assigned so that when they took each test neighbouring students were taking different versions.

<table>
<thead>
<tr>
<th>Test</th>
<th>Items</th>
<th>Targets (in no. of items)</th>
<th>Number of distractors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>Min. length (words)</td>
<td>Max. length (words)</td>
</tr>
<tr>
<td>Timed EI V1</td>
<td>38</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Timed EI V2</td>
<td>36</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Untimed EI V1</td>
<td>33</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Untimed EI V2</td>
<td>36</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>


In pilot studies, these tests were found to elicit markedly different performance. Production accuracy on the untimed EI test was significantly better than that on the timed EI test. It was assumed that this was because the timed EI test restricted access to more stable explicit knowledge of the target forms and forced learners to rely on their uncertain developing implicit knowledge of the target features. This is in line with the reasoning presented by Ellis (2005), whose principal component factor analysis indicated that the unpressured and pressured EI tests loaded on two factors—assumed to be explicit and implicit knowledge.

**Timed EI Test**

The timed EI test was intended to impose pressure to make it necessary for learners to use implicit knowledge, accessible by means of automatic
processing during fluent performance, and to make the use of explicit knowledge much more difficult. In this test learners heard a question recorded on a computer, answered the question according to information in a picture on the computer screen, and then repeated the question before the next question came up. An excerpt from the test is presented in Figure 5. The requirement to answer the question before imitating was intended to make learners focus on the meaning of the question, not just the form. Items were thematically related to each other, all being about two characters, Sarah and Andy, who appeared throughout the test. Answers and imitations were recorded onto a cassette tape. Learners could not control the speed with which the next question arrived and were thus under pressure to answer and imitate quickly. The amount of time available to answer and repeat each item depended on the length of the item and was based on how long it took me to answer and repeat multiplied by 1.5. The mean length of pause between items was 16.4 seconds. The shortest pause was 12 seconds; the longest was 23 seconds.

The learners saw the following graphic on the computer screen:

![Graphic Image]

The learners heard:
“Question 27. Does Sarah play tennis?” (distractor)
[18 second pause]
“Question 28. Does she hit the ball hard?” (situational-the)
[12 second pause]
“Question 29: Has Andy ever played?” (experiential present perfect)
[14 second pause]

Figure 5. Three consecutive items from the timed EI test.
Untimed EI Test

The untimed EI test was intended to make it possible for learners to use explicit knowledge, which can be accessed by means of controlled processing during monitored performance, although use of implicit knowledge would also be possible under these unpressured conditions. Two versions of an untimed EI test were developed that conformed closely to the standard type of EI procedure (Bley-Vroman & Chaudron, 1994). In this test, learners saw a picture on the computer screen but were only required to imitate the question they heard. They could start the recording for each item when they were ready and were free to pause the recording tape between items. In addition, items were thematically unrelated to each other. Learners were thus able to focus entirely on the form of the question without needing to focus on its meaning. An excerpt from this test is presented in Figure 6.

The learners saw the following graphic on the computer screen:

The learners heard:
“Question 6. Is there a car in his garage or a motorbike?”
“Question 7. Have they written to each other for long?”
“Question 8. This school got a new computer last month, didn’t it?”

Figure 6. Three consecutive items from the untimed EI test.

Length of Tests

Version 1 of the timed EI test took 18 minutes 15 seconds to complete and Version 2 took 18 minutes 1 second. Both versions of the untimed test took less than 15 minutes to complete. Although this might seem paradoxical, in the untimed test, learners did not need to think how to answer the question they heard and could focus entirely on imitating the question. As soon as they had imitated the question they were then free to move on to the next item. With the timed EI test, learners had to first answer the question
and then had to recall the question they had heard before imitating it. Even though most learners took more time to complete the timed test than the untimed test, pressure was far greater in the timed test because there was more cognitive work to do in a limited time frame.

**Scoring and Inter-Rater Reliability**

The test data were scored according to the following criteria. Situational-the was judged either categorically correct (1 point) or incorrect (0 points). Experiential present perfect was judged either correct (1 point), incorrect (0 points), or partially correct (0.5 points). Experiential present perfect was judged partially correct when the correct form of the past participle was used but the auxiliary *have* did not agree with the grammatical subject (e.g., *Have Sarah ever used the car to go to work?*) or when the correct form of the auxiliary was used but the past participle was incorrect (e.g., *Has she ever have* an accident?). A production accuracy score for each learner was thus calculated and was expressed in terms of percent correct.

To check the reliability of the scoring, the performance of 15 learners on the pretests and 15 on the posttests taken at random from the three treatment groups was scored again by a native-speaking English teacher who had over 10 years’ university-level teaching experience in Japan and held an MA in TESOL. There were 1,430 items in all, representing approximately 7% of the total test data. After the second rater had scored around 200 items according to the scoring criteria, we met to discuss any disagreements. One of the main problems was hearing whether or not situational-the had been produced. We listened again to difficult cases and made a judgment together. The second rater then scored the remainder of the data independently. Estimates of inter-rater reliability between the overall accuracy scores the second rater gave and those I gave in terms of Pearson correlation coefficients were as follows: timed EI test = .86 and untimed EI test = .94.

**Results**

The mean accuracy scores and standard deviations for the two treatment groups and the comparison group on both target forms on pretests and posttests are presented in Table 2 together with other descriptive statistics.
Table 2. Descriptive Statistics for Production Accuracy Scores (Percent Correct) in Four EI Test Versions ($N = 134$)

<table>
<thead>
<tr>
<th>Timed EI test</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>Skewness</td>
<td>Kurtosis</td>
</tr>
<tr>
<td><strong>Situational-the</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Timed EI test</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated ($n = 42$)</td>
<td>53.8</td>
<td>19.8</td>
<td>-0.766</td>
<td>0.042</td>
</tr>
<tr>
<td>Sequenced ($n = 40$)</td>
<td>55.3</td>
<td>18.3</td>
<td>-0.933</td>
<td>1.443</td>
</tr>
<tr>
<td>Comparison ($n = 52$)</td>
<td>52.4</td>
<td>14.7</td>
<td>-0.004</td>
<td>-0.533</td>
</tr>
<tr>
<td><strong>Untimed EI test</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated ($n = 42$)</td>
<td>70.4</td>
<td>15.5</td>
<td>-0.123</td>
<td>-0.645</td>
</tr>
<tr>
<td>Sequenced ($n = 40$)</td>
<td>76.6</td>
<td>11.5</td>
<td>-0.156</td>
<td>-0.538</td>
</tr>
<tr>
<td>Comparison ($n = 52$)</td>
<td>73.5</td>
<td>16.0</td>
<td>-0.581</td>
<td>0.200</td>
</tr>
<tr>
<td><strong>Experiential present perfect</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Timed EI test</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated ($n = 42$)</td>
<td>37.5</td>
<td>19.0</td>
<td>0.236</td>
<td>0.428</td>
</tr>
<tr>
<td>Sequenced ($n = 40$)</td>
<td>41.8</td>
<td>18.2</td>
<td>0.052</td>
<td>-0.348</td>
</tr>
<tr>
<td>Comparison ($n = 52$)</td>
<td>42.5</td>
<td>19.3</td>
<td>0.393</td>
<td>0.160</td>
</tr>
<tr>
<td><strong>Untimed EI test</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated ($n = 42$)</td>
<td>59.0</td>
<td>16.3</td>
<td>-0.285</td>
<td>0.548</td>
</tr>
<tr>
<td>Sequenced ($n = 40$)</td>
<td>60.3</td>
<td>15.3</td>
<td>0.208</td>
<td>-0.851</td>
</tr>
<tr>
<td>Comparison ($n = 52$)</td>
<td>62.0</td>
<td>18.7</td>
<td>-0.200</td>
<td>0.152</td>
</tr>
</tbody>
</table>
In order to assess the relationship between instructional treatment and production accuracy score gains, a global multivariate test, a multivariate analysis of variance (MANOVA), was conducted with the accuracy score gain on the two target features (situational-*the* and experiential present perfect) on the timed and untimed EI tests as four dependent variables and instructional treatment as the independent variable with three levels. In this study, the alpha for all statistical measures was set at $\alpha < .05$. Results from this MANOVA demonstrated a significant multivariate effect for the relationship, $F(8, 256) = 3.30$, $p < .001$; Wilks’ $\Lambda = .882$, partial $\eta^2 = .207$.

Four ANOVAs were carried out on each dependent variable separately and these confirmed that there were significant between-group effects (see Table 3). On the timed EI test, there was no significant between-group effect for situational-*the* ($F(2, 131) = .30$, $p < .743$, $\eta^2 = .005$). However, on the same test there was a significant between-group effect for experiential present perfect ($F(2, 131) = 5.04$, $p < .05$, $\eta^2 = .071$). On the untimed EI test, there was a significant between-group effect for both situational-*the* ($F(2, 131) = 3.29$, $p < .05$, $\eta^2 = .048$) and experiential present perfect ($F(2, 131) = 4.52$, $p < .05$, $\eta^2 = .065$).

### Table 3. Results of Four One-Way ANOVA on Accuracy Score Gain by Treatment

<table>
<thead>
<tr>
<th></th>
<th>$df$</th>
<th>$SS$</th>
<th>$MS$</th>
<th>$F$</th>
<th>$\eta^2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timed EI test</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Situation-al-<em>the</em></td>
<td>Between groups</td>
<td>2</td>
<td>271.507</td>
<td>135.754</td>
<td>.30</td>
<td>.067</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>131</td>
<td>59735.545</td>
<td>455.997</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experiential present perfect</td>
<td>Between groups</td>
<td>2</td>
<td>4505.338</td>
<td>2252.669</td>
<td>5.04</td>
<td>.267</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>131</td>
<td>58601.703</td>
<td>447.341</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Untimed EI test</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Situation-al-<em>the</em></td>
<td>Between groups</td>
<td>2</td>
<td>2241.822</td>
<td>1120.911</td>
<td>3.29</td>
<td>.219</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>131</td>
<td>44685.528</td>
<td>341.111</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experiential present perfect</td>
<td>Between groups</td>
<td>2</td>
<td>4423.794</td>
<td>2211.897</td>
<td>4.52</td>
<td>.254</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>131</td>
<td>64080.876</td>
<td>489.167</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* *Significant at the $p < .05$ level.

Least significant difference (LSD) post-hoc pairwise comparisons were made to pinpoint where the between-group differences lay. As shown in
Table 4, the mean comparisons differed significantly between the integrated group and the comparison group for experiential present perfect on the timed EI test ($t(92) = 3.014, p < .05, d = 0.63$); between the integrated group and the sequenced group for situational-*the* on the untimed EI test ($t(80) = 2.678, p < .05, d = 0.60$); and between the integrated group and the comparison group for experiential present perfect on the untimed EI test, ($t(92) = 3.063, p < .05, d = 0.64$). The estimated effect sizes ($d$) for these differences were moderate to large.

**Table 4. Post-Hoc Pairwise Comparisons**

<table>
<thead>
<tr>
<th>Test and target item</th>
<th>$t$</th>
<th>$d$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timed EI test situational-<em>the</em> gain</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated - sequenced</td>
<td>-0.071</td>
<td>-0.16</td>
</tr>
<tr>
<td>Integrated - comparison</td>
<td>-0.450</td>
<td>-0.09</td>
</tr>
<tr>
<td>Sequenced - comparison</td>
<td>0.403</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Timed EI test experiential present perfect gain</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated - sequenced</td>
<td>1.108</td>
<td>0.25</td>
</tr>
<tr>
<td>Integrated - comparison</td>
<td>3.014*</td>
<td>0.63</td>
</tr>
<tr>
<td>Sequenced - comparison</td>
<td>1.992</td>
<td>0.42</td>
</tr>
<tr>
<td><strong>Untimed EI test situational-<em>the</em> gain</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated - sequenced</td>
<td>2.678*</td>
<td>0.60</td>
</tr>
<tr>
<td>Integrated - comparison</td>
<td>1.596</td>
<td>0.33</td>
</tr>
<tr>
<td>Sequenced - comparison</td>
<td>-1.010</td>
<td>-0.21</td>
</tr>
<tr>
<td><strong>Untimed EI test experiential present perfect gain</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated - sequenced</td>
<td>1.359</td>
<td>0.30</td>
</tr>
<tr>
<td>Integrated - comparison</td>
<td>3.063*</td>
<td>0.64</td>
</tr>
<tr>
<td>Sequenced - comparison</td>
<td>1.498</td>
<td>0.32</td>
</tr>
</tbody>
</table>

*Note. * Significant at the $p < .05$ level.
Discussion

The first research hypothesis was that the two procedures would differ in their effects on production accuracy. The results confirmed that there was a difference in the effects of the integrated FFI versus the closely sequenced FFI. The second research hypothesis was also confirmed: The integrated FFI procedure had a greater effect than the closely sequenced FFI procedure on production accuracy of situational-*the*. However, this result was limited to performance under nonpressured conditions only. The results also show that the integrated procedure was associated with gains in production accuracy on experiential present perfect that were significantly greater than those made by a comparison group and these gains were significantly greater under both pressured and nonpressured conditions. By implication, the results provide evidence that the timing of FFI makes a difference. In this case, FFI provided during a communicative task appeared to be more effective than that provided after the task.

These results suggest that an FFI procedure that included a form of corrective feedback integrated into task-based practice helped learners improve monitored production accuracy on situational-*the*, a form that is difficult to teach and learn, but also that this type of FFI procedure was effective in helping learners improve production accuracy under both pressured and nonpressured conditions on experiential present perfect, a form that is easier to teach and learn. The FFI procedure that included corrective feedback in a closely sequenced fashion appeared to help these learners improve performance on experiential present perfect, a form that has a clear cognate in the L1, but the gains were not significantly greater than those made by the other FFI group or the comparison group. The closely sequenced FFI procedure used was also ineffective with situational-*the*, a functionally more complex form.

If the two procedures compared in this study are considered to be different principally in the way in which corrective feedback was provided to the learners, then the results seem to confirm Doughty and Varela’s (1998) finding that corrective recasts integrated into communicative interaction were effective in improving production accuracy. Those provided after communicative practice were not. However, the results cast doubt on the assumption made by Spada and Lightbown (2008) that each type of FFI might be better suited for one kind of feature over another. Instead they strongly suggest that the integrated type was more effective irrespective of whether the language feature in focus was easy or difficult to teach and learn. The results also imply, however, that the effects of integrated FFI on the two features differed depending on
test conditions. Learners who received integrated FFI significantly improved production accuracy on both features under unpressured test conditions, but only significantly improved production accuracy under pressured test conditions on the easier feature, experiential present perfect. The pattern of results therefore challenges Spada and Lightbown’s assumptions and points to the difficulty in affecting the type of knowledge that underlies fluent performance for a difficult feature such as situational-\textit{the}.

Several reasons can be suggested for the results. Firstly, integrated FFI provides particularly unambiguous and cognitively engaging feedback (see Lyster, 2004). Feedback that is integrated into communicative tasks allows learners to understand how their production is inaccurate when they are fully immersed in conveying a meaning with the grammatical feature in focus. The more closely connected the chain of events in which the learner attempts to convey a meaning, is provided with feedback, and has the opportunity to modify output, the more likely it is that the correct form of the feature is noticed and uptake can occur (Doughty, 2001). When this powerful communicative context is removed and learners receive feedback on the feature in the limited context of one short task exchange, there is little or no effect.

Secondly, one can suggest that production accuracy on both target forms improved for the integrated FFI learners under monitored conditions because this type of FFI was successful at reactivating latent explicit knowledge of the two forms, but that its power to affect the acquisition of implicit knowledge was limited. Neither of the targets was novel for these learners. They had already acquired some knowledge of both features, as evidenced by the pretest scores. Thus, another of Spada and Lightbown’s (2008) predictions is borne out: Integrated FFI can help learners improve the accuracy with which they can use a feature they have already studied. However, when deployed for only 5 weeks, integrated corrective recasts could only influence the acquisition of the kind of implicit knowledge that underlies fluent production under pressured conditions for an easy feature such as experiential present perfect. This type of FFI might need longer to affect production accuracy under pressured conditions on a more complex form such as situational-\textit{the}.

Finally, the need for learners to produce modified output was an important factor. In the integrated FFI treatment, learners had multiple opportunities to produce modified output following corrective recasts. Learners receiving the closely sequenced FFI treatment had extremely limited opportunities to produce modified output. It has been suggested that learners can notice a linguistic problem through interactional feedback and that noticing can
push learners to modify their output (Swain & Lapkin, 1995). In modifying their output, learners are forced into a more syntactic processing mode than might occur in comprehension. What occurs between the original utterance and its modified output form is thought to be part of the process of second language learning.

There are difficulties in making generalizations based on the results due to how the two types of FFI were operationalized. This was not a narrowly controlled comparison of integrated and closely sequenced FFI, but rather of two procedures containing integrated and closely sequenced FFI components. The amount of teacher attention devoted to individual learners and the amount of time spent on the procedures differed. Also, learners had more opportunities to receive feedback, notice the feature, and produce modified output in the integrated FFI procedure. It might be possible to control more carefully for these variables in future non-classroom based research. There is also a possibility that sample sizes were too small to detect further statistically significant differences. Furthermore, due to the lack of delayed posttests, it was not possible to see whether the effects lasted.

**Conclusion**

The pattern of results obtained suggests that the ways in which different types of FFI influence production accuracy are more complicated than has previously been suggested. Integrated FFI appears to be suitable for helping learners improve accuracy on both easy and difficult features, but it might be limited in its power to help learners develop the implicit knowledge that underlies fluent performance. Although the procedure incorporating integrated FFI was more effective in this study, the difficulty of using integrated FFI of this kind in many teaching situations is acknowledged. Paying attention and providing feedback to small groups of learners as they engage in communicative tasks require expert classroom management skills and might be impossible in medium-sized and large classes. Even if integrated instruction is appropriate for both easy and complex forms, as has been suggested by this study, the practical difficulties in implementing this type of instruction cannot be overlooked. If, however, it were possible to say with more certainty, for example, which forms definitely benefit from integrated form-focused instruction for different groups of learners, the use of integrated FFI could then be targeted and the effort needed to implement it justified in terms of learning outcomes.
Acknowledgments

I would like to thank the students who participated in this investigation and the teachers who helped me with data collection. I would also like to express my deep appreciation to the three anonymous reviewers whose detailed comments improved the paper immeasurably. Naturally, any remaining problems are my responsibility alone.

Tim Ashwell taught in the UK and Thailand before coming to Japan. His interests are in grammar instruction, collaborative learning, and learner and teacher development.

References


**Appendix**

Translation of Example Task Instruction Sheet

What’s in the kitchen? (Find the differences)

Your partner has a similar picture to you, but there are 14 differences. Without showing your picture to your partner, try to find the differences.

The objects coloured red are definitely in both the pictures, but they might be in different positions. The yellow objects might be in the other picture, they might not. (Your partner doesn’t know that these things are in your picture).

1. For the red objects, you can ask your partner directly because they are in both pictures. E.g., *Where is... in your picture?*

2. For the yellow objects, you will first have to find out if they are in your partner’s picture. E.g., *There is ... in my picture. Do you have ... in your picture?* Once you know that the object exists in the other picture, you can ask about its position.

Circle the differences you find using a pen or pencil.
Task pictures for Students A and B

Note: A color version of this image can be found on our website <http://jalt-publications.org/jj>