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Conceptions of L2 Grammar: Theoretical Approaches and their Application in the L2 Classroom

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Chapter 6

Structured Input and Textual Enhancement: Impacts on L2 Production in French

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Introduction

Taking as the point of departure the assumption that input is the primary driving force behind language acquisition, SLA researchers have recently examined the effects of input-based focus-on-form instructional interventions on L2 grammar acquisition. Two input enhancement techniques that have been central to this research are structured input (SI) and textual enhancement (TE). As the major component of processing instruction (VanPatten, 1996, 2004a, 2004b), SI is a proactive pedagogical technique that attempts to alter learner processing strategies or, alternatively, to enable L2 learners to overcome a faulty strategy altogether (VanPatten, 1996, 2004a). As one of the primary techniques under the umbrella of input enhancement, TE focuses above all on the role that attention plays in SLA by highlighting the forms themselves through use of bold, italics, font size, or similar ways of making the forms stand out (Wong, 2005).

While the effects of SI have been relatively consistent, studies examining the effect of TE have yielded mixed results. Thus far, no research has been done on the potential benefits of combining these two approaches to input enhancement. This chapter examines the relative effects of textually enhanced structured input (TESI) and regular SI on the ability of learners to produce the French *imparfait*.

Background Theory and Previous Research

Theoretical Background: Input Processing

It is an established fact within the field of SLA that input is a fundamental “ingredient” necessary for language acquisition to occur. Researchers also agree that SLA is a complex phenomenon that involves many processes. One of these processes, known as input processing, refers to the initial act by which learners attempt to assign meaning or function to linguistic form contained in input (VanPatten, 2004a).

According to VanPatten’s (1996, 2003, 2004a) input processing model, a learner must first notice or recognize in some way that a particular form exists

in the input; he or she must then subsequently be able to hold the form in working memory long enough to attach some type of meaning or function to it. Once this attachment has occurred, the form then becomes part of the intake, or the subset of the input that has been partially or fully processed and is available for incorporation into the L2 learner's developing system. Incorporation into the developing system is not automatic, however. The forms that do and do not make it into the learner's implicit system and the means by which this integration takes place are determined by two additional processes that lie beyond the realm of input processing—namely, accommodation and restructuring (VanPatten, 2004a).

The entire process of making form-meaning connections takes place within the learner's working memory. Therefore, the issue of capacity with regard to working memory, or attentional resources, is fundamental to VanPatten's model of input processing. In the most recent version of his model, VanPatten (2004a) outlines two key principles and a series of subprinciples that account for the strategies that learners employ in their attempts to connect meaning with form. These strategies are subject to the limitations of working memory capacity.

VanPatten's (2004a) Primacy of Meaning Principle (P1) states that, because learners typically seek to comprehend a message, they are likely to first process input for meaning and only then process the same input for form. VanPatten proposes a sort of hierarchy indicating which aspects of input learners are most likely to process and which they are most likely to "overlook" owing to the limited capacity of their working memory. L2 learners possess implicit knowledge about the existence of words as distinct units of linguistic form. Furthermore, L2 learners know (on both conscious and unconscious levels) that most of the meaning in a sentence is contained in the content words. Therefore, in their quest for meaning, they first process the input for content words. If learners' attentional resources are not depleted after processing content words, they tend to rely on nonredundant, meaningful grammatical forms. According to VanPatten's (1996, 2004a) model, nonmeaningful forms are the last component of input to be processed, and only if the learner is able to process the meaning of the entire sentence without exhausting all available resources.

VanPatten's (2004) Sentence Location Principle (P1f) states that linguistic features found in the middle of sentences are most difficult to process, while those found at the beginning or end of a sentence are more likely to be processed.

According to VanPatten, it is unlikely that any single principle is entirely responsible for the outcomes of learners' attempts to process input. Rather, multiple principles interact simultaneously to determine the outcomes of input processing.

Research on Structured Input

Processing instruction (PI) is a focus-on-form instructional intervention that is rooted in VanPatten's (1996, 2004a) model of input processing. It applies what we know about the ways in which L2 learners process input to the manner in which language is presented to learners in the classroom. The premise is that by taking into account L2 learners' natural processing strategies, PI enables learners

to derive more intake from the input—potentially increasing the rate of development of their implicit systems.

PI consists of three main components:

- Information about the target form itself
- Information about faulty strategies that might hinder processing of the target form
- Structured input (SI) activities (for examples, see Farley, 2005)

SI activities are designed such that learners rely on form *and* meaning to complete each activity item successfully. The input contained in these activities is purposely “structured” so that learners are more likely to process the target form. Activity designers fashion the input in a way that keeps learners from relying on inefficient or incorrect processing strategies while completing the activity items. For example, in an SI activity aimed at getting L2 learners of English to process the past tense *-ed* form, adverbials of time such as “yesterday” might be removed from activity items to prevent the learner from relying on the lexical item to obtain tense. In short, this design takes into account VanPatten’s (1996, 2004a) Lexical Preference Principle. The learner is pushed to process the *-ed* inflection itself to determine when the action took place. In contrast to output-focused activities, SI never requires learners to produce the target form.

VanPatten and Cadierno (1993) compared the effects of PI and traditional instruction on learner ability to process and produce utterances containing object pronouns in Spanish. The participants in their study were assigned to one of three groups: the PI group, the traditional instruction group, or the control group. The PI group was given information concerning both the target structure and the relevant processing strategies, followed by a series of SI activities. The traditional instruction group received information about the target structure, followed by a series of mechanical, meaningful, and communicative drills. The control group did not perform any drills, but instead only read and discussed an article.

In this study, a pretest was administered before treatment. Post-treatment data were gathered via three post-tests, each composed of sentence-level tasks requiring either interpretation or production of object pronouns. The first post-test was administered immediately after treatment, while the second and final post-tests were administered two weeks and four weeks later, respectively.

Post-test results revealed that the PI group improved significantly on the interpretation tasks, while the traditional instruction group failed to improve. On the production tasks, both experimental groups improved equally with significant gains, while the control group showed no improvement. Furthermore, all results were sustained through the four-week testing period.

The results of this landmark study lend support to VanPatten and Cadierno’s argument that PI should significantly influence learners’ developing systems because it alters the way in which learners process input (i.e., the strategies they use). Moreover, PI affected the learners’ implicit systems in a way that enabled them not only to process object pronouns correctly, but also to produce them correctly.

To test the generalizability of the results obtained by VanPatten and Cadierno (1993), VanPatten and Wong (2004) carried out a replication study investigating the effects of PI versus traditional instruction on learners' ability to interpret and produce the French causative. The research design of this study was almost identical to that used in the VanPatten and Cadierno (1993) study. Participants, who were university students enrolled in the equivalent of a fourth-semester French course, were assigned to either the PI, traditional instruction, or control group. During treatment, both experimental groups received information about the French causative construction. The PI group was also given information about potential hindrances to processing, followed by SI activities; the traditional instruction group was given a series of mechanical, meaningful, and communicative drills with no additional information.

An immediate post-test revealed that both experimental groups improved on the interpretation tasks, with the PI group improving significantly more than the traditional instruction group. On the production tasks, both experimental groups improved equally, while the control group showed no improvement on either set of tasks.

After the initial results were tallied, the researchers noticed use of a test-taking strategy. Some learners, primarily within the traditional instruction group, were making all sentences causative on the production task, because that was the structure they were presently learning. When those participants were eliminated from the data pool, the PI group was actually superior to the traditional instruction group on production as well.

Although the results of this study are not identical to those obtained by VanPatten and Cadierno (1993), they do provide further support for the superiority of PI over traditional instruction. In addition, the results support VanPatten and Wong's assertion that Allan's (2000) results were different largely due to a misinterpretation regarding what constitutes a SI activity, resulting in a "blurring" of the fundamental differences that distinguish PI from traditional instruction.

Several other studies have looked at the relative effects of PI versus traditional instruction on the ability of learners to process a number of different linguistic forms in a variety of languages (see Benati, 2001; Buck, 2000; Cadierno, 1995; Cheng, 1995). All these studies yielded similar results—namely, the PI group consistently outperformed the traditional instruction group on the interpretation task.

Farley (2001, 2004b) compared PI with meaning-based output instruction, an instruction type in which all mechanical components are eliminated to keep meaning in focus. While the results of Farley's (2001) first study indicate that PI brought about more improvement than the output treatment on the interpretation task, the second study (Farley, 2004b) revealed that both instructional interventions brought about equal improvement on both tasks. Farley (2001, 2004b) attributes the significant improvement demonstrated by the meaning-based output group on the interpretation task to learners' benefiting from one another's oral responses to activity items during the follow-up phase to each output activity. According to Farley, students' correctly formulated oral responses served as incidentally structured input for their classmates who listened.

Another strand of PI research has examined the question of whether the explicit information or the structured input component of PI is primarily responsible for this instruction method's efficacy. In a series of studies comparing full PI with structured input only, the SI-only group has consistently achieved equal gains on both interpretation and production tasks (see, for example, Benati, 2004; VanPatten & Oikennon, 1996; Wong, 2004). In only one study to date (Farley, 2004a) has PI brought about significantly more improvement than SI alone. The results of these studies as a whole represent strong support for the claim that SI alone accounts for a majority of the beneficial effects of PI.

Still other researchers, such as Collentine (1998), DeKeyser and Solkaski (1996), and Salaberry (1997), have conducted empirical studies in which an output-oriented group equaled or outperformed the PI group. In response to their findings, VanPatten (2002) contends that there were "drawbacks in design and procedure [in their studies] that merit close scrutiny." Of course, this statement sparked significant debate among researchers. Addressing the specific findings of those studies and explaining why some researchers have methodological objections to them is beyond the scope of this chapter. For our purposes, it is sufficient to note that all experimental studies to date that have examined SI show that SI brings about significant improvement over time. Indeed, the consistent impact of SI over time is the most relevant result from the PI research for our purposes here, as this chapter seeks to compare SI with a modified version of itself (TESI) so as to examine the potential impacts of the modification.

Theoretical Background: Attention and Noticing

The notion that attention plays an important role in SLA has gained widespread acceptance. However, not all researchers agree on what constitutes attention or how it affects SLA (see, for example, Robinson, 1995; Rosa & O'Neill, 1999; Schmidt, 1990; Tomlin & Villa, 1994; VanPatten, 1996, 2003, 2004a). What is particularly controversial is the relationship between consciousness and attention as they relate to language learning. The critical issue is whether conscious attention, or awareness, is *necessary* for input to become intake. Some researchers argue that awareness is not necessary for SLA to occur (e.g., Tomlin & Villa, 1994), while others (e.g., Schmidt, 1990) insist that it is.

Schmidt (1990, 1993, 1994a, 1994b, 1995) states that *noticing* involves being consciously aware of a stimulus event, leading to its storage in long-term memory. According to Tomlin and Villa's (1994) model of attention, which draws heavily from research and theories in cognitive science, attention consists of three separate processes: *alertness*, *orientation*, and *detection*. Furthermore, Tomlin and Villa separate awareness from attention: "awareness requires attention, but attention does not require awareness" (p. 194). In Tomlin and Villa's model, detection is the essential component needed for SLA to occur. Awareness may result from detection, or it may serve to facilitate the attentional processes of alertness and orientation, which in turn may help facilitate detection.

Nevertheless, despite the lack of consensus regarding terminology and the necessity of awareness, researchers are in agreement regarding the essential role that processes related to attention play in enabling SLA to take place.

Research on Textual Enhancement

“Input enhancement,” a term coined by Sharwood Smith (1993), refers to a variety of pedagogical techniques aimed at helping learners attend to the formal aspects of a L2. Textual enhancement, which refers specifically to the typographical alteration of grammatical form contained in written input, is one of many techniques that can be used to enhance input. It comprises a direct attempt to increase the saliency of target forms within the input, thereby increasing the likelihood that learners will attend to them and subsequently process them (Wong, 2005). Textual enhancement can be carried out in different ways. In TE studies to date, researchers have used combinations of the following techniques: underlining, italics, bolding, shadowing, increasing character size, and font changes. At this point, it remains unclear whether certain ways of operationalizing TE are more effective than others (Wong, 2003, 2005).

More than a dozen studies have examined the effects of TE on L2 acquisition of grammatical forms. Shook (1994) examined whether TE is effective in getting learners to attend to target structures in written input. In addition, Shook studied whether explicit instructions telling learners to pay attention to enhanced forms would affect their ability to recognize and produce those forms. The target structures were the Spanish present perfect tense and the relative pronouns *que* and *quien*. Participants were first- and second-year university students of Spanish who were assigned to one of three groups:

- The first group received texts in which the target forms were typographically altered, and participants were instructed to pay attention to all enhanced items.
- The second group also received enhanced texts, but no explicit instructions regarding what to pay attention to.
- The control group received non-enhanced texts without instructions regarding what they should pay attention to.

In this study, TE was operationalized as uppercase letters, bolding, and increasing the font size. Results of recognition and production tasks revealed that both groups whose members received enhanced texts significantly outperformed the control group on all assessment tasks. No effect for instructing learners to pay attention to enhanced structures was found, however.

Alanen (1995) examined the effects of TE and explicit rules on noticing and on production of semi-artificial locative suffixes and consonant gradation in Finnish. In this study, participants were exposed to one of four treatments: rules followed by enhanced texts, rules only, enhanced texts only, or non-enhanced texts only. The target forms in this study were italicized. Think-aloud protocols were used to measure noticing, and a sentence completion task was used to assess production. Based on the results of the think-aloud protocols, Alanen found that TE led to an increase in noticing target forms. He also found that while learners who received TE did better on the production task than those who did not, learners who received rules plus TE outperformed those who received TE alone. Finally, those participants who received rules alone did better than those who received enhanced texts alone.

Jourdenais et al. (1995) examined the effects of TE on L2 acquisition of the Spanish preterit and imperfect. Second-semester learners of Spanish were assigned to one of two treatment groups: TE reading texts or non-enhanced texts. Participants in the TE group were given a passage to read in which the target forms were highlighted via underlining, shadowing, bolding, and changing the font. Results of think-aloud protocols used in conjunction with a post-reading production task revealed a significant difference in favor of TE on learner detection and production of target forms.

Wong (2002) examined the effects of TE and sentence-level versus discourse-level input on L2 acquisition of French prepositions used with geographical locations. Participants in this study, who consisted of first-year university learners of French, received one of four treatments: discourse-level text with TE, discourse-level text without TE, sentence-level input with TE, or sentence-level input without TE. The enhancement in Wong's study was operationalized as bolding, italicizing, and underlining of target forms. Results of a written assessment task revealed that learners exposed to TE outperformed those who were not. Furthermore, sentence-level input was more beneficial than discourse-level input in helping learners process target forms.

Despite the fairly consistent positive results for TE obtained in early studies and in the study by Wong (2002), nearly all studies in the last decade have failed to show any significant benefit for TE. For example, when Leow (1997) examined the effects of TE and passage length on intake and comprehension, he found no significant benefit for TE on comprehension or intake of Spanish formal imperatives. However, Leow did find an effect for passage length on comprehension as measured by a short answer comprehension task.

Similarly, White (1998) found no significant benefit for TE on L2 acquisition of third-person singular possessive determiners (PDs) by sixth-grade francophone learners of English. Participants in this study were exposed to one of three treatments: TE input flood and extensive reading/listening, TE input flood only, or non-enhanced input flood. All treatment groups increased their use of PDs and their accuracy with them. However, contrary to White's hypothesis, those learners who were exposed to TE did not display greater acquisition of target forms than those exposed to non-enhanced input.

Likewise, Overstreet (1998) did not reveal any beneficial effects for TE or familiarity of content on either recognition or production of the Spanish imperfect or preterit. In fact, the results of this study revealed a negative effect for TE on comprehension of content. According to Overstreet, the TE might have led learners to focus their attention to a greater degree on form rather than on meaning, decreasing their level of comprehension.

Leow (2001) examined the effects of TE on noticing of target forms, reading comprehension, and intake as measured by recognition tasks, production tasks, and think-aloud protocols. In this study, the 38 participants were divided into two treatment groups. One group read a passage in Spanish in which the formal imperative forms were enhanced, and the other group read a non-enhanced version of the same passage. Following treatment, participants were given immediate and delayed recognition and production tests. Based on the results of qualitative and

quantitative analyses, no significant benefit was found for TE in relation to reported noticing, reading comprehension, or intake. Jourdenais (1998), Shook (1999), and Izumi (2002) also failed to show a significant beneficial effect for TE.

Leow et al. (2003) employed online think-aloud protocols, as well as recognition and comprehension post-tests, to examine the effects of TE and type of linguistic item on comprehension and intake. Results of all three assessments revealed that TE did not bring about significantly more noticing of the Spanish present perfect or subjunctive forms, nor did it improve comprehension or increase intake. A significant benefit for greater salience of linguistic item type with regard to reported noticing was observed, however. There was more reported noticing of the present perfect than of the present subjunctive, but this benefit did not extend to the areas of comprehension or intake. Finally, a significant correlation between intake (assessed via a recognition task) and reported noticing in enhanced and non-enhanced conditions was identified for all item types.

Wong (2003) also found mixed results when she examined the effects of TE and simplified input on comprehension and the acquisition of a nonmeaningful grammatical form. Wong did not find any general effect for TE related to acquisition. TE did have a significant positive effect on overall recall of ideas, because content words were more salient owing to their textually modified appearance.

Motivation for the Present Study

Both SI and TE aim to increase the amount of intake that L2 learners derive from input by altering either the structure or the appearance of the input to which they are exposed. Although a substantial body of research has examined the individual effects of SI and TE, these two approaches to focus on form have never been combined. The study described in this section is designed to examine the effects brought about by a combination of TE and SI within one focus-on-form instruction type and to determine how these effects differ (if at all) from SI alone in increasing learner ability to notice and subsequently process target forms contained in the input. Furthermore, given that nearly all research on TE has focused on forms embedded in extended discourse, with the exception of the work carried out by Wong (2002), the present study also stands to offer valuable insights into the possible benefits of TE at the sentence level. Because SI is already structured to present input at the sentence or phrase level, it affords the opportunity to offer TE within that linguistic context.

The specific research questions and corresponding hypotheses for the present study are as follows:

RQ1. Does SI bring about beneficial effects on sentence-level tasks involving the production of the third-person singular form of the French *imparfait*?

H1. Based on the results of previous research on the effects of SI, it was hypothesized that the answer to the first research question would be *yes*. This hypothesis was rooted in the fact that SI has consistently brought about beneficial effects on sentence-level L2 production tasks.

RQ2. Does TESI bring about beneficial effects on sentence-level tasks involving the production of the third-person singular form of the French *imparfait*?

H2. It was hypothesized that enhancement would not mitigate the effects of SI, given that there are no theoretical or empirical grounds to think it would. The hypothesis concerning the individual (noncomparative) efficacy of TESI was based on the SI research. Hence, it was hypothesized that TESI would bring about beneficial effects on sentence-level production of the French *imparfait*.

RQ3. Do SI and TESI bring about *equal* effects on sentence-level tasks involving the production of the third-person singular form of the French *imparfait*?

H3. It was hypothesized that TESI would bring about significantly more improvement than SI on the sentence-level production task. Although several studies have found a positive effect for TE (Shook, 1994; Alanen, 1995; Jourdenais et al., 1995), this hypothesis was based specifically on the results obtained by Wong (2002), in which she found an effect for TE at the sentence level. Given that SI provides input at the sentence level, it was hypothesized that enhancement within SI (the TESI treatment) would bring about a similar effect as in found in Wong's (2002) study and that this effect would be significantly different from SI alone.

Study Details

Participants

The participants ($n = 33$) consisted of adult L2 learners enrolled in a first-year language course at a Southwestern university. All participants were native speakers of English who did not have any significant experience with any languages other than English and the target language. Only learners who scored 0% on the pretest were included in the data pool. In addition, any learners with learning disabilities, those with hearing impairments, and those who received any outside help or practice related to the target forms during the experiment were eliminated from the data pool. A survey administered on the final day of the study was used to collect the information needed to exclude participants. In the end, there were 19 participants in the SI group and 14 participants in the TESI group who were included in the data pool.

Materials

The researchers designed two packets of instructional materials, each containing ten activities with ten items in each activity. For each packet, there were a total of six referential activities and four affective activities. Referential activity items had one correct answer based on time reference (past or present), while affective activity items allowed for individual expression of opinion or belief. The only difference between the SI activities and the TESI activities was that the target forms were typographically enhanced in the TESI packet. The enhancement consisted of bolding, italicizing, and increasing the character size for every instance of the *imparfait*.

Each activity presented only the third-person singular form of the French *imparfait* and was carefully designed so that meaning was always kept in focus. In addition, each activity required the learners to do something with the input—either to indicate when the action took place in the referential activities or to indicate which statements best represented their own opinion or belief in the affective activities. Referential tasks involved famous people (TV personalities, actors, musicians, and athletes) and their habitual actions in the past contrasted with their daily routines in the present. Participants selected from two adverbial phrases to indicate whether each activity item referred to a past routine or a present, ongoing routine. Affective tasks also involved famous figures from many arenas of life. In these activities, however, participants selected *true* or *false*, *probable* or *improbable*, or *agree* or *disagree* after reading short statements about the past lives of individual celebrities. All activities strictly adhered to the guidelines for SI activity design put forth by VanPatten (1996) and expounded upon by Farley (2005).

Reflecting the fact that TE entails typographical alteration of written texts, only written SI activities were given to the SI group, with enhanced versions of the same activities being given to the TESI group. A deliberate attempt was made to keep the learners' processing strategies in mind while designing each of the SI/TESI activities. Specifically, activity design took into account the potential hindrances to processing explained by VanPatten's (1996, 2004a) Lexical Preference Principle, the Availability of Resources Principle, and the Sentence Location Principle. Utterances were kept short; adverbial indicators of time reference were removed from input strings; and past tense forms were placed at the beginning of activity item. (See the appendix for sample referential and affective activity items.)

The assessment materials designed by the researchers consisted of a paper-and-pencil production task. Three versions of the production task were created, and versions were assigned to individual participants within each treatment according to a Latin square design. Within each production task, participants were presented with an instruction line asking them to select any three verbs from a list below and write three complete sentences to express their own thoughts and opinions about the theme of the section. There were two sections of this nature, totaling six items, and participants were required to use the French *imparfait* to complete both sections. A third section containing three more items called for use of the present tense to examine the possibility of overgeneralization.

Procedures

All aspects of the experiment—including the pretest, treatment, and post-tests—were carried out in the participants' regular classrooms during regular class time. Intact class sections were randomly assigned to one of two experimental groups: SI or TESI.

On the first day, the pretest was administered, and participants were given 20 minutes to complete it. As described previously, the pretest was production oriented and contained items requiring use of the *imparfait* or present tense.

All participants who scored higher than zero (out of a possible six) were eliminated from the data pool.

Immediately following the pretest on day 1, the SI group was given five SI activities, consisting of three referential activities and two affective activities. Similarly, the TESI group was given five TESI activities, three referential and two affective. The only difference between the two packets was the enhancement. Activity themes, task types, quantity of items per activity (ten), and the content of the items themselves were identical for both treatments.

Five more activities (three referential and two affective) were given to both groups at the beginning of day 2. As with the instructional materials on day 1, the only difference between treatments on day 2 was the enhancement. After each referential activity, participants in both experimental groups were given the correct answers to the activity items. At no point during the study were participants in either group given any sort of explanation regarding answers to activity items or any other explicit information regarding the target form.

All instruction took place over two consecutive class days during two 50-minute class sessions. Immediately after completing all instructional materials on day 2, each group was given post-test 1. Ten days later, each treatment group was given post-test 2. On the same day that post-test 2 was administered, participants completed a background survey asking about their experience with other languages and any practice or help they may have received related to the target form. This survey information was used to eliminate participants from the data pool. In addition, participants who were absent from any portion of treatment or assessment were eliminated from the scoring. After eliminations, about one third of the participants remained in the data pool.

Scoring

All versions of the production task were scored in the same manner. For the statistical analysis, raw scores were calculated on the *imparfait* items in the following manner: One point was given for each correct use of the form if it was correct in person/number and did not contain a spelling error. The maximum score possible was six. If the learner used the correct form but the verb did not agree in person or number or was spelled incorrectly (in other words, if the learner made any clear attempt to produce the form), a half point was awarded. Each blank response received a score of zero, and no points were given if the learner did not attempt the form when obligatory.

Results

To determine the possible effects of instruction type on the way in which L2 learners produced the target forms, raw scores for the production pretest and post-tests were tabulated. Table 1 displays the mean test scores and standard deviations, and Figure 1 provides visual representations of the gain over time. A two-way analysis of variance (ANOVA) with repeated measures was performed on the data. Instruction was the between-subjects factor, whereas time (pretest, post-test 1, post-test 2) was the within-subjects factor. The results shown in Table 2 reveal significant main effects for time, meaning that both instruction types had a significant impact on

Table 1
Descriptive statistics

	Time	Instruction	<i>N</i>	Mean	SD
French data	Pretest	SI	19	0.00	0.00
		TESI	14	0.00	0.00
	Post-test 1	SI	19	1.16	2.77
		TESI	14	5.00	3.42
	Post-test 2	SI	19	2.32	3.45
		TESI	14	4.43	3.61

Figure 1
Interaction plot

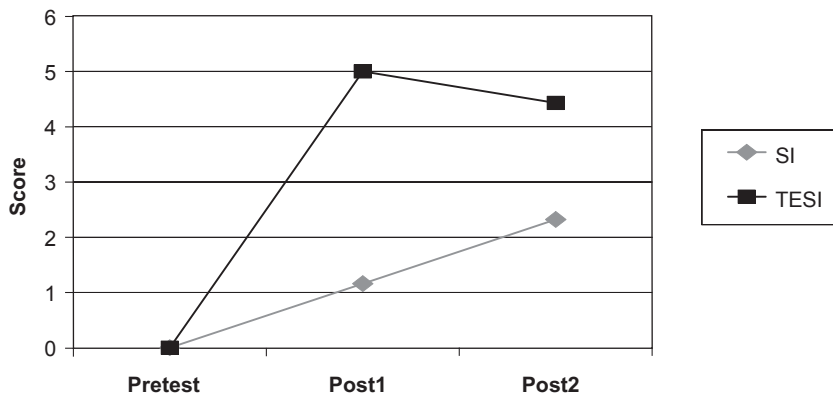


Table 2
ANOVA results

Source	df	SS	MS	F	<i>p</i>
Between-subjects effects					
Instruction	1	95.28	95.28	7.50	.01
Within-subjects effects					
Time	2	225.03	112.51	24.91	.00
Instruction × time	2	59.69	29.85	6.61	.00
Error (instruction)	31	394.06	12.71		
Error (time)	62	280.01	4.52		

test performance. The results in Table 2 also indicate a significant effect for instruction as a factor. Thus there was a significant difference between TESI and SI alone.

Discussion

The first research question was the following: Does SI bring about beneficial effects on sentence-level production tasks involving the third-person singular French *imparfait*? Based on the results of this study, the answer to this research question is *yes*. SI without enhancement did result in significant improvement over time.

The second research question was the following: Does TESI bring about beneficial effects on sentence-level production tasks involving the third-person singular French *imparfait*? Based on the results of the present study, the answer to this research question is also *yes*.

The third research question was the following: Do SI and TESI bring about *equal* effects on sentence-level production tasks involving the third-person singular French *imparfait*? Based on the results of this study, the answer to this research question is *no*. Although both groups improved over time, TESI brought about significantly more improvement than did SI alone. This result corresponds with our hypothesis.

Some might argue that a more pertinent hypothesis based on previous research would be to suppose no difference between TESI and SI. The argument made in this case is that the purpose of TE is to make forms more salient, which SI already accomplishes. One might contend that taking into account the Lexical Preference Principle, the Availability of Resources Principle, and the Sentence Location Principle in the design of activities has proven effective in previous PI research. Therefore, why would any researcher presume that enhanced SI would bring about a greater effect? This question is valid and deserves attention.

The rationale for our hypothesis that TESI would bring about a greater effect than SI was, indeed, based on previous research—but not on previous PI research. In previous research on TE, enhancement has *sometimes* brought about beneficial effects on its own, and these effects have also been apparent at the sentence level (see Wong, 2002). Given that SI presents input at the sentence level, we hypothesized that TE within a sentence-level context would enhance the effects of SI, which was confirmed by the results of the present study. Of course, we recognize that SI might be sufficient to make target forms as salient as they ever need to be. In fact, in most curricular contexts, we believe that to be the case: SI is sufficient. In the present study, however, the absence of any explicit information regarding what the learners were to focus on during instruction leads us to believe that TE served a similar function to that of explicit information. Namely, TE enabled learners to become aware more quickly of “what was happening” in the classroom during the experimentation.

Conclusions

Research on how textual enhancement (TE) affects classroom-based L2 acquisition of grammatical morphemes has yielded mixed results. The majority of TE studies have involved input-based activities at the discourse level. Under certain

conditions, limited effects of textual enhancement have been shown; in other scenarios, enhancement did not bring about beneficial effects. In contrast, research on how structured input (SI) affects L2 acquisition of grammatical morphemes has consistently yielded significant improvement over time. In more than a dozen studies comparing SI with other instruction types, SI has repeatedly brought about more beneficial or equally beneficial effects.

Combining the characteristics of TE and SI, the present research introduced textually enhanced structured input (TESI) as a treatment. The purpose of this experiment was to determine whether the effects of textual enhancement are beneficial within the context of sentence-level tasks. In addition, the experiment examined whether the beneficial effects of structured input are heightened if the features of TE are combined with SI. Indeed, TESI resulted in larger improvements in performance than did SI alone.

Given previous contradictory results concerning the effects of textual enhancement, it may be premature for language program directors to suggest a change in grammar instruction practices for the language classes that they oversee. The present results may be indicative of what might happen consistently with TE at the sentence level. Nevertheless, further research in this vein is needed for language program directors to conclude which specific type(s) of focus-on-form instructional intervention are most effective and most practical given the time constraints in a typical university language course. Will taking into account the Lexical Preference Principle, the Availability of Resources Principle, and the Sentence Location Principle suffice to bring about all the heightened saliency that is necessary for classroom L2 processing to occur in its optimal state? Or will the benefits of TE at the sentence level found in the work of Wong (2002) and in the study described in this chapter hold true under further empirical scrutiny? This remains to be seen. For now, the present empirical inquiry makes a significant contribution to the focus-on-form research aimed at identifying the effectiveness of input-focused practice. If further research in this vein yields similar findings, language program directors may find themselves selecting or creating materials that take into account the effects of both enhancing target forms and structuring the input.

References

- Alanen, R. (1995). Input enhancement and rule presentation in second language acquisition. In R.W. Schmidt (Ed.), *Attention and awareness in foreign language learning* (pp. 259-302). Honolulu, HI: University of Hawai'i, Second Language Teaching and Curriculum Center.
- Allen, L. Q. (2000). Form meaning connections and the French causative: An experiment in processing instruction. *Studies in second language acquisition*, 22, 69-84.
- Benati, A. (2001). A comparative study of the effects of processing instruction and output-based instruction on the acquisition of the Italian future tense. *Language Teaching Research*, 5, 95-127.
- Benati, A. (2004). The effects of structured input activities and explicit information on the acquisition of the Italian future tense. In B. VanPatten (Ed.), *Processing instruction: Theory, research, and commentary* (pp. 207-225). Mahwah, NJ: Erlbaum.
- Buck, M. (2000). *Procesamiento del lenguaje y adquisición de una segunda lengua. Un estudio de la adquisición de un punto gramatical en inglés por hispanohablantes*. Unpublished doctoral thesis, Universidad Nacional Autónoma de México.

- Cadierno, T. (1995). Formal instruction from a processing perspective: An investigation into the Spanish past tense. *Modern Language Journal*, 79, 179-193.
- Cheng, A. (1995). *Grammar instruction and input processing: The acquisition of Spanish ser and estar*. Unpublished doctoral dissertation, University of Illinois at Urbana-Champaign, Urbana, IL.
- Collentine, J. (1998). Processing instruction and the subjunctive. *Hispania*, 81, 576-587.
- DeKeyser, R. M., & Sokalski, K. J. (1996). The differential role of comprehension and production practices. *Language Learning*, 46, 613-642.
- Farley, A. P. (2001). Authentic processing instruction and the Spanish subjunctive. *Hispania*, 84, 289-299.
- Farley, A. P. (2004a). Processing instruction and the Spanish subjunctive: Is explicit information needed? In B. VanPatten (Ed.), *Processing instruction: Theory, research, and commentary* (pp. 227-239). Mahwah, NJ: Erlbaum.
- Farley, A. P. (2004b). The relative effects of processing instruction and meaning-based output instruction. In B. VanPatten (Ed.), *Processing instruction: Theory, research, and commentary* (pp. 143-168). Mahwah, NJ: Erlbaum.
- Farley, A. P. (2005). *Structured input: Grammar instruction for the acquisition-oriented classroom*. New York: McGraw-Hill.
- Izumi, S. (2002). Output, input enhancement, and the noticing hypothesis: An experimental study on ESL relativization. *Studies in Second Language Acquisition*, 24, 541-577.
- Jourdenais, R., (1998). *The effects of textual enhancement on the acquisition of the Spanish preterit and imperfect*. Unpublished doctoral dissertation, Georgetown University.
- Jourdenais, R., Ota, M., Stauffer, S., Boyson, B., & Doughty, C. (1995). Does textual enhancement promote noticing? A think aloud protocol analysis. In R. W. Schmidt (Ed.), *Attention and awareness in foreign language learning* (pp. 183-216). Honolulu, HI: University of Hawai'i, Second Language Teaching and Curriculum Center.
- Leow, R. P. (1997). The effects of input enhancement and text length on adult L2 readers' comprehension and intake in second language acquisition. *Applied Language Learning*, 8, 151-182.
- Leow, R. P. (2001). Do learners notice enhanced forms while interacting with the L2 input? An online and offline study of the role of written input enhancement in L2 reading. *Hispania*, 84, 496-509.
- Leow, R. P., Egi, T., Nuevo, A., & Tsai, Y. (2003). The roles of textual enhancement and type of linguistic item in adult L2 learner's comprehension and intake. *Applied Language Learning*, 13, 93-108.
- Overstreet, M. H. (1998). Text enhancement and content familiarity: The focus of learner Attention. *Spanish Applied Linguistics*, 2, 229-258.
- Robinson, P. (1995). Review article: Attention, memory, and the noticing hypothesis. *Language Learning*, 45, 283-331.
- Rosa, E., & O'Neill, M. (1999). Explicitness, intake, and the issue of awareness: Another piece to the puzzle. *Studies in Second Language Acquisition*, 21, 511-556.
- Salaberry, M. R. (1997). The role of input and output practice in second language acquisition. *Canadian Modern Language Journal*, 53, 422-451.
- Sharwood Smith, M. (1993). Input enhancement in instructed SLA: Theoretical bases. *Studies in Second Language Acquisition*, 15, 165-179.
- Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11, 129-158.
- Schmidt, R. (1993). Awareness and second language acquisition. *Annual Review of Applied Linguistics*, 13, 206-226.
- Schmidt, R. (1994a). Deconstructing consciousness in search of useful definitions for applied linguistics. *AILA Review*, 11, 11-26.
- Schmidt, R. (1994b). Implicit learning and the cognitive unconscious. In N. Ellis (Ed.), *Implicit and explicit learning of languages* (pp. 165-209). New York: Academic Press.

- Schmidt, R. (1995). Consciousness and foreign language learning: A tutorial on the role of attention and awareness in learning. In R. Schmidt (Ed.), *Attention and awareness in foreign language learning* (pp. 1-63). Honolulu: University of Hawai'i Press.
- Shook, D.J. (1994). FL/L2 reading, grammatical information, and the input-to-intake phenomenon. *Applied Language Learning*, 5, 57-93.
- Shook, D.J. (1999). What foreign language reading recalls reveal about the input-to-intake phenomenon. *Applied Language Learning*, 10, 39-76.
- Tomlin, R. S., & Villa V. (1994). Attention in cognitive science and second language acquisition. *Studies in Second Language Acquisition*, 16, 183-203.
- 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. (2003). *From input to output: A teacher's guide to second language acquisition*. New York: McGraw-Hill.
- VanPatten, B. (2004a). Input processing in SLA. In B. VanPatten (Ed.), *Processing instruction: Theory, research, and commentary* (pp. 5-31). Mahwah, NJ: Erlbaum.
- VanPatten, B. (Ed.). (2004b). *Processing instruction: Theory, research and commentary*. Mahwah, NJ: Erlbaum.
- VanPatten, B., & Cadierno, T. (1993). Explicit instruction and input processing. *Studies in Second Language Acquisition*, 15, 225-243.
- VanPatten, B., & Oikennon, S. (1996). Explanation versus structured input in processing instruction. *Studies in Second Language Acquisition*, 18, 495-510.
- VanPatten, B., & Wong, W. (2004). Processing instruction and the French causative: Another replication. In B. VanPatten (Ed.), *Processing instruction: Theory, research and commentary* (pp. 97-118). Mahwah, NJ: Erlbaum.
- 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). Cambridge, UK: Cambridge University Press.
- Wong, W. (2002). *Decreasing attentional demands in input processing: A textual enhancement study*. Paper presented at the annual meeting of the Second Language Research Forum (SLRF), Toronto, Canada, October 3-6, 2002.
- Wong, W. (2003). Textual enhancement and simplified input effects on L2 comprehension and acquisition of non-meaningful grammatical form. *Applied Language Learning*, 13, 109-132.
- Wong, W. (2004). Processing instruction in French: The roles of explicit information and structured input. In B. VanPatten (Ed.), *Processing instruction: Theory, research, and commentary* (pp. 187-206). Mahwah, NJ: Erlbaum.
- Wong, W. (2005). *Input enhancement: From theory and research to the classroom*. New York: McGraw-Hill.

Appendix: Sample Activity Items

Referential TESI

Below are excerpts from a recent article about Britney Spears. For each statement, please indicate whether the author was referring to Britney's life during 2000 or today in 2007.

Britney Spears . . .	En 2000	À présent (2007)
1. <i>chantait</i> pendant les concerts.	_____	_____
2. <i>dansait</i> avec son groupe.	_____	_____
3. <i>faisait</i> du jogging.	_____	_____

Based on the excerpts above, when would you say that Britney Spears is/was more focused on building her career as a performing artist?

1. During 2000
2. Today, in 2007

Affective TESI

Picture Garth Brooks when he was 20 years old. For each of the following statements, indicate the likelihood of it being an accurate description of Garth Brooks when he was 20.

Quand il avait 20 ans, Garth Brooks . . .	Probable	Pas probable	Je ne sais pas
1. <i>jouait</i> au piano.	_____	_____	_____
2. <i>gagnait</i> des prix.	_____	_____	_____
3. <i>allait</i> à l'université.	_____	_____	_____