The methodologies according to which foreign-language (FL) teachers approach form-focussed instruction—i.e., direct curricular interventions into some aspect of learners' grammatical development (cf. Ellis 1998)—have changed in important ways in the last twenty years (Tschirner 1996). Instructors and materials designers now employ various input- and output-oriented strategies. Interestingly, however, the scope of grammar instruction—i.e., the structures that receive explicit attention in textbooks and instructional materials—has not changed substantially (Tschirner 1996). Finneman (1987) surmises that the Spanish FL curriculum "imparts a faulty notion of language structure " (p. 37). The Spanish curriculum's apparent focus on the language's verbal morphology may convey a biased and fragmented view of the grammatical abilities learners will eventually need.

According to Terrell, Baycroft, and Perrone (1987) as well as Collentine (1995, 2000b) a consequence of this focus on morphology is that Spanish form-focussed instruction has no explicit agenda for assisting students in developing knowledge of (and so strategies for parsing and generating) phrases and clauses into (syntactically) complex utterances, such as sentences with a nominal clause (e.g., [Los estudiantes saben [que no hay clase mañana]]), an adjectival clause (e.g., [Queremos comprar una casa [que esté en el campo]]), or an adverbial clause (e.g., [Voy a la playa [cuando no necesito trabajar]]). Thus, the acquisition of much syntactic knowledge must occur incidentally, or unintentionally during the course of meaning-focussed instruction (cf. Robinson 1997b).

However, Robinson (1996, 1997a) posits that complex linguistic phenomena require different methodological interventions than relatively simple linguistic phenomena. Specifically, learners are more likely to develop knowledge for complex rules under so-called "enhanced learning" conditions (Robinson 1997a). Enhanced learning involves tasks where a learners is instructed to get meaning from some type of input while some heuristic modification to that input attempts to draw the learner's attention to a targeted grammatical phenomenon (e.g., underlining or colorizing a subordinating conjunction).

Another repercussion of the Spanish curriculum's focus on morphology appears to be that the subjunctive, the most distinct morphological paradigm from the English-speaker's perspective (Stockwell, Bowen, and Martin 1965), receives an inordinate amount of attention in the classroom (Terrell, Baycroft, and Perrone 1987; Collentine 1995). To be sure, the amount of attention typically given to the subjunctive through the intermediate level of instruction may even be unjustifiable given the proficiency goals that many curriculum designers set for learners during that time period. To attain reasonable proficiency goals, learners need numerous opportunities to acquire and automatize knowledge for processing verbal structures such as the present indicative, the preterit, and the imperfect (Collentine 1993). Furthermore, the utility of a Spanish curriculum that places a premium on learners' subjunctive abilities has increasingly been brought into question, as researchers have noted that the efficacy of most subjunctive instruction through the intermediate level is, for the most part, weak (Collentine 1995, 1998; Pereira 1996).
The overall inefficacy of subjunctive instruction may result from the assumption that, when subjunctive instruction begins, learners can already parse and generate complex syntax. Yet, Collentine (1995) shows that, when learners begin subjunctive instruction, their Spanish syntax is notably immature, generating (in spontaneous oral speech) utterances that are characteristic of what Givón (1979) refers to as the pre-syntactic stage of language development. Consequently, both Collentine (1995) and Pereira (1996) wonder whether the subjunctive might be more learnable if, prior to subjunctive instruction, learners received form-focused instruction fostering their knowledge of complex Spanish syntax.

Collentine (2000b) explores the extent to which syntax and morphology develop in some symbiotic fashion. Second-language acquisition (SLA) research conducted to date appears to support the syntactic foundation hypothesis. That is, the acquisition of certain syntactic knowledge establishes the conditions for the acquisition of verbal morphology.

- Learners' syntactic production seems to contain less errors than their morphological production (Bardovi-Harlig and Bofman 1989; R. Ellis 1987).

- Universal Grammar's (UG) Structure Dependency Principle implies that learners cannot know where to generate inflected verbs until they know the syntactic structures (i.e., lexical and functional phrases) that the language permits.3

- Similarly, the Gradual Development Hypothesis predicts that learners do not initially generate functional projections such as IP, and so a learner's competence will not 'intentionally' produce certain morphology until it encodes the requisite syntactic structure (Vainikka and Young-Scholten 1994, 1996).

- Research studying L2 grammaticalization indicates that learners do not attempt to modify verbs inflectionally until they abandon the pragmatically motivated TOPIC-COMMENT word order strategy in favor of a syntactically motivated SUBJECT-PREDICT strategy (Skiba and Dittmar 1992).

The principal syntactic problem that subjunctive learners face is that they need to develop knowledge for generating and parsing sentences with complex syntax. Even in oral tasks affording the learner time to plan utterances, most intermediate-level students struggle to generate multipropositional utterances with dependent clauses, favoring instead coordination and parataxis (Collentine 1993, 1995). Students must expand their complementation strategies: while nominal and adjectival complements can simply be lexical phrases (e.g., *Juan sabe [NP la verdad], María tiene amigos [AP fieles]*), they can also be functional phrases representing an entire clause (e.g., *Juan sabe [CP que Paco lo hizo], María tiene amigos [CP que son buenos]*). Furthermore, students must learn that clausal complements vary in their underlying structure (Farley 2000). In terms of underlying syntactic structure, a complement containing a subjunctive form is reportedly much more integrated into the main clause of its sentence than is an indicative complement (Rochette 1988). Consequently, the morphosyntactic behaviors of subjunctive complements are, in a sense, much more influenced by the grammatical configuration of the main clause they modify than are the behaviors of indicative complements.

Specifically, Rochette (1988) compares subjunctive behaviors in a number of Romance languages from a Principles and Parameters perspective, arguing that whereas indicative complements project all the way up to a CP structure (e.g., *Juan sabe [CP que [IP la boda es mañana]]*), subjunctive complements only project up to an IP structure (e.g., *Juan desea que [IP la boda sea mañana]*). Kempchinsky (1986) reasons that volitional and directive predicates represent a type of embedded
imperative. She explains that an abstract imperative operator resides in the head of these subjunctive CPs, which causes the properties responsible for inflecting verbs to move to the COMP position at Logical Form. Under both of these analyses of subjunctive complements, while an indicative complement is opaque with respect to its main-clause, a subjunctive complement is transparent; that is, the "local domain" of subjunctive complements is the main clause whereas indicative complements constitute their own local domain. If a learner were to generate subjunctive and indicative complements equally, their interlanguage would not place the same distributional restrictions on subjunctive complements that the competence of native speakers does.

What are some of the restrictions resulting from the underlying structural differences between indicative and subjunctive complements? One is what Rochette (1988) and Kempchinsky (1986) refer to as the obviate phenomenon. Students must learn that indicative complements enjoy no subject co-reference restrictions while many are placed on subjunctive complements (cf. Farley 2000). For instance, if a learner processed the syntax of indicative and subjunctive complements differentially, he or she would know that, while the subject of a subjunctive complement cannot normally be co-referential to its main-clause subject (e.g., Juan[i] quiere que él[*i,j] prepare la cena), such restrictions are not placed on indicative complements (e.g., Juan[i] sabe que él[i,j] preparará la cena).

Furthermore, the expanded local domain of subjunctive complements affects interclausal tense dependencies (Rochette 1988). Tense operators can only be present in complements with C(OMP) as their head, implying that subjunctive complements must inherit tense from the main clause (Rochette 1988, pp. 253-7). Another consequence of the structural differences between these two complements is "stylistic inversion" (cf. Kayne 1994), which refers to the fact that subjunctive complements readily invert their subjects and verbs (e.g., Juan quiere que hable Pablo). Although there is much controversy over what licenses stylistic inversion, Jones (1999) argues that the presence of a mood phrase/projection (MP) in subjunctive clauses essentially creates the conditions for the embedded-clause verb to raise to the SPEC of IP (or, more specifically, of TP). Interestingly, as VanPatten (1997) has argued, one of the key psycholinguistic principles that interacts with the acquisition of Spanish morphosyntax is the First Noun Strategy (i.e., learners interpret the first noun of a sentence--and so, perhaps, of a clause as well--as its subject; e.g., Lo compra mañana). Thus, it is not unreasonable to suspect that the First Noun Strategy coupled with the high probability that many subjunctive complements contain subject-verb inversion in input interacts with the learner's acquisition of the subjuctive and his or her hypotheses as to the syntactic configuration that subjunctive utterances should possess.

The study reported here measures the extent to which complex syntax instruction--or, instruction that promotes learners' knowledge that complements can be clausal (i.e., functional) constituents--affects how much learners benefit from subjunctive instruction. The syntactic instruction attempted to encourage the development of knowledge that verbal and nominal complements, in addition to being lexical, can also constitute functional/clausal constituents. However, to maintain the internal validity of the experiment, the study reported here did not provide complex-syntax instruction attempting to raise students' knowledge of subjunctive-specific syntactic configurations, such as those identified by Farley (2000), Kempchinsky (1986), and Rochette (1988). The researchers surmised that it would be difficult to determine the effects of coupling subjunctive instruction with complex-syntax instruction if such syntactic instruction simply exposed learners to more sentences containing the subjunctive. The subjunctive instruction fostered learners' knowledge of the subjunctive in adjectival clauses.

The Study
The present study asks the following research question:
Is instruction fostering FL learners' knowledge of the Spanish subjunctive more effective when it is coupled with instruction fostering learners' knowledge of the relevant syntactic structures surrounding subjunctive use?

An affirmative response to this question will result from the observation of two behaviors: (1) learners receiving subjunctive plus syntax instruction should exhibit significant overall gains from the treatment upon comparison of the pretest and posttest data; (2) these learners should exhibit significantly greater overall gains than learners only receiving subjunctive instruction.

Materials. The treatment involved three self-paced instructional software lessons designed by the researchers with Macromedia Director®: (1) a lesson that fostered subjunctive knowledge in adjectival clauses; (2) a lesson promoting knowledge of complex syntax (in particular, clausal complements); (3) a lesson entailing indirect-object pronouns, which was used to balance the number of treatments needed for the study's design (see below). Each lesson required fifty to sixty minutes to complete.

The lessons provided form-focussed grammar instruction that incorporated consciousness-raising techniques, structured input, and enhanced-learning techniques, a combination that is particularly compatible with the possibilities and limitations of computer-based FL instruction (cf. Collentine and Collentine 1997; Collentine 2000b). Regarding consciousness-raising techniques, the lessons attempted to elevate the participants' metalinguistic awareness of the grammatical and semantic features of the subjunctive in adjectival clauses as well as the syntactic features of clausal complements (Fotos 1994). The software exposed the participants to rule explanations, after which it encouraged them to explore and identify "exemplars" representing some feature of the phenomenon in question. Concerning structured input, the lessons engaged participants in form-focused input tasks, the completion of which crucially required a participant to contemplate the functional and/or semantic features of a targeted grammatical phenomenon (cf. Lee and VanPatten 1995). Finally, because the morphological and syntactic phenomena targeted in this study are semantically and structurally complex, the researchers recognized that rule explanations for many of the grammatical features targeted in this experiment would, in all likelihood, be too intricate to be useful to most learners. Consequently, the lessons also incorporated enhanced-learning techniques, attempting to draw the participants' attention to important features and relationships through heuristic modifications to exemplars (Robinson 1997a). To that end, the participants also interacted with what the authors termed interactive-multimedia exemplars. By rolling a mouse over such an exemplar, a software routine altered its content to highlight some structural relationship (e.g., exchanging a noun's adjective with an entire clause). These exemplars also entailed colorization (cf. Collentine 2000b) to highlight important morphological and syntactic constituents (e.g., [GREEN Juan sabe] [BLUE la verdad], [GREEN Juan sabe] [RED que] [BLUE están comiendo]) as well as potential relationships therein (e.g., María busca [RED un restaurante] que [RED sirva] comida marrueca, Juan tiene [BLUE un coche] que [BLUE va] lento). Additionally, to allow the participants to process input in a multisensorial fashion, the lessons supported exemplars both graphically and aurally (i.e., graphic contextualizers with audio support).

The vocabulary used in the applications was similar to what the participants were exposed to in the classroom, including topics such as professions, food, and social situations. For less-familiar words, English translations were given, and all directions were in English. Throughout the lessons, the participants received specific and corrective feedback on their responses.

The subjunctive lesson purported to teach participants that, in adjectival clauses, the subjunctive typically connotes one of the following scenarios: (1) the antecedent has no particular referent; (2) the antecedent is a variable, that is, many distinct referents can be assigned to it; or (3) the existence of a referent for an antecedent is negated.
Conversely, the lesson conveyed that the indicative in adjectival clauses connotes a definite referent. The lesson was careful not to explain the roles of definite articles (e.g., María tiene el carro que cuesta menos) and the personal a (e.g., María ve al hombre que tiene su dinero) in mood selection; much practice involved the use of antecedents without determiners (e.g., María necesita algo que está arriba) or indefinite articles (e.g., Voy a hablar con un profesor que sabe mucho de esto). Explanations about the subjunctive's and the indicative's functions came in the form of short summaries in English that subsequently prompted a participant to identify relevant exemplars. For instance, the software provided a brief explanation that the subjunctive connotes hypothetical possibilities, after which a drag-and-drop task prompted the participant to determine which of a number of sentences—containing both actual (e.g., Juan tiene un trabajo que es aburrido) and hypothetical (e.g., Juan desea un trabajo que sea peligroso) assertions—best described an animation (depicting Juan's dissatisfaction with his job). The lesson then engaged the participants in structured-input tasks. After considering a graphic contextualizer coupled with aural or written dialogue, a participant needed to determine which of two sentences best depicted that situation (e.g., {María va a un museo que está lejos, María va a un museo que esté lejos}). Finally, it is important to note that the lesson began by reminding participants of the command forms, which they had studied previously within the semester of the experiment, and revealed the connection between these forms and subjunctive morphology. A drill-and-practice exercise allowed the participants to produce the forms in writing before exploring the subjunctive materials described above.

The lesson on complex syntax was similar in design to the subjunctive lesson in terms of the visual and audio input as well as pedagogy. It first attempted to raise the participants' metalinguistic awareness of the structure of complex utterances by providing them with short summaries in English of the following concepts: (1) single- and two-clause sentences; (2) independent and dependent clauses; (3) nominal and adjectival clauses; (4) adjectives and adjectival clauses; (5) antecedents. Interactive-multimedia exemplars allowed the participants to explore and identify sentences demonstrating these relationships. For instance, the exemplars attempted to increase the participants' metalinguistic awareness that a sentence could be simple or complex (e.g., Juan lee, Juan lee que mañana lloverá), that verb and noun complements could be lexical or clausal (e.g., María tiene una vaca {buena, que produce mucha leche}), and that, within a clause, a noun could be referenced "implicitly" (i.e., an antecedent; e.g., [El trabajo] de Paco es difícil, Paco tiene [un trabajo] [que es difícil]). Structured-input tasks attempted to increase the participants' understanding of the meaning of the most common coordinating and subordinating conjunctions (e.g., y, pero, porque, que), and how each represents a unique semantic/pragmatic relationship between main and conjoined clauses. Each task asked the participants (1) to consider the content of some context presented either aurally or in writing along with graphic support and (2) to determine which of three sentences, differing only in their conjunction (e.g., Marta habla con alguien {pero, que, o} habla español), best depicted the context. A subsequent structured-input task attempted to reinforce the semantic and functional parallels between adjectives and adjectival clauses. The application presented a situation (a graphic coupled with aural or written dialogue), after which the participant was to determine which two of four possible sentences best depicted the situation. For each situation, one of the appropriate sentences contained a noun modified by an adjective; the other contained the same noun serving as an antecedent yet modified by a restrictive clause. For instance, in a

<table>
<thead>
<tr>
<th>Antecedent type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>No particular referent</td>
<td>Juan desea encontrar un compañero que sea cordial.</td>
</tr>
<tr>
<td>Variable referents</td>
<td>Juan hablará con un profesor que tenga experiencia en este asunto.</td>
</tr>
<tr>
<td>Referent's existence negated</td>
<td>Juan no conoce a nadie que pueda hacer eso.</td>
</tr>
</tbody>
</table>

5
situation describing someone's desire to travel to a beautiful Caribbean island (although none in particular), a participant would select between the following four sentences, with (a) and (d) constituting the two targeted responses: (a) Viaja a una isla bella, (b) Viaja a una isla que está en el Caribe, (c) Viaja a una isla fea, (d) Viaja a una isla que está en el Canadá. It is important to note that no exemplars in this lesson contained subjunctive forms.

The third program was similar in design to the subjunctive- and complex-syntactic programs. The topics involved the use of direct and indirect-object pronouns, constructs about which the participants had learned earlier in the semester.

The study had a pretest/treatment/posttest design. All three phases occurred within one week near the end of the participants' second semester of Spanish instruction. The pretest occurred the day before the treatment and the posttest two days after the treatment. The treatment occurred over a two-day period. The study involved three groups: the control group utilized the pronoun and the complex-syntax materials; the syntax-subjunctive group utilized the complex-syntax lesson and then the subjunctive lesson; the subjunctive-only group utilized the pronoun lesson and then the subjunctive lesson.

Following Collentine (1998), the pretest-posttest procedure involved two types of instruments: a production task and an interpretation task. The production task contained 14 items, consisting of a graphic contextualizer and a short (1-2 sentences) description of the situation depicted therein. After studying each situation, the participants completed a sentence that "described" or "characterized" the situation, by providing both the main-clause and the subordinate-clause verb of a sentence containing an adjectival clause, such as the following:

Susana tiene una computadora muy vieja. Por eso, está en la tienda de computadoras para ver si hay una computadora más eficiente.

**Based on the situation, complete this sentence:**
Susana ________ (buscar) una computadora que ________ (funcionar) mejor.

The recognition task provided the same type of contextualized situations, differing only in that the participant needed to indicate which of two possible sentences best described that situation, as in the following:

¡Esta sopa es fantástica!

**Based on the situation, which sentence best describes the situation?**

a) Está comiendo una sopa que sea deliciosa.
b) Está comiendo una sopa que es deliciosa.
c) I don't know.

The pretest and the posttest contained distinct test items, and so the researchers attempted to verify that the tests gauged the same knowledge (i.e., the abilities of FL learners of Spanish to select mood in sentences with an adjectival clause). To that end, the investigators randomized and combined the pretest
and posttest items and administered the combination as a single test to a group of fourth-year Spanish students (N=8). Subsequently, the investigators graded these students' performance, employing regression analyses to verify that the students' pretest-items scores were significant predictors of (i.e., correlated with) their posttest-items scores. The analysis confirmed that the production pretest was a highly significant predictor of the posttest for these learners; it confirmed the same for the recognition pretest and posttest. This analysis also provided a means of eliminating potentially non-discriminating test items.

**Participants.** Three groups of 23 students (N = 69) of University XYZ participated in the study. All were completing their second semester of Spanish as a FL under with the same instructor. The participants' ages were between 18 and 21, and all reported English as their first language. Their curriculum included a balance of form- and meaning-focused instructional techniques and activities. The class met for fifty-minute periods, four days a week. The treatments took place in the language laboratory of University XYZ. The subjects were randomly assigned to the three groups.

The investigators examined whether the three groups differed prior to the experiment in terms of their overall Spanish abilities and their knowledge of the subjunctive morpheme. Concerning their overall abilities, the researchers administered three tests--involving multiple-choice and open ended questions--that measured the participants' knowledge of Spanish vocabulary and grammar as well as their abilities to comprehend simulated-authentic and authentic Spanish (video) clips. A multivariate analysis of variance (MANOVA) compared the three experimental groups on each of the three measures, indicating that there were no significant between-group differences ($\Lambda = 0.93; F (8,120) = 0.587; p = 0.79$). Analyses of variances (ANOVAs) comparing the experimental groups on each of the three tests confirmed the MANOVA's implication, revealing no between-group differences on any of the individual measurements.

Prior to the experiment, the participants' curriculum had not exposed them to any aspect of the subjunctive although it did instruct them on the Spanish formal imperative (i.e., *usted* and *ustedes*). Since this verb form is the present subjunctive, the researchers thought it prudent to control for the amount of knowledge that each participant possessed of the formal aspects of the subjunctive, assuming that those with a strong grasp of the mood's morphology might have some material advantage during the experiment (e.g., they could spend less time actually learning its formal features and concentrate more on its semantic features). An imperative production test asking the participants to use the imperative in a meaningful task in writing evaluated their knowledge of the formation of the Spanish imperative. An ANOVA indicated that no group entered the experiment with an advantage in terms of its knowledge of the morphological features of the subjunctive.

**Variables and Analysis.** The analysis entailed two independent variables and two dependent variables. The first independent variable was group, consisting of three levels, representing each treatment: (1) the control group; (2) the syntax-subjunctive group; (3) the subjunctive-only group. The data from the imperative production test constituted a co-variate in the analysis, producing adjusted F scores, means, and variances. The dependent variables were the difference scores for the recognition test and the production test, with each participant's score representing the difference between his or her posttest and pretest scores. Analyses of covariance (ANCOVAs) gauged the main effects for each of the dependent variables, employing the participants' imperative-production test scores as the covariate. Scheffé post-hoc analyses helped to uncover the source of any main effects found in the analyses.

**Results.** The data do not suggest an affirmative answer to the research question: although the syntax-subjunctive group exhibited significant treatment gains, the benefits they enjoyed were not superior to those of the subjunctive-only group. On the recognition test, the ANCOVA uncovered a significant main effect for group in sentences targeting the subjunctive [$F(2,65) = 21.95; p = 0.000$]. A Scheffé
post-hoc analysis indicated that, although both experimental groups experienced significant benefits from the treatment and the control group did not, the subjunctive-only group benefited as much as the syntax-subjunctive group [Control = 0.82; Syntax-Subjunctive = 4.52; Subjunctive-only = 5.96; scale = 10; standard error = 0.57].

Graph 1. Recognition test: Subjunctive items pretest-posttest difference scores (on a scale of 10).

In contexts requiring the indicative on the recognition test, the analysis found no significant effect for group [F(2,65) = 1.93; p = 0.153]. Interestingly, all three groups scored worse on the posttest in contexts requiring the indicative, as they tended to accept more (erroneous) subjunctive forms than they did on the pretest [Control = -1.05; Syntax-Subjunctive = -1.38; Subjunctive-only = -2.53; scale = 10; standard error = 0.56]. A Scheffé post-hoc analysis indicated, however, than none of these decreases were at levels significantly greater than chance.

Graph 2. Recognition test: Indicative items pretest-posttest difference scores (scale of 10).
The production test uncovered results similar to those of the recognition test. The ANCOVA uncovered a significant effect for group in sentences targeting the subjunctive $[F(2,65) = 6.53; p = 0.003]$. A Scheffé post-hoc analysis indicated once again that, while both experimental groups experienced significant benefits from the treatment and the control group did not, the subjunctive-only group benefited as much as the syntax-subjunctive group $[\text{Control} = -0.05; \text{Syntax-Subjunctive} = 1.45; \text{Subjunctive-only} = 2.07; \text{scale} = 7; \text{standard error} = 0.43]$.

Graph 3. Production test: Subjunctive items pretest-posttest difference scores (scale of 7).

In contexts requiring the indicative on the production test, the ANCOVA revealed a significant main-effect for group $[F(2,65) = 4.03; p = 0.02]$. The data indicated that the control group employed the correct mood—the indicative—with almost the same amount of accuracy as it did on the pretest, whereas the two treatment groups used slightly more subjunctive forms $[\text{Control} = -0.61; \text{Syntax-Subjunctive} = -1.13; \text{Subjunctive-only} = -2.30; \text{scale} = 7; \text{standard error} = 0.43]$, which was also the case on the recognition test.
Graph 4. Production test: Indicative items pretest-posttest difference scores (scale of 7).

Scheffé post-hoc analyses revealed: (1) the subjunctive-only group employed significantly more subjunctive forms in indicative contexts than did the control group; (2) the syntax-subjunctive group did not employ more subjunctive forms in indicative contexts than either the control or the subjunctive-only group. Thus, one must conclude that the syntax-subjunctive group exhibited an important trend of employing the subjunctive in indicative contexts less frequently than the subjunctive-only group.

The preceding analysis only examined the participants' behavior with respect to mood selection in subordinate clauses. Intrigued by the tendency of some subjects to overextend the use of the subjunctive into indicative contexts, however, the researchers explored whether any of the groups overextended the subjunctive's use to the main clauses of the production tests.

Graph 5. Production test: Pretest-posttest difference scores for subjunctive use in main clauses (scale of 14).
The ANCOVA uncovered a significant main effect for group [F(2,65) = 4.04; p = 0.02]. The pattern was similar to the one uncovered in the preceding analysis of the subordinate-clause production data in indicative contexts: the control group employed the correct mood--i.e., the indicative--with about the same amount of accuracy, although both of the treatment groups overextended the subjunctive to main clauses with slightly greater frequency [Control = 0.44; Syntax-Subjunctive = 1.21; Subjunctive-only = 3.05; scale = 14; standard error = 0.67]. And, the post-hoc analyses once again found that the subjunctive-only group employed significantly more subjunctive forms in main clauses than did the control group, whereas the syntax-subjunctive group employed the subjunctive in main clauses no more than either the control or the subjunctive-only group. That is, the subjunctive-only group tended to overextend the use of the subjunctive to main clauses more than the syntax-subjunctive group.

Discussion

From one perspective, the experiment presented here does not support the hypothesis that FL learners of Spanish will benefit more from subjunctive instruction when such instruction is coupled with activities that seek to increase their knowledge of the syntactic features that surround the use of the subjunctive. Clearly, both treatment groups improved in their abilities to produce and recognize instances where the subjunctive is necessary in adjectival clauses (e.g., Juan busca un restaurante que tiene/tenga comida china). Yet, the group studying various (syntactic) strategies for coordinating and subordinating in Spanish before studying the subjunctive was not better able to employ the subjunctive than was the group receiving only instruction on the subjunctive.

From another perspective, however, complex syntax instruction did produce a subjunctive advantage. First, the syntax-subjunctive group seemed to know the subjunctive's syntactic distribution better than the subjunctive-only group. The subjunctive-only group was significantly more likely to over-generalize the subjunctive's distribution, employing it both in main clauses (e.g., *Los muchachos quieran un coche que vaya rápido) and in subordinate clauses whose referent was definite (e.g., *Los muchachos quieren el coche que vaya rápido). However, the syntax-subjunctive rarely over-generalized, suggesting that it clearly understood the syntactic distribution of subjunctive forms. Second, the syntax-subjunctive group seemed to "select mood" better: while, on the production task, the subjunctive-only group frequently employed the subjunctive in indicative contexts, the syntax-subjunctive group almost always employed the subjunctive in indicative contexts, the syntax-subjunctive group almost always employed the indicative in such contexts.8

All told, the analysis reveals that the acquisition of the subjunctive is a multifarious process, entailing semantic, syntactic, and truly morphosyntactic considerations (i.e., the syntactic distribution of the subjunctive morpheme). Still, there are limitations to generalizing the results of this study. First, the treatment length was relatively brief. The trends found here may well be verified with an expanded experimental time. Second, if learnability is an important issue with regards to the subjunctive in the Spanish curriculum (i.e., a certain degree of syntactic maturation is necessary to benefit fully from subjunctive instruction), then the developmental level at which an experiment such as this one is administered is an important consideration. It may be that learners at the intermediate (e.g., second-year) or advanced levels (e.g., third year) would magnify the effects of our treatment materials. Third, syntax may not be the most important factor interacting with learners' acquisition of the subjunctive. Collentine (2000b) reports that learners' abilities to hold complex sentences (i.e., exemplars) in short-term phonological memory is a significantly more powerful predictor of students' abilities to process verbal morphology than is their ability to process syntax. Thus, we might well investigate whether instructional strategies promoting the ability to process increasingly large phonological strings (and to identify the memory limitations of individual learners) could lead to more effective subjunctive acquisition. Finally, the experiment did not provide a forum for the production of entire sentences (in writing or in speech) such as those studied here. Such an activity places considerable attentional and
memory burdens on the learner’s syntactic and morphological abilities, and so its inclusion in future studies might provide greater insights into the syntactic treatment’s effects.

**Conclusions**

The study reported here supports the hypothesis that instruction fostering abilities of FL learners’ of Spanish to process complex syntax increases the extent to which learners benefit from subsequent subjunctive instruction. Still, the benefits that syntax instruction offers learners of the subjunctive were not those that the researchers predicted. We assume that native-like subjunctive use (minimally) requires two considerations: (1) accurately parsing the syntax of complex sentences, and so examining whether a given verb's clause functions as a complement to, say, a noun (e.g., *Juan busca un carro que vaya rápido*); (2) identifying the semantic and pragmatic relationships between that clause and what it modifies (e.g., whether the antecedent that the clause modifies is definite or not). The results indicate that learners receiving syntax and subjunctive instruction were able to parse sentences better than those only receiving subjunctive instruction. The learners receiving syntax and subjunctive instruction were significantly better able to identify the syntactic conditions where the subjunctive was not a candidate—namely, the main-clause of sentences. Yet, such superior parsing abilities only partially correlated with improved overall mood-selection abilities, with the syntax plus subjunctive group only rarely employing the subjunctive in contexts requiring the indicative (i.e., when the antecedent was definite; e.g., *Juan tiene un carro que vaya rápido*) while the subjunctive-only group frequently accepted subjunctive forms in indicative contexts.

**Notes**

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1. It would be unfair to claim that the Spanish curriculum gives no explicit attention to learners' syntactic knowledge. Most first-year curricula foster the acquisition of structures that require the development of knowledge about Spanish word order, such as object pronouns, adjective placement, question formation, and the *hace...que...* construct. Furthermore, as Long and Crooks (1992) note, even when instruction focuses on a particular structure, learners find that that phenomenon exists in a "symbiotic relationship" (p. 31) with other grammatical phenomena. In a lesson focusing on the imperative, for instance, learners probably acquire knowledge about Spanish word-order, such as the placement of object pronouns pre-verbally in negative commands (e.g., ¡No se lo diga!) and post-verbally in affirmative commands (e.g., ¡Dígaselo!).

2. For FL learners of Spanish, it is reasonable to assume that the subjunctive's syntactic distribution is limited to subordinate clauses (Collentine, 1993, 1995).

3. We assume that learners can develop morphological knowledge before developing relevant syntactic knowledge, such as knowing verbal suffixes (e.g., *canto*, *cantando*, *cantar*) and their meanings. However, The Structure Dependency Principle implies that these forms will be employed in complex sentences in a somewhat random fashion before the learner develops knowledge of the functional categories (e.g., TP, ingP) licensing these forms.

4. Within a Minimalist framework, Kempchinksy (1998) has similarly argued that subjunctive complements contain an intervening MP (Mood Phrase) node below CP yet above IP/TP, which also causes the binding domain of such complements to be the main clause. Indicative complements do not, however, contain the additional functional syntactic constituent MP that compromises the independence of the subjunctive complement.

5. It is important to note that Kempchinsky (1986, personal communication) argues that this sequence-of-tenses phenomenon in subjunctive contexts is not as robust as textbooks would imply. She notes that
the *Ezbozo de la gramática de la RAE* recognizes relaxations of this stipulation (e.g., *Mandé que vaya/fuera*). According to Kempchinsky, such relaxations are attributable to the fact that tense is licensed by a semantic referential expression rather than by a syntactic operator.

6. The methodology does not constitute *Processing Instruction*, as it does not capitalize or attempt to alter any psycholinguistic mechanism that might constitute an *a priori* bias for how learners process input (cf. Lee and VanPatten 1995).

7. The participants were encouraged to indicate that they did not know the answer to an item if they felt such was the case.

8. It is possible to argue that the syntax-subjunctive group (as well as the control group) was simply using the indicative as a default tense of sorts, and so it did not necessarily use the indicative in indicative contexts intentionally. However, such a conjecture could only be explained by the unlikely possibility that exposure to syntax instruction caused a learner not to contemplate the use of the subjunctive when an antecedent was definite.

**References**


