Textual Input Enhancement: Applications in Teaching

E. Catherine Kim, Pacific University

How to incorporate grammatical elements effectively into instruction has long been a topic of discussion in the field of second language (L2) teaching. One option that has recently received much attention from researchers is textual input enhancement, a technique which uses visual input enhancement methods such as underlining, boldfacing, italicizing, capitalizing, color coding, or using different fonts to highlight target features.

Textual input enhancement has been suggested by many researchers as an optimal intervention to promote learning of grammatical elements with minimal interruption to meaning- and communication-oriented language instruction. This method engages learners in the dual task of form processing and meaning comprehension by attracting learners' attention to a linguistic feature through enhanced texts. When properly and consistently used in conjunction with subsequent form- and meaning-focused activities, this intervention technique can help ESL learners' awareness and processing of the targeted grammatical elements with little detriment to meaning comprehension.

This paper discusses how this pedagogical framework may be used effectively and systematically to teach grammar with reading. Also addressed is how this method can be more efficiently integrated into meaning-based reading instruction compared to explicit, form-focused grammar teaching techniques. First, previous research on focus on form and textual enhance-ment will be reviewed in order to identify the theoretical rationale behind using this intervention technique. Then, how this intervention technique can be incorporated into actual classroom ESL teaching will be discussed.

Grammar in Reading Instruction

Many second-language acquisition researchers have suggested that textual enhancement of a grammatical element in an L2 text is an effective way to promote form learning in primarily meaning- and comprehension-based language instruction (see Combs, 2004 and Lee, 2007 for a comprehensive review of this research). It is a way of integrating grammar instruction without compromising the aims of meaning-oriented language instruction. Although this technique draws learners' attention and raises their consciousness of a targeted grammar form through enhanced texts, the learners' primary and major learning task is to read and comprehend their text. This technique is therefore well suited to meaning- and comprehension-based reading lessons.

Another merit of this technique is that grammar instruction can be integrated without interrupting the usual sequence of reading instruction. Grammatical elements are fully embedded in a reading text, and they are only highlighted for the purpose of drawing learners' attention to them. Many form-focused gram-

mar techniques teach grammatical features in isolation without much context. Here, the target grammatical feature is seen in context, and the primary focus of instruction is on meaning comprehension. The learner's attention is briefly drawn to the targeted grammatical form, but it remains focused on comprehending the text.

How do second-language learners benefit from such texts when they are engaged in reading in the second language? When reading enhanced texts, second-language learners are inevitably engaged in the dual task of processing both form and meaning simultaneously. This is different from how native speakers read the same texts. Native speakers' knowledge of language forms allows them to process information in an enhanced text without using too many attentional resources, as their focus is given more to processing meaning and comprehending the text (Skehan & Foster, 2001).

How then do second language learners cope with these dual task situations in which they must attend to both form and meaning? From a pedagogical perspective, it is particularly interesting to look into whether or not there are any significant detrimental effects of textual enhancement on processing meaning and comprehension of a text. The findings of some major research studies are reviewed in the next section.

Support for Textual Input Enhancement

Many second language researchers agree that learners must attend to grammatical features properly in order to process and use the second language successfully (Long, 1991; Robinson, 2003; Rosa & O'Neill, 1999; Schmidt, 2001;

Sharwood Smith, 1993; Tomlin & Villa, 1994; VanPatten, 1990, 1996, 2002). "Attention" and "noticing" of linguistic features by second-language learners are prerequisites for form learning to take place, and learners may fail to detect a number of linguistic features present in their reading texts unless these features are made perceptually salient through intervention techniques (VanPatten & Cadierno, 1993).

From a pedagogical perspective, many second language teachers would also acknowledge that there are certain "language forms" that learners do not seem to learn properly even with a vast amount of evidence (i.e., correct forms) provided to them. Norris and Ortega (2000) showed that form learning does not always occur naturally without instruction. They also argued that it is important that attention be properly paid to grammatical and formal features of the language such as verb and tense inflection, pronouns, and transition words in order for learners to successfully comprehend meaning. Sharwood Smith (1993) claimed in his study that *input salience* is a critical factor for learners to notice the target input and to subsequently detect errors. That is, the greater saliency a language form has, the greater chances are for it to be noticed and attended to by the learner.

the greater saliency a language form has, the greater chances are for it to be noticed and attended to by the learner.

Textual enhancement has been suggested as a way to facilitate this process of "attention" and "noticing" by making input more salient through enhanced target grammatical features. Highlighted features create perceptual salience in the learner's memory, which in turn leads them to be noticed and attended to by the learner. These noticed features eventually become intake to be internalized and used by the learner. This process is illustrated in Figure 1.

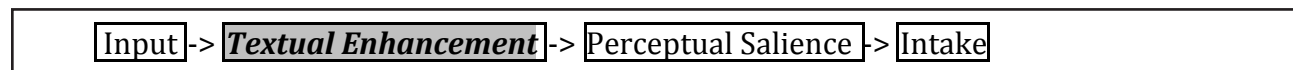Input -> *Textual Enhancement* -> Perceptual Salience -> Intake

Figure 1. The process of input becoming intake through the intervention of textual enhancement.

It is inevitable that learners' attention is divided in order to process both form and meaning simultaneously, but it is debatable whether this divided attention actually interferes with comprehension of meaning. Learners' capacity to attend to form and their ability to attend to meaning will unavoidably be in competition to a certain degree (Wong, 2003).

However, many of the studies that examined possible debilitating effects of textual enhancement have shown that learners' comprehension might not be significantly compromised while reading enhanced texts (Alanen, 1995; Doughty, 1991; Doughty & Williams, 1998; Sharwood Smith, 1981; White, 1998). Using only this technique might not be sufficient for form learning to take place, and it should be accompanied by supplementary learning activities to ensure enough exposure to the target grammatical features (White, 1998). Still, it holds promise as an effective way of getting the learner's attention for form processing.

It also appears that excessive use of enhancement may be ineffective. White (1998) and Doughty (2001) argued that excessive intervention might lead learners away from comprehending meaning. The proper amount of intervention is crucial to using this intervention technique. Although the studies did not precisely determine how much intervention is "excessive," it is no doubt more cognitively demanding to simultaneously process both forms and meaning when there are many enhanced forms.

> *excessive intervention might lead learners away from comprehending meaning*

Another point made in the research is that the timing of textual enhancement is important. VanPatten (1990) cautioned that learners who are in the beginning stages of second-language learning might have a hard time attending to both form and meaning simultaneously. They could thus end up with a poorer understanding of meaning, especially if enhanced linguistic features are not crucial to the meaning being conveyed in a text.

Finally, it has been suggested that this technique should be selectively used to teach the linguistic features that are particularly difficult and seem not to be naturally acquired (Lightbown, 1998). It is not necessary or even possible to teach all linguistic features in classroom language instruction, as much of form learning takes place without focused instruction.

Pedagogical Implications

Several pedagogical implications should be considered in using textual input enhancement for actual classroom teaching. The first consideration is to avoid dividing learner attention excessively. The enhancement method for one language form should be consistent throughout the text. For example, if *italicizing* is chosen as an enhancement method for past tense verbs, it should be used consistently.

In addition, only one language form should be focused on at a time. For example, if the past tense is the language form of interest in instruction, enhance only this feature. It can be detrimental to processing meaning if conceptual demands for form processing increase.

Three additional considerations should be kept in mind. Teachers should select a language form that is appropriate for the learners' proficiency level. If learners are not yet ready to learn the target language forms, enhanced input will not necessarily lead to learning even if they notice and attend to the input.

Secondly, the enhanced input should be presented to learners more than once after a language form is introduced and taught using this technique. We need to ensure that learners process the language form with enough exposure to the input. Finally, teachers should not rely

only on textual enhancement in order to teach linguistic features. Textual enhancement is unlikely to lead to successful learning of the target features unless it is used in combination with other learning activities to reinforce the learning of the target features.

Implementing Textual Input Enhancement

This section provides two examples of how textual input enhancement can be integrated into meaning-focused classroom reading instruction. It can be incorporated in a reading lesson without interrupting the usual sequence of reading instruction that begins with a pre-reading activity and ends with a post-reading activity. As the purpose of using textual input enhancement is to draw the learner's attention briefly to the target grammatical feature, the learner's primary task is always meaning comprehension.

The first example focuses on teaching past tense verbs, and the second example focuses on teaching passive voice. These features were chosen because they are crucial to comprehending the meaning conveyed in the texts but may not be easily noticed or attended to without focused intervention.

Example 1: Teaching Past Tense Verbs Using Textual Input Enhancement

This reading lesson is based on a storybook about a boy who liked to read a lot and wanted to write a story of his own. This storybook is from a graded reader series for ESL learners and primarily developed for elementary ESL reading instruction. However, the learning activities shown below can be adapted for any instructional level. In this lesson, textual input enhancement is integrated as a way to focus on past tense verb forms in a primarily meaning- and comprehension-focused reading lesson. After a pre-reading activity and vocabulary overview, learners are first presented with the sentences with enhanced grammatical features as shown below:

a1. Authors are people who *write* books.

a2. Ann Davis *wrote* many books.

b1. Nathan *likes* to read books.

b2. Nathan *liked* to write his story.

The above sentences are taken from the storybook itself and thus lead learners to engage in comprehending the meaning as well as noticing the enhanced grammatical features.

After students become familiar with the text, the teacher can copy a portion of it with highlighted, enhanced past tense verbs. See the excerpt from the text below:

> Nathan *liked* to read books. He *read* many kinds of books. He *read* books by different authors. Authors are people who write books. His favorite author of all *was* Ann Davis. Nathan *loved* the interesting stories she *wrote* (Hunt, 2005: 3; bold added).

After showing the enhanced text and having students read the text again a few times, students go on to more traditional activities. For example, they can complete sentence frames using the past tense verbs such as below:

a. Nathan _____ to read books. (like)

b. Nathan _____ the interesting stories. (love)

c. Ann Davis _____ Nathan's favorite author of all. (is)

d. Ann Davis _____ many books. (write)

The above sentences come from the story that students read, so this task focuses on both form processing and meaning comprehension. In order to strengthen the learning of the target grammatical feature (past tense), the teacher can have students read the enhanced text a few more times before moving on to planned post-reading activities.

Example 2: Teaching Passive Voice Using Textual Input Enhancement

This lesson is designed to teach secondary ESL students about historical landmarks and to

discuss landmarks in the U.S. and in their home countries. While teaching what landmarks are and how landmarks are chosen, this lesson also focuses on the passive voice through textual input enhancement. After pre-reading activities, students are shown the example sentences containing passive sentences with enhancement as below:

> a. America's history *is preserved*, or *kept* alive, in many ways.
>
> b. Experts *are needed* to help in this process.
>
> c. It is an honor when a place *is chosen* to be a National Historic Landmark.
>
> d. More than a hundred pictographs *were found* in one place.

These sentences are taken from the text to highlight the passive forms of verbs. Next, after students are familiar with the text, the teacher can copy a portion of the text with highlighted, enhanced passive verbs. The passive verbs are more likely to be noticed and attended to while the students are engaged in reading the enhanced text. See the excerpt from the text below:

> America's history *is preserved*, or *kept* alive, in many ways. National Historic Landmarks are places or objects that *are thought* to be important to American history. There are many historic places in the United States, but only about 2,500 *have been named* landmarks (Cully, 2005: 3; bold added).

The teacher can have students answer reading comprehension questions that are intended to elicit passive forms of the verbs while focusing on reading comprehension. Here, too, text enhancement can be used:

> a. How many historic places in the United States **have been named** landmarks?
>
> b. Who **is needed** when the National Park Service chooses the landmarks?
>
> c. What **is** the pueblo **made of**?
>
> d. Who **was** the Brooklyn Bridge **designed** by?

Students can read the enhanced text a few more times to strengthen their form learning as well as meaning comprehension. The teacher then engages students in typical post-reading activities to review the text.

Conclusion

This paper discussed the major theoretical aspects and pedagogical implications of incorporating textual input enhancement in classroom ESL teaching and showed how this intervention technique can be effectively used in actual classroom reading instruction. When properly and consistently used in primarily meaning-based reading instruction, this technique can effectively promote the learning of linguistic features without much interruption to meaning comprehension. It is hoped that this paper illuminated a way to effectively incorporate linguistic features in classroom ESL reading instruction.

References

Alanen, R. (1995). Input enhancement and rule presentation in second language acquisition. In R. Schmidt (Ed.), *Attention and awareness in foreign language learning* (pp. 259-302). Honolulu: University of Hawai'i, Second Language Teaching & Curriculum Center.

Combs, C. (2004). What cognitive processes are triggered by input enhancement? *Columbia University Working Papers in TESOL & Applied Linguistics*, *4*. Retrieved from http://journals.tc-library.org/index.php/tesol/article/view/68/74

Cully, R. (2005). *Visiting history*. Harcourt School Publishers.

Doughty, C. (1991). Second language instruction does make a difference: Evidence from an empirical study of SL relativization. *Studies in Second Language Acquisition, 13,* 431-469.

Doughty, C. (2001). Cognitive underpinnings of focus on form. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 206-257). Cambridge: Cambridge University Press.

Doughty, C. & Williams, J. (1998). Pedagogical choices in focus on form. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 197-261). New York: Cambridge University Press.

Hunt, T. D. (2005). *Nathan and his favorite author*. Harcourt School Publishers.

Lee, S-K. (2007). Effects of textual enhancement and topic familiarity on Korean EFL students' reading comprehension and learning of passive form. *Language Learning*, *57*, 87-118.

Lightbown, P. M. (1998). The importance of timing in focus on form. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 177-196). New York: Cambridge University Press.

Long, M. H. (1991). Focus on form: A design feature in language teaching methodology. In K. De Bot, R. B. Ginsberg, & C. Kramsch (Eds.), *Foreign language research in cross-cultural perspective* (pp. 39-52). Philadelphia: Benjamins.

Norris, J. M. & Ortega, L. (2000). Effectiveness of L2 instruction: A research synthesis and quantitative meta-analysis. *Language Learning, 50,* 417-528.

Robinson, P. (2003). Attention and memory during SLA. In C. Doughty & M. H. Long (Eds.), *Handbook of second language acquisition* (pp. 631-678). Malden, MA: Blackwell.

Rosa, E. & O'Neill, M. (1999). Explicitness, intake, and the issue of awareness. *Studies in Second Language Acquisition, 21,* 511-556.

Schmidt, R. (2001). Attention. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 3-32). New York: Cambridge University Press.

Sharwood Smith, M. (1981). Consciousness-raising and the second language learner. *Applied Linguistics, 2,* 159-168.

Sharwood Smith, M. (1993). Input enhancement in instructed SLA: Theoretical bases. *Studies in Second Language Acquisition, 15,* 165-179.

Skehan, P., & Foster, P. (2001). Cognition and tasks. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 183-205). New York: Cambridge University Press.

Tomlin, R. & Villa, V. (1994). Attention in cognitive science and second language acquisition. *Studies in Second Language Acquisition, 16,* 183-203.

VanPatten, B. (1990). Attending to form and content in the input: An experiment in consciousness. *Studies in Second Language Acquisition, 12,* 287-301.

VanPatten, B. (1996). *Input processing and grammar instruction: Theory and research.* Norwood, NJ: Ablex.

VanPatten, B. (2002). Processing instruction: An update. *Language Learning, 52,* 755-803.

VanPatten, B. & Cadierno, T. (1993). Explicit instruction and input processing. *Studies in Second Language Acquisition*, *15*, 225-243.

White, J. (1998). Getting the learners' attention: A typographical input enhancement study. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 85-113). New York: Cambridge University Press.

Wong, W. (2003). Textual enhancement and simplified input: Effects on L2 comprehension and acquisition of non-meaningful grammatical form. *Applied Language Learning, 13,* 17-45.

E. Catherine Kim is Assistant Professor of Education at Pacific University. She coordinates the ESOL/Bilingual Endorsement Program at the university's Forest Grove campus.