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INFORMATION GAP TASKS

Their Multiple Roles and Contributions to Interaction Research Methodology

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University of Pennsylvania

This article describes how information gap tasks can be designed as instruments for data collection and analysis as treatments in research. The development of such tasks is illustrated and data are presented on their role in drawing learners’ attention to second language (L2) forms that are difficult to notice through classroom discussion alone. Because the tasks presented here are closed-ended, precision oriented and require the exchange of uniquely held information, they promote modified interaction among participants and orient their attention to form, function, and meaning. These processes can be observed by the researcher during task implementation. Thus, the tasks reduce researcher dependency on externally applied treatments and analytical instruments not integral to the interaction itself. To illustrate this methodology in use, we report on a study in which six pairs of intermediate-level English L2 learners carried out three types of information gap tasks in their classrooms. They first read passages on a familiar topic, whose sentences contained L2 forms that were low in salience and difficult to master but developmentally appropriate. To complete the tasks, the learners were required to identify, recall, and compare the forms.

In carrying out the design and implementation of the tasks in this article, we have worked most closely with Noriko Shimizu and Marylyn Killorn, and also Jim Aho, Maris Baker-Olson, Mara Bialystok, Lish Boucett, Jasna Hajic, Shannon Nickola, and Jack Sullivan. Among the many graduate students who have provided assistance are Vikas Chateau, Yen Chen, Yichen Chen, Cathy Fillmore, Leslie Harnick, Raquel Kasuya, Ji Hyun Kim, Akiko Matsui, Lisa Mullen, Amy Nicholas, Matthew Samuelsen, Margaret Swapp, Lauren Smith, Ching-Chieh Tseng, Debbie Trice, Melissa Yang, Wei-Chieh Yu, and Mira Yau.

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information gap tasks as research instruments

The article focuses on the design and implementation of information gap tasks, which can be usefully employed both as instrumentation for data collection and analysis and as treatments in instruction. The roles and contributions of these tasks are described and compared, and the issues and challenges associated with their implementation are discussed. A general methodology is presented that enables tasks to be designed and implemented in a variety of contexts, including both authentic classroom activities and extracurricular contexts.

Information gap tasks (IGTs), also known as "information missing" tasks, are a type of instructional intervention in which students are provided with incomplete information and must work together to complete a given task or achieve a shared goal. These tasks are designed to foster collaboration, communication, and critical thinking among students.

IGTs can be used in a variety of educational settings, including language learning, science education, and engineering education. They have been shown to improve student motivation, engagement, and understanding of complex concepts. By requiring students to work together, IGTs encourage the development of social skills and facilitate the exchange of ideas and perspectives.

The article discusses the design and implementation of IGTs, highlighting the importance of carefully considering the goals and outcomes of the task. It emphasizes the need for tasks to be well-defined and for instructors to provide clear guidelines and expectations to ensure that students are able to effectively communicate and collaborate.

In conclusion, information gap tasks are a valuable tool for educators seeking to promote active learning and effective communication among students. By designing and implementing these tasks thoughtfully, educators can create dynamic and engaging learning environments that foster the development of critical thinking and problem-solving skills.
septically to collect data on question development. Repeated over time, the
addition of new signs and symbols within the SACS framework
improves the reliability and validity of the instrument. Moreover, the
SACS framework is versatile, as it can be adapted to various educational
levels and contexts.

The SACS framework is a practical tool for classroom assessment and
improvement. It can be used to identify areas for improvement, set
objectives, and monitor progress. The framework emphasizes the
importance of teacher-student interaction and the role of students in
their own learning. It also highlights the need for active participation
in learning, critical thinking, and problem-solving.

In conclusion, the SACS framework provides a comprehensive and
user-friendly approach to classroom assessment. It is a valuable tool
for educators looking to improve the quality of their teaching and
learning environments.
Information Gap Tasks

review of the film Stand and Deliver (Ebert, 1990) likely sent students the message that their production was accurate, despite their many errors. (These errors are highlighted in italics.)

(3) Teacher: Give me a thumbnail sketch.

Student: One-on-one thing is, his grandmother about his grandmother; Because he feel, if he is he work hard he can go to college and he need now to pay for the ash.

Teacher: Uh-huh, uh-huh.

Teacher: For the meaning of the [unintelligible] the second one is, eh, the teacher give him, gives him enough time and encouraged him—like Patricia said. the teacher give him enough eh.

Teacher: All.

Student: Space to let him to feel he can do that's the most important two points for him and also he pay more attention to it. I mean the teacher pay more attention to Angel’s he’s one of a closest students of him and he, the teacher prevents the fighting between Angel and other students that [unintelligible] teacher if they would ask question.

Teacher: Yeah yeah.

Teacher: He would give ninety-nine percent point.

Teacher: Yeah yeah, that’s right that’s right.

(Pica, 2001, p. 166)

These data reflect teachers’ instructional objectives for content review, reporting, and information exchange, and they comply with the interactional norms of their lessons and discussions. As such, they reveal greater attention to the meaning of students’ contributions than to their form. In the science lessons, students were asked to supply specific items in response to the teacher’s content questions. On the basis of their answers, the teacher elaborated on the students’ output, although the students themselves were not encouraged to do so.

In the film discussions, students were encouraged to elaborate. However, linguistic imperfections were overlooked when they did not interfere with students’ attempts to display their knowledge and convey their ideas. Although there was a good deal of negotiation for meaning, the focus of the discussion was on defining unfamiliar lexical items and clarifying factual information rather than on calling attention to grammatical errors. As the data revealed, articles and pronouns, modal verbs, and bound inflections for tense and aspect were seldom the focus of classroom negotiation. Numerous contexts for their suppliance were generated, as discussion topics required students to refer to multiple individuals, concepts, and conditions, to structure information into arguments, and to connect issues and concepts. However, the absence of any attention to these forms was seldom acknowledged or addressed. When asked to reflect on their practice, the teachers said that they were guided by theories that emphasized meaningful, comprehensible input, language learning through communication (e.g., Shah, 1999), and whole language philosophies (e.g., BoykoffKletzander, 2000). Their responses to the

During discussion—another typical meaning-focused activity—teachers mainly provide samples of L2 input, even when negative feedback that focused on students’ grammatical imperfections might have been a more helpful response. In (3), from a university English L2 course on American culture and film, the teacher’s backchannels and positive feedback during discussion of a
students. They believed, they were consistent with their theoretical perspectives on SLA. The teachers' current intuitions and theoretical grounding were often by several concerns that remained unaddressed in their classroom practice. First, in terms of theory, the roles of output and input-focused feedback in SLA were not taken into account. As argued in the output hypothesis (Swain, 1985; Swain & Lapkin, 1995), meaningful input and communicative experiences need to be accompanied by opportunities for learners to produce and modify their output if they are to become more syntactically accurate. Additionally, learners need questions and feedback on impressions of form. Such signals challenge them to move beyond L2 development that is fluent and meaningful but filled with grammatical inaccuracies. As research has shown, it is not easy for learners to both attend to formal features of language and acquire new information in a content area (e.g., VanPatten, 1990; Wong, 1997). Second, in terms of classroom practice, the challenge of attaining to formal linguistic features and acquiring new content knowledge can be especially acute when the content must be learnt as a school requirement or is for the students' inherent interest. It cannot be assumed, therefore, that learners will somehow pick up new forms—especially if the forms are barely perceptible—as they attend to content meaning. There is a need for activities, materials, and strategies that can be applied simultaneously to meet learners' needs. Information gap tasks, in their fundamental structure and purpose, show great promise in these areas.

With these concerns and needs in mind, a team of teachers and researchers has been working to develop form-focusing information gap tasks that provide data that are both valuable and useful to the study of SLA. Our work has been carried out primarily in meaningful-focused classrooms of university and community programs for adult English language learners who have both academic and conversational needs and goals. However, we have also worked with teachers and researchers in heritage and foreign language classrooms that emphasize meaning and subject matter content in their curricula (Kwon, 2006). An ongoing collaboration for task development has also been initiated with the university directors and teaching staff who developed the Language through Film course excerpted in (3).

The following sections describe the three types of information gap tasks developed to serve two purposes: (a) as research tools that encourage learners to engage in oral interaction and overt their attention towards forms whose relation to function and meaning are low in salience and therefore difficult to acquire and (b) as research tools for the collection and analysis of data on these processes. This is followed by an overview of a study on the attentional and interactional processes that were revealed as learners carried out tasks whose completion depended on low-salience forms. Data from the study were then presented to address the research questions and to show how the tasks served as a research method.

**TASK DESIGN**

**Research Treatment**

**Selection of Poems That Encourage Function and Meaning**. The poems selected for our study were from the collection of poems that encouaged function and meaning. The poems were chosen because they were interesting to the learners, they encouraged learners to talk about the poems, and they encouraged learners to talk about their own experiences.

**Creating Conditions for Modulated Interaction and Attention**. The poems selected for our study were from the collection of poems that encouraged function and meaning. The poems were chosen because they were interesting to the learners, they encouraged learners to talk about the poems, and they encouraged learners to talk about their own experiences.
form, function, and meaning. The relationship between task steps and attentional and interactional processes is displayed in Table 1.

As shown in Table 1, the learners proceed in pairs through five steps for each task. Each task appears on a separate page, and each learner has an individual packet of pages. At the bottom of each page, they are told to “Go to the next page and don’t look back.” In step 1, they read a passage based on any one of the following sources: a previously read text, a prior discussion, or a meaningful experience from an earlier session. In step 2, the learners read a slightly different version of the original passage without revealing their respective versions to each other. The two versions differ in that each sentence is either identical to or the original passage or has a phrase in which the form with low salience from the original passage appears in a different order or with a slightly different encoding. There are no truly ungrammatical phrases used in either version (i.e., formations such as a book or a written). But, rather, there are formations inconsistent with meaning or with the original passage read by the learners.

<table>
<thead>
<tr>
<th>Table 1. Attentional and interactional processes across task steps</th>
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<tbody>
<tr>
<td><strong>Step</strong></td>
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<td>5</td>
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In step 3, the learners compare their passage versions aloud as they choose between the targeted phrases or between the sentences that contain the phrase and then justify their choices. For the spot-the-difference task, they choose between nearly identical sentences. In the jigsaw task, they first reorder the sentences to match the passage and then choose between them. In the grammar communication task, they choose among four nearly identical phrases, one of which has been excerpted from the original passage sentence. Before they can make their choice, they pool the two phrase options each has been given.

In step 4, without looking back at their choices or the passages they have read, the learners work together to write their chosen forms for the low-salience items in a single close version of the original passage. Finally, they turn to step 5, in which they reread the original passage, compare it with their close version, identify any discrepancies, and posit explanations for them. Learners’ participation in all five steps can activate their attentional processes for SLA. However, their participation in steps 3–5 is especially well suited to providing spoken and written data in which these processes can be identified.

Many of these attentional processes were introduced to the field of SLA by Gass (1997), Leow (1997), Robinson (1995), Schmitt, (1990), and Tomlin and Villa (1994) through the construct of noticing, a process that has been sustained, expanded, and further defined through their research and writing to date. Tomlin and Villa proposed a model of attention that included comprehending learner’s access to SLA data. Almerr referred to learners’ readiness to select incoming data for further processing. Their orientation directed them to particular parts of the data, and detection—referred to by others as noticing (e.g., Robinson)—registered the data in short-term memory, thereby making it available for higher levels of processing such as hypothesis formation and testing. This view of noticing was expanded by Robinson (1995), who situated noticing within the process of awareness, through which learners encoded and retrieved L2 data for use during task-related interaction. Leow (1997) also addressed noticing in this way, defining it as the learner’s awareness of new forms as they encode L2 data. Thus, according to these researchers, noticing plays a crucial role in holding on to L2 data in the short term and in making the data available for further processing over the long term. Awareness reflects a deeper understanding of its form, function, and meaning.

These perspectives on noticing and awareness are shared by Gass (1997) and Schmitt (1993, 2001), who also looked to noticing to form a link between the processing of incoming L2 data and its conversion first into input and later into intake. By extension, noticing enables learners to recognize input deviations from L2 norms or, in other words, input that differs from their current interlanguage repertoire. These occurrences, which constitute noticing the gap (see also Schmidt & Frota, 1988), can lead learners to reconstruct their...
current interlanguage system. Gass further proposed apperception as an initial step that precedes noticing. Before learners notice the gap between the L2 data and their knowledge and production capability, they must first perceive and then relate the L2 data to their existing knowledge.

The importance placed on noticing and awareness has guided both the design of the current tasks and the analysis of the interaction data from their implementation. The different ways in which the target language is drawn learners' attention to the forms that encode word, phrase, and sentence function and meaning have led to further distinctions among noticing an individual form, noticing a difference between forms, noticing a discrepancy between a deviation and its L2 counterpart, and noticing the relationship between a form and its function or meaning. Thus, in step 3 of the tasks, the need to locate, compare, and then choose between phrases and sentences sets up conditions for noticing a form in an item itself as well as for noticing differences among the forms that encode function and meaning in these phrases and sentences. These experiences are consistent with the views on noticing described previously. Learners might mention a form during their reading of the task passages, their choosing between passage sentences and phrases; this is a way to alert each other that they have identified the form, which is an early step toward task completion.

Learners' noticing of form has been signaled in various ways—for example, by underlining the target form in a passage (Izumi & Bigelow, 2000), inclusion of the form in a text-reconstruction activity (Izumi, 2002), reference to the target form in a learning journal (McDonough, 2005), or during learning aloud verbal reports (Rosa & O'Neill, 1999). However, because the current tasks require learners to interact, they provide an opportunity to study noticing of form and form differences through the learners' oral verbalizations. The tasks also allow for the possibility that learners will notice the gap in the accuracy and appropriateness of the sentences they choose and those they reject. The ability of language learners to notice this gap has been investigated in the literature on noticing and includes the learners' ability to correctly identify the source of error that prompts the recasts (Mackey, Gass, & Mackey, 2000), their ability to recognize the corrective intent of teacher-generated recasts (Nabel & Swain, 2002), and their accuracy in immediate recall of recasts (Philip, 2003). As a result of the tasks' emphasis on interaction, as the learners deliberate over and justify their choices, they might also modify their interaction to explain and clarify their arguments and use negative feedback such as correction and recasting for what they believe are each other's incorrect choices (although none of the phrases provided to the learners were in fact ill-formed). Such verbal behavior encourages further noticing of the perceptual features of a particular form and builds awareness of its relation to function and meaning, which contributes to the internalization process. This noticing of form, function, or meaning is related to Rosa and O'Neill's awareness at the level of understanding, defined as the learners' articulation of rules that govern a targeted structure during think-aloud verbal reports. Thus, as the learners notice the gap between correct and incorrect form uses and indicate awareness of form in relation to function and meaning, they demonstrate further processing of the form and a readiness for its recall in the next task step.

In step 4, as the learners recall and write their choices in a single close version of the original passage, they are given opportunities for modified interaction and negative feedback because mutual comprehension and agreement are necessary. With respect to attention, this phase of the task encourages learners to recall or retrieve their earlier choices—an experience that researchers have claimed reveals further evidence for the different kinds of noticing. This is reminiscent of Robinson (2003), who determined what was noticed in terms of what the learner was able to verbally report.

Step 5, with its emphasis on comparison and explanation, provides a context for conditions such as those of step 3. However, the conditions are contingent on the degree of consistency between learners' earlier decisions about the phrases and sentences in steps 3 and 4 and the text of the original passage. If they are able to achieve a complete match, there is no need for them to do much more than acknowledge this step and conclude the task. Should discrepancies exist, the need to identify and explain them could activate interactive processing as well as attentional ones, particularly those related to noticing the gap.

The task development process is illustrated here using a review of the film Philadelphia (Ranshaw, 1994), the tasks shown in this section are a subset of those used in the small-scale study of interaction and attention that will subsequently be reported. After viewing and discussion of the film, this brief passage from the longer movie review is given to learners:

"Philadelphia" opens strongly with an effective collection of city scenes. We see Andrew as a typical workaholic attorney, already living with HIV by the outset is simply one element in Andrew's life, but not the defining element. Joe Miller is equally well-established, both at work and at home. Nevertheless, he recognizes the social similarities between being a black man and being a person with AIDS.

This passage contains numerous contexts for low-salience noun and verb forms, their functions, and their meanings. There is seldom a need to enrich such meaningful passages with low-salience forms, as contextually abundant. However, the passage can occasionally be modified to streamline sentence complexity, reduce paragraph length, or eliminate allusions to experiences and concepts unfamiliar to learners and teachers.

Task directions begin with a purpose statement. For the first sample task, spot-the-difference, the statement tells the learners that they will become more accurate and precise in their speaking and writing in areas such as organizing, reporting, reviewing, and editing Information. A table that displays and compares the directions for steps 1-5 is found in the Appendix. As shown, the directions were identical, with slight variations within step 3.
Table 2 displays the slightly different versions of the text given to the learners. The first sentence is the same as in the original passage. Differences begin with sentence 2, as each of the different sets of texts were prepared, each of which manipulated one of the following targets: articles and determiners, pronouns and connectives, or verb and modal morphology. Each pair of targets included three different versions of the text (i.e., the original, and two different ad hoc version) for each task (i.e., lispaw, spot-the-difference, grammar communication). For the spot-the-difference task, for example, pairs 1 and 2 carried out the article and determiner version, whereas pairs 3 and 4 carried out the version for connectors and pairs 5 and 6 completed the version for modal and verbal morphology. During the following session, all groups completed a lispaw task; pairs 1 and 2 carried out the version for verbs, pairs 3 and 4 did the version for articles and determiners, and pairs 5 and 6 completed the version for connectors. As mentioned previously, there are no truly ungrammatical phrases used in either version, only formations that are inconsistent with passage meaning or word usage.

### Table 2: Three versions of a spot-the-difference passage

<table>
<thead>
<tr>
<th>Target group</th>
<th>Version A</th>
<th>Version B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles and determiners</td>
<td>&quot;Philadelphia&quot; opens strongly with an effective collection of city scenes. We see Andrew as a typical工商局 (business) already living with HIV as part of his life. 3. HIV from the outset is simply one element in Andrew’s life, but not the defining element. 4. Joe Miller is equally well-established, both at work and home. 5. Nevertheless, he recognizes the social similarities between being a black man and being a person with AIDS.</td>
<td>&quot;Philadelphia&quot; opens strongly with an effective collection of city scenes. We see Andrew as a typical工商局 (business) already living with HIV as part of his life. 3. HIV from the outset is simply one element in Andrew’s life, but not the defining element. 4. Joe Miller is equally well-established, both at work and home. 5. Nevertheless, he recognizes the social similarities between being a black man and being a person with AIDS.</td>
</tr>
<tr>
<td>Pronouns and connectives</td>
<td>&quot;Philadelphia” opens strongly with an effective collection of city scenes. We see Andrew as a typical工商局 (business) already living with HIV as part of his life. 3. HIV from the outset is simply one element in Andrew’s life, but not the defining element. 4. Joe Miller is equally well-established, both at work and home. 5. Nevertheless, he recognizes the social similarities between being a black man and being a person with AIDS.</td>
<td>&quot;Philadelphia” opens strongly with an effective collection of city scenes. We see Andrew as a typical工商局 (business) already living with HIV as part of his life. 3. HIV from the outset is simply one element in Andrew’s life, but not the defining element. 4. Joe Miller is equally well-established, both at work and home. 5. Nevertheless, he recognizes the social similarities between being a black man and being a person with AIDS.</td>
</tr>
<tr>
<td>Verb and modal morphology</td>
<td>&quot;Philadelphia” opens strongly with an effective collection of city scenes. We see Andrew as a typical工商局 (business) already living with HIV as part of his life. 3. HIV from the outset is simply one element in Andrew’s life, but not the defining element. 4. Joe Miller is equally well-established, both at work and home. 5. Nevertheless, he recognizes the social similarities between being a black man and being a person with AIDS.</td>
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</tr>
</tbody>
</table>

Note: Differences are highlighted in the passage for the sake of illustration. However, these forms were not highlighted in any way made the version given to students. Source: Excerpt based on Mailman, 1984.

### Table 3: Passages for steps 4 and 5 for articles and determiners

<table>
<thead>
<tr>
<th>Step</th>
<th>Version</th>
<th>Passage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Close</td>
<td>&quot;Philadelphia” opens strongly with an effective collection of city scenes. We see Andrew as a typical工商局 (business) already living with HIV as part of his life. 3. HIV from the outset is simply one element in Andrew’s life, but not the defining element. 4. Joe Miller is equally well-established, both at work and at home. 5. Nevertheless, he recognizes the social similarities between being a black man and being a person with AIDS.</td>
</tr>
<tr>
<td>5</td>
<td>Original</td>
<td>between a black man and being a person with AIDS. &quot;Philadelphia” opens strongly with an effective collection of city scenes. We see Andrew as a typical工商局 (business) already living with HIV as part of his life. 3. HIV from the outset is simply one element in Andrew’s life, but not the defining element. 4. Joe Miller is equally well-established, both at work and at home. 5. Nevertheless, he recognizes the social similarities between being a black man and being a person with AIDS.</td>
</tr>
</tbody>
</table>
jigsaw task tells the learners that the task will help them organize information, whereas for the grammar communication task, they are told that they will be helped to report information accurately.

For the jigsaw task, each member of the participant pair is provided with an unordered set of individual sentences; each set contains some sentences taken directly from the original passage and others that have been modified (as illustrated for the spot-the-difference task). Using the sentences provided, learners are asked to carry out the choosing step (step 3) in two parts. First, they are to choose the order of individual sentences as they appeared in the original passage. Then they are to choose the version of each sentence that they recall from the original movie review passage, much as they did for spot-the-difference. These two components of choosing are designed to activate slightly different attentional processes. When choosing sentence order, the learner’s noticing of forms, differences, and gaps is incidental to the choice; in choosing between different sentences, such noticing is implicit but nonetheless more directly related to the choice. Versions A and B of a sample passage are shown in Table 4. Their sentences differ slightly in articles and determiners. In the grammar communication task, learners again follow directions that are nearly identical to those of spot-the-difference. However, in this case they choose among phrases that contain specific forms or features for closer reconstruction of the review passage. Table 5 illustrates Versions A and B of a grammar communication task.

Table 4. Jigsaw passage versions for articles and determiners

<table>
<thead>
<tr>
<th>Version A</th>
<th>Version B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sentence 1: “Philadelphia” opens strongly...</td>
<td>Sentence 1: “Philadelphia” opens strongly...</td>
</tr>
<tr>
<td>Joe Miller is equally well-established, both at work and at home.</td>
<td>Joe Miller is equally well-established, both at work and at home.</td>
</tr>
<tr>
<td>Sentence 2. We see Andrew as a typical...</td>
<td>Sentence 2. We see Andrew as a typical...</td>
</tr>
<tr>
<td>His defining element is the defining element</td>
<td>His defining element is the defining element</td>
</tr>
<tr>
<td>4. Joe Miller is equally well-established, both at work and at home.</td>
<td>Joe Miller is equally well-established, both at work and at home.</td>
</tr>
<tr>
<td>Sentence 3: Nevertheless, he recognizes...</td>
<td>Sentence 3: Nevertheless, he recognizes...</td>
</tr>
<tr>
<td>His social similarities between being a black man and...</td>
<td>His social similarities between being a black man and...</td>
</tr>
</tbody>
</table>

Table 5. Grammar communication task for articles and determiners

<table>
<thead>
<tr>
<th>Version A</th>
<th>Version B</th>
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<tbody>
<tr>
<td>“Philadelphia” opens strongly with an effective collection of city scenes. 2. We see Andrew as...</td>
<td>“Philadelphia” opens strongly with an effective collection of city scenes. 2. We see Andrew as...</td>
</tr>
<tr>
<td>a typical workaholic attorney</td>
<td>one typical workaholic attorney</td>
</tr>
<tr>
<td>the typical workaholic attorney</td>
<td>his typical workaholic attorney</td>
</tr>
<tr>
<td>already living with HIV as part of...</td>
<td>already living with HIV as part of...</td>
</tr>
<tr>
<td>his defining element</td>
<td>his defining element</td>
</tr>
<tr>
<td>its defining element</td>
<td>its defining element</td>
</tr>
<tr>
<td>4. Joe Miller is equally well-established, both at work and at home.</td>
<td>Joe Miller is equally well-established, both at work and at home.</td>
</tr>
<tr>
<td>Nevertheless, he recognizes</td>
<td>Nevertheless, he recognizes</td>
</tr>
<tr>
<td>their social similarities</td>
<td>these social similarities</td>
</tr>
<tr>
<td>between being a black man and being a person with AIDS.</td>
<td>the social similarities between being a black man and being a person with AIDS.</td>
</tr>
</tbody>
</table>

Developing Tools for Data Collection

In designing tasks as research instruments on learner interaction in SLA, care must be given to ensure that a large amount of data can be collected and that the data will be a valid representation of learners’ interactions and their attention to the relationships of form, function, and meaning that need to be further developed. The materials as well as their instructions and maintenance need to satisfy researchers’ goals for both immediate data collection and eventual application to SLA theory. If these materials are to be used longitudinally in a classroom environment, task instructions need to be straightforward, to allow students to carry them out without continuous involvement of their teacher. Teacher and researcher involvement in design, piloting, and revision of the tasks and the writing of instructions is essential to the success of this effort. Consistency across task instructions is of paramount importance if the data are to be pooled for later analysis.

Access to the different task types ensures that learners can work on multiple forms, their functions, and their meanings, and it provides researchers with ample data for analysis. In a given week, learners might engage in a...
meaning-focused activity, such as a discussion, during their first session and then spend the following days reading a text passage based on the discussion and completing its companion spot-the-difference task. In a subsequent session, learners might read and discuss a different passage and, finally, complete its companion picture or grammar communication task.

Learners often tend to work independently, and it is important to gather data on their oral interactions and displays of interaction even during those times. The tasks do this in several ways. First, learners are not allowed to show each other their passage versions, so oral interaction is ensured as they make their choices and justify their answers. Second, they are asked to share the same page to complete the cloze step of the task, which again ensures against parallel private work. Finally, they are asked to write both their responses to the cloze passage and their identification of differences between their choices and those of the original passage. Although this precaution limits the speaking requirement, the written responses provide a record for further analysis.

**Instrument for Data Analysis**

If a task is designed to activate attention to form, function, and meaning and to require spoken and written interaction throughout its implementation, it can yield a rich source of data for analysis of the relationship of attentional and interactional processes as they bear on SLA. Such data also eliminate or greatly reduce the need to rely on follow-up interviews or introspective data for insight into attentional processes.

**Attentional Processes.** Operationalization of attentional processes is necessary in accounting for the data. Noticing, for example, can be operationalized in several ways: (a) Simple noticing of form is characterized by learners' segmentation of a targeted form in isolation or in the word or phrase in which it appears in a passage; (b) to be categorized as noticing the difference, learners must segment, or extract, both their own and each other's form; (c) for noticing the gap, they must offer a positive or negative value judgment about their own or each other's form, phrase, or sentence, or between these and their counterparts in the original passage—indicating, for example, that one item is wrong or another is better (this evaluation feature is necessary because, as learners who produce interlanguage talk, they are not likely to provide a fully target-like version of the form, phrase, or sentence that they have identified as the more accurate one); (d) noticing form, function, and meaning relationships, characteristic of learners' references to these relationships either in themselves or with respect to a meaning-focused experience, such as an earlier discussion; and (e) recall is characterized in terms of oral or written responses to the cloze passage as well as utterances with metalinguage that refer to memory processes, such as 'I remember that.' To be coded as recall, the utterance must be made when the passages in which the forms appeared are not accessible. Thus, in our operationalization of recall, this attentional process is most likely to occur when learners complete the cloze task (step 4). Participants might recall the form, function, or meaning of a targeted item, or any combination of these aspects. Such distinctions are made when analyzing the data.

**Interactional Processes.** It is also important to operationally define those interactional processes that relate to SLA, which include modified interaction, which involves negotiation and responses of adjusted output. Among them would be simple signals as well as signal and response utterances that syntactically or semantically adjust previous utterances that contained the forms on which the learners needed to focus their attention. Also important are explicit correction and receptacles. Read errors can occur as a result of one pair member simply reading an alternate version of a sentence in a passage, which happened, fortuitously, to follow the other member's erroneous one. Par-generated recalls can occur during any of the task steps, as one pair member records the other's nontarget use of a form with low salience while maintaining utterance meaning. As illustrated in Table 1, interactional processes that relate to targeted forms can occur throughout task implementation. Attentional processes can be activated throughout the tasks, although noticing is more likely to occur in step 3, as learners choose between answers. Similarly, awareness of form, function, and meaning connections is more likely to arise as learners justify their choices and their counterparts in the original passage—indicating, for example, that one item is wrong or another is better (this evaluation feature is necessary because, as learners who produce interlanguage talk, they are not likely to provide a fully target-like version of the form, phrase, or sentence that they have identified as the more accurate one); (d) noticing form, function, and meaning relationships, characteristic of learners' references to these relationships either in themselves or with respect to a meaning-focused experience, such as an earlier discussion; and (e) recall is characterized in terms of oral or written responses to the cloze passage as well as utterances with metalinguage that refer to memory processes, such as 'I remember that.' To be coded as recall, the utterance must be made when the passages in which the forms appeared are not accessible. Thus, in our operationalization of recall, this attentional process is most likely to occur when learners complete the cloze task (step 4). Participants might recall the form, function, or meaning of a targeted item, or any combination of these aspects. Such distinctions are made when analyzing the data.

**TASK IMPLEMENTATION: A STUDY OF INTERACTION AND ATTENTION TO FORM IN A MEANING-FOCUSED CLASSROOM**

This section summarizes a study undertaken in light of concerns about learners' need to attend to forms with low salience in their meaning-focused classrooms. It aims to provide a description of the attentional and interactional processes during tasks based on classrooms where attention to forms, function, and meaning in SLA and to the tasks as research treatments and instruments for data collection and analysis.

There was one overarching question: What does the way that learners interact during tasks whose completion depends on forms with low salience reveal about their attention to those forms? This was followed by three research ques－
tions. (a) How does learners' task implementation assist their attention to these forms? Which attentional processes are assisted? (b) How does task implementation promote modified interaction for SLA? Which interactional processes are promoted? (c) Is there a relationship between these attentional and interactional features? Also of interest was whether there were differences among the tasks in the extent to which their implementation drew attention to the forms, their functions, and their meanings.

Method

Participants. The participants were 12 adult intermediate-level learners of English, with first language (L1) backgrounds of Korean, Mandarin, and Taiwanese, enrolled in a short-term intensive course—English through Film—in which information gap tasks were a crucial component. These 10 female and 2 male participants had at least 6 years of prior formal instruction in English and an average residence of 4 years in the United States.

To make sure that each participant had not yet mastered the forms that had been observed to give them trouble during classroom interaction, they were engaged in semistructured interviews and e-mail exchanges. The forms that were identified as problematic (i.e., articles, determiners, pronouns, connectors, modal verbs, and verb inflections) were consistent with those targeted by the tasks. The learners' omissions, substitutions, and inconsistencies in the use of the forms during interviews and e-mails established that they had some degree of control over the forms because they emerged in the learners' language with varying degrees of accuracy. Their intermediate proficiency together with their history of L2 instruction and exposure also served as preliminary indicators of their developmental readiness to advance in the acquisition of these forms. Given that the present study focused on questions of attention and interaction for SLA, the participants appeared to be suitable. Follow-up studies regarding these learners' development and their acquisition of target-like features would require much more documentation of their readiness and motivation.

Procedure. The study took place over 5 days. Data were collected during the task-based portion (the last 3 days). On days 1 and 2, participants and their teacher watched Philadelphia, engaged in comprehension exercises, and discussed the characters, story line, and theme. Medical and legal terminology was defined and explained as an aid to film comprehension. At no point during the study or course were participants given instruction on the low-salience forms targeted by the tasks. Prior to the first information gap task, the L2 learners were randomly organized into pairs, which remained intact for the study. Following initial instructions by the teacher, the pairs carried out each of the three information gap tasks: grammar communication on day 3, spot-the-difference on day 4, and jigsaw on day 5. To avoid disrupting the flow of interaction during the tasks, the teacher intervened only when learners solicited clarification or support. All interaction was tape-recorded and later transcribed. The pairs also wrote down their answers to the close step of each task. These answers provided data about whether the learners were able to recall the items they had read and chosen during steps 1-3.

Tasks. Each of the three tasks was created using passages taken from three different reviews (Brenner, n.d.; J. Ellis, n.d.; Hicks, 1994) of the movie Philadelphia (Demme, 1993). All review passages already contained numerous examples of the targeted low-salience forms. As a result, they needed only minor modification, mainly to ensure uniformity of length (13 sentences). Three versions of each passage were created to accommodate the three different form categories: one for articles and determiners, another for pronouns and connectors, and another for verb features. A second goal was to gather a large amount of data on the different forms in the passages.

Data were gathered from each of the three versions of each task type (grammatical communication, spot-the-difference, and jigsaw). This range allowed the researchers to study task implementation and classroom compatibility and to track attentional and interactional processes associated with low-salience features across the tasks. Thus, for example, on day 3, all six pairs read the same passage for the communicative task, but pairs 1 and 2 completed the version whose passages were modified for articles and determiners, pairs 3 and 4 completed the version modified for pronouns and connectors, and pairs 5 and 6 completed the version modified for verb endings and modals. The implementation of tasks is shown in Table 6.

Results and Discussion

Jigsaw, spot-the-difference, and grammar communication task findings for all pairs of participants are shown in Tables 1 and 8. The attentional processes (Table 7) and the interactional processes (Table 8) are broken down by specific task, task type, and step (3-5). For steps 3-5, these tables present token counts and percentages of the sentence or phrase decisions the six pairs needed to make in choosing, recalling, and comparing the forms of the 12 sentences in their task passages. Therefore, the base number used for determining the percentage scores for each step was 72 for the jigsaw and grammar communication sentences. Because only five of the pairs recorded their spot-the-difference implementation, their number of decisions was 60. The percentage distribution of attentional and interactional processes for each step are displayed in Figures 1-3. The data were coded by the researchers for these attentional and interactional features. Inter-rater reliability was .95 for atten-
Table 6. Task implementation matrix

<table>
<thead>
<tr>
<th>Days 1-2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grammar communication task</td>
<td>Spot-the-difference task</td>
<td>Jigsaw task</td>
</tr>
<tr>
<td></td>
<td>Pairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Articles, Detectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Verbal morphologies, Modals</td>
<td>Pronouns, Connectors</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Verbal morphologies, Modals</td>
<td>Pronouns, Connectors</td>
<td>Web morphology, Modals</td>
</tr>
<tr>
<td></td>
<td>Pronouns, Connectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Verbal morphologies, Modals</td>
<td>Pronouns, Connectors</td>
<td>Web morphology, Modals</td>
</tr>
<tr>
<td></td>
<td>Pronouns, Connectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Verbal morphologies, Modals</td>
<td>Pronouns, Connectors</td>
<td>Articles, Detectors</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*A printing error on the articles and determiners version of the spot-the-difference task resulted in a legitimate substitution.

Table 7. Frequencies and distribution of attentional processes used in sentence and phrase decisions across task steps

<table>
<thead>
<tr>
<th>Attentional processes</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Notice form</td>
<td>19</td>
<td>26</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Grammar communication</td>
<td>64</td>
<td>89</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Notice differences</td>
<td>42</td>
<td>58</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Jigsaw</td>
<td>56</td>
<td>68</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Grammar communication</td>
<td>11</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Notice gap</td>
<td>38</td>
<td>53</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Jigsaw</td>
<td>50</td>
<td>63</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Grammar communication</td>
<td>24</td>
<td>33</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total noticing</td>
<td>69</td>
<td>92</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>Jigsaw</td>
<td>123</td>
<td>164</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Grammar communication</td>
<td>99</td>
<td>44</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Recall</td>
<td>12</td>
<td>16</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Jigsaw</td>
<td>10</td>
<td>17</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Grammar communication</td>
<td>23</td>
<td>32</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

*Total refers to the total attentional process used in sentence and phrase decisions.

Figure 1. Distributions of attentional processes in pairwise decisions across task steps in Jigsaw (J), spot-the-difference (S), and grammar communication (G) tasks.
was found that the pears were revealed to be different by the soapstone task at a 6% CI. 40% of the participants in the soapstone task were able to recall it while completing the task, the pears were able to recall it while completing the task. The results showed that the pears were able to recall it while completing the task, the pears were able to recall it while completing the task.
hunt down subtle differences between the two versions of each sentence, as they were asked to do in the jigsaw task. A further reason for this difference in interactive processes is that the jigsaw task gave the pairs two ways to choose. They were asked to choose the order of their sentences and, after that, to choose the sentence that they thought was better. However, as the pairs chose their order, they would often stop and choose between the two versions, remarking each other that this step was to be taken after the ordering but, nonetheless, pausing to choose between the versions. An example of this sort of modified interaction is shown in (4), in which a L1 Chinese learner (A) and a L1 Korean learner (B) work on the task:

(4) A: Uh. The sentence four. Charles Wheeler, the firm's senior partner assigns Andrew a case that involves their most important client.
B: Yeah. I think that. But my sentence is, Charles Wheeler, the firm's senior part- ner assigns Andrew a case that must involve. I think that should be omitted. Must: Not must involve.
A: Must? [Syntactically modified negotiation signal]
B: Yeah, must. My sentence is must involve, but I don't think so. [Notice the gap/ Syntactically modified response]
A: Yeah.
B: Just involve. [Notice form/Syntactically modified negotiation signal]
A: Yeah.

During the spot-the-difference task, the pairs engaged in modified inter- action for 25% of their sentences during their choose step, but only 4% dur- ing the recall step. On the other hand, it was during the choosing step that they recasted 28 of their sentence choices as they read their pas- sage versions to each other. These read recasts were 47% of their choices. Yet another seven of their sentence choices were produced during pair- generated responses. There was minimal recasting by the pairs on the two other tasks. The emphasis on recasting in spot-the-difference might have been task-specific. The layout of the sentences during step 3 of this task was a paragraph, whereas the sentences were listed in a scrambled order for the jigsaw task, and they were interrupted by blank lines in the grammar communication task. The paragraph format might have lent itself more to reading as a way for the pairs to keep track of their choices or by association with the passage reading they had just completed for steps 1 and 2.

Correction, although low in frequency of occurrence, was provided by all six pairs during only two steps of the task, and mainly during the recall step. The low amount of correction might have been related to an absence of truly ungrammatical phrases in either of their versions. As mentioned previously, formations such as a booklet or event were not used to encode erroneous phrases, but, rather, forms were employed that were inconsistent with pas- sage meaning or with the original passage read by the learners.
The third research question asked about attentional and interactional relationships. As noted throughout the previous findings, most of the attentional and interactional activity occurred during the choose step. Although noticing processes, modified interaction, and recasting differed in their distribution, overall, for this step, there was a strong relationship between noticing forms with low-salience and interactional processes claimed to assist SLA. The correlation was $r = .62$ using Pearson's $r$. Despite the overall correlation across the three tasks, relationships between noticing and interaction were more prominent during the jigsaw and spot-the-difference tasks. Thus, of the 72 sentence choices that were pairs made for jigsaw, 81% of those that were simple noticing or noticing of differences or gaps were encoded in negotiation signals, modified responses, corrections, or recasts. These interactional features constituted 82% of the 60 decisions made during step 3 for the spot-the-difference task.

However, these noticing and interactional processes were revealed together in only 45% of the 72 decisions for the grammar communication task. This might have been another reflection of task format, as the straightforward, familiar, fill-in-the-blank layout of the task drew the pairs to notice the phrases placed below each blank. This might also have reduced their need to modify their interaction toward mutual understanding. Additionally, task sequence might have contributed to this pattern. Grammar communication was the first of the three tasks in which the pairs engaged. It is possible that they might not have anticipated the precision that the subsequent close step required.

These noticing through interaction connections appeared to assist the pairs' accurate recall of phrases from step 3. Thus, 74% of the phrases recalled for the jigsaw task and 89% of the phrases for the spot-the-difference task had been both noticed and encoded in an interactive process during the preceding choose step. On the other hand, only 35% of the recalled grammar communication choices had been noticed and encoded in this way. Of particular note was the finding that these choices made within the context of recasts— which predominated in the spot-the-difference task—were recalled more accurately than those that were accompanied by modified interaction— the dominant mode of the jigsaw task. These interactional processes were connected with high recall percentage scores. Thus, scores of 89% on the jigsaw and 97% on the spot-the-difference tasks suggest that the pairs applied interaction moves judiciously as needed during their task implementation.

The pairs' success with recall for the grammar communication task appeared to rely on simple noticing of forms in phrases, attesting again to the relative simplicity of the task layout and presentation of phrase options. The other two tasks activated a greater frequency and variety of interactional and attentional processes. Not only did the pairs achieve higher recall scores, but they also had more opportunities to notice crucial perceptual differences in the low-salience forms with which they clearly needed help.

**CONCLUDING COMMENTS**

The success of information gap tasks as classroom activities and research instruments has been well established by their long-standing presence in professional references, classroom textbooks, and SLA research. The findings of this small-scale, descriptive study suggest additional roles for these tasks.

As the study revealed, the tasks can offer a classroom-based methodology for the study of attention and interaction in SLA. As instructional treatments that can help learners acquire and use low-salience L2 forms that have shown little development over time, they allow for the study of long-term SLA as well. Observations of discussions and lessons— the two formats that typify meaning-focused classrooms— revealed that students' omissions and misapplications of such forms were seldom acknowledged by their teachers, nor were they noted by the students (Pica, 2002). Notably missing were activities that would draw attention to these forms but preserve the overall focus of the content curriculum. Because information gap tasks had already been shown to promote attention to message form in the interest of achieving precision in message exchange and goal attainment, we believed they would be good candidates for form focus. Our resultant jigsaw, spot-the-difference, and grammar communication tasks, although somewhat different in their goals, nevertheless shared attention-promoting features that made them useful. They could be adjusted to target the forms that the students needed, activate interaction and correction, and provide authenticity and variety in the classroom.

These connections across task, attention, and interaction in relation to L2 form, function, and meaning are represented in the following examples, in which a pair of learners engaged in modified interaction to choose, recall, and compare the forms that encoded the meaning of sentences in their texts. At the same time, the pairs revealed processes of noticing the form itself and in comparison with its very close counterpart. Discussion of their choices revealed awareness of the functions of the forms and the meanings they encoded.

When asked to locate differences and choose between sentences, the learners extracted and referred to phrases in ways that suggested noticing and awareness of form, function, and meaning. These processes are revealed in (5) and (6), which show modified interaction produced during step 3 of a spot-the-difference task. The passage being discussed is given as Table 9.

(5) A: Yeah, so next one. Certain that he has been fired because of his illness or his gauness or both. Hanks decides to go after the firm with a discrimination suit, even if his body is starting to give out.
B: Even...
A: As (Noticing the difference)
B: Ok. Certain that he has been fired because of his illness or his gauness or both. Hanks decides to go after the firm with a discrimination suit, even though his body starting to give out.
Table 9. Spot-the-difference task passages

<table>
<thead>
<tr>
<th>Step 3: Choose between sentences/among phrases in Versions A and B. Justify choices.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Version A</strong></td>
</tr>
<tr>
<td>8. Certain that he has been fired because of his illness, his gayness—or both—Hanks decides to go after the firm with a discrimination suit <strong>while his body is starting to give out.</strong></td>
</tr>
</tbody>
</table>

A: So...
B: So... even though, right? [Negotiation signal]
A: Yeah.

| (6) | A: Is the result. The next one, even though, even as [Noticing the difference]. Uh, I don't know how to use even as I seldom use it.
B: Minih... I never...
A: Perhaps even as cannot, uh, connect, uh, sentence... [Awareness of form and function relationship]
B: Yeah, it's also
A: I mean, I don't know. [Negotiation signal]
B: When you think about the context of the first one has what he did, you know; but the second part is, um... the second part prevent the, the first... sentence, I mean just the first part, if, if this part is starting to give, uh, he may not, uh, go after the firm, right? [Modified interaction]
A: Yeah.

Attentional processes of recall were also exhibited, almost exclusively during the close portion of the tasks. In (7), the pair worked together to remember the item they had chosen earlier (the choosing of the form was documented in [5] and [6]). In (8), the pair compared what was recalled with what was read in the original review passage.

| (7) | A: As a result... Hanks is summarily dismissed. Certain that he has been fired because of his illness, or his gayness, or both, Hanks decides to go after the firm with a discrimination suit... even though [Recall of form during completion of close].
B: Even though his body is starting to give out.

| (8) | A: It's difference is even though. This means, mm... even as means mm...
B: What is [Negotiation signal]
A: I think this means, um, um, we can this with uh, Hanks decides to do this.
B: Minihum
A: Even as the time... when his body is sta-starting to give out, as in even as, this is, this means even at this time. [Awareness of form and meaning function]

Information Gap Tasks

Beyond these more obvious contributions, the tasks appear to have several unanticipated uses. They can help researchers identify attentional processes directly as they observe and record learners' talk and action. Data from the learners' verbalized decision-making offer an enhancement to retrospective or introspective interviews and protocols that are often used to collect data on the interface of cognition and interaction in L2 learning.

The written close component of step 4, in which learners are asked to recall as well as write phrases from the passage sentences that they have compared and chosen, provides a record of their attentional processes. This step documents what the learners recalled if, indeed, they failed to verbalize the phrase that they wrote on the close passage or to discuss their decisions and judgments about form, function, and meaning.

Although the tasks and their procedures do not prohibit the kinds of introspective protocol analysis or exit interview appropriate for a monitored, controlled situation, the more relaxed format of texts, tapes, and close passages offers a bit of the classroom authenticity needed to sustain teacher and learner participation in long-term studies. Such studies are sorely lacking, but very much needed if the field of SLA is to successfully address questions about the acquisition of forms that delay the learner's mastery of the short term.

The tasks are consistent with daily classroom activities and supportive of the subject content curriculum, they bring one additional methodological bonus. They are especially helpful for research on classroom SLA and for research on SLA that requires the long-term, group, or cohort data that classrooms are able to provide. The successful implementation and incorporation of the present tasks in the classrooms for which they were designed is one of the most promising outcomes of our project.

NOTES

1. Although all six pairs completed all three tasks, a tape recorder malfunction during the spot-the-difference task and failed to record one pair's interaction. This accounts for the difference in the amount of data generated for the spot-the-difference task versus the other two tasks.

2. Percentages are rounded to the nearest hundredth.

REFERENCES

Appendix: Connections: Task Directions Across Task Stages

Steps

Purpose statement

Translate the following sentence from a review of a film into your language:

"The film is a slow, methodical exploration of a character's inner world, with a focus on the relationship between the character and the natural environment."

Materials

Instructions

1. Original passage

"The film is a slow, methodical exploration of a character's inner world, with a focus on the relationship between the character and the natural environment."

2. Instructions

"Translate the following sentence from a review of a film into your language."

3. Materials

"The film is a slow, methodical exploration of a character's inner world, with a focus on the relationship between the character and the natural environment."

4. Step 1

"The film is a slow, methodical exploration of a character's inner world, with a focus on the relationship between the character and the natural environment."

5. Purpose statement

"The film is a slow, methodical exploration of a character's inner world, with a focus on the relationship between the character and the natural environment."

6. Customer comprehension task

"The film is a slow, methodical exploration of a character's inner world, with a focus on the relationship between the character and the natural environment."

7. Original passage

"The film is a slow, methodical exploration of a character's inner world, with a focus on the relationship between the character and the natural environment."

8. Instructions

"Translate the following sentence from a review of a film into your language."

9. Materials

"The film is a slow, methodical exploration of a character's inner world, with a focus on the relationship between the character and the natural environment."

10. Step 1
This article reviews previous studies of the effects of implicit and explicit corrective feedback on SLA, pointing out a number of methodological problems. It then reports on a new study of the effects of these two types of corrective feedback on the acquisition of past tense -ed in an experimental design (two experimental groups and a control group). Low- to intermediate learners of second language English completed two communicative tasks during which they received either recasts (implicit feedback) or metalinguistic explanation (explicit feedback) in response to any utterance that contained an error in the target structure. Acquisition was measured by means of an oral imitation test (designed to measure implicit knowledge) and both an untimed grammaticality judgment test and a metalinguistic knowledge test (both designed to measure explicit knowledge). The tests were administered prior to the instruction, 1 day after the instruction, and again 2 weeks later. Statistically significant increases in the learners' performance on the posttests showed a clear advantage for explicit feedback over implicit feedback for both the delayed imitation and grammaticality judgment posttests. Thus, the results indicate that metalinguistic explanation benefited implicit as well as explicit knowledge and point to the importance of including measures of both types of knowledge in experimental studies.

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