THE RELATIVE EFFECTS OF ENHANCED AND NON-ENHANCED STRUCTURED INPUT ON L2 ACQUISITION OF SPANISH PAST TENSE

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ABSTRACT

Research on how textual enhancement (TE) affects classroom-based L2 acquisition of grammatical morphemes has shown mixed results. When enhanced conditions were compared with un-enhanced conditions, some studies demonstrated significant effects for textual enhancement, some reported no effect or negative effects and others reported only partial effects for textual enhancement. In contrast, research on how structured input (SI) impacts L2 acquisition of grammatical morphemes has shown consistently beneficial effects.

Combining TE and SI, the present study introduces textually enhanced structured input (TESI) as a treatment. The main purpose of this study is to present and examine the differential effects of two types of input-based language instruction on how learners interpret and produce the third-person singular form of the Spanish preterit.

Although TESI did not prove to be more beneficial than the un-enhanced treatment in the present study, both types of instruction resulted in improvement over time without explicit grammatical information.

KEY WORDS: textual enhancement, structured input, focus-on-form, processing instruction, preterit

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Resumen

La investigación sobre los efectos del realce textual ha producido resultados ambiguos en el marco de la enseñanza de segundas lenguas y del enfoque en la forma. El realce textual comparado con otras formas de instrucción ha dado resultados positivos en algunos casos, aunque esta modalidad no ha producido efectos significativos en el procesamiento de las formas estudiadas. Por el contrario, las investigaciones que han tenido como objetivo indagar sobre el procesamiento de determinadas formas gramaticales a través de actividades de input estructurado han mostrado consistentemente resultados positivos.

El presente trabajo combina dos metodologías de atención a la forma: el realce textual y las actividades de input estructurado con el objeto de examinar los efectos relativos de dos tipos de instrucción basadas en el input. Estas formas de instrucción analizan el procesamiento de la tercera persona singular del pretérito perfecto simple.

Los resultados del estudio no muestran una diferencia estadísticamente significativa entre los dos tipos de instrucción, sin embargo, ambas muestran resultados positivos en el procesamiento del pretérito perfecto simple sin recurrir a la instrucción gramatical explícita.

Palabras clave: realce textual, input estructurado, metodologías de atención a la forma, instrucción basada en el procesamiento, pretérito perfecto simple
Introduction

This article operates under the assumption that input is the driving force of second language acquisition, and investigates the relative effects of two input-based focus-on-form instructional interventions on L2 grammar acquisition: textual enhancement (TE) and structured input (SI). In this path of research, this study investigates the relative effects of SI alone and combined with TE regarding the Spanish preterit. Both input enhancement techniques have a solid body of research; however, there is only one research study up to date that combines these two input-based focus-on-form techniques. Farley, Peart and Enns (2009) compared SI and textual enhanced structured input (TESI) regarding the French *imparfait*. They obtained positive results for both treatments, where TESI outperformed SI alone in the production of the French *imparfait*. With this in mind, this study’s first goal is to examine the relative effects brought about by these two types of instructions regarding the interpretation and production of the Spanish preterit, and its second goal is to investigate how these effects are different from those previously reported.

Background theory and previous research

Attention and noticing: Theoretical background

In the field of second language acquisition, there are two major theoretical perspectives on attention and awareness: one represented by Tomlin and Villa (1994) and another by Schmidt (1990; 1993) and Robinson (1995; 2003). While both perspectives agree that attention is necessary for learning, they propose opposing views on the role of awareness in learning. Awareness is usually presented as a subjective experience and commonly compared with consciousness (Schmidt, 1990).

Tomlin and Villa (1994) suggest an analysis of attention which divides it into three sub-components; detection, alertness, and orientation. They propose that detection is crucial for learning, which they define as the cognitive registration of stimuli. However, for detection to occur, awareness is not required. On the other hand, Schmidt (1990; 1993) in his noticing hypothesis, argues for a critical role of awareness, claiming that without noticing learning cannot take place.

Some researchers emphasize the role of noticing as a facilitator for learning; others point out that noticing is necessary for learning to occur (for example see

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Robinson, 2003; Simard & Wong, 2001). Furthermore, some empirical studies have provided evidence that noticing functions as a facilitator for second language acquisition (for example see Alanen, 1995; Leow, 1997; 2000; 2001; Leow, et al., 2003; Rosa & O’Neill, 1999, among others). Nevertheless, regardless of the position researchers may take concerning the issue of awareness, there is a general consensus, along with support from second language acquisition research, that some form of attention to input is necessary in order for input to become intake.

Therefore, here is when input enhancement could make a difference when it comes to second language acquisition.

*Input enhancement and noticing*

The claim that L2 acquisition requires noticing is the empirical and theoretical base of recent claims that L2 learners need instruction that will lead them to identify the differences between their interlanguage and the target language (consciousness raising: Sharwood Smith, 1981; input enhancement: Sharwood Smith, 1991; focus-on-form: Long, 1991). Because it is not possible to pay attention to everything in the environment, or to the input for that matter, learners cannot take in all the input to which they are exposed. The input needs to be filtered, and this is where instruction comes into play. It is important to enhance certain portions of the input so that learners will notice those specific features and therefore process them.

*Previous research on textual enhancement*

TE is a focus-on form technique that uses typographical cues to enhance some information in a text. TE is used to draw a language learner’s attention to a target grammatical form and make it more salient. In order to convey this, researchers have used bold, underline, and italics to draw the reader’s attention to particular features of written input that learners normally may not notice (Wong, 2005).

The main goal of TE is to facilitate learners’ form-meaning connections, making more salient some particular grammar feature (Wong, 2005). However, the contributions of TE to second language learning have revealed mixed results. Alanen (1995) investigated the effects of TE and explicit rule presentation regarding the acquisition of semi-artificial locative suffixes and consonant gradation in Finnish. Four groups were used in this study: in group one, the subjects were given the
rules explaining the use of the target forms, after which they were given texts where the target forms were italicized. In group two, the subjects were given the rules only; and in group three, the subjects were given the enhanced texts only and they did not receive any explicit information. Group four read unenhanced versions of the text, and they were not given any information about the forms. Results showed that the subjects who read the text with the italicized forms noticed the target forms more than those who read the unenhanced versions. Those who received the rules in addition to the enhanced texts performed better than the other groups.

Jourdenais, et al. (1995) investigated the effects of TE on Spanish learners’ abilities to detect Spanish preterit and imperfect verbs. Two groups were used in this experiment: in group one, participants were to read a text where the target forms were enhanced. In group two participants received the same task and text with unenhanced features. Results revealed a significant difference for TE, participants were able to successfully notice the forms and produce them.

Shook (1994) investigated the impact of TE on L2 Spanish learners regarding the present perfect and the relative pronouns que/quien measured by a production task. Three groups were used in this study. One group read enhanced versions of the texts and was asked to pay attention to the enhanced items. The second group also read an enhanced version of the text, but participants were not asked to pay attention to any particular form. The third group was a control group. Overall, the results revealed that the two groups that read the enhanced texts performed significantly better than the control group.

Wong (2002) investigated the impact of TE at sentence-level regarding prepositions used with geographical locations in French. Participants were divided in four groups: one received a text (discourse-level input) with the target prepositions enhanced via bold and italics. A second group received the same text, but the target forms were unenhanced. A third group was given sentence-level input with visually enhanced target structures, and finally a fourth group received the same set of sentences but unenhanced. The results revealed that TE outperformed the rest of the groups, participants who received sentence-level TE performed better than those who received discourse-level TE.

Farley, Peart and Enns (2009) investigated the effects of TE regarding the French imparfait. This study combined two focus-on-form techniques which are SI and TE and addressed whether the effects of SI were heightened by the enhanced

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conditions. The experiment compared two input-based treatments: structured input (SI) and textual enhanced structured input (TESI) using sentence-level tasks. The results revealed positive effects for TESI on L2 production of the targeted form which persisted after a ten days delayed posttest.

Although these studies report positive effects for TE, other experiments show no effects for this treatment. Some of these studies will be discussed below.

White (1998) investigated the effect of TE regarding the acquisition of third person singular possessive determiners in English (PDS). In this study participants were divided in three groups: one who received TE input flood and extensive reading/listening, another group who received TE input flood, and finally one who received unenhanced input flood. The results showed that the participants who were exposed to the typographically enhanced forms increased the use of the target forms. However, this treatment did not have a positive effect on the subjects’ ability to use the forms correctly. Leow (2001) investigated the effect of TE on noticing of specific forms, reading comprehension, and intake of the formal imperative forms in Spanish. All participants were divided into two groups: one read a passage in Spanish in which the target forms were enhanced and the other group received the same passage with unenhanced forms. Results reported no significant gain for TE regarding noticing the target forms, reading comprehension, and intake. Like White (1998), this study did not show positive effects for TE.

Following this research trajectory, Overstreet (1998) examined the effect of content familiarity and TE on L2 Spanish learners of preterit and imperfect tenses and their comprehension of the passage content. Like in the two previous studies, the researcher did not find positive effects for TE. Furthermore, the researcher found a negative effect for TE on the comprehension of the passage content presented to the subjects.

Izumi (2002) investigated the effects of output and input enhancement on the acquisition of English relative clauses. The major findings of this study revealed that those who received visual input enhancement failed to perform better than the groups involved in the experiment.

Leow, et al. (2003) investigated the effects of TE on comprehension and intake regarding the Spanish present perfect and the subjunctive. TE failed to bring noticing to the target forms and did not improve comprehension or intake. In another study focusing on the French past participle agreement in relative clauses, Wong (2003) obtained mixed results. The major results of this study showed that
there were no significant effects for TE on comprehension and acquisition of the targeted forms. Nevertheless, TE had a positive impact on overall recall of ideas by the participants.

All these studies reveal mixed results, even though those conducted at the sentence-level obtained consistently positive results.

*Theoretical background of input processing*

Processing Instruction (PI) is an input-based instruction which aims to develop instructional intervention in order to affect the learner’s language processing strategies. VanPatten’s (1996; 2004; 2007) PI’s model assumes that instruction does make a difference for the learner in a classroom setting and questions what is the best manner to present and teach the target language taking into account that input is the driving force for second language acquisition.

PI is based on three key components: information about a linguistic structure, information about learner’s processing strategies, and structured input (SI) activities which are designed to help learners use more beneficial strategies in processing and acquiring the target language. Structured input activities aid learners to not only notice the form but also to comprehend the meaning of it, making successful form-meaning connections. SI activities are created taking into account how learners process the target language and how they alter their strategies for acquisition to occur. The main goal of these activities is to present and organize the input in such a way that learners have to pay attention to the form in order to comprehend the meaning. SI activities are ideal for classroom teaching because they promote meaningful interactions between learners while they pay attention to a specific form at the same time.

*Structured input: Previous research*

In the previous section we stated that, SI activities seek to meet two particular goals: to lead the learner to notice the target forms, and to alter the strategies the learner uses to process input in order to make form-meaning connections more efficiently. Below, we present in detail previous research conducted in this particular field.

VanPatten and Cadierno (1993) compared two types of instructions, PI and traditional instruction (TI), regarding the object pronoun in Spanish. In this study
there were three different groups: the PI group, the TI group and the control group. The PI group received information about the grammatical structure, processing strategies and relevant SI activities. The TI group received grammatical explanation about the target grammatical feature, and mechanical and meaningful activities, and finally the control group read and discussed an article. Results showed that the PI group improved significantly on the interpretations tasks. However, the TI group did not show much improvement. Regarding the production tasks, the PI group and the TI group improved equally with significant gains. The control group revealed no improvement. All these results were consistent throughout the delayed posttest. The results of the study show that PI caused a great impact in the way learners process the target forms allowing them to interpret and produce the object pronoun in Spanish correctly.

This study was replicated by Cadierno (1995), who compared the relative effects of TI and PI regarding the Spanish past-tense. In this study there were also three groups: a TI group, a PI group which used SI activities and a control group which received no instruction. The results revealed significant gain in both comprehension and production for the PI group, while subjects in the TI group had significant gains only in production. This study was replicated many times using other grammatical features and other Romance languages (see Benati, 2001; Cheng, 1995; VanPatten & Wong, 2004, among others). All of these studies revealed comparable results where the PI group consistently outperformed the TI group in the interpretation tasks. In all these studies, PI was compared with TI where most activities in the TI group were mechanical drills with limited meaningful context while PI used structured input activities. Later on, Farley (2001; 2004) compared PI with meaning-based output instruction (MOI). Both studies from Farley (2001; 2004) focused on the Spanish subjunctive in noun clauses with expressions of doubt, denial, and uncertainty. The results obtained by Farley (2001) confirmed previous results where PI outperformed the output treatment. However, Farley (2004) did not replicate the previous findings showing equal improvement for both PI and MOI groups. Benati (2005) also compared PI and MOI where the target structure was past tense in English as an L2. Benati (2005) obtained the same results as VanPatten and Cadierno’s (1993) study.

Other studies have compared PI and MOI (Morgan-Short & Wood Bowden, 2006; Keating & Farley, 2008; VanPatten, Farmer & Clardy, 2009) obtaining mixed results where PI outperformed MOI (VanPatten, Farmer & Clardy, 2009),
and also where MOI and PI showed equal results (Morgan-Short & Wood Bowden, 2006; Keating & Farley, 2008). However, it is important to note that PI as a treatment did not show negative results compared with other treatments. This means that information about a linguistic structure, information about the learner’s processing strategies and SI activities helped learners make successful form-meaning connections.

In the present study, we introduce a Textual Enhanced Structured Input as a treatment in order to investigate if the positive results of structured input are heightened by textual enhancement, making this new treatment more likely to push the learner to make form-meaning connections.

**The present study: Textual enhanced structured input**

There is no reason why TE cannot be used in conjunction with other input enhancement techniques. Two combined focus-on-form techniques may encourage both noticing and a deeper processing of the target forms. Therefore, in this study, TE and SI are combined in order to foster deeper form-meaning connections that also are effective and sustained over time.

TE can be a useful tool in helping to draw the learners’ attention to specific forms in written input. SI activities are directly based on the strategies that learners use to process input. Because SI activities are designed with the learners’ processing strategies in mind, they probably will help altering the learners’ inefficient strategies of processing input by replacing them with efficient form-meaning connections.

**Research questions and related hypothesis**

Question 1: Does SI bring about beneficial effects on sentence-level tasks involving the interpretation and production of the third-person singular form of the Spanish preterit?

Hypothesis 1: SI will improve the learners’ ability to interpret and to produce the Spanish preterit. This hypothesis is based on the previous research on processing instruction (Cadierno, 1995). The results of Cadierno revealed that learners who received processing instruction not only made significant gains on the comprehension task but also performed better than the other treatment groups.
Question 2: Does TESI bring about beneficial effects on sentence-level tasks involving the interpretation and production of the third-person singular form of the Spanish preterit?

Hypothesis 2: TESI will improve the learners’ ability to interpret and to produce the Spanish preterit. In Cadierno’s study (1995) the results favored SI, therefore SI combined with another focus on form technique will not mitigate the results brought about by the structured input component. Therefore positive results are expected.

Question 3: Do SI and TESI bring about equal effects on sentence-level tasks involving the interpretation and production of the third-person singular form of the Spanish preterit?

Hypothesis 3: TESI will bring about greater overall improvement than SI alone on production tasks. This hypothesis is based on Wong’s (2002) study and on Farley, Peart and Enns’ (2009) study, where they obtained positive results using textual enhancement on sentence-level tasks.

**Methodology of this study**

**Subjects**

Originally the participants consisted of 240 university students from a large southern university in the United States. First-semester students were selected so that they would not be familiar with the Spanish past tense (which is covered in the second semester). Background information from the participants was gathered using a written survey; after analyzing the data from this survey a total of 62 students constituted the final subjects of this study. Although some students may have received previous instruction on the Spanish past tense, a separate analysis of data using this 60% cutoff level served as a control with regard to the subjects’ prior knowledge and also served to avoid ceiling effect. Twelve intact course sections were randomly assigned to two treatment groups: structured input instruction and textually enhanced structured input instruction. This experiment was conducted towards the end of the fall semester, 2009.
Materials

There were two instructional material packets for each treatment (see Appendices A and B). Each packet was designed to reflect a different approach to teaching the Spanish past tense. The textually enhanced structured input (TESI) packet consisted of 12 structured input activities where the verbs were enhanced by underlining, bolding and using a larger font (there were six referential activities and six affective activities). The structured input (SI) packet consisted of 12 structured input activities (there were six referential activities and six affective activities). Both instructional packets contained identical subject matter, vocabulary and number of tokens.

One grammatical point was presented in both treatments: the third person of the Spanish preterit. Six activities (three referential and three affective) were completed on the first day of instruction and six activities (three referential and three affective) were completed on the second day of instruction.

Assessment

The assessment materials designed for this study consisted of paper-and-pencil tests and two different types of assessments were used, an interpretation and a production task. There were three versions (A, B, C) of both the interpretation and the production test. Having versions of each test allows for six possible orderings. Five of those test sequences were used within each treatment group according to a Latin square design.

The interpretation task required the participants to read the utterance and to select the correct adverb of time from the options given; participants decided among three different options. There were a total of 18 items on the test, consisting of:

- Six items containing preterit tense forms
- Six items containing present tense forms
- Six items containing distracters

The interpretation task was limited to 18 items due to time constraints. The language used in the interpretation assessment consisted of high-frequency vocabulary that the subjects had already covered in previous lessons.

The production assessment consisted of completing sentences, and infinitive verbs were given. In each production task, participants were presented with an
instruction line asking them to write complete sentences to express their thoughts and opinions about the theme of the section. In all cases participants were required to use the Spanish preterit.

There were a total of six items, consisting of:

- Four regular infinitive verbs. One regular verb was new to the participants; therefore, an English translation was provided.
- Two irregular infinitive verbs.

All production assessments were similar in each packet (a sample of one interpretation and one production test is provided in Appendix C). No items using present tense were included in the production tasks due to time constraints.

Procedures

The pre-test, consisting of an interpretation and a production task, was administered before the treatment. The pre-test measured the knowledge and ability of the learners’ use of the third-person singular Spanish preterit. The pre-test also served as a means of eliminating participants with prior knowledge from the final data pool.

The two days of experimental instruction were conducted out by six instructors who were not the participants’ regular instructors, and who had never taught them before.

Scoring

For the statistical analysis, raw scores were calculated on the past-tense items in the following manner: for the interpretation portion, each correct answer received a score of one and each incorrect or blank response received a score of zero. The total possible points were 18. For the production portion, two points were given for each correct use of the preterit tense, if the form was correct in person/number and did not contain a spelling error. Hence, the maximum score possible was 12. If the learner used the preterit form, but the verb did not agree in person or number or was spelled incorrectly (for example, an accent mark was lacking, or if escribio was written instead of escribió), one point was awarded. Each blank response received a score of zero.
RESULTS

The raw scores for each portion of the pre-test and post-tests were tabulated, and an analysis of variance (ANOVA) with repeated measures was performed. The independent variable was Instruction Type (TESI, SI), whereas the dependent variable was Time (pre-test, post-test 1, post-test 2). The analysis was composed of two separate repeated measures or analysis of variance (ANOVA): one for interpretation data and another for the production data. Each analysis examined the within-subjects effect for Time, the between-subjects effect for Instruction Type, and the interaction between Time and Instruction Type. In order to determine if there was any statistical difference between the results of pre-tests and post-tests 1 and 2 regarding interpretation and production tests, T-tests were calculated in each case.

Table 1 shows the results of the mean test scores and standard deviation for both the TESI and the SI groups. This table demonstrates that for the interpretation data, both the TESI and the SI groups improved over time, from the pre-test to the first post-test.

<table>
<thead>
<tr>
<th>Pre-test</th>
<th>Test</th>
<th>Instruction</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpretation</td>
<td>Pretest</td>
<td>SI</td>
<td>31</td>
<td>2.500</td>
<td>.8200</td>
</tr>
<tr>
<td>Interpretation</td>
<td>Pretest</td>
<td>TESI</td>
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<td>2.464</td>
<td>.6372</td>
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<tr>
<td>Interpretation</td>
<td>Post 1</td>
<td>SI</td>
<td>31</td>
<td>3.766</td>
<td>1.5465</td>
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<tr>
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<td>Post 1</td>
<td>TESI</td>
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<td>3.714</td>
<td>1.6068</td>
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<tr>
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<td>Post 2</td>
<td>SI</td>
<td>31</td>
<td>4.000</td>
<td>1.4142</td>
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<tr>
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<td>Post 2</td>
<td>TESI</td>
<td>31</td>
<td>3.8571</td>
<td>1.6035</td>
</tr>
</tbody>
</table>

Table 1. Number of subjects, means and standard deviation for the interpretation data

The improvement was also sustained over the fourteen-day period until the second post-test. Similarly, looking at the production data in Table 2, the zero means on the pre-test, together with the higher means on both post-tests, indicate great improvement for both TESI and SI groups.

<table>
<thead>
<tr>
<th>Pre-test</th>
<th>Test</th>
<th>Instruction</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
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<tbody>
<tr>
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<td>Pretest</td>
<td>SI</td>
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<td>SI</td>
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<td>2.700</td>
<td>3.544</td>
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<tr>
<td>Production</td>
<td>Post 2</td>
<td>TESI</td>
<td>31</td>
<td>2.392</td>
<td>3.258</td>
</tr>
</tbody>
</table>

Table 2. Number of subjects, means and standard deviation for the production data

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Analysis of interpretation data

In order to determine the possible effects of instruction type on the way in which learners interpret sentences containing Spanish preterit, raw scores of the interpretation pre-test and the post-tests were tabulated and a two-way analysis of variance (ANOVA) with repeated measures was performed. Instruction Type (TESI, SI) was the between-subjects factor, whereas Time (pre-test, post-test 1, post-test 2) was the within-subjects factor. The results shown in Table 3 reveal a significant main effect for time.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
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<th>MS</th>
<th>F</th>
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<td>Between-subjects effects</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Instruction type</td>
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<td>.257</td>
<td>.103</td>
<td>.75</td>
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<tr>
<td>Within-subjects effects</td>
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<tr>
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<td>Instruction type x time</td>
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<td>.048</td>
<td>.034</td>
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<td>Error (instruction type)</td>
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<td>1.399</td>
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</tr>
<tr>
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<td>56</td>
<td>140.28</td>
<td>2.51</td>
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<td></td>
</tr>
</tbody>
</table>

Table 3. Summary table for ANOVA using interpretation data

However, there was no significant effect for Instruction Type and no significant interaction between Type and Time. This indicates similar improvement for both groups. A visual representation of the gains from pre-test to post-test 1 and 2 is shown in Figure 1.

Figure 1. Interaction plot for interpretation results
In order to determine if there was a statistical difference between the results of pre-test 1 and post-test 2 for interpretation tasks, a T-test was calculated in each case. The comparison between the post-test 1 for the interpretation task revealed a $p$ value of .94. This means that there was no significant difference between the results of both post-tests 1. Both groups performed equally regarding the interpretation of the Spanish preterit.

The comparison between the post-tests 2 for the interpretation task revealed a $p$ value of .68. This means that there was no significant difference between the results of both post-tests 2. Both groups performed equally regarding the interpretation of the Spanish preterit.

**Analysis of the production data**

Raw scores of the production pre-test and post-tests were put into a table and a two-way analysis of variance (ANOVA) with repeated measures was carried out in order to determine the possible effects of instruction type on the way in which learners produce Spanish preterit. Instruction Type (TESI and SI) was the between-subjects factor, whereas Time (pre-test, post-test 1, post-test 2) was the within-subjects factor. The results shown in Table 4 reveal a significant main effect for Time.

<table>
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<tr>
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<td>4.25</td>
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<td>.615</td>
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<tr>
<td>Instruction type</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Within-subjects effects</td>
<td>2</td>
<td>389.07</td>
<td>194.54</td>
<td>29.89</td>
<td>.00</td>
</tr>
<tr>
<td>Time</td>
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<td></td>
</tr>
<tr>
<td>Instruction type x Time</td>
<td>2</td>
<td>19.58</td>
<td>9.79</td>
<td>1.51</td>
<td>.227</td>
</tr>
<tr>
<td>Error (instruction type)</td>
<td>112</td>
<td>729.01</td>
<td>6.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error (time)</td>
<td>56</td>
<td>929.94</td>
<td>2.51</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table 4. Summary table for ANOVA using production data*

However, there was no significant effect for Instruction Type and no significant interaction between Instruction Type and Time. This means that there was no significant difference between the improvement of the TESI and SI groups. Figure 2 shows the gains from the pre-test and post-tests 1 and 2.

In order to determine if there was a statistical difference between the results of pre-test 1 and post-test 2 for production tasks, a T-test was calculated in each case. The comparison between the post-test 1 for the production task revealed a $p$ value of
value of .18. This means that there was no significant difference between the results of both post-tests 1. Both groups performed equally regarding the production of the Spanish preterit.

The comparison between the post-tests 2 for the production task revealed a p value of .80. This means that there is no significant difference between the results of both post-tests 2. Both groups performed equally regarding the production of the Spanish preterit.

DISCUSSION

The results of the present research support hypothesis 1, confirming that SI would bring about beneficial effects on sentence-level tasks involving interpretation. A solid body of research in this area reveals positive effects for structured input activities from pre-test to post-test on interpretation tasks. The present experiment showed similar results. The group that received SI activities performed better overall on the interpretation task after treatment, and this improvement was maintained through the second post-test. The results of the present study support hypothesis 2, confirming that TESI would bring about improved performance in sentence-level tasks involving the interpretation of the Spanish preterit. This hypothesis was based on the results of previous research on SI (Cadierno, 1995). The present experiment demonstrated similar results.

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The results of this study do not support hypothesis 3, which stated that TESI brings about greater overall improvement than SI alone in production tasks involving the Spanish preterit. This hypothesis was based on the results obtained by Wong (2002) and on a previous study by Farley, Peart and Enns (2009), where the TESI group outperformed the SI group regarding the production of the French *imparfait*. However, the results of the present study revealed no significant difference between TESI and SI after treatment regarding the production task. Although instruction type did not have an effect on learners’ performance, the present study does reveal that TESI had a positive impact on both the learners’ ability to produce and to interpret the Spanish preterit. Even though this group did not have any practice producing the Spanish preterit and did not receive any explicit information, they were able to produce the Spanish preterit successfully which was maintained through post-test 2.

The discussion now turns to a reasonable explanation for why both groups in this experiment performed similarly and why the present results differ from previous studies.

One possible explanation lies in the differences between the present study and previous studies. The target form of study conducted by Farley, Peart and Enns (2009) was the French *imparfait* whereas in this study the target form was the Spanish preterit. The data pool for the French study was relatively small with an n size of 33 subjects compared with an n size of 62 subjects in this study. This fact may have had an impact on the results obtained.

A second possible explanation is that the French study was carried out in second-semester courses of this language. The present study was carried out in lower-level, first-semester Spanish classes where students are only exposed to different forms of the present tense. The change of levels might have had an impact on the results of the experiment. During the first semester, students are exposed to the Spanish language for the first time in many cases, whereas during the second semester they already have some experience with the study of a foreign language.

The results of this study reveal that apparently SI alone was sufficient to foster form-meaning connections and to lead learners to notice and to process the Spanish preterit. This study provides further evidence that SI alone, without enhancement or grammatical explanation, is sufficient to foster successful form-meaning connections.
CONCLUSIONS

The results of this experiment hold not only theoretical implications, but also pedagogical implications. From a theoretical perspective, this study provides evidence to support the idea that SI and TESI can impact second language acquisition in a positive manner. Both groups had no exposure to output tasks during treatment, however, both showed improvement over time in production tasks involving the Spanish preterit. The results of the present study add to the body on research of TE and SI showing that both types of input instruction improved over time with no grammatical explanation. The results of these two input-based instructions add to the body of research of VanPatten’s model of second language input processing (VanPatten, 1996; 2003; 2004; 2007) in that they show that SI activities affect the developing system via intake which can be accessed by the learner for production, under certain circumstances.

The results provide evidence that the TESI group improved over time in both interpretation and production tasks. However, the importance of the results for the TESI group directly contradicts the results of previous research (Wong, 2002; Farley, Peart & Enns, 2009) where TE obtained significant improvement on production at sentence-level tasks. The results of the present study indicate that more research needs to be done regarding TE in order to draw more definite conclusions. It may be the case that the same treatment (TESI) applied to a different grammar point could yield different results. The results of the present study also add to the body of research on input with no explicit information. The results of this study serve to stress that grammatical explanation might not be necessary for the learner to process the targeted forms. In both cases the groups involved in this experiment received no grammatical explanation, and they yet were able to improve over time regarding interpretation and production of the Spanish preterit. These results, however, do not mean that explicit instruction should not be used with SI or in the context of the classroom. Some learners are used to seeing this type of information and may like to have it even if it is not necessary.

Finally, the results of the present study carry implications concerning the combination of two focus-on-form techniques. These results show that apparently one is more effective than the other. The SI instruction alone was sufficient to facilitate form-meaning connections, at least as shown in the results of the present study. One explanation of these results is that structured input activities are rooted
in psycholinguistics principles of input processing which are supported by a large body of research. The effectiveness of the combination of these two focus-on-form techniques needs more experimentation in order to draw more definite conclusions.

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APPENDIX A

Sample activity items: Referential Structured Input (si)

Activity A: Madonna- Young and Old:
A recent article in a pop culture magazine summarized the life and contributions of Madonna to pop culture. Below there are a few excerpts from the article. Indicate whether each is referring to earlier times or her life today.

1) escribe cuentos para niños.
   a. En 1985          b. Hoy día
2) actuó en el cine.
   a. En los 80s       b. Actualmente
3) viajó a la Argentina.
   a. Hace años       b. Ahora
4) lee cuentos a sus hijos.
   a. Regularmente    b. En 1985
5) fue bailarina.
   a. En los 70s       b. Actualmente
6) viaja con frecuencia.
   a. En el pasado    b. Ahora

Sample activity items: Affective Structured Input (si)

Activity D: Your Instructor’s Weekend
How was last weekend for your instructor? Listen to each description of his/her weekend and check those activities that you think he/she did.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Sí</th>
<th>No</th>
<th>No sé</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Viajó a otra ciudad.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Trabajó mucho.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Durmió muy poco.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Ayudó a un amigo.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Comió comida china.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Actuó en la televisión.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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APPENDIX B

Sample activity items: Referential Textually Enhanced Structured Input (TESI)

Activity A: Madonna-Young and Old
A recent article in a pop culture magazine summarized the life and contributions of Madonna to pop culture. Below there are a few excerpts from the article. Indicate whether each is referring to earlier times or her life today.

1) \textit{escribe} cuentos para niños.
   a. En 1985 b. Hoy día
2) \textit{actuó} en el cine.
   a. En los 80s b. Actualmente
3) \textit{viajó} a la Argentina.
   a. Hace años b. Ahora
4) \textit{lee} cuentos a sus hijos.
   a. Regularmente b. En 1985
5) \textit{fue} bailarina.
   a. En los 70s b. Actualmente
6) \textit{viaja} con frecuencia.
   a. En el pasado b. Ahora

Sample activity items: Affective Textually Enhanced Structured Input (TESI)

Activity D: Your Instructor’s Weekend
How was last weekend for your instructor? Listen to each description of his/her weekend and check those activities that you think he/she did.

<table>
<thead>
<tr>
<th></th>
<th>Sí</th>
<th>No</th>
<th>No sé</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) \textit{Viajó} a otra ciudad.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) \textit{Trabajó} mucho.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) \textit{Durmió} muy poco.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) \textit{Ayudó} a un amigo.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) \textit{Comió} comida china.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) \textit{Actuó} en la televisión.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C

Assessment materials: Sample of an interpretation test

Interpretation Test A: El estudiante típico de Texas Tech….

Instructions: What do typical students do every day at the university? Read the following statements and choose the **best** answer.

1) Juana no toma
   a. la puerta   b. la justicia   c. not a or b

2) A Estela no le gustan
   a. la casa   b. los perros   c. not a or b

3) Pedro lee el periódico
   a. todos los días   b. el fin de semana pasado   c. not a or b

4) José viaja a su casa
   a. regularmente   b. ayer   c. not a or b

5) Miguel habló con un amigo
   a. el fin de semana pasado   b. Actualmente   c. not a or b

6) A ustedes les gustan
   a. la carne   b. el pescado   c. not a or b

7) Jorge bebió mucho
   a. ahora   b. el fin de semana pasado   c. not a or b

8) Joaquín durmió poco
   a. la semana pasada   b. actualmente   c. not a or b

9) La hermana de Ana actúa bien
   a. normalmente   b. el año pasado   c. not a or b

10) A Juan le gusta mucho
    a. andando   b. andar   c. not a or b

11) Alejandro trabajó en una tienda
    a. ahora   b. la semana pasada   c. not a or b

12) Ramón no llamó a
    a. actualmente   b. ayer   c. not a or b

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13) Rosa siempre hace la tarea
   a. normalmente  b. el año pasado  c. not a or b
14) María vive en la residencia
   a. regularmente  b. el fin de semana pasado  c. not a or b
15) René comió en el UC
   a. regularmente  b. el mes pasado  c. not a or b
16) Hilda escribe
   a. cocinas  b. poemas  c. not a or b
17) Dora es buena estudiante
   a. normalmente  b. ayer  c. not a or b
18) Paula dijo algo malo
   a. regularmente  b. el mes pasado  c. not a or b

Assessment materials: Sample of a production test

Production Test A: La semana pasada del estudiante típico...

Instructions:
Write six things about what the typical student did last week.

<table>
<thead>
<tr>
<th>ir</th>
<th>tener</th>
</tr>
</thead>
<tbody>
<tr>
<td>manejar</td>
<td>fumar</td>
</tr>
<tr>
<td>bailar (to dance)</td>
<td>escribir</td>
</tr>
</tbody>
</table>

1) ___________________________________________________________________
2) ___________________________________________________________________
3) ___________________________________________________________________
4) ___________________________________________________________________
5) ___________________________________________________________________
6) ___________________________________________________________________