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The Relative Effects of Processing Instruction and Traditional Output Instruction on the Acquisition of the Arabic Subjunctive.

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by

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DEDICATION

This dissertation is dedicated to my family and my best friend Adil Mansouri.

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ABSTRACT

The role of input and output in the acquisition of language has been a source of controversy in Second Language Acquisition (SLA) research. This present study aimed to investigate the relative effects of processing instruction (PI) as a type of input-based instruction and traditional instruction (TI) as a type of output-based instruction. Specifically, this experiment examined whether PI and TI bring about any improvement in comprehension and production of the Arabic subjunctive by beginner-level learners of Arabic. The PI instructional technique was based on the principles of input processing suggested by VanPatten (1993, 2002, 2004). It has three main elements: (a) an explicit explanation of grammar, (b) information on processing strategies, and (c) structured input activities. The study involved second semester students of Arabic and it aimed at assessing the impact of PI and traditional output instruction on the interpretation and production of the Arabic subjunctive on immediate and delayed posttests.

One instructional package was developed for the PI group and another package was developed for the TI group. To assess the effects of instruction, a pretest/posttest/delayed posttest procedure with three tests was used. Each test included: 1) interpretation task with sixteen multiple choice items and 2) production task with sixteen sentence-completion items.

The results from this study showed that participants who received PI outperformed participants from the TI as measured by Interpretation tasks of the subjunctive. However, the performance of both groups were statistically similar as was measured by the production tasks of the subjunctive. These results supported those of previous research that had compared PI with TI

(Benati, 2001, 2005; Cadierno, 1995; VanPatten & Cadierno, 1993a, 1993b; VanPatten & Wong, 2004).

CHAPTER 1:

INTRODUCTION

Background

While some studies have discussed the role of input in second language acquisition (SLA) (Ellis, 2007; VanPatten, 2003; VanPatten & Williams, 2007; Wong, 2005), others have claimed an equal role of output in SLA (Swain, 1995; Swain & Lapkin, 1995; DeKeyser 2001; DeKeyser & Sokalski, 1996; Gass, 1997; Long 1996). The role of these two types of instruction is one of the issues that is most debated in the field of second language acquisition. The main focus of the study was to compare the effects of input-based language instruction (processing instruction) and output-based language instruction (traditional instruction) on the acquisition of the Arabic subjunctive among nonnative speakers of Arabic. The importance of this study lies in its contribution to the existing debate about the roles of input and output and which type of them is more beneficial to language learners.

Processing instruction (PI) is an input-based pedagogical technique that focuses on form. It draws on the principles suggested by the input processing model (VanPatten, 1993, 1996, 2002, 2004). According to VanPatten (2004), input processing refers to the initial process by which learners make connection between grammatical forms and their meanings. VanPatten proposed a model of SLA in which "input provides the data, input processing makes data available for acquisition, and other internal mechanisms accommodate data into the system" (VanPatten 2002, p. 760). The main goal of PI is to help learners alter the strategies they use to derive intake data by pushing students to focus on form or structure to extract meaning from

input. It is suggested by VanPatten that this goal can be achieved by providing the learners with three components: "(1) explicit information about the structure/form; (2) explicit information about the processing problem; and (3) structured input activities" (VanPatten 2004, p. 33). The structured input activities should be designed so that learners can process the target form or structure in the input they receive to make connections between form and meaning (VanPatten 1993, 1996, 2002, 2004).

Traditional instruction (TI), on the other hand, is described by Paulston (1972) as a presentation or explanation combined with output-based practices that move the learner from mechanical to communicative activities. In this study, the researcher followed VanPatten and Cadierno's (1993a) pattern in which students move from mechanical to meaningful to communicative grammar practice. More specifically, TI provided the subjects with explanations regarding the grammatical form (the Arabic subjunctive) and focused on manipulating the output to make change in the developing system. According to Swain (1985, 1995, 2005), output can be as important as input in developing L2 knowledge to a high level of precision. For Swain, output is effective in pushing learners to move from semantic processing which is required for the comprehension of the input to syntactic processing which is necessary for encoding meaning (Swain, 1985). In addition, output functions as "the trigger that forces the learner to pay attention to the means of expression needed in order to successfully convey his or her own intended meaning" (p. 249). Equally important, producing the target language helps learners notice gaps that exist between the linguistic resources and the system of the target language.

This study sought to examine the impact of these two different forms of instruction on the acquisition of the Arabic subjunctive among beginning level Arabic learners at a public research

university in the Southeastern USA. Since this research area has not been discussed by previous studies (the effects of PI and TI on Arabic subjunctive) and since the Arabic subjunctive is challenging for learners to comprehend and produce, the researcher was motivated to explore the effects of PI and TI on the acquisition of the Arabic subjunctive with respect to both interpretation and production.

Statement of the Problem and Significance of the Study

Many studies have been conducted on PI and TI and their effects on the acquisition of different grammatical features; however, very few have addressed the effects of these two different types of instruction on the acquisition of grammatical features of critical and less commonly taught languages. Therefore, more research is needed to contribute to the ongoing research debate about the effectiveness of input-based and output-based instruction on the grammatical features of languages such as Modern Standard Arabic. As demonstrated in Table 1.1, most of the examples of prior empirical studies contributing to this debate can be classified into three categories:

Table 1.1. Studies Comparing Input-based versus Output-based Instructions

Studies that show superiority of input-based over output-based instruction	Studies that show superiority of output-based over input-based instruction	Studies that show equal effects of input-based and output-based instructions.
- Benati*, 2005. "The effects of PI, TI, and MOI in the acquisition of English simple past tense"* - Farley, 2001a. "*Authentic processing instruction and the Spanish subjunctive"* - VanPatten & Cadierno, 1993. "*Explicit instruction and input processing"*	- Allen, 2000. "*Form-meaning connections and the French Causative: An experiment in Input Processing"* - Morgan-Short and Bowden, 2006. "*Processing instruction and meaningful output-based instruction"*	- Collentine, 1998b. "*Processing instruction and the subjunctive"* - Farley, 2001b. "*Processing Instruction and meaning-based output instruction: A comparative study"* - Erlam, 2009. "*The elicited oral imitation test as a measure of implicit knowledge"*
Studies that show superiority of input-based over output-based instruction	Studies that show superiority of output-based over input-based instruction	Studies that show equal effects of input-based and output-based instructions.
- Cadierno, 1995. "*Formal Instruction from a processing perspective: An investigation into the Spanish past tense"* - Benati, 2001. "*A comparative study of the effects of processing instruction and output-based instruction on the acquisition of the Italian future tense"* - Cheng, 2004. "*Processing instruction and Spanish Ser and Estar: Forms with semantic-aspectual values"* - VanPatten & Wong, 2004. *Processing instruction and the French causative: A replication*	- Nagata, 1998. "*Input vs. output practice in educational software for second language Acquisition"* - Salaberry, 1997. "*The role of input and output practice in second language acquisition"* - DeKeyser and Sokalski, 1996. "*The differential role of comprehension and production practices"*	- Russell, 2009, 2012. "*Learning complex grammar in the virtual classroom: A comparison of processing instruction, structured input, computerized visual input enhancement, and traditional instruction".* Collentine and Collentine, 2015. "*Input and output grammar instruction in tutorial CALL with a complex grammatical structure"*

In order to add this body of knowledge about input-based and output-based approaches to grammar teaching, this study compared the effects of PI, as input-based instruction, and TI, as output-based instruction, on the acquisition of Arabic subjunctive, which is considered a complex grammatical feature for Arabic language learners. As a first study to address PI in the Arabic

context, Radwan (2009) compared the effects of PI on the learner's linguistic development to the effects of TI. Radwan' s study was designed to measure the effects of both treatments on the acquisition of various Arabic morphological forms including gender, case making, clitics, and theme-first psychological verbs. Radwan's study revealed no significant differences between the two types of instruction. However, this study had a small sample of 35. These 35 students were then assigned into three treatment groups, PI, TI, and a control group. In addition, the study targeted more than one morphological feature, which may have caused a cognitive overload for participants. Furthermore, the input processing treatment in Radwan's study did not include any metalinguistic explanations of the targeted structures, which is a necessary component of PI. In light of Radwan's study and the contradictory findings of various researchers in the PI strand, it appears that there is a strong need for further research to examine the effectiveness of PI and other forms of instruction in language grammar acquisition. The present study is the first to compare the effects of PI and TI on the acquisition of the Arabic subjunctive; as such, the aim of this study is to inform Arabic grammar instruction and future research.

The present study is also significant because it addresses a grammatical structure that is difficult for learners to interpret and produce. The difficulty is reflected in the faulty processing strategies used by learners when they attempt to process the Arabic subjunctive. First, the Primacy of Meaning Principle suggests that while processing input, learners first look for meaning in the input, which prevents some parts of the form in the input from being processed for acquisition. Second, the Sentence Location Sub-Principle suggests that the initial word in a sentence is more salient than words in medial or final positions. As a result, learners process and learn these words more quickly than those in other positions. This study presents examples of how these principles come into play when learners attempted to interpret and produce the

subjunctive.

In preparation for this study, the researcher created two instructional packets, one for PI and one for TI in order to teach the Arabic subjunctive. This PI activity packet included the following: (a) a non-paradigmatic grammar explanation, (b) information about processing strategies, (c) ten referential and affective structured input (SI) activities. The TI packet included: (a) a grammar explanation that was paradigmatic, (b) target language examples, and (c) ten output-based activities (mechanical, meaningful, and communicative). The researcher designed the SI activities in a way where students did not write or produce the target item. However, students were asked to do something with the input through saying Yes-No, agreeing-disagreeing, and checking off things that were applicable. Conversely, learners in the TI group were asked to write or say the target items during the mechanical, meaningful, and communicative activities. The subjunctive is usually introduced during the second semester of Arabic, which comes right after students learn how to conjugate verbs in the present tense.

Given the present body of research in the PI strand, which focuses mostly on Romance languages, it is possible that PI will be more effective than TI for learning the Arabic subjunctive. Most Arabic grammar textbooks contain activities that provide ample output practice and insufficient input practice. It is possible that the provision of SI activities may improve learning outcomes for students of Arabic. Given that there is a paucity of research on PI with less commonly taught languages, it is presently unclear if PI will be beneficial for the acquisition of complex grammar with students of Arabic. Thus, this study may serve as a theoretical and methodological resource to expand the present body of research on PI and to broaden the pedagogical techniques that are used for the instruction of Arabic.

Purpose of the Study

Motivated by previous research on PI and TI, the main purpose of this study was to investigate and compare the effects of PI vs. TI on the acquisition of the Arabic subjunctive. Research on the effects of PI and TI has presented many findings (See Chapter Two for detailed information) and this study aimed to contribute to the debate around the roles and effects of PI and TI on the Arabic subjunctive.

Unlike previous studies that examined PI and TI for the acquisition of grammatical features of Romance languages, this study examined the effects of PI and TI in the context of Modern Standard Arabic (MSA), which is structurally different from Romance languages. Thus, it is important to see if VanPatten's model could be applied to non-Romance languages such as Arabic. This study specifically examined the effects of PI and TI on the acquisition of the Arabic subjunctive.

Research Questions

A large body of research that has examined the effects of PI has given evidence that this instructional treatment is more effective than the TI treatment for interpretation tasks. (VanPatten & Cadirno, 1993; Cadierno, 1995; Benati, 2001; Cheng, 2004; VanPatten & Wong, 2004). Comparison of the effects of PI and TI in the context of Arabic is needed because it will add to the body of research on input-based and output-based instructions. Thus, this study aimed at answering the following questions:

1) Is there a difference between beginning-level Arabic language learners who are exposed to processing instruction and those exposed to traditional instruction with respect to their performance on the Arabic subjunctive *interpretation* tasks over time (as measured by a pretest, an immediate posttest, and a delayed posttest)?

2) Is there a difference between beginning-level Arabic language learners who are exposed to processing instruction and those exposed to traditional instruction with respect to their performance on the Arabic subjunctive *production* tasks over time (as measured by a pretest, an immediate posttest, and a delayed posttest)?

Definition of Terms

Developing system: "is a term used for L2 learners' mental representations at any given time during acquisition. That is, a learner's developing system is that learner's internal and unconscious representation of the language" (VanPatten & Benati, 2010, p. 111).

Form-Meaning Connection: It is the connection between the grammatical forms or structures and the referential meaning that they encode (VanPatten, 1993, 1996, 2004).

Input: The linguistic data to which a learner may attend for the message it seeks to convey. (VanPatten, 1996).

Intake: It was first coined by S. Pit Corder in 1967. In some models, it refers to "the linguistic data that is processed from the input and held in working memory, but not yet acquired." (VanPatten & Benati, 2010, p. 131).

Output: is what is produced by a learner in the target language, orally or in writing.

Processing Instruction: it is an approach that is informed by input processing. It focuses on form in order to alter or modify learners' default processing strategies to improve intake (VanPatten, 2003). In this study, PI is operationalized with three components. First, explicit grammar explanation of the Arabic subjunctive. Second, information about processing strategies so that learners can divert from inefficient input processing. Third, structured input activities that are referential and affective.

Input Processing: This is the first step in the acquisition process. When learners initially

process or parse their input, they make form-meaning connections. Learners may process their input either correctly or incorrectly initially. According to VanPatten's model, second language learners tend to rely on faulty or flawed input processing strategies, which can lead to misunderstandings or delays in the acquisition process (VanPatten, 1993, 1996, 2002, 2004).

Dissertation Outline

This study is organized in the following order. The second chapter presents a review of the SLA literature that relates to the present study. More specifically, Chapter 2 discusses the input-based approaches to SLA including a review of VanPatten's IP model, prior studies that compared PI to TI, PI and the subjunctive, and then PI with the less commonly taught languages. It also presents a review of the output-based approaches to SLA, including the output hypothesis, the role of output in SLA, and traditional output-based instruction. Chapter 2 ends with a review of the Arabic subjunctive as a complex feature. The third chapter provides a description of the methodology used in the study such as participants, instructional materials, and results from the pilot study. The fourth chapter provides the results of the study. Finally, the fifth chapter presents a discussion of the results and the implications for future research.

CHAPTER 2:

LITERATURE REVIEW

Introduction

This chapter presents a review of literature related to PI and TI. A discussion of the input based approaches to SLA is provided in this chapter. More specifically, this section reviews input processing and the empirical studies about the subjunctive. In addition, the relevant research that compared PI vs. TI is reviewed. The chapter also discusses the output based approaches to SLA as it presents details about output instruction, output hypothesis and the role of output in the field of SLA. The chapter ends with discussing the grammatical difficulty of the Arabic subjunctive.

Input Based Approaches to SLA

VanPatten's IP Model. Input processing (IP) theory posits that input-based practice has a positive effect on the learner's performance of both L2 production and comprehension. VanPatten (1996, 2002, 2004) considers input processing the first phase of the acquisition process. According to VanPatten (2007), the IP theory seeks to explain why learners process input as they do, and in particular, why they make specific form-meaning connections.

According to VanPatten (2004), grammatical forms become intake once they are processed. Thus, the intake is the input that has been filtered by learners and that is available for further processing. McLaughlin (1990) adds that once the form is initially processed, it may be fully or partially stored into the developing linguistic system which can be defined as "the complex of mental representations that as an aggregate constitutes the learner' underlying

knowledge of the second language"(Cited in VanPatten, 1996, p. 9). In the process of learning language, whether first or second, learners create a subconscious system of rules that govern morphology, phonology, syntax, and semantics. Lee and VanPatten (2003) refer to this subconscious system of rules as an implicit linguistic system, which is a combination of a variety of complex components that interact with one another.

In the input processing model, VanPatten attempts to theorize answers to three fundamental questions:

1) Under what conditions do learners make initial form-meaning connections?

2) Why, at a given moment in time, do they make some and not other form-meaning connections?

3) What internal strategies do learners use in comprehending sentences and how might this affect acquisition? (VanPatten, 2007, p. 116)

The notion of form-meaning connections or how learners associate meaning with a particular grammatical marker is central to IP. VanPatten (1996) suggested that the concept of how form-meaning connections are made should not be converted to a question of whether the learner attends to form or meaning. He states that the question should instead be "under what conditions they can *attend* to *both* and how attention to form and meaning develops over time" (VanPatten, 1996, p. 47). For learners to acquire new forms and structures, the acquired knowledge must be added to an already existing implicit linguistic system. If the accommodation (adding information) occurs, learners then may be triggered to restructure their internal grammars. Restructuring according to Gass (1997) is a necessary precursor to production in that it requires a learner to access the developing system to produce a specific targeted language form. According to VanPatten (2004), the output production is a result of the acquisition process

and it is not part of the basic processes in language acquisition.

Input processing is concerned with the transition of input into intake, which is where acquisition starts. Due to the limited capacity of processing, only a portion of learners' input becomes intake that is available for more language processing (Just & Carpenter, 1992). VanPatten (1993, 2004) claims that the learner can contribute to the selection of the input that is noticed. It is pointed out by Gass (1988) that learners apperceive or notice input when they are able to relate it to their previous knowledge. VanPatten (1996) highlights the importance of meaningful input in drawing learners' attention during input processing. Furthermore, meaningful input is processed first, such as grammatical forms and lexical items that have a high communicative value. VanPatten (1996) defines communicative value of a grammatical form as the extent to which the form contributes to the referential meaning of an utterance or sentence.

The model of input processing that is suggested by VanPatten (1993, 1996, 2002, 2004) posits that learners can process forms with a low communicative value only when they can process other items in sentences or utterances easily because learners in this way do not drain all of their processing resources and thus are able to use the resources available to them to process the grammatical forms and structures with a low communicative value.

VanPatten's most recent model of input processing (2004) is founded upon two main principles and several subprinciples. VanPatten states them as follows:

> Principle 1. The Primacy of Meaning Principle. Learners process input for meaning before they process it for form.
>
> Principle 1a. The Primacy of Content Words Principle. Learners process content words in the input before anything else.
>
> Principle 1b. The Lexical Preference Principle. Learners will tend to rely on lexical items as opposed to grammatical form to get meaning when both encode the same semantic information.

> Principle 1c. The Preference for Nonredundancy principle. Learners are more likely to process nonredundant meaningful grammatical forms before they process redundant meaningful forms.
>
> Principle 1d. The Meaning-Before-Nonmeaning Principle. Learners are more likely to process meaningful grammatical forms before nonmeaningful forms irrespective of redundancy.
>
> Principle 1e. The Availability of Resources Principle. For learners to process either redundant meaningful grammatical forms or nonmeaningful forms, the processing of overall sentential meaning must not drain available processing resources.
>
> Principle 1f. The Sentence Location Principle. Learners tend to process items in sentence initial position before those in final position and those in medial position.
>
> Principle 2. The First Noun Principle. Learners tend to process the first noun or pronoun they encounter in a sentence as the subject/agent.
>
> Principle 2a. The Lexical Semantics Principle. Learners may rely on lexical semantics, where possible, instead of word order to interpret sentences.
>
> Principle 2b. The Event Probabilities Principle. Learners may rely on event probabilities, where possible, instead of word order to interpret sentences.
>
> Principle 2c. The Contextual Constraint Principle. Learners may rely less on the First Noun Principle if preceding context constrains the possible interpretation of a clause or a sentence. (2004, p. 14)

In this study, the focus was on the following principle and subprinciple, which are explained above:

> Principle 1. The Primacy of Meaning Principle. Learners process input for meaning before they process it for form.
>
> Principle 1f. The Sentence Location Principle. Learners tend to process items in sentence initial position before those in final position and those in medial position. (VanPatten 2004, p. 14).

The primacy of meaning principle posits that when learners process input, they first look for meaning in the input, which prevents some parts of the form in the input from being processed for acquisition. The Arabic subjunctive is a particular form that is difficult for students to notice because the endings of the subjunctive are very similar to the endings of the present indicative verbs. As part of the PI package, participants in the PI group were made aware of the Primacy of Meaning Principle and were given alternate strategies to avoid this inefficient processing strategy.

Also, this study focused on the Sentence Location subprinciple. This subprinciple suggests that the initial word in a sentence is more salient than words in medial or final positions. Therefore, learners process and learn these words more quickly than those in other positions. In this study, the target form occurs in the medial position right after subjunctive particles. Participants in the PI package were reminded of their tendency to overlook grammatical items in the middle of sentences. They were instructed to pay attention the presence of verbs in the medial position especially to verbs that immediately follow subjunctive particles.

In his model of input processing (1993, 2004) VanPatten claims that, as a result of the Primacy of Meaning Principle, second language learners get meaning from the input they receive at the expense of processing grammatical forms. He also asserts that the First Noun Principle often causes learners to misinterpret their input because of the order of words in a sentence or utterance. Consequently, the learners often engage in faulty and/or inefficient processing of their target language input. PI according to Wong (2004), was developed to help learners avoid flawed processing strategies and instead engage in more optimal ones.

Processing Instruction. PI is an input-based approach to teaching grammar. It aims to affect the way learners pay attention to input which is in conformity with theories of second language and communicative language teaching. VanPatten (2006) posits the role of input and applies the term 'input processing' to the cognitive process which occurs when input is comprehended and integrated into the learner's developing linguistic system. For VanPatten (2002), input is a concept with the highest importance in second language acquisition.

PI materials contain three essential components of the typical PI. According to VanPatten (2004), these components include: (1) meta-linguistic explanations of the target grammatical feature; (2) an explicit reminder of L2 learners' faulty input processing strategy; and (3) structured input activities pushing L2 learners to make form–meaning mappings.

The first component, meta-linguistic explanations of the target grammatical feature, gives learners information about the grammatical feature, its structure, its use, its location in a sentence in the target language in addition to any other information to help learners to describe the linguistic form. This information helps learners link form to meaning. White (2008) provides an example of this information. He states that learners can be provided with an explanation about the object pronouns in Spanish and "information about how pronouns encode meaning in addition to information about the structural aspect" (White, 2008, p. 19). Teachers can instruct students about the grammatical difference between the object of a verb and the subject. Learners can also be informed that the object in most cases is a person or thing on which an action is performed (White, 2008). After providing learners with a few examples in English and Spanish, teachers can ask the students to identify the subject and the object.

The second component is the explicit reminder of learners' faulty input processing strategies. An inefficient strategy is reflected in the Sentence Location Principle. Due to this

principle, learners process items in sentence/utterance initial position before items in final position and items in medial position. Russell (2009, 2012) presented an example where the targeted grammatical form occurs in the sentence medial position. Russell (2009, 2012) elaborated that when the Spanish subjunctive occurs in adjectival clauses, the subordinate clause of a sentence or utterance causes the subjunctive form to appear in the middle of the sentence. To deal with faulty processing strategy, Russell (2009, 2012) drew the participants' attention to their tendency to ignore items in the medial position of sentences. She also directed the participants' attention to the verb form in the middle of sentences so that the meaning could be extracted whether the referent is hypothetical or certain (Russell, 2009, 2012).

Structured input activities are considered the most important component in PI. Structured input is a technique to enhance input and to focus learners' attention on the semantic value of linguistic items relative to their positions in the surrounding sentences. Structured input is also believed to increase the chances of input being converted to intake for learning (VanPatten, 1995, 1996). Structured input activities aim to push learners to attend to grammatical form in the input. Thus, "structured-input activities can be thought of as manipulated, comprehensible, meaning-bearing input-the ideal building material of second language acquisition"(Lee & VanPatten, 2003, p. 142). According to VanPatten & Oikkenon (1996), the main benefits of PI can be gained through structured input activities, which usually include two types of activities: referential and affective activities. Learners in referential activities are often required to pay attention to forms in order to grasp their meanings. Also, referential activities have right or wrong answers. Affective activities, according to Wong (2004), require L2 learners to state beliefs or opinions when they engage in processing information about their real world.

Lee and VanPatten (2003) state that in order to develop authentic structured input

activities the guidelines must be followed explicitly:

1. Present one thing at a time
2. Keep meaning in focus
3. Move from sentences to connected discourse
4. Use both oral and written input
5. Have the learner do something with the input
6. Keep the learner's processing strategies in mind (p.154)

Lee and VanPatten (2003) claim that in guideline 1, input must be delivered to a learner efficiently. In order to achieve that, they assert that providing a learner with one form or function at a time can direct the learner's attention toward the targeted item. In other words, "because there is less to pay attention to, it is easier to pay attention" (VanPatten, 2004, p. 38).

The second guideline suggests the engagement of learners in mechanical input activities because "the input should be attended to for its message so that learners can see how grammar assists in the 'delivery' of that message" (Lee and VanPatten, 2003, p. 155). Wong (2004) suggests that for structured input activities to be successfully completed, learners must "understand the propositional content of the input that they receive" (Wong, 2004, p. 38).

Lee and VanPatten (2003) suggest in guideline three that structured input activities begin with short sentences because learners can have time to process isolated sentences, unlike the longer passages where the grammatical form can get lost if the demands to process meaning overwhelm the learner (Lee & VanPatten, 2003). Learners' attention to the targeted linguistic feature is more likely to occur if they are initially presented with sentential level input.

Guideline four suggests that learners should be provided with both written and oral input. Lee and VanPatten (2003) stress that the written and spoken instructed input does not only call

for variety in activities but it is a way to meet the individual variation. They claim that in addition to the oral input, seeing the language can also be beneficial to some learners to learn the language.

In the fifth guideline, Lee and VanPatten (2003) suggest that learners should not be passive recipients of language. Lee and VanPatten (2003) also assert that learners must be actively engaged in attending to the input so that they can be encouraged to process grammar. It is suggested by Lee and VanPatten (2003) that learners be engaged with their linguistic input through the following activities: saying Yes-No, agreeing-disagreeing, checking off things that apply, matching, ordering, and so on.

Keeping the learner's processing strategies in mind is the last guideline for developing structured input activities. VanPatten (2004) suggests that there is need to identify faulty processing strategies, and to create activities that help learners use more efficient processing strategies. To cite an example, all activities in the Lexical Preference Principle should exclude redundant lexical items so that learners are encouraged to garner the communicative intent of sentences or utterances from the targeted grammatical forms or structures and not from lexical items found within sentences or utterances. Figure 2.1 depicts the various types of structured input activities.

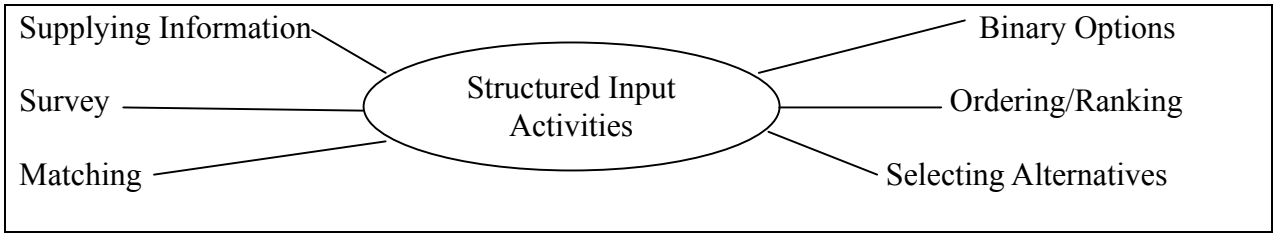

Figure 2.1. Major Types of Structured Input Activities (from J.F. Lee & VanPatten, 2003)

The production (whether written or spoken) of the targeted grammatical form contained in the input does not occur. According to VanPatten (2004), the main objective of PI is to help L2 learners process the targeted grammatical forms when they are first exposed to them, which is an important step in the acquisition process.

Matching is an example of a meaningful structured input activity. Depending on the design of the activity, matching can be a referential or an affective structured input activity. A referential activity requires learners to pay attention to forms in order to grasp their meanings. An affective activity requires an L2 learner to express an opinion, belief or another affective response while engaging in processing information about the real world. As stated by VanPatten (1996, 2004) the affective activity reinforces the form-meaning connections established during referential structured input activities.

Lee and VanPatten (1995) provide an example of matching activity in which learners indicate the connection between an input sentence and something else: matching a name to an action, matching a picture to an input sentence, matching a name to an input sentence, matching an event to its logical consequence (both could be input sentences). In the activity below, the learner matches events to other events so as to make logical connections. The question can be formulated as this:

For each sentence in column A, indicate to which activity in column b it is most logically connected.

Column A	**Column B**
Maha …	She …
1. plays soccer everyday	a. loves languages
2. takes language classes	b. likes Arabic music
3. listens to Elissa's songs	c. Likes sport

Table 2.1 shows examples of structured input activities. The first activity is developed to

reorient learners' previously incorrect processing strategy in that the students are asked to choose sentences that match the meaning of different pictures. Learners are given implicit feedback of "no" if they choose a wrong sentence due to their transfer of L1 or inadequate processing. In the second activity learners are presented with statements and are asked to determine if they hear subjunctive or indicative. The purpose of this activity is to push learners to attend to the meaning of the input content in order to successfully complete the task. The third activity is affective in which learners are asked to listen to statements and decide if they possess what they hear. Following the PI principle which states that learners should be forced to process form to get meaning, teachers do not develop any questions where students have to produce the target grammatical feature.

Table 2.1. Examples of Structured Input Activities

Structured input activities	Activity Type
Activity 1. Look at the following pictures. Match each sentence with the corresponding meaning of a picture.	Referential
Activity 2. Determine whether the statement contains subjunctive or indicative	Referential
Activity 3. Listen to a series of statements and then check whether you possess these things or not.	Affective

Processing Instruction in SLA. As already mentioned in the previous section, PI is a focus on form approach that draws on the principles of VanPatten's model of input processing (1993, 1996, 2002, and 2004). This model entails a set of principles that provide a description of the processing strategies that second language learners use to extract meaning out of their target language input. VanPatten in this model explains the way in which second language learners engage in the initial processing of the target language input, a process described by VanPatten as making form-meaning connections.

The primary role of input in second language acquisition has often been emphasized by VanPatten, who assigns a less fundamental role to output. According to VanPatten, output is not a path to acquisition, but instead a result of what has already been acquired. It is useful for developing fluency and accuracy (VanPatten, 2003). VanPatten (2003) describes the role of PI as changing or manipulating the way in which learners initially notice and process the target language input. VanPatten and other researchers also discuss the contrast between PI and TI, which focuses on the manipulation of learners' output (VanPatten & Cadierno, 1993). VanPatten (2002) proposes a model of SLA in which "input provides the data, input processing makes (certain) data available for acquisition, other internal mechanisms accommodate data into the system (often triggering some kind of restructuring or a change of internally generated hypotheses), and output helps learners to become communicators and, again, may help them become better processors of input" (VanPatten, 2002, p. 760).

Compared to TI, and according to VanPatten (1996), PI provides more effective practices (through structured input activities) as it provides learners with the tools to change input into intake. Figures 2.2 and 2.3 depict the contrast between these two instructional methods

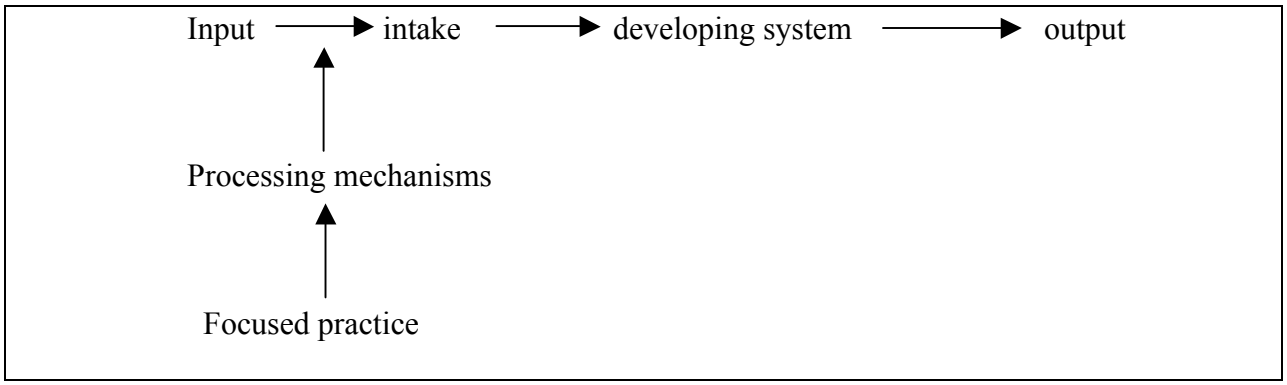

Figure 2.2. Processing Instruction in Foreign Language Teaching (from VanPatten & Cadierno, 1993b).

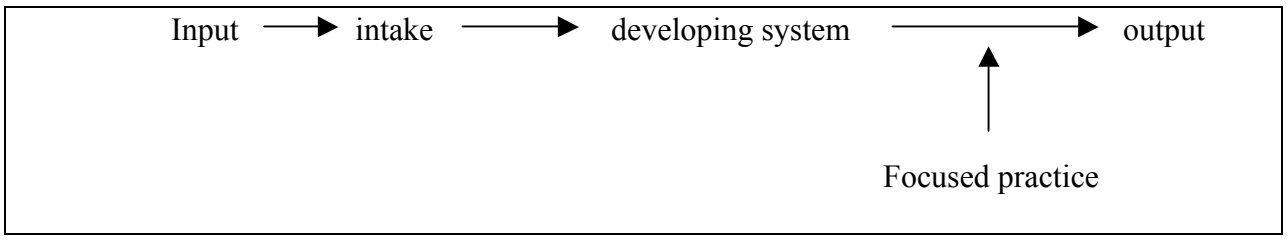

Figure 2.3. Traditional Explicit Grammar Instruction in Foreign Language Teaching (from VanPatten & Cadierno, 1993b).

The nature of PI which puts more emphasis on the learner's input rather than focusing on the output makes the practice consistent of activities that help learners interpret the meaning–form relationship accurately without any production of the targeted form or structure. Sharwood Smith (1981, 1991) asserted that a way to provide a formal instruction to learners is to make some features and forms more salient in the input so that learners can pay attention to them. An example of making forms more salient is to first identify a particular linguistic feature in a specific language, and then draw learner's attention either by "flooding the input of this target feature or by highlighting the target feature in a text" (Benati, 2009, p.39).

Raising learners' consciousness about a grammatical form is not a main goal of PI. In this regard, VanPatten asserts that "simply bringing a form to someone's attention is not a guarantee that it gets processed … for acquisition to happen the intake must continually provide the developing system with examples of correct form–meaning connections that are the results of input processing" (VanPatten 1996, p.86). He believes that PI does not concern itself with raising awareness about a grammatical feature. Instead, PI is concerned with making learners appreciate the communicative function of particular features or forms and consequently enriches the intake.

Research Comparing the Effects of PI versus TI

A number of studies have been carried out to compare PI to TI as conceptual replications of the principal study carried out by VanPatten and Cadierno (1993), which compared the effects of PI and TI on acquiring the word order and the object pronouns in Spanish. In this study, the

'First Noun Principle' was the processing problem. According to this processing principle, a learner would process the first noun found in a sentence as the subject; however, because of "the word order structure in Spanish, the first noun is not always the subject" (Benati, 2005, p. 70).

VanPatten and Cadierno (1993) were the first to compare the effects of PI vs. TI. In this study, VanPatten and Cadierno (1993) investigated the effects of PI on the acquisition of direct object pronouns in Spanish in order to see how effective PI is in altering one of the processing problems known as the First Noun Principle. The study included eighty subjects who were intermediate level Spanish learners. Three groups were in the study and each group received a different instructional treatment over two consecutive days of instruction. One group received traditional instruction (TI), which focused on grammatical explanation and oral-written production; the second group received PI, which included explicit information and structured input activities; and the third group received no instruction as it was used as a control group. To measure the possible effects of these instructional treatments, the researchers used a pre-test/post-test design, and two different types of assessment: an interpretation task and a sentence-level written production task.

The results of the interpretation and production tasks revealed that the PI group was superior to the TI group and the control group with regard to the interpretation task. Also, the PI and the TI groups performed equally well; however, both groups performed better than the control group with regard to the production task.

These findings from the above study lead to the following major points:

1) PI is more effective than TI for grammar instruction because PI appeared to have a direct effect on the learner's ability to interpret the word order and the object pronouns correctly;

2) PI also seems to enable learners to produce the target linguistic forms during output practice.

The PI group's performance was equal to that of the TI group on the production task. This is an interesting finding because participants in the PI group were never asked to produce the target forms.

In an attempt to generalize the findings from this study and also to address its limitations, several studies have adopted the same design to include different languages and linguistic grammatical forms. Buck (2002) addressed the acquisition of the English present continuous; Cadierno (1995) investigated the past-tense verb morphology in Spanish; Cheng (1995) addressed the Spanish copular verbs (ser and estar); and VanPatten & Wong (2004) tackled the faire causative in French.

The results of these studies revealed that the previous findings from VanPatten and Cadierno (1993) could be generalized to other different linguistic items (e.g., present progressive in English, Spanish past tense verb morphology, Spanish copular verbs, French faire causative, and Italian future tense) and to different processing principles (e.g., the Lexical Preference Principle, the First Noun Principle, and the Preference for Nonredundancy Principle).

Cadierno (1995) investigated the relative effects of PI on the Lexical Preference Principle as a different processing problem. She partially replicated the study of VanPatten and Cadirno (1993) in the design (pretests and posttests) and the general aims. She focused on the Spanish preterite tense. In this study, Cadierno sought to understand how PI pushes learners to attend to the grammatical feature in the input that usually gets ignored or overlooked. The study included sixty native speakers of English (intermediate students of Spanish at undergraduate level). PI and TI were compared in their effects on the acquisition of the Spanish preterite tense. Similar to the study carried out by Cadierno and VanPatten (1993), Cadierno used two assessment tests: interpretation and production written tasks. The results showed that the PI group outperformed

the TI group in the interpretation task. In terms of production results, both groups (PI and TI) improved equally from the pretests to the posttest.

In a study conducted by Benati (2001), he replicated Cadierno's study comparing the effects of PI and TI on the acquisition of the Italian morphology (future tense). In this replicated study, Benati developed the TI treatment package by balancing the mechanical activities with more meaningful activities. The processing principle in this study was the Lexical Preference Principle. The participants were composed of thirty nine beginner undergraduate learners of Italian. The study included three groups: one group received PI; a second group received TI; and the third group received no instruction. The researcher used one interpretation test and two production tests, written and aural. In general, the results of this study were similar to those of Cadierno's study (1995) with the exception of the findings regarding the interpretation task in which the traditional group outperformed the control group. The results in general confirmed the superiority of PI to TI in using the Lexical Preference Principle as a different processing principle and the Italian Future tense as a different linguistic item.

In Benati's (2005) study, the PI was found to have positive effects on the processing and acquisition of the English past simple tense. In this study, Benati compared the effects of TI, PI, and meaning-output instruction (MOI) with Chinese and Greek subjects who were learners of English and who resided in their respective countries. Only the immediate effects were measured using a pre-test and post-test design. The overall results suggested that PI was superior to both TI and MOI in the interpretation task and equal to both in the production task. This begs the question of how effective the PI would be in studies that target a complex feature such as the subjunctive.

Empirical Studies on PI and the Subjunctive

One of the studies that examined the effects of PI on the acquisition of the Spanish subjunctive was done by Farley (2001a). PI in this study was compared with meaningful output-based instruction, unlike in the previous studies that operationalized the TI with only some meaningful activities. Thus, the mechanical activities were eliminated. The meaningful output-based instruction (MOI) matched the PI in the explicit explanation component by providing participants with information about processing strategies and nonparadigmatic grammar instruction to the participants who were asked to produce output. The PI was different from the MOI only in the type of practice mode; that is, the PI was connected with input-based activities and MOI with output-based activities. The sample size for this study included 29 Spanish undergraduate students in the fourth semester of language study. The participants were divided into two groups as there was no control group. Farley targeted the Spanish subjunctive in nominal clauses after expressions of doubt. Similar to previous PI studies, Farley used an interpretation test and a sentence-level production test as instruments. Even with the incorporation of complete meaningful activities in the MOI, Farley found that PI outperformed MOI for interpretation test. However, the two groups were equal on the production test. Farley's (2001a) findings were similar to those of other studies that compared the effects of PI and output-based instruction (Cadierno, 1995; Farley, 2001a; Benati, 2001, 2005; VanPatten & Cadierno, 1993a, 1993b; VanPatten & Wong, 2004). With the limitation of having a small sample of 29 participants, Farley was criticized and replication studies with bigger samples are needed.

As a replication to his previous study, Farley (2001b) conducted a similar study in terms of the instructional treatments, assessment tests, and the target form. Farley's (2001b) study included a sample of 50 fourth semester undergraduate students of Spanish. The number of

instructional activities was increased to ten activities as opposed to eight activities in the previous study. The study revealed different results as Farley found that PI and MOI were statistically similar on their effect on both the interpretation test and the sentence-level production test. Farley (2001b) explained that the results of his study might have been due to the amount of practice (ten activities as opposed to eight in the previous study) that had been offered to the participants. In addition, the nature of the feedback given to participants might have caused more incidental learning to occur as opposed to the previous study in that feedback was solicited from the teacher until the correct answer was given. It appears that the difference in the findings between Farley's (2001a) and (2001b) studies may have resulted from the differential amount of feedback given in the two studies. It is likely that MOI participants in the (2001b) study benefited more from the incidental learning than MOI participants in the earlier study (2001a).

Regarding the findings of Farley (2001b), Farley (2004) claimed that the linguistic complexity of the subjunctive as opposed to less complex forms is the reason that his results differed from those of other studies (Cadierno, 1995; Farley, 2001a; Benati, 2001, 2005; VanPatten & Cadierno, 1993a, 1993b; VanPatten & Wong, 2004). In Farley's studies (2001a) and (2001b), the target form has a low communicative value because of its redundancy and little inherent semantic value and therefore does not lend itself well to PI. The Subprinciples P1c and P1d in VanPatten's model of input processing (1996, 2002, 2004) state that a meaningful form that is not redundant is processed before a non-meaningful form that is redundant and that a meaningful form is processed before a non-meaningful form whether it is redundant or not.

In contrast to Farley (2001b), Lee and Benati (2007a) found in a parallel study that PI was superior to meaning output-based approach on the acquisition of French subjunctive of

doubt and Italian subjunctive of doubt and opinion. 47 subjects who were native speakers of English participated in the examination of the Italian subjunctive and 61 subjects who were also English native speakers participated in the examination of the French subjunctive of doubt. Similar to most studies that investigated the effects of PI, the overall results from this parallel study showed that PI is superior to meaning output-based instruction.

Collentine (1998) investigated the effects of PI and TI on the acquisition of the Spanish subjunctive in adjectival clauses when the referent is unknown. In this study, Collentine recruited 54 undergraduate students of Spanish in their second semester of language study. Those students did not have prior subjunctive instruction. Collentine divided the participants into three groups: a TI group, a PI group, and a control group. The activities in the TI package required the production of output and moved from mechanical to open-ended. Collentine developed an interpretation task and a production task to measure the learning on the Spanish subjunctive. The findings of Collentine's study revealed that the PI and TI groups performed significantly better than the control group on both interpretation and production tasks. However, there was no significant difference between PI and TI in their effect on the interpretation or the production of the subjunctive in adjectival clauses in Spanish.

Collentine's study was criticized by VanPatten (2002) and Farley (2002) for the unauthentic activities that were developed for the study. More specifically, Farley (2002) claimed that Collentine did not provide PI participants with an important component of PI, which is the information on processing strategies that help learners overcome the faulty input processing of the subjunctive. Collentine was also criticized by Farley for not linking the structured input activities to any of the principles suggested by VanPatten's model of input processing (1993, 1996, 2002, 2004). Also, VanPatten (2002) described Collentine's structured input activities as

being too heavy to benefit learners with no prior experience with the Spanish subjunctive.

Collentine (2015) replicated Collentine (1998) in order to corroborate findings of the original study in a new learning context. It should be noted that Collentine (1998a) contained some notable limitations. First, the study did not include a delayed posttest, which did not lead to clear long-term impact of the treatments. Second, the PI treatment did not employ any affective tasks. Although the replication study did not address the long–term effects, it did employ both referential and affective activities in an attempt to align the PI treatment with VanPatten's (2004) methodology. The replication study included 50 participants who were foreign-language learners of Spanish in a classroom-based curriculum. Collentine (2015) emphasized that in the PI treatment, participants in the original and replicated studies were asked to process target sentences in written and aural exemplars. However, participants in the original study received input by an in-person instructor or on paper, and those in the replicated study received input through digital audio or words on a web page. As for the output treatment, the contrast between the two studies (original and replication) was in the linguistic channel, in that participants in the original study were asked to process target sentences in writing and in speech, while participants in the replicated study only wrote target sentences using a keyboard. Also, participants in the original study performed five writing and five oral activities, whereas participants in the replicated study worked with ten writing activities. The main finding of Collenetine's (2015) study is that input- and output-oriented approaches, in the classroom and in a CALL environment, can lead to the acquisition of the subjunctive as a complex grammatical structure provided that the practice is meaningful and deliberate, and if participants are provided with feedback. The results also indicated that both treatments had equal effects on acquiring the subjunctive in adjectival clauses, and that no treatment had a clear advantage over the other.

Fernández (2008) examined the components of PI with the subjunctive in a nominal clause following the expression of doubt and the object pronoun in Spanish. The explicit information was found to be helpful for the subjunctive as a complex form but not for the object pronoun as a simple grammatical form. Thus, the study revealed mixed findings on the effectiveness of the explicit information component of PI which included grammar explanation and information on processing strategies. The explicit information alone appeared to be not beneficial, but it may be necessary to have a combination of structured input activities and explicit information when the grammatical feature of the target language is complex.

Russell (2009, 2012) examined the effects of PI on the acquisition of the Spanish subjunctive with the incorporation of computerized visual input enhancement (VIE) in order to increase the salience of subjunctive grammatical form for web based delivery. Also, Russell (2009, 2012) was the first to examine the effects of PI when learners encountered the subjunctive that is embedded in an authentic input passage. With a sample of 92 intermediate-level distance learners of Spanish, Russell (2009, 2012) compared four experimental groups with TI. The four experimental groups included: (1) processing instruction without VIE, (2) processing instruction combined with VIE, (3) structured input without VIE, and (3) structured input combined with VIE. Following Farley (2004) and Fernández (2008) who found that the explicit explanation is necessary when the targeted grammatical forms are complex, Russell (2009, 2012) attempted to examine if the explicit explanation is necessary by having learners in the experimental groups either receive PI with explicit explanation of grammar, or structured input activities without the explicit information (Russell, 2009, 2012). It was found that learners who received PI, with or without VIE, processed the targeted forms (the forms that were embedded in subsequent authentic input) better than learners who received structured input activities without VIE. Thus,

Russell (2009, 2012) corroborated the finding that explicit explanation as a component of PI is helpful when acquiring a targeted grammatical form that is complex. Also, the study showed, through participants' responses, that the explicit explanation was beneficial to students in their learning of the subjunctive.

PI and non-Romance Languages

Despite the large database of research that examined the effects of PI, only very few have addressed non-Romance and non-Germanic languages. Radwan (2009) examined the effects of PI and TI on the acquisition of Arabic morphology. In contrast to previous studies, Radwan used a design that included a pretest, treatment, and immediate posttest in order to compare the effects of PI and TI on various Arabic morphological features (gender, clitics, case marking, and theme-first psychological verbs). 35 subjects participated in the study. The subjects were in a beginning level in their second semester of Arabic as a second language. The study revealed no significant difference between the two types of instruction. Radwan (2009) explained that the lack of significant differences between PI and TI could be attributed to the fact that PI was devoid of any metalinguistic explanations of the targeted morphological structures. Radwan also justified the results by the intensive treatment and the four targeted linguistic items that participants received in three consecutive 50 minute sessions. As suggested by Radwan (2009), more research is needed to address the effects of PI and output-based instruction on one single grammatical form with the inclusion of metalinguistic explanations of the targeted structure, which is one component of PI. This study included all the components of PI and addressed one single grammatical form (the Arabic subjunctive).

One of the recent studies that addressed the PI with a non-Romance language was Curtis (2016). Curtis examined the effects of PI and TI on the acquisition of the Spanish copulae ser

and estar. Unlike most of the studies in the PI strand that recruited participants with English backgrounds, Curtis (2016) conducted his study with 66 Chinese university students enrolled in a blended fourth-semester language course. Since this was the first study to compare the efficacy of PI with L1 Chinese learners of a language other than English, Curtis (2016) stated that it was unclear as to whether or not PI would have similar results to those found in the previous PI studies because unlike Spanish, Chinese does not typically employ copulae in sentences containing an adjectival predicate. The results of the study revealed that PI was superior to TI for the interpretation and production tasks at the immediate posttest level. However, the mean difference scores for the PI group was found to be not significant when compared to those of the control group.

Thus, Curtis (2016)' study enriched the PI research by exploring ways in which copula usage is similar between Spanish and Chinese and also ways in which usage differs. Unlike Curtis's study which looked at the acquisition of the copula which posits a level of difficulty because of the existence of differentiation between the L1 and L2 (Gass & Selinker, 8 2008), the current study looked at a form that is somewhat similar to the one in Spanish except for the fact that the subjunctive in Arabic has an increased level of perceptual saliency since the subjunctive mood requires the switch of a consonant with a long vowel for some persons instead of a vowel switch for the Spanish subjunctive. Therefore, the current study is an addition to the diversity of the PI research that helps in facilitating the acquisition of grammatical forms for language learners.

Output Based Approach to SLA and Theories

The Fundamental Role of Output in SLA. Traditionally, the role of output in SLA was relatively unexplored. Output was assumed to serve no significant function in the process of

language acquisition, except generating comprehensible input from the interlocutors (Krashen, 1981). However, many researchers attribute a fundamental role to output in SLA.

Under the Comprehensible Output Hypothesis, Swain (1985, 1993) argues output has various roles "in second language acquisition that are independent of comprehensible input" (Swain, 1985, p. 248). Swain (1985) examined the language output of learners in a French immersion program in Canada. Even though students in this program were able to achieve a superior proficiency in listening comprehension and reading in French because they received generous amounts of input in the L2, they continued to use non-nativelike forms in their writing and their speaking. These results led Swain to conclude that output provides opportunities for learners to continue their language development.

Swain (1985) argues that output practice, or production practice, may generate mental processes that affect acquisition. The importance of output practice lies in its pushing learners to use their linguistic resources to communicate. Thus, "pushed" output production prompts " learners to move from semantic, open-ended, nondeterministic, strategic processing prevalent in comprehension to the complete grammatical processing needed for accurate production" (Swain, 1985, p. 128). For Swain, output or language production is "the trigger that forces the learner to pay attention to the means of expression needed in order to successfully convey his or her own intended meaning" (Swain, 1985, p. 249). Therefore, output has a significant contribution to SLA in that it may prompt learners to restructure their interlanguage by promoting noticing (whatever linguistics items learners notice are the input they can acquire), hypothesis-testing, and the development of morphology and syntax. Many studies suggest that output is crucial for interlanguage development and L2 learning (Swain, 1995; Swain & Lapkin, 1995). Among the studies that support Swain's output hypothesis are DeKeyser (1997, 2001) and DeKeyser &

Sokalski (1996) who argue that learners need input to develop comprehension skills and output to develop production skills.

There is also support for the output hypothesis within the interactionist framework in that Gass (1997) highlights the central role of output in language acquisition. She claims that the production of output requires greater attention to the structure of the L2 than processing input and that it leads to the building of the learner's developing system in promoting fluency and accuracy. While Gass acknowledges the importance of input, she states "interaction plays an important role for acquisition because it facilitates the attention link that is crucial to understanding how learners extract information from the environment and use it in the development of their second language grammars." (Gass, 2004, p. 87).

Within the same framework, Long (1981, 1996) emphasizes the role of comprehensive input but also argues the importance of output in second language acquisition. The Interaction Hypothesis was introduced by Long. This hypothesis emphasizes the significance of modified interaction that occurs in negotiations of meaning as communication problems arise. As explained by Long (1996), the negative feedback that is obtained during negotiation work "may be facilitative of L2 development, at least for vocabulary, morphology, and language- specific syntax, and essential for learning certain specifiable L1-L2 contrasts" (Long 1996, p. 414). To put it differently, L2 learners, during negotiations for meaning, make adjustments to their interlanguage production based on the feedback that they receive such as comprehension checks or clarification checks. Consequently, learners are pushed to form comprehensible output that is important for interlanguage development.

VanPatten (2002) acknowledges the role of output in language development in that "output helps learners become better communicators and...may help them become better

processors of input" (VanPatten, 2002, p. 760). However, VanPatten argues that output cannot play the same sort of role as input in the process of second language acquisition. Also, VanPatten disagrees with the claim that "somehow acquisition—in the specific case of making form-meaning connections—is output dependent" (VanPatten, 2004b, p. 42). VanPatten (2002) believes that output is essential in skill building such as fluency and accuracy, but input alone has been shown to be sufficient for acquisition.

In sum, there seems to be an agreement among SLA researchers that input plays a major role in second language acquisition; however, many researchers posit that output also has an essential role because it helps to develop communicative skills through interaction and negotiation of meaning, leads to restructuring of the learners' interlanguage through feedback, and promotes accuracy and fluency. However, more research is needed to show evidence that acquisition is output dependent. Researchers such as Gass (1997) and VanPatten (2004) have called for more studies to examine the role of output in second language acquisition.

The Output Hypothesis. The output hypothesis was formulated because there was an emphasis on a comprehension-based approach to SLA which puts emphasis on the role of input in second language acquisition. That input hypothesis had shortcomings in predicting the acquisition profile of learners in immersion programs pushed researchers to test the validity of the output hypothesis in immersion settings.

Swain (1995) claims that the input students received in immersion classes at an elementary school was largely restricted because some use of the language did not appear. This led Swain to conclude that although students in the immersion classes had the potential for rich input, they were not pushed toward a more coherent and accurate use of the target language. In other words, learners in the immersion program were missing opportunities for output. Swain

(1985) states that output in immersion was lacked in two ways:

> First, students are simply not given, especially in later grades, adequate opportunities to use the target language in the classroom context. Second, they are not being "pushed" in their output. That is to say, the immersion students have developed in the early grades, strategies for getting their meaning across which are adequate for the situation they find themselves in; they are understood by their teachers and peers. There appears to be little social or cognitive pressure to produce language that reflects more appropriately or precisely their intended meanings; there is no push to be more comprehensible than they already are (p. 249).

Swain and Lapkin (1995) made another evaluation, and based on their observational data, they found that native-like performance levels in speaking and writing were not an inevitable outcome of an immersion education. Thus, the comprehensible input played a singular role in second language acquisition. Swain (1993) suggested that learners need to produce the L2 and, in the process of doing so, learners will sometimes notice gaps in their L2 knowledge and make modifications to their developing interlanguage. Swain specifically suggested five ways where output can play a role in language learning:

1. Language production enables learners to meaningfully practice their linguistic resources.
2. Producing the language may lead the learner to move from semantic to syntactic processing
3. Language production (without implicit or explicit feedback) may push the learner to recognize what he/she does not know. In response to knowledge gap, learners will a) ignore the gap, b) search their own linguistic knowledge to close the gap by consolidating

their existing knowledge or by generating new knowledge, or c) identify it and pay attention to relevant input.

4. Output provides the opportunity to test hypotheses
5. Feedback can lead learners to modify or reprocess their output (p. 159)

According to Swain (1985, 1993), the output hypothesis posits that L2 development may take place when learners are pushed to reflect on their own output which is defined as spoken or written language produced by learners. Learners, while attending to output, will notice gaps in their L2 knowledge. Noticing the gaps will then lead learners to consolidate the existing knowledge of the L2 or integrate new knowledge. Since the formulation of the output hypothesis by Swain (1985), she and others have elaborated many ways in which L2 production could affect acquisition (e.g., Skehan, 1998; Swain, 1995). Some of these views coincide with VanPatten's views (2004) in what is related to the dedication of attention to subsequent input.

Traditional Output Instruction. The discussions about the effects of instruction on the second or foreign language acquisition and the efficacy of grammatical instruction have brought to attention the question concerning the output-based nature of traditional grammar instruction. Currently, output-based instruction is the predominant approach to grammar instruction in the majority of second and foreign language classrooms and language textbooks in the United States. Informed by Paulston's taxonomy of practice types (1971), the traditional grammar instruction approach combines structural practice with meaningful language. More specifically, Paulston advocated a sequential ordering of practice types where mechanical practice precedes meaningful practice, and in turn meaningful practice precedes communicative practice for any given linguistic structure or grammatical item. See Table 2.2 for the sequencing and characteristics of each practice type.

Table 2.2. Paulston's Taxonomy of Practice Types and their Sequential Ordering.

Sequencing	Characteristics
Mechanical	1. Learner does not need to attach meaning to sentences in order to complete the practice. 2. There is only one correct response Ex: transformation drill.
Meaningful	1. Learner needs to attach meaning to both stimulus and response. 2. There is one and only right correct response; the intended meaning of the learner is already known by the instructor (or fellow learner). Ex: answering questions such as, "What time does class begin?
Communicative	1. Learner needs to attach meaning to both stimulus and response. 2. Intended meaning of the learner is not known by the instructor (or fellow learner). Ex: answering questions such as, "Do you have posters in your dorm room?"

Note. From Paulston (1972). Structural pattern drills: A classification. In H. B. Allen & R. N. Campbell (Eds.), Teaching English as a second language (pp. 129-138). New York: McGraw- Hill.

As Table 2.2 explains, mechanical activities focus only on form, and learners in mechanical activities are not required to comprehend the words or sentences in order to produce correct responses. A mechanical drill can be in the form of transformation or substitution, and it can explained in the following example:

Teacher: "The lesson was written by the student. The lessons ……"

Student: "The lessons were written by the student."

As for the meaningful drill activities, a learner must attach meaning to the stimulus and the response. Before asking the question, the instructor already knows the intended meaning of the learner's response. The meaningful drill activities have only one possible correct answer. An example of a meaningful activity can include giving students some pictures or drawings and prompt the students to answer questions such as the following:

Teacher: "Is this car new or old?

Student: "This car is new"

Communicative activities are similar to meaningful ones in that they both require learners to comprehend both the stimulus and the response; however, in communicative activities the intended meaning of the learner's response is not known in advance by the instructor. For example, teachers might ask open-ended questions to which students respond freely.

Teacher: "What did you do last Spring Break?"

Student: "I went to visit my friends in China"

The main textbook used in the present study, *Al-Kitaab fii Tacallum al-cArabiyya - A Textbook for Beginning Arabic: Part 1* and its companion website (alkitaabtextbook.com) and accompanying DVD adhered to the traditional instruction paradigm. The materials contained in these resources are heavily output-based, combining an output structural practice with meaningful language. In a description of their grammar teaching philosophy, which had influenced the design of the Arabic teaching materials used in the study, Brustad et al, (2011) asserted that students do not know the grammar until they can produce it consistently, and this takes constant practice over time. Brustad et al, (2011) asserted that each grammar point has a mechanical drill designed to be done as homework as well as an in-class activity designed to be done in small groups in class. For the authors, grammar practice is part of every class, and

belongs to all activities involving structured language production. For students to focus their efforts and build their confidence, the authors designed the online mechanical exercises with a close set of answers that are provided as autocorrecting drills, which provides students instant feedback.

To point to the contradiction between traditional grammar practice and the input processing model, Lee and VanPatten (2003) argued that traditional grammar practice is exclusively output oriented in which learners are provided with explanation and then are led to output practices. Input processing on the other hand, pushes learners to develop an internal system that is input dependent. This, according to Lee and VanPatten (2003), happens when learners receive and process meaning-bearing input. Since traditional grammar instruction is consisted "of those processes involved in accessing a developing system rather than those involved in forming the system….traditional grammar instruction is akin to putting the cart before the horse as it relates to acquisition; the learner is asked to produce when the developing system has not yet had a chance to build up a representation of the language based on input data" (Lee & VanPatten, 2003, p. 133). However, Lee and VanPatten (2003) recognized that practice with output may help learners with fluency and accuracy in production but it is not responsible for internalizing the grammar into the learner's head.

Overall, the previous studies comparing PI to output-based instruction provide significant contribution to the understanding of the role of these two types of instruction in SLA. This study, in turn, will add to the understanding of the role of PI and output-based instruction in SLA through the investigation of the effects of these two types on the acquisition of a different linguistic feature (the Arabic subjunctive) using two processing problem principles (the Primacy of Meaning Principle and Sentence Location Principle).

The Arabic Subjunctive and Grammatical Difficulty

In Modern Standard Arabic, the subjunctive construction in general denotes probability, possibility, wish, hope, intent, desire, expectation, preference, attempt, choice, permission, duty, obligation, necessity, etc. There are two ways in which the subjective construction differs from the indicative construction: 1) the final u mood marker is changed to a. For example, *yaktubu* → *yaktuba* "he writes"; and 2) the *na* of the plural suffix *una* and *ina* for the second singular feminine are dropped, leaving the long vowel *u* or *i*. For example, *yaktubuna* → *yaktubu* "they write" or *taktubina* → *taktubi* "you (f.) write." As a grammatical rule, the subjunctive is used in Modern Standard Arabic only when required by a word or expression in the sentence. These words are *ʔan* "that, to," *hatta* "until, up to the point that," *li* "in order to," *kay* and *likay* "in order that," *lan* "will not" etc.

Nash (2010) conducted a conversation with Micheal Cooperson, a professor of Arabic at the University of California, Los Angeles, in an attempt to understand some of the critical issues of Arabic learning and instruction. In this conversation Cooperson stated, "the verbal syntax of Arabic is difficult but it's also really interesting. To mark the subjunctive, you have to basically drop something rather than add it. And that's hard to learn if you've spent five years learning different cases markers."

In the Al-Kitaab textbook, one of the most widely used book in teaching Arabic in the U.S. the subjunctive is termed as a subordinate verb, which shares some features of subjunctives in other languages and which serves as a nonfinite verb form. (Brustad, al-Batal, and al-Tonsi, 2004, p. 213). The subjunctive in unvoweled texts can be difficult for learners to process because there is nothing different between the infinitive and the subjunctive for the persons I, you (s.m),

you (s.f), he, she, and we (Brustad, al-Batal, and al-Tonsi, 2004, p. 214).

In addition, the subjunctive is likely to pose difficulties for Arabic language learners due to their use of inefficient processing strategies, which can be explained by VanPatten' s model of input processing (1996, 2002, 2004). Learners are likely to have difficulties with the subjunctive due to the principles in VanPatten's (2004):

1. The Primacy of Meaning Principle. Learners process input for meaning before they process it for form.
2. The Sentence Location Principle. Learners process items in sentence/utterance initial position before those in final position and those in medial position. (VanPatten 2004, p. 14).

The Primacy of Meaning Principle suggests that when learners process input, they first look for meaning in the input, which prevents some parts of the form in the input from being processed for acquisition. The Arabic subjunctive is a particular form that is difficult for students to notice because of the similarity between the endings of the subjunctive and the endings of the present indicative verbs. To illustrate, while the third person plural indicative form of the verb كتب (to write) is يكتبون the third person plural subjunctive form of the verb كتب is يكتبوا . This switch from consonant to vowel, which denotes an entirely different grammatical mood, is often overlooked by L2 learners of Arabic. As part of the PI package used in the study, participants in the PI group were made aware of the Primacy of Meaning Principle and were presented with alternate strategies to divert them from using this inefficient processing strategy. To cite an example, participants were instructed to pay attention to the verb endings in order to identify the right grammatical mood of the target language input they received in their tasks.

This study also addressed the Sentence Location Principle, which suggests that the initial

word in a sentence is more salient than words in medial or final positions. Thus, learners process and learn these words more quickly than those in other positions. In this study, the target form occurred in the medial position right after subjunctive particles. A clear example is shown in the following sentence, where the subjunctive form يذهبوا occurs in the sentence medial position:

أصحابي يريدونَ أن يذهبوا إلى الشرق الأوسط

My friends want to go to the Middle East

Participants in the PI package were reminded of their tendency to overlook grammatical items in the middle of sentences. They were instructed to pay attention to the presence of verbs in the medial position especially to verbs that immediately follow subjunctive particles. Given the complexity of the Arabic subjunctive which posits difficulties for learners to accurately choose the correct mood, it is important to look for other new techniques for instructing this complex form. Thus, this study may have the potential to help maximize learning the subjunctive for Arabic learners.

CHAPTER 3:

RESEARCH DESIGN AND METHODODLOGY

Introduction

This chapter presents a description of the study procedures that were utilized to investigate the relative effects of PI and TI on the acquisition of the Arabic subjunctive. Within the context of this study two research questions were addressed:

3) Is there a difference between beginning-level Arabic language learners who are exposed to processing instruction and those exposed to traditional instruction with respect to their performance on the Arabic subjunctive *interpretation* tasks over time (as measured by a pretest, an immediate posttest, and a delayed posttest)?
4) Is there a difference between beginning-level Arabic language learners who are exposed to processing instruction and those exposed to traditional instruction with respect to their performance on the Arabic subjunctive *production* tasks over time (as measured by a pretest, an immediate posttest, and a delayed posttest)?

The present chapter provides a discussion of the research design, research participants, and a description of instruments and measures that were utilized in the study. The final part of this chapter presents a description of the data collection procedures and analysis.

Research Design

This study compared the relative effects of processing instruction (PI) and traditional instruction (TI) on the acquisition of the Arabic subjunctive. Both PI and TI were predicted to have positive effects on participants' performance for interpreting and producing the subjunctive.

It was also predicted that the performance of participants from the PI group would be superior to the performance of the TI group for the interpretation tasks. This study utilized an experimental pretest-posttest-delayed test design. There were four intact classes, and students from each class were randomly assigned to an instructional treatment. There were two treatment groups: PI and TI. A control group was not included in the study due to time constraints and the small sample size. Furthermore, most of the control groups in PI studies were found to be inferior to the experimental groups. The researcher conducted a pretest in order to see if the groups were equivalent in terms of their ability to interpret and produce the target grammatical feature before instruction.

To measure the effects of PI and TI on the acquisition of the Arabic subjunctive, three forms of the interpretation test (see Appendix A) and three forms of the production test (see Appendix B) were developed. After they signed the informed consent form (see Appendix C), all participants took one form of each test as a pretest which was used as a screening device to remove participants who would score more than 60% of the right answers. Another form of each test was given immediately after the completion of the instruction to measure the immediate effects of the two treatments. A third form of each test was taken by participants two weeks after the immediate posttest to determine if learning gains were to be retained over time. The instructional treatments were conducted over four sessions as each class met 4 times a week. The classes were held Monday through Thursday and each class lasted for 50 minutes. Table 3.1 shows the design of this study.

Table 3.1. Study Design.

<table>
<tr><td colspan="2">PRE TESTS (1 WEEK BEFORE)
Interpretation and production tests</td></tr>
<tr><td colspan="2">SELECTION PROCEDURE
STUDENTS FROM FOUR CLASSES WERE RANDOMLY ASSIGNED TO AN INSTRUCTIONAL TREATMENT</td></tr>
<tr><td>PROCESSING INSTRUCTION GROUP (PI)</td><td>TRADITIONAL INSTRUCTION GROUP (TI)</td></tr>
<tr><td>- Explicit information about the grammatical feature
- Information about strategies
- Structured Input Activities</td><td>- Explicit information about the grammatical feature
- Output Activities: mechanical, meaningful, and Communicative</td></tr>
<tr><td colspan="2">Instructional Period (four sessions and each session lasted for 50 minutes)</td></tr>
<tr><td colspan="2">IMMEDIATE POSTTESTS
DELAYED POSTTESTS (2 weeks later)</td></tr>
</table>

Setting and Participants

The study was conducted at a research university in the southeast of the U.S. The participants were learners of Modern Standard Arabic (MSA) in their second semester who had no previous exposure to the Arabic subjunctive. The Arabic classes met four times a week, and each class period lasted 50 minutes. The researcher and another instructor were the only instructors in the Arabic program. They were both native speakers of Arabic with varying levels of teaching experience. The other instructor was not involved in the implementation of the treatment. The Arabic program at the aforementioned university offers four sections of Modern Arabic I with a total of 88 students. The second level of Modern Standard Arabic, in which the study took place, had a little less enrollment compared to the first level. However, four sections of Arabic level 2 were offered because students who passed a placement test or those who had instructor's permission could be placed in the second level of Modern Arabic. All students in the second semester were invited to participate in the study. From a total of 70 participants, only 64 participants could complete all the study assignments. The participants were all native speakers of English. There were more female students (37) than male students (22) and their age varied from 18 to 51 with a mean of 22.16. Only two participants claimed that they took Arabic classes in high school. Following the language department's policy, students who did not complete the first level of Modern Standard Arabic were required to take a placemat test before enrolling in the second semester of Arabic.

The modern Arabic course serves to provide continuing development of all language skills including reading, writing, speaking, and listening. In addition, it serves to provide more opportunities to learn more about the Arabic culture. Students in this course are trained through the use of audio/visual materials, to speak, listen, read, and write in Modern Standard Arabic

(MSA), the form of Arabic language used in all Arab countries. Consistent emphasis is placed on the use of authentic materials that come from the context of the living culture. The Arabic course includes a number of assignments and activities, namely, six quizzes, a midterm exam, three compositions, one presentation (conducted in Arabic), one oral interview, and a final exam. Most of the home assignments in this course are performed through the companion website of the main textbook. The textbooks that are used in these classes are written by the same authors: *Alif Baa: an introduction to Arabic letters and sounds* and also *Al-Kitaab fii Tacallum al-cArabiyya - A Textbook for Beginning Arabic: Part 1* (Brustad, K., Al-Batal, M., & Al-Tonsi, A., 2011). Teachers in these classes use the same textbooks, curriculum, and examinations. However, they have leeway in designing different activities for their own classes.

The study was carried out towards the end of the spring semester of 2015 when all students completed most of the course assignments including the midterm exam. The researcher did not conduct a pre-questionnaire but instead he created a posttreatment questionnaire which was taken by the participants at the end of the treatment. The posttreatment questionnaire included questions regarding the gender of the participants, their age, academic level, previous contact with Arabic, in addition to questions about the treatment and packages involved in the study. The part about treatment was adopted from Russell (2009, p. 391). The posttreatment questionnaire is presented in Appendix D. The results from the posttreatment questionnaire showed that, unlike commonly taught languages, students from the Arabic classes had no previous classes in high school or even before high school. In general, it can be assumed that even heritage speakers could not score high on the subjunctive tests because most of the Arabic dialects do not require subjunctive particles and, therefore, the students were more likely to process the subjunctive inefficiently. The posttreatment questionnaire also showed that students

were highly motivated to take the Arabic courses at the aforementioned university.

Research Materials

The researcher created two instructional packages for the treatments. One group received the PI treatment and the other group the TI treatment. As shown in Table 3.1, the PI treatment included explicit information, information about processing strategies, and structured input activities. TI treatment included explicit information and output-based activities.

The target structure in this study is the Arabic present subjunctive, which is one of the fundamental structures of Arabic (Brustad, al-Batal, and al-Tonsi, 2004). Formally, present tense verbs in Arabic are usually expressed in the Indicative Mood. However, this present tense is moody because "verbs which express hope, desire, purpose, like, dislike, doubt, fear, uncertainty, obligations, etc., change their mood from the regular indicative to the subjunctive" (Jiyad, 2006, p. 26). It also requires that the subjunctive present form follows one of the subjunctive particles. Examples of the subjunctive particles are لِـ "in order to" and أن "to" as in I want to go.

Consider how the purpose is expressed in the following sentence:

أذهبُ إلى الجامعةِ لأدرسَ العربية

I go to the university in order to study Arabic

As one can see from the previous example, the subjunctive can be formed by placing "Fatha" at the end of the verb that follows the subjunctive particle. However, not all the verbs follow the same structure. Consider the following examples:

Table 3.2. Verb Conjugation in Indicative and Subjunctive.

Subjunctive	Indicative	Subject Pronoun
أدرسَ	أدرسُ	أنا
تدرسَ	تدرسُ	أنتَ
تدرسي	تدرسينَ	أنتِ
يدرسَ	يدرسُ	هو
تدرسَ	تدرسُ	هي
ندرسَ	ندرسُ	نحن
تدرسوا	تدرسونَ	أنتم
يدرسوا	يدرسونَ	هم

When the Arabic verb is in the subjunctive mood, "the final letter (نَ) of the second and third person masculine plural is replaced by a silent (ا)" (Jiyad, 2006, p. 26).

- they (masculine) go يَذهبونَ
- in order for them (masculine) to go لِيذهبوا
- you (masculine) study **تدرسونَ**
- in order for you (masculine) to study **لِتدرسوا**

يذهبونَ إلى الجامعةِ ليدرسوا العربية

They (m) go to the university in order to study Arabic

The underlined verb has the original form of (**يدرسونَ**)

Also, the final (نَ) of the second person feminine singular is dropped without replacing it with silent (ا).

- you (feminine singular.) study تـَدرُسينَ
- so that you (feminine singular.) study لتـَدرسي

تذهبينَ إلى المدرسةِ لتدرسي العربية

You (f.s.) go to the school in order to study Arabic

*The underlined verb has the original form of (*تَدرُسينَ)

The particle **أن** is the "most common subjunctive particle in Arabic; it is usually placed between two verbs referring to the same or a different person" (Jiyad, 2006, p. 26). It has a function similar to the particle "to" in English. By examining the sentence carefully, it can be noticed that **أن** introduces a subordinate clause which has the function of an object to the main verb.

أُريدُ أنْ أدرُسَ في المكتبةِ

I want to study in the library

The Processing Instruction Package. The PI materials in this study contained three essential components of the typical PI: "(1) explicit information about the structure/form; (2) explicit information about the processing problem; and (3) structured input activities" (VanPatten 2004, p. 33). The PI packet that included explicit information about the target form and its structure is presented in Figure 3.1. The explicit explanations included rules and examples

regarding the Arabic subjunctive. As shown in Figure 3.1, the rules were in English only but the examples were provided in both Arabic and English. Most of the vocabulary items in the explicit explanations were adopted from *Alif Baa: An introduction to Arabic letters and sounds* and also from *Al-Kitaab fii Tacallum al-cArabiyya - A Textbook for Beginning Arabic: Part 1*, which are widely used for Arabic instruction in the U.S.

Present tense verbs in Arabic are said to be in the Indicative Mood. However, this present tense is moody because verbs which express hope, desire, purpose, like, dislike, doubt, fear, uncertainty, obligations, etc., change their mood from the regular Indicative to the subjunctive.
That also requires that they should follow one of the subjunctive particles, such as لكي ، كيلا ، لِـ ، أن ، لَن ، حتَّى ، كي Note the purpose expressed in the following sentence:

أذهبُ إلى الجامعةِ لأدرسَ العربية

I go to the university in order to study Arabic

As you can see from the previous example the subjunctive can be formed by placing "Fatha" at the end of the verb that follows the subjunctive particle.

Figure 3.1. Sample of Grammar Explanations. (From Jiyad, 2006, p. 26).

In addition to the explicit information, the participants were explicitly reminded of avoiding inefficient strategies in order to comprehend the subjunctive structure. To achieve this, PI participants were provided with a list of information showing how to avoid the inefficient processing strategies that Arabic language learners are likely to utilize when reading input sentences that contain the Arabic subjunctive. The information on processing strategies was provided to participants in writing. Learners of Arabic who speak English as the first language are likely to have difficulties with the subjunctive due to the following principles discussed by

VanPatten (2004):

1. The Primacy of Meaning Principle. Learners process input for meaning before they process it for form.
2. The Sentence Location Principle. Learners process items in sentence/utterance initial position before those in final position and those in medial position. (VanPatten 2004, p. 14).

The Primacy of Meaning Principle suggests that when learners process input, they first look for meaning in the input, which prevents some parts of the form in the input from being processed for acquisition. The Arabic subjunctive is a particular form that is difficult for students to notice because the endings of the subjunctive are very similar to the endings of the present indicative verbs. For example, while the third person plural indicative form of the verb كتب (to write) is يكتبون the third person plural subjunctive form of the verb كتب is يكتبوا . This switch from consonant to vowel, which denotes an entirely different grammatical mood, is often overlooked by L2 learners of Arabic. As part of the PI package, participants in the PI group were made aware of the Primacy of Meaning Principle and were given alternate strategies to avoid this inefficient and faulty processing strategy. To cite an example, participants were instructed to pay attention to the verb endings in order to identify the right grammatical mood of the target language input they received in their tasks.

This study also addressed the Sentence Location Principle, which suggests that the initial word in a sentence is more salient than words in medial or final positions. Thus, learners process and learn these words more quickly than those in other positions. In this study, the target form occurred in the medial position right after subjunctive particles. A clear example is shown in the following sentence, where the subjunctive form يذهبوا occurred in the sentence medial position:

أصحابي يريدونَ أن يذهبوا إلى الشرق الأوسط

My friends want to go to the Middle East

Participants in the PI group were reminded of their tendency to overlook grammatical items in the middle of sentences. They were instructed to pay attention to the presence of verbs in the medial position, especially to verbs that immediately follow subjunctive particles. The example that was provided to participants from the processing strategies information was:

هم يريدونَ أن يذهبونَ إلى الجامعة

They want to go to the University

Students were shown that the form (يذهبونَ) is incorrect because it is located after the subjunctive particle (أن) and therefore it should be written as (يذهبوا). Then, students were instructed to treat the verbs after the subjunctive particles differently from the verbs that come before the subjunctive particles. It was also explained to the participants that learners usually tend to ignore the subjunctive particles in both interpretation and production tasks because they are located in the middle of the sentence. The Information on Processing Strategies is presented in Appendix E.

Another component of the PI is the structured input activities. According to VanPatten and Oikkenon (1996), the main benefits of PI can be gained through structured input activities. For this reason, two types of structured input activities were developed for the study: referential and affective activities. Learners in referential activities are required to pay attention to forms in order to grasp their meanings. Also, referential activities have right or wrong answers. Affective activities, according to Wong (2004), require L2 learners to express a beliefs, opinions, or any

other affective responses as they engage in processing information about the real world.

Wong (2004) states that in order to create authentic structured input activities the guidelines must be followed explicitly. Therefore, the activities in this study were designed following the guidelines presented by Lee and VanPatten (1995).

1. Present one thing at a time
2. Keep meaning in focus
3. Move from sentences to connected discourse
4. Use both oral and written input
5. Have the learner do something with the input
6. Keep the learner's processing strategies in mind (p.104)

There were a total of ten structured input activities (see Appendix F). The first six activities in this instructional treatment were referential and the last four activities were affective. In referential activities, there was a right or wrong answer and learners had to rely on the target form to obtain meaning. For example, when participants were asked to check off the phrase which correctly ends the following statement "الطلاب لا يريدونَ أن: students do not want to", participants had to choose between "يتخرجوا هذه السنة" or "يتخرجونَ هذه السنة" In this example, participants had to rely on target form "أن " in order to obtain meaning and therefore choose the correct answer "يتخرجوا هذه السنة" which indicated the subjunctive mood. In affective activities, participants had more than one correct answer, because the activity items asked for a participant's opinion or belief. For example, participants were asked to express their opinion on which activities their friends would most likely do during the weekend. The decision was based on participants' opinion and required them to select the input sentences that expressed their belief or opinion. In this study, and as suggested by VanPatten (1996, 2002, 2004), the affective activities

were provided after the referential activities in order to enhance the form-meaning connections that were established in the referential input activities. Table 3.3, lists some examples of the referential and affective activities.

Table 3.3. Structured Input Activities.

Structured input activities	Type of activity
1. Read each of the following phrases and check off the phrase that correctly ends each statement.	Referential
2. Listen to your instructor stating some sentences. Then, determine if they include examples of the subjunctive.	Referential
3. Read and circle the correct form of the verb of each sentence	Referential
4. Read the following sentences and choose the correct answer to make the sentences grammatically correct.	Referential
5. Read each of the following phrases and check off the phrase that correctly begins each statement.	Referential
6. "Maha" and her friends are planning for their next weekend activities. Read each statement below and decide which sentence is a more logical ending.	Referential
7. Mark the following sentences if they apply to your close friends.	Affective
8. Mark the things your friends would like to do in the future.	Affective
9. Which of the following activities you and your friends would like to do the most in the free time. Place these statements in order from 1, being the least important to you, to 5 being the most important. Write the number in front of each statement.	Affective
10. Choose the right endings for the following statements.	Affective

The researcher designed these activities so that one item is presented at a time as it is suggested by *guideline 1* (present one thing at a time). In each activity only one grammatical point (3rd person present subjunctive) was presented. Agreeing with Wong (2004), participants

had to understand the content of the received input in order to successfully complete these structured input activities. For example, in order to identify the correct form of the verb in each sentence in Activity 4, participants had to comprehend the referential meaning of the given input, by looking at the preceding words and deciding if the sentence included any subjunctive particles. Without referring to the content of the input (the existence of the subjunctive particle), students would not be able to determine the right form. Therefore, the meaning was kept in focus for all the activities and that is in agreement with *guideline 2* (Keep meaning in focus.).

In addition, these activities did not include any mechanical drills which, according to Wong (2004), are dominant in the traditional output-based instructional methods. The activities also aligned with *guideline 3* in that learners would not only read or listen to sentences but they had to do something with the input. For example, in Activity 1, 2 and 4 students would identify the right answer by checking off the right box.

The fourth guideline recommends that L2 learners should be provided with both written and oral input. J.F. Lee and VanPatten (2003) suggest that SI activities can be presented either in writing, orally or both. Lee and VanPatten (2003) claim that the main reason for providing learners with oral and written input is to adjust for individual differences in language acquisition as some learners benefit more by visualizing things while others learn better by listening. Since the learners in Activity 2 were asked to listen and then decide which sentences contained the subjunctive, there is an agreement with *guideline 4.*

Learners' focus in all the activities were directed toward the subjunctive by accounting for the processing strategies learners might use to complete the tasks. Therefore, the activities in the PI packet agreed with *guideline* 6. It should be emphasized that all the activities designed for the PI group were completely input-based and required no production of the Arabic subjunctive.

Also, before presenting a connected discourse in Activity 3, the learners had to first practice activities 1 and 2 which included sentences only.

As part of the treatment and after the completion of each activity, participants were provided with feedback as to what the right answer was by giving them a list of the answers. Participants were not supplied with any feedback or justification when the participants provided the right answers to the activities. In other words, the participants were given the right answers, but they were not told why the answer was correct.

The Traditional Instruction Package. Participants in the TI treatment were provided with explicit information of the target grammatical form. In addition, the participants were provided with the full paradigm of subjunctive forms as they were prompted to produce all of the target forms through output-based practice activities immediately after they received the grammar explanation. The package that included all the explicit grammar explanations is presented in Appendix G. The explicit explanations included rules and examples regarding the Arabic subjunctive. As shown in Figure 3.1 the rules were explained in English only but the examples were provided in both Arabic and English. Most of the vocabulary items in the explicit explanations were adopted from *Alif Baa: An introduction to Arabic letters and sounds* and also from *Al-Kitaab fii Tacallum al-cArabiyya - A Textbook for Beginning Arabic: Part 1*, which are widely used for Arabic instruction in the U.S.

After the presentation of the grammar explanation, the participants were presented with ten output-based practice activities (Appendix H). Informed by the previous research (Paulston 1972, Cadierno, 1995; Russell, 2009 and 2012) the TI in this study was operationalized with output-based activities that moved from mechanical to meaningful to communicative. The mechanical and transformational drills included only one possible correct answer. These drills

did not require learners to attend to the meaning of the input sentences in order to produce correct answers. As for the meaningful drill activities, meaning had to be attached to the stimulus and the response. Before asking the question, the instructor already knew the intended meaning of the learner's response. The meaningful drill activities had only one possible correct answer. For the communicative activity in this package, learners were required to comprehend the stimulus and the response. However, the learner's intended meaning was not known in advance.

Paulston's (1972) taxonomy of practice types was chosen in this study because most of the previous studies that compared PI to TI based their activities for the TI on this system, which advises that lessons should progress from more controlled activities to more open-ended activities. In addition, most modern second/foreign language textbooks still follow this system.

Table. 3.4 displays a sample of the activities in the TI package. In accordance with past studies that compared PI with TI (Cadierno, 1995; Benati, 2001, 2005; VanPatten & Cadierno, 1993a, 1993b; Cheng, 1995, 2002; VanPatten & Wong, 2004) the TI in the study was operationalized with fifty percent of activities that focused on form only, and fifty percent of activities that focused on form and meaning. The TI treatment package is presented in Appendix H.

Table 3.4. Samples of Types of Traditional Instruction Activities.

Traditional Instruction Activities	Type of Activity
1. Conjugate the verbs in parentheses in the present subjunctive.	Mechanical
2. Rewrite the entire sentences to make them negative.	Mechanical (transformational)
3. Rewrite the entire sentences to make them affirmative.	Mechanical (transformational)
4. Read the following statements about some people and decide which beginning does fit to complete each sentence.	Meaningful
5. Read the questions below and then fill in the blank with the correct verb form.	Meaningful
6. Complete the sentences using the endings provided. Conjugate the verb in either the subjunctive or the indicative as appropriate.	Meaningful
7. Listen to the following question and fill in the blank with the correct verb form (subjunctive or indicative).	Meaningful
8. Listen to the beginning of each sentence and then fill in the blank with conjugating the verb in either the subjunctive or the indicative as appropriate.	Meaningful
9. Choose from the following items to complete the sentences below. Why do you study Arabic?: لماذا تدرسُ العربية؟	Communicative
10. Read the following prompts and then complete the sentences in a logical manner. These sentences are about what your friends are likely to do in their free time. Use any verb from the list to complete the sentences.	Communicative

Posttreatment Questionnaire. A posttreatment questionnaire was created and administered after the completion of the delayed posttest. It was composed in English and no Arabic translation was given. The main purpose of the questionnaire was to elicit participants' opinions about the study related materials. More specifically, the posttreatment questionnaire asked participants about the clarity and easiness of the directions in the instructional packages. Participants were also asked to rate if they learned anything from the package materials. In addition, participants were asked if they preferred the types of activities provided in their specific treatment package to their regular classroom activities. Finally, the participants were asked if they enjoyed learning Modern Standard Arabic grammar using the materials provided in their treatment package. In addition, the second part of the posttreatment questionnaire assisted in the collection of demographic and language background information. Another purpose of the posttreatment questionnaire was to help with the interpretation of the study's quantitative analysis.

Testing Materials. The study included three parallel tests, Test A, Test B and Test C. Test A was used as the pretest, test B as the immediate posttest, while test C was used as the delayed posttest. These tests were developed to assess the participants' ability to interpret and produce the Arabic subjunctive. Each test had interpretation and production tasks with a total of 32 items altogether. Each item was worth a maximum of one point. Therefore, the interpretation test had a maximum of 16 points and the production test had a maximum of 16 points. Participants were provided with a list of vocabulary translations for each test.

Interpretation Test. The interpretation test was created for this study in order to measure the participants' ability to accurately interpret the Arabic subjunctive. This test required the participants to listen twice to aural statements in which the main clause was deleted. The

participants had to complete each sentence by choosing between two endings that were written on the answer sheets. One ending included the subjunctive and the other included the indicative form of the verb in the present tense. For example, the subjects heard:

أنتم تريدونَ أن...

You (3rd.p.plural) want to…

And then participants had to choose between "a" or "b":

a. تسافرونَ إلى فرنسا

Travel to Paris (conjugated in the present tense)

b. تسافروا إلى فرنسا

Travel to Paris (in the subjunctive mood)

The tests included vocabulary items that were familiar to the students since all of them were derived from the main textbooks that participants used in the two previous courses. The interpretation tests (Test A, Test B, and Test C) contained 16 items. Also, to ensure that the students' performance was measured based on the target features (the subjunctive and the indicative), the researcher provided a list of the words in Arabic with the corresponding translations in English. 48 items were generated and systematically assigned to each version of the interpretation test. Each version of the interpretation test included 8 subjunctive verb items that were balanced in terms of verbal patterns. Arabic has ten main verbal patterns. These patterns have letters and vowels that are suffixed to the root form, which alters the meaning of the root verb in a variety of different ways. Each version of the interpretation test included 6 verbal patterns Type I and 2 verbal patterns Type III. As for the indicative, the eight items were also balanced in terms of verbal patterns for each interpretation test. The indicative items were included in order to examine the possibility of learner overextension of the Arabic subjunctive as

a targeted grammatical form.

As a scoring policy, one point was awarded for each correct response that involved selecting the subordinate clause that corresponded with the main clause. A score of zero was awarded for each incorrect or blank response.

Production Test. The production test was created for this study in order to measure the participants' ability to accurately produce a correct Arabic subjunctive. The production test included a sentence-completion task. Among the 16 sentences in the test there were:

- eight sentences that included the subjunctive
- eight distracters that included the regular present tense conjugation which require a person-number agreement.

The participants were instructed to change the verb form in parenthesis to complete the sentences correctly. There was a note to the participants that they needed to put marks at the end of verbs to distinguish between the two moods (indicative or subjunctive). For example:
The participants were asked to read the sentences provided in the sheets and then complete the sentences:

<u>The first example was of a sentence with a distractor:</u>

- ماجدة، هل أنتِ.....(يعرف) هذا الفيلم؟

- Majda, do you.....(to know) this movie?

<u>The second example was of a sentence that included the subjunctive:</u>

- لماذا يا سلمى تريدين أن.....(يعرف) عنوان الأستاذ؟

- Salma, why do you want to.....(to know) the address of the teacher?

The participants were provided with English translations so that their performance could

be measured based on the target features (the subjunctive and the indicative). 48 items were generated and systematically assigned to each version of the production test. Each version of the production test included 8 subjunctive verb items that were balanced in terms of verbal patterns in that each version included 4 verbal patterns Type I, 2 verbal patterns Type III, 1 verbal pattern Type V and 1 verbal pattern VIII. The eight indicative items of each production test were also balanced in terms of verbal patterns. The indicative items were included in order to examine the possibility of learner overextension of the Arabic subjunctive as a targeted grammatical form.

To score items from the production tests, one point was awarded for each item that had a correct mood, number and person. Half-point was awarded if the mood was correct, but there was an error in person or number or a spelling mistake in the stem. Finally, a score of zero was awarded for each blank response and also for each response in which the subjunctive form was not attempted when it was obligatory.

Validity and Reliability of Test Instruments. The instruments for this study included three tests. Each of the three tests included 16 items in the interpretation section and 16 items in the production section. As described below, the researcher gathered evidence in support of the validity and reliability of the instruments regarding the test content and the internal structure of each test.

Evidence of Test Content. The researcher invited a panel of experts who were native speakers of Arabic with university teaching experience that ranged from seven to thirty years to examine the instruments of this study and to determine the clarity and appropriateness of the test instruments employed in the study. The panel experts were asked to determine if each test's content measured the construct that it was supposed to measure. The experts were asked to examine the individual test items to evaluate whether the items measured what they were

supposed to measure (the Arabic subjunctive). The three experts confirmed that the content of each test as well as the individual test items measured what they were intended to measure (interpretation and production of the Arabic subjunctive). The experts also found that the tests appropriately matched the level of the learner (students of Arabic in a second semester). They also stated that all vocabulary items were clear and represented what students usually acquire in this level.

Internal Consistency Reliability. To test the reliability of the three interpretation tests and the three production tests, the researcher adopted the split-half methodology since the tests could not be repeated to the same set of subjects due to time constraints. This methodology was used in this case because it required only one testing session and it eliminated the possibility that the variable being measured would change between measurements. In this regard, the researcher divided each test into odd and even numbered items to correlate scores on one half of the items with scores on the other half (Jackson, 2014). The researcher used the even-odd approach in order to avoid any potential issues such as fatigue or lack of concentration among participants that might lead to decrease of scores during the second half of the tests. Also, the even-odd split eliminated the learning effect on the latter items of the tests due to possible learning gain from the exposure to early test items. With the even-odd approach, two equivalent halves were generated because each half of the test included the same number of target items and distracters.

In a pilot study, these tests were taken by 34 beginner-level learners of Arabic at a research university in the southeast of the U.S. After the students took the tests, the researcher divided each test into halves. Then, the researcher computed the correlation coefficients of the tests. The split-half correlation coefficient is problematic because only half the number of items

was used and this might consequently reduce the reliability coefficient. Therefore, the researcher utilized the Spearman-Brown correction to obtain a better estimate of the reliability of the full test. As demonstrated in Table 3.5 the tests designed for the study were quite reliable.

Table 3.5. Results from Split-half Tests.

Tests		
Production Test A	Correlation Coefficient	0.636062
	Spearman-Brown correction	0.777552
Production Test B	Correlation Coefficient	0.891965
	Spearman-Brown correction	0.942898
Production Test C	Correlation Coefficient	0.803640
	Spearman-Brown correction	0.891131
Interpretation Test A	Correlation Coefficient	0.651671
	Spearman-Brown correction	0.789105
Interpretation Test B	Correlation Coefficient	0.544576
	Spearman-Brown correction	0.705146
Interpretation Test C	Correlation Coefficient	0.821740
	Spearman-Brown correction	0.902148

The reliability of the interpretation and production tests was also tested by computing the internal consistency reliability (Cronbach's alpha) for each of the constructs that the tests were supposed to measure. As can be seen from Table 3.6, the estimates of internal consistency, as measured by Cronbach's alpha, all had values that exceeded .70, which is the minimum acceptable value suggested by Nunnally (1978).

More specifically, reliability estimates were .85, .78, and .79 for the construct interpretation of the subjunctive on the three versions of the interpretation test respectively. The reliability estimates were .84, .90, and .82 for the construct interpretation of the indicative on the three versions of the interpretation test respectively. For the construct production of the subjunctive, reliability estimates were .95, .92, and .91 for the three versions of production tests respectively. Regarding the construct production of the Arabic indicative, the reliability estimates were .82, .89, and .92 for the three versions of the production test respectively.

Table 3.6. Cronbach's Alpha Values for all Tests.

Test Type	*Cronbach's alpha*
Interpretation of Subjunctive A	.85
Interpretation of Subjunctive B	.78
Interpretation of Subjunctive C	.79
Interpretation of Indicative A	.84
Interpretation of Indicative B	.90
Interpretation of Indicative C	.82
Production of Subjunctive A	.95
Production of Subjunctive B	.92
Production of Subjunctive C	.91
Production of Indicative A	.82
Production of Indicative B	.89
Production of Indicative C	.92

Internal Structure. After completing the initial pilot study, two other pilot studies were conducted in order to obtain more evidence regarding the internal structure of the interpretation and production tests. The first pilot study involved 14 beginning Arabic language learners in their second semester of Arabic. The second pilot study included 11 beginning learners of Arabic at the end of the second semester. During the piloting phase, the participants were asked to take all three versions of the interpretation test and the production test. To ensure the consistency of test items measuring the same construct, an item-to-total correlation was performed for each construct that these tests measured. For the interpretation tests, the researcher checked the item-to-total correlations for items that were supposed to measure interpretation of the subjunctive and items that were supposed to measure interpretation of the indicative. The researcher also checked item-to-total correlations for items that were supposed to measure production of the subjunctive and those that were supposed to measure the indicative production.

After completing the first pilot testing with the Arabic second semester language students, three items from the interpretation test that measured interpretation of the subjunctive and one item from the interpretation test that measured interpretation of the indicative were removed because the item-to-total correlations were not consistent with the other items that measured the same constructs. To prepare for the second round of pilot testing, which was taken by other students at the similar level of Arabic, the items that were removed were replaced by other items that were similar to those with higher correlations. After completing the second round of testing, it was found that the test items measuring each construct were consistent with each other. The researcher examined the item-to-total correlation for each test item and found that all test items measuring the same construct were consistent for any of the tests that were designed for the this study.

Evidence for Equivalence. In order to establish that all three forms of the interpretation test were equivalent, the Forms A, B, and C of the interpretation test were piloted with 11 beginner Modern Standard Arabic learners in their second semester of Arabic learning. The scores obtained from the three forms of the interpretation test were correlated to yield correlation coefficients. After computing all of the correlation coefficients, the results indicated that the relationship between the three versions of the interpretation test was positively strong. The correlation between Tests A and B was $r = .78$, $p < .004$, the correlation between Tests A and C was $r = .83$, $p < .001$, and the correlation between Tests B and C was $r = .77$, $p < .005$.

In order to establish that all three forms of the production test were equivalent, the Forms A, B, and C of the production test were piloted with 11 beginner Modern Standard Arabic learners in their second language semester. The scores obtained from administering the three forms of the production test were correlated to yield correlation coefficients. After all of the correlation coefficients were computed, the results revealed that there was a strong positive relationship between the three versions of the production test. The correlation between Tests A and B was $r = .91$, $p < .000$, the correlation between Tests A and C was $r = .92$, $p < .000$, and the correlation between Tests B and C was $r = .96$, $p < .000$. The correlation between Tests B and C was the highest compared to the other combinations. This may have been caused by a practice effect. In other words, participants may have become familiar with the format of Tests B and C through the exposure to Test A, which was conducted first. Familiarity with the format and instructions may have caused participants' performance on Tests B and C to improve. The coefficient of equivalence among the three versions of the production test seemed to be higher compared to the three types of the interpretation test. This may have been caused by the nature of the interpretation tests in which participants may have guessed their answers unlike the

production tests that had no multiple choice answers.

Table 3.7 and Table 3.8 listed the means and standard deviations of scores obtained from the administrations of the three forms of the interpretation and production tests based on the pilot studies. An examination of Table 3.8 indicates that all of the mean scores on the three forms of the interpretation tests were similar. As shown in Table 3.8 the mean scores on the three versions of the production tests were similar, which provides support for the equivalence of the three forms for both tests.

Table 3.7. Means and Standard Deviations of Scores on Three Versions of the Interpretation Test.

Test Type	*Mean*	*SD*
Interpretation A	8.72	2.00
Interpretation B	7.90	2.58
Interpretation C	8.27	2.37

Note. $N = 11$.

Table 3.8. Means and Standard Deviations of Scores on Three Versions of the Production Test.

Test Type	*Mean*	*SD*
Production A	7.45	3.67
Production B	7.04	4.21
Production C	7.86	4.16

Note. $N = 11$.

Procedure

The study was conducted at a research university in the southeast of the U.S. The participants of this study were second semester learners of Modern Standard Arabic (MSA); thus, they were in a beginner level in terms of general proficiency and the target grammatical form. The Arabic classes met four times a week, and each class period lasted 50 minutes. As shown in the posttreatment questionnaire, the participants had no prior exposure to Arabic as no one claimed taking classes in high school.

The sample size of this study was 64 students taking Modern Standard Arabic. Since two different instructors taught the four classes, the researcher conducted the treatments in all the classes in order to avoid or minimize the effects that might arise from the teaching practices of different teachers and to make sure that the treatments adhered to the guidelines developed for each group. The students in each class were randomly assigned to each treatment. In the presence of another instructor of Arabic, some students were assigned odd numbers and other students were assigned even numbers. Then, a coin was flipped and students with odd numbers were given the TI package and the PI was assigned to students with even numbers. After a short explanation of the study, participants from both groups were asked to sign a consent form. The researcher informed the participants that their participation would be appreciated but completely voluntary. Also, the participants were informed that even after they signed the consent form they could drop out at any time without receiving any penalties. The participants were informed that the completion of all the study activities would grant them extra credits toward the semester final exam which was worth 30% of the overall course grade. In order to benefit from these credits, students were required to complete all the study activities. As a result, no student dropped out of the study but two participants missed one or two of the sessions. Their grades were not included

in the analysis of the study. The treatments began right after the researcher collected the consent forms. Since the interpretation and production tests used only the subjunctive part as a selecting device, only four students that scored more than 60% were removed from the study.

Participants in the PI group first took a pretest. A week later, the researcher provided explanations about the target grammatical feature, followed by information on processing strategies, and then structured input activities. The treatment lasted for one week, which means that treatments were conducted over four sessions. Each session lasted for 50 minutes. The first session included the provision of explanations about the target grammatical feature, followed by information on processing strategies in addition to two input structured activities. Each of the second and the third sessions included 3 structured input activities. The fourth session included 2 activities in addition to taking the posttest. Two weeks later, the PI participants were asked to take the delayed posttest.

Participants in the TI group first took a pretest. A week later, the researcher provided explanations about the target grammatical feature, followed by output-based activities. The treatment lasted for one week, which means that treatments were conducted over four sessions. Each session lasted for 50 minutes. The first session included the explanations about the target grammatical feature, and two output-based activities. Each of the second and the third sessions included 3 output-based activities. The fourth session included 2 activities in addition to taking the posttest. Two weeks later, the TI participants were asked to take the delayed posttest.

The explicit grammar explanations and the structured input activities were all provided in writing to participants. Like in any regular classroom setting, the researcher walked around the classroom and helped participants if they had any questions about the materials. Participants were given from 10 to 15 minutes to complete each activity. At the end of each activity students

were given an answer sheet with the right answers to check it against their answers. The researcher then collected the answer sheets so that students could begin the next activity. The amount of time needed for the completion of the instructional activities had been informed by the pilot study. Instruction and all tests were taken during class time. Participants were asked to spend specific amounts of time on their instructional treatment packages. Participants were asked to follow the instructions carefully and answer all of the questions completely. The researcher supervised all treatments and tests. Students were asked to give the activity sheets and the answers back to the teacher before leaving the classrooms. Participants were informed that they could retrieve their packages including the answer sheets after the completion of the delayed posttest. For both groups, each activity was supplemented with a vocabulary list of Arabic-English translations so that the main focus would be on the target items and not the vocabulary.

Analysis

The SPSS Statistics 22 was used to analyze all data. To establish the pretreatment equivalence between groups, the researcher submitted the scores from the interpretation pretest and production pretest to two one-way ANOVAs. A repeated measures ANOVA with one between-subjects factor, instruction type, and one within-subjects factor, time with three levels (pretest, posttest, delayed posttest), was conducted for each research question. The research questions are reproduced below:

1) Is there a difference between beginning-level Arabic language learners who are exposed to processing instruction and those exposed to traditional instruction with respect to their performance on the Arabic subjunctive *interpretation* tasks over time (as measured by a pretest, an immediate posttest, and a delayed posttest)?

2) Is there a difference between beginning-level Arabic language learners who are exposed to processing instruction and those exposed to traditional instruction with respect to their performance on the Arabic subjunctive *production* tasks over time (as measured by a pretest, an immediate posttest, and a delayed posttest)?

The independent variable was Instruction Type (TI and PI), whereas the dependent variable was pre, post, and delayed exam scores. Each analysis examined the effect for time, the type of instruction, and the interaction between time and type of instruction. For each repeated measures ANOVA, the researcher first checked the normality and sphericity assumptions underlying the factorial ANOVA with repeated-measures factor and between-subject factor. Finally, it should be noted that although the initial research questions did not include the indicative, it is important to include it in the analysis in order to check if there is any overextension of the target grammatical form in both the interpretation and production tests.

CHAPTER 4:

RESULTS

Introduction

This chapter presents the results of the analyses from the interpretation tests and the production tests. Those tasks were used as pretests, posttests, and delayed posttests. The first section presents the analysis of the pretests in order to determine if all groups were similar in their performance on the interpretation and production tasks. The second section presents the analysis of the interpretation data and the production data regarding the Arabic subjunctive. The third section provides the analysis of the interpretation data and the production data regarding the Arabic indicative. The final section presents a summary of participants' responses from the Posttreatment Questionnaire.

Pretreatment Equivalence of Groups

This sections presents a comparison of participants' performance on the target items of the pretests for both interpretation and production tasks. Table 4.1 lists the means, standard deviations, minimum and maximum scores, and score ranges for both groups. As can be seen from Table 4.1, the means for total scores for interpretation and production tasks were similar across groups and not significantly different from each other.

Table 4.1. Number of Subjects, Means, Standard Deviations, Minimum and Maximum Scores for Interpretation and Production of the Subjunctive on the Pretest.

Pretest	Group	*N*	Mean	*SD*	Min.	Max.
Interpretation						
	TI	32	2.00	1.52	00	4
	PI	32	1.72	1.44	00	4
Production						
	TI	32	.03	.17	00	1
	PI	32	.06	.24	00	1

To determine if there were any initial differences prior to the treatment in participants' ability to interpret and produce the Arabic subjunctive, the scores from the interpretation test and production test were submitted to two one-way ANOVAs. The ANOVA that examined pretest scores of the interpretation task revealed no significant differences between groups prior to the treatment, $F(1, 62) = 0.45$, $p > .05$. Also, the ANOVA that examined pretest scores for the production task did not reveal any significant differences between groups at pretest, $F(1, 62) = 0.56$, $p > .05$.

Analysis of Scores for Interpretation and Production of the Arabic Subjunctive.

For each of the research questions, the researcher conducted a repeated measures ANOVA with one between-subjects factor, instruction type, and one within-subjects factor, time with three levels (Pretest, Posttest, delayed Posttest). The analyses are presented below.

Analysis of the Interpretation Data of the Subjunctive. To answer the first research question (Is there a difference between beginning-level Arabic language learners who are

exposed to processing instruction and those exposed to traditional instruction with respect to their performance on the Arabic subjunctive *interpretation* tasks over time as measured by a pretest, an immediate posttest, and a delayed posttest?) the interpretation scores from the pretest, posttest and delayed posttest were analyzed using one repeated measures ANOVA with one between-subjects factor (instruction type) and one within-subjects factor (time). The within-subjects factor included three levels: Pretest, Posttest, and delayed Posttest. The Interpretation test had 16 items; 8 of the items measured participants' interpretation of the Arabic subjunctive and 8 of the items measured participants' interpretation of the Arabic indicative. The items that measured participants' interpretation of the Arabic indicative were used as distracters. The analysis in this section focused on participants' interpretation of the Arabic subjunctive, and another separate analysis examined the participants' interpretation of the indicative.

The pretest was used in this study as a screening device, in that only participants who scored 4.8 (60 %) or below for the interpretation of the subjunctive test were included in the study and participants who scored higher than 4.8 (60%) were excluded from the study. The 60% cutoff level was used in order for the results of this study to be aligned with previous research on PI. The descriptive statistics for participants' scores on the interpretation of the subjunctive test are listed in Table 4.2.

As can be seen from Table 4.2, the mean scores of the pretest appear to be similar for both groups. The mean score for the TI group was the higher 2.00, and the PI scored a lower mean for the pretest 1.72. On the posttest, the PI group scored higher 6.96 than the traditional group who scored 5.84. Similarly, the PI group scored higher on the delayed posttest in that the mean score for this was 6.09 while the TI scored a mean of 4.62. To determine if these differences were significant over time, the test scores from the interpretation test were tabulated

and submitted to a repeated measures ANOVA with one between-subjects factor (instruction type) and one within-subjects factor (time), which had three levels: Pretest, Posttest and delayed Posttest. The results of the analysis are reported in Table 4.3.

Table 4.2. Descriptive Statistics for the Interpretation Test Scores of the Subjunctive at Pretest, Posttest, and Delayed Posttest.

Groups		*Time of Testing*		
	N	*Pretest*	*Posttest*	*Delayed Posttest*
TI	*32*			
M		*2.00*	*5.84*	*4.62*
SD		*1.52*	*1.90*	*1.75*
SK		*0.00*	*-0.33*	*-0.45*
KU		*-1.39*	*-1.10*	*-0.60*
PI	*32*			
M		*1.72*	*6.96*	*6.09*
SD		*1.44*	*1.71*	*2.17*
SK		*0.25*	*-1.96*	*-1.51*
KU		*-1.24*	*3.75*	*2.11*
Overall	*64*			
M		*1.86*	*6.40*	*5.35*
SD		*1.47*	*1.88*	*2.09*

Note. SK = skewness, KU = kurtosis.

Before running statistical analysis, the researcher checked the normality and sphericity assumptions underlying the factorial ANOVA. The distributions of interpretation test scores were checked to measure skewness and kurtosis for all levels of time by group. For the pretest, the values for skewness ranged from .00 to .25 and values for kurtosis ranged from -1.24 to -1.39. For the posttest, the values for skewness ranged from -1.96 to -.33 and the values for kurtosis ranged from -1.10 to 3.75. For the delayed posttest, the values for skewness ranged from -1.51 to -.45 and the values for kurtosis ranged from -.60 to 2.11.

A Levene's test (homogeneity of variance) verified the equality of variances in the samples ($p > .05$) (Martin & Bridgmon, 2012). Since the p- value was greater than .05, the null

hypothesis was kept and equality of variance was assumed. As shown in the distributions, the assumption of univariate normality seemed to be partially violated. However, the ANOVA test is fairly robust to normality violations. Since the test is robust to violations of normality, proceeding with the analysis seemed reasonable.

Another ANOVA assumption that was checked was sphericity. Sphericity requires "that the variances of the difference scores between all possible pairs of variables be equal" (Dien and Santuzzi, 2004, p. 63). Since this study examined participants' scores at three levels of time (Pretest, Posttest, and Delayed Posttest), the estimate for sphericity could have values that ranged from .5 to 1. An ideal estimate of sphericity is 1. The Greenhouse-Geisser estimate was $\varepsilon = .84$. However, the p-value adjusted based on the Greenhouse-Geisser was not different from the p-value of sphericity assumed. After the researcher assessed the assumptions, the data were submitted to ANOVA with one between-subjects factor (instruction type) and one within-subjects factor (time of testing) to determine if there were significant differences in the test scores of interpretation across time (from pre- to posttests). The results are presented in Table 4.3.

Table 4.3. Analysis of Variance of the Interpretation Test Scores of the Subjunctive.

Source	df	SS	MS	F	P
Between-subjects Effects					
Type of Instruction	1	28.52	28.52	5.64	.02
Within-subjects Effects					
Time	2	725.76	362.88	167.44	.00
Instruction type x Time	2	27.51	13.75	6.34	.00
Error (type of instruction)	62	313.14	5.05		
Error (time)	124	268.72	2.16		

Note. $N = 64$

As shown in Table 4.3, the ANOVA revealed a significant Instruction x Time interaction effect, $F (2, 124) = 6.34$, $p < .05$. Also, the ANOVA revealed a significant main effect for type of instruction, $F (1, 62) = 5.64$, $p < .05$. The effect size for the main effect for type of instruction was computed = .08, which was a small effect size. This indicates that there was a statistically significant difference between the performances of the two groups on the interpretation of the subjunctive test (PI > TI). The effect size for the effect for instruction x time was computed = .09, which was a small effect size. There was a significant main effect for time, $F (2, 124) = 167.44$, $p < .00$. This means that both types of instruction had a significant effect on how learners interpreted the Arabic subjunctive. The effect size for the main effect for time was computed = .73, which was a large effect size. A graph of the significant interaction effect for instruction X time is displayed in Figure 4.1.

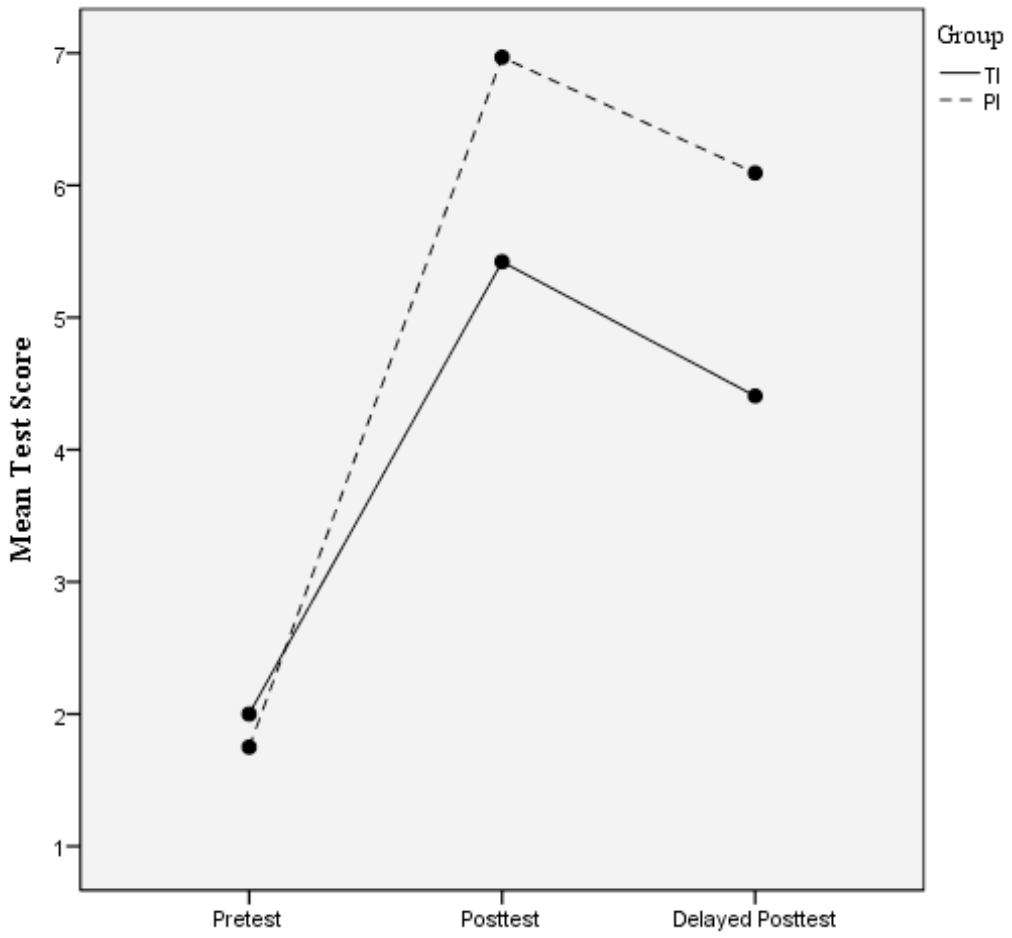

Figure 4.1. Plot of Interaction for Instruction and Time Using Interpretation Task Means.

The statistically significant ANOVA for time was followed with post hoc contrast tests in order to evaluate the nature of the differences between the three means further. As can be seen in Table 4.4, the three comparisons were statistically significant. Furthermore, the mean difference between posttest and pretest was higher than the mean difference between the delayed posttest and the pretest. The lowest mean difference was between the posttest and the delayed posttest. This means that the beginning-level Arabic language learners who were exposed to PI performed significantly better than those exposed to TI with respect to their performance on the immediate

posttest and the delayed posttest as measured by the Arabic subjunctive interpretation tasks. In addition, Table 4.4 indicated that both groups improved with regard to their performance on the interpretation tasks. The improvement was marked from the pretest to the immediate posttest and also from the pretest to the delayed posttest. The researcher applied the Bonferroni adjustment, with alpha set at .05 for the set of post-hoc contrast tests.

Table 4.4. Results Associated with Multiple Comparisons.

Comparison			*MD*	*SD*	*p*
Posttest	_	Pretest	4.54	.27	.0001
Posttest	_	Delayed Posttest	1.04	.19	.0001
Delayed Posttest	_	Pretest	3.50	.29	.0001

Note. N = 64 for all groups; MD = Mean Difference

Analysis of the Production Data of the Subjunctive. To answer the second research question (Is there a difference between beginning-level Arabic language learners who are exposed to processing instruction and those exposed to traditional instruction with respect to their performance on the Arabic subjunctive *production* tasks over time as measured by a pretest, an immediate posttest, and a delayed posttest?) the production scores from the pretest, posttest and delayed posttest were analyzed using one repeated measures ANOVA with one between-subjects factor (instruction type) and one within-subjects factor (time). The within-subjects factor included three levels: Pretest, Posttest, and delayed Posttest. The production test had 16 items; 8 of the items measured participants' production of the Arabic subjunctive and 8 of the items measured participants' production of the Arabic indicative. The items that measured participants'

production of the Arabic indicative were used as distracters. The analysis in this section focused on participants' production of the Arabic subjunctive, and another separate analysis examined the participants' production of the indicative.

The pretest was used in this study as a screening device, in that only participants who scored 4.8 (60 %) or below for the production of the subjunctive test were included in the study and participants who scored higher than 4.8 (60%) were excluded from the study. The 60% cutoff level was used in order for the results of this study to be aligned with previous research in the PI strand. The descriptive statistics for participants' scores on the production of the subjunctive test are presented in Table 4.5.

As can be seen from Table 4.5, the mean scores of the pretest appear to be similar for both groups. The mean score for the TI group was lower 0.03, and the PI group scored a higher mean for the pretest 0.06. On the immediate posttest, the PI group scored higher 5.98 than the traditional group who scored 5.26. Similarly, the PI group scored higher on the delayed posttest in that the mean score for this was 5.31 while the TI group scored a mean of 4.20. To determine if these differences were significant over time, the test scores from the production test were tabulated and submitted to a repeated measures ANOVA with one between-subjects factor (instruction type) and one within-subjects factor (testing time), which had three levels: Pretest, Posttest and Delayed Posttest. The results of the analysis are reported in Table 4.5.

Table 4.5. Descriptive Statistics for the Production Test Scores of the Subjunctive at Pretest, Posttest, and Delayed Posttest.

Groups		*Time of Testing*		
	N	*Pretest*	*Posttest*	*Delayed Posttest*
TI	*32*			
M		*0.03*	*5.26*	*4.20*
SD		*0.17*	*2.00*	*2.66*
SK		*-0.65*	*-0.43*	*0.01*
KU		*0.32*	*-0.55*	*-1.25*
PI	*32*			
M		*0.06*	*5.98*	*5.31*
SD		*0.24*	*1.97*	*2.10*
SK		*-0.79*	*-0.82*	*-0.30*
KU		*-0.22*	*-0.66*	*-1.13*
Overall	*64*			
M		*0.05*	*5.62*	*4.75*
SD		*0.21*	*2.00*	*2.44*

Note. SK = skewness, KU = kurtosis.

Before running statistical analysis, the researcher checked the normality and sphericity assumptions underlying factorial ANOVA. The distributions of production test scores were checked to assess skewness and kurtosis for all levels of time by group. For the pretest, the values for skewness ranged from -.79 to -.65 and the values for kurtosis ranged from -.22 to .32. For the posttest, the values for skewness ranged from -.82 to -.43 and the values for kurtosis ranged from -.66 to -.55. For the delayed posttest, the values for skewness ranged from -.30 to .01 and the values for kurtosis ranged from -1.25 to -1.13.

A Levene's test (homogeneity of variance) verified the equality of variances in the samples ($p > .05$) (Martin and Bridgmon, 2012). Since the p- value was greater than .05, the null hypothesis was kept and equality of variance was assumed. As shown in the distributions, the assumption of univariate normality seemed to be partially violated. However, the ANOVA test is

fairly robust to normality violations. Since the test is robust to violations of normality, proceeding with the analysis seemed reasonable.

Another ANOVA assumption that was checked was sphericity. Sphericity requires "that the variances of the difference scores between all possible pairs of variables be equal" (Dien & Santuzzi, 2004, p. 63). Since this study examined participants' scores at three levels of time (Pretest, Posttest, and Delayed Posttest), the estimate for sphericity could have values that ranged from .5 to 1. An ideal estimate of sphericity is 1. The Greenhouse-Geisser estimate was $\varepsilon = .87$. However, the p-value adjusted based on the Greenhouse-Geisser was not different from the p-value of sphericity assumed.

After the researcher assessed the assumptions, the data were submitted to ANOVA with one between-subjects factor (instruction type) and one within-subjects factor (time of testing) to determine if there were significant differences in the test scores of production across time (from pretests to posttests). The results are presented in Table 4.6.

Table 4.6. Analysis of Variance of the Production Test Scores of the Subjunctive.

Source	df	SS	MS	F	P
Between-subjects Effects					
Type of Instruction	1	18.43	18.43	3.32	.07
Within-subjects Effects					
Time	2	1153.2	576.64	272.90	.00
Instruction type x Time	2	9.53	4.76	2.25	.10
Error (type of instruction)	62	343.37	5.53		
Error (time)	124	262.01	2.11		

Note. N = 64

The ANOVA did not reveal a significant Instruction x Time interaction effect, F (2, 124) = 2.25, p > .05. A significant main effect for time was found F (2, 124) = 272, p < .05. The effect size for the main effect for time was computed, = .81, which was a large effect size. This indicates that both types of instruction had a significant impact on how learners produce the Arabic subjunctive. However, there was no significant main effect for type of instruction, F (1, 62) = 3.32, p > .05. This means that there was not any significant differences between the performances of the two groups on producing the Arabic subjunctive (PI = TI). A graph of the interaction effect (not significant, p > .05) is presented in Figure 4.2.

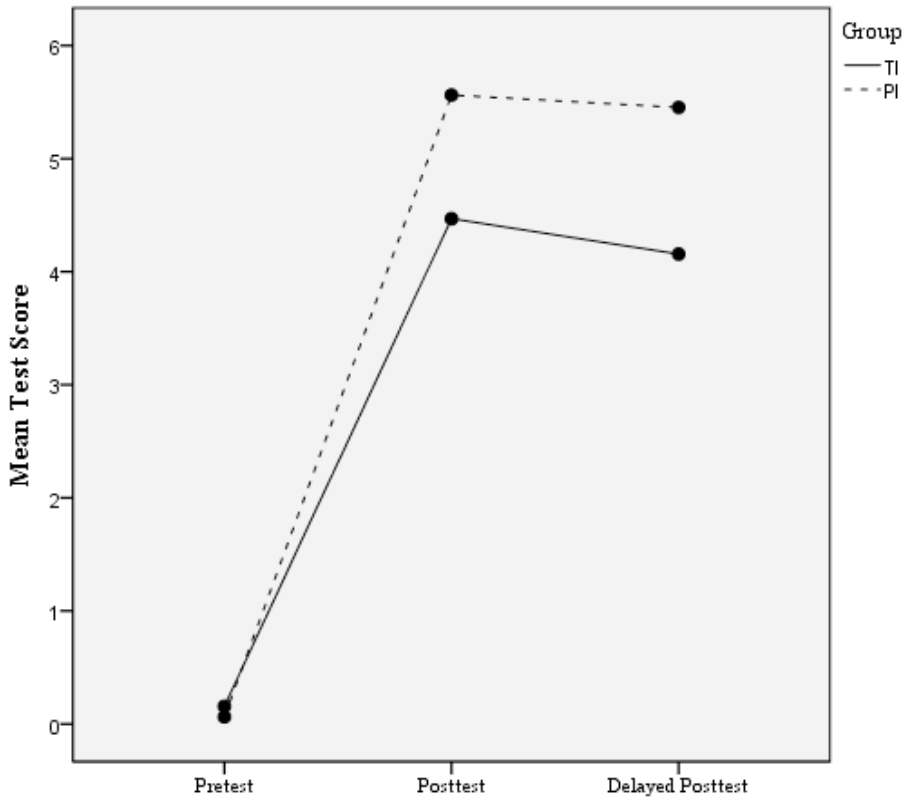

Figure 4.2. Plot of Interaction for Instruction and Time Using Production Task Means.

The statistically significant ANOVA for time was followed with post hoc contrast tests in order to evaluate the nature of the differences between the three means further. As can be seen in Table 4.7, the three comparisons were statistically significant. Furthermore, the mean difference between posttest and pretest was higher than the mean difference between the delayed posttest and the pretest. The lowest mean difference was between the posttest and the delayed posttest. This means that the beginning-level Arabic language learners who were exposed to PI did not perform significantly better than those exposed to TI with respect to their performance on the immediate posttest and the delayed posttest as measured by the Arabic subjunctive production tasks. In addition, Table 4.7 indicated that both groups improved with regard to their performance on the production tasks. Both groups improved from the pretest to the immediate posttest and also from the pretest to the delayed posttest. The researcher applied the Bonferroni adjustment, with alpha set at .05 for the set of post-hoc contrast tests.

Table 4.7. Results Associated with Multiple Comparisons

Comparison			*MD*	*SD*	*p*
Posttest	_	Pretest	5.57	.249	.0001
Posttest	_	Delayed Posttest	.867	.216	.0001
Delayed Posttest	_	Pretest	4.71	.299	.0001

Note. N = 64 for all groups; MD = Mean Difference.

Analysis of the Interpretation Data of the Indicative. The analysis of the indicative was included in this study to examine if there is any possible learner overextension of the Arabic

subjunctive as a targeted grammatical form. A separate repeated measures ANOVA analyzed participants' interpretation of the indicative. The Interpretation test had 16 items; 8 of the items measured participants' interpretation of the Arabic subjunctive and 8 of the items measured participants' interpretation of the Arabic indicative.

Participants in this study already had knowledge on how to form and use the indicative mood in Modern Standard Arabic. An examination of the results on the indicative could reveal if the instructional treatments either positively or negatively impacted participants' previous knowledge of the use of the indicative mood in Modern Standard Arabic. As in many studies in the PI strand, the indicative component of the interpretation test was not used as a screening device to exclude participations from the study. However, the scores that measured the interpretation of the indicative from the pretest assessed the participants' knowledge of using the indicative in Arabic sentences. Table 4.8 presents the descriptive statistics for participants' scores on the indicative component of the Interpretation test.

As can be seen from Table 4.8, the mean scores of the pretest appear to be similar for both groups. The mean score for the TI group was lower 5.00, and the PI group scored a slightly higher mean for the pretest 5.06. On the posttest, the PI group scored a lower mean 5.12 than the traditional group who scored 5.28. However, the PI group scored higher on the delayed posttest in that the mean score for this group was 5.81 while the TI group scored a mean of 5.09. To determine if these differences were significant over time, the test scores of the indicative items from the interpretation test were tabulated and submitted to a repeated measures ANOVA with one between-subjects factor (instruction type) and one within-subjects factor (testing time), which included three levels: Pretest, Posttest and Delayed Posttest. The results are reported in Table 4.8.

Table 4.8. Descriptive Statistics for the Interpretation Test Scores of the Indicative at Pretest, Posttest, and Delayed Posttest.

Groups	*N*	*Time of Testing*		
		Pretest	*Posttest*	*Delayed Posttest*
TI	*32*			
M		*5.00*	*5.28*	*5.09*
SD		*2.38*	*2.12*	*1.80*
PI	*32*			
M		*5.06*	*5.12*	*5.81*
SD		*2.01*	*1.64*	*1.63*
Overall	*64*			
M		*5.03*	*5.20*	*5.45*
SD		*2.18*	*1.88*	*1.74*

Table 4.9. Analysis of Variance of the Interpretation Test Scores of the Indicative.

Source	df	SS	MS	F	P
Between-subjects Effects					
Type of Instruction	1	2.08	2.08	.28	.59
Within-subjects Effects					
Time	2	5.76	2.88	1.38	.25
Instruction type x Time	2	6.63	3.31	1.59	.20
Error (type of instruction)	62	451.16	7.27		
Error (time)	124	258.27	2.08		

Note. N = 64

As shown in Table 4.9, the ANOVA did not reveal a significant Instruction type x Time interaction effect, $F(2, 124) = 1.59$, $p > .05$. Similarly, there was not a significant main effect for time, $F(2, 124) = 1.38$, $p > .05$, which indicates that both types of instruction had no significant impact on how learners interpreted the Arabic indicative over time. There was no significant main effect for type of instruction, $F(1, 62) = .28$, $p > .05$. This means that there was no significant difference between the performances of the two groups on interpreting the Arabic indicative. Since the mean scores for both groups did not decrease over time, it is indicated that the participants did not overgeneralize the interpretation of the subjunctive.

Analysis of the Production Data of the Indicative. The analysis of the indicative was included in this study to examine if there is any possible learner overextension of the Arabic subjunctive as a targeted grammatical form. A separate repeated measures ANOVA analyzed participants' production of the indicative. The production test had 16 items; 8 of the items measured participants' production of the Arabic subjunctive and 8 of the items measured participants' production of the Arabic indicative.

Participants in this study already had knowledge on how to form and use the indicative mood in Modern Standard Arabic. An examination of the students' performance on the indicative could reveal if the instructional treatments either positively or negatively impacted participants' ability to form and use the indicative mood in Modern Standard Arabic. As in many studies in the PI strand, the production of the indicative component of the production test was not used as a screening device to exclude participations from the study. However, the scores that measured the production of the indicative from the pretest served as a measure of participants' ability to form and use the indicative in Arabic sentences. Table 4.10 presents the descriptive statistics for participants' scores on the indicative component of the production test.

Table 4.10. Descriptive Statistics for the Production Test Scores of the Indicative at Pretest, Posttest, and Delayed Posttest.

Groups			*Time of Testing*		
		N	*Pretest*	*Posttest*	*Delayed Posttest*
TI		32			
	M		4.39	5.20	4.79
	SD		2.03	2.12	2.28
PI		32			
	M		5.39	5.56	5.40
	SD		2.19	1.87	1.96
Overall		64			
	M		4.89	5.38	5.10
	SD		2.15	1.99	2.13

As can be seen from Table 4.10, the mean scores of the pretest appear to be different between groups. The mean score for the TI group was lower 4.39, and the PI scored a higher mean for the pretest 5.39. On the posttest, the PI group scored higher 5.56 than the traditional group which scored 5.20. Similarly, the PI group scored higher on the delayed posttest in that the mean score for this was 5.40 while the TI group scored a mean of 4.79. To determine if these differences were significant over time, the test scores from the production test were tabulated and submitted to a repeated measures ANOVA with one between-subjects factor (instruction type) and one within-subjects factor (testing time), which included three levels: Pretest, Posttest and Delayed Posttest. The results of the analysis are reported in Table 4.11.

Table 4.11. Analysis of Variance of the Production Test Scores of the Indicative.

Source	df	SS	MS	F	P
Between-subjects Effects					
Type of Instruction	1	20.67	20.67	2.11	.15
Within-subjects Effects					
Time	2	7.80	3.90	2.38	.09
Instruction type x Time	2	3.33	1.66	1.02	.36
Error (type of instruction)	62	605.16	9.76		
Error (time)	124	202.52	1.63		

Note. N = 64

As shown in Table 4.11, the ANOVA did not reveal a significant Instruction type x Time interaction effect, $F(2, 124) = 1.02$, $p > .05$. Similarly, there was not a significant main effect for time, $F(2, 124) = 2.38$, $p > .05$, which indicates that both types of instruction had no significant impact on how learners produced the Arabic indicative over time. There was no significant main effect for type of instruction, $F(1, 62) = 2.11$, $p > .05$. This means that there was no significant difference between the performances of the two groups on producing the Arabic indicative. Since the mean scores for both groups did not decrease over time, it is indicated that the participants did not overgeneralize the production of the subjunctive.

Summary of the Overall Results

The results from this study showed that participants who received PI outperformed participants from the TI as measured by Interpretation tasks of the subjunctive for both posttests and delayed posttests. However, the performance of both groups was statistically similar as was

measured by the production tasks of the subjunctive for both posttests and delayed posttests. As for the interpretation and production of the Arabic indicative, the statistical results revealed no difference between PI and TI. Table 4.12 provides a summary of the results.

Table 4.12. Summary of All Results.

Data		Immediate Effects		Delayed Effects		Significant Difference Between Groups
		PI	TI	PI	TI	
Data Below 60% Cutoff						
Interpretation	Subjunctive	YES	YES	YES	YES	YES
Production	Subjunctive	YES	YES	YES	YES	NO

Summary of the Posttreatment Questionnaire

The participants completed a posttreatment questionnaire right after they finished taking the delayed test. The main purpose of the questionnaire was to elicit participants' opinions about the study related materials. In addition, the questionnaire provided demographic and language background information. The characteristics of participants in this study are provided in Table 4.13.

As can be seen from the questionnaire responses, only 59 participants could complete the questionnaire (n = 59). 5 participants could not complete the questionnaire due to time constraints. 29 participants from the TI group completed the questionnaire (n = 29) and 30 participants from the PI group completed the questionnaire (n = 30). There were 22 males (37.28%) in total and 37 females (62.71%). The age of participants in the TI group ranged from 18 to 24, with a mean age of 20.89 and a standard deviation of 1.51, whereas the age of

participants from the PI group ranged from 18 to 51 with a mean age of 23.43 and a standard deviation of 8.12.

Table 4.13. Background Information from the Posttreatment Questionnaire

	Traditional Instruction (TI)	Processing Instruction (PI)
Gender	Male (11)	Male (11)
	Female (18)	Female (19)
Age	18-24	18-51
Mean	20.89	23.43
SD	1.51	8.12
First Language	English (29)	English (30)
Home Language	English (23)	English (25)
	Spanish (4)	Spanish (3)
	Swahili (1)	Hausa (1)
	Portuguese (1)	Portuguese (1)
Academic level	Freshman (4)	Freshman (4)
	Sophomore (4)	Sophomore (6)
	Junior (11)	Junior (8)
	Senior (10)	Senior (11)
	Graduate (0)	Graduate (1)
Arabic taken in High School	Yes (1)	Yes (1)
	No (28)	No (29)
Contact with Arabic outside class	Family & friends (17) None (12)	Family & friends (18) None (12)

All of the participants in both groups were native speakers of English. In addition to speaking English at home, seven participants (11.86%) spoke Spanish at home, two participants (3.38%) spoke Portuguese, one spoke Hausa (1.69%), and one participant (1.69%) spoke Swahili. All participants were at the end of the second semester of Modern Standard Arabic at the university level. Only one participant in each group took Arabic classes in high school while all the other participants (96.61%) took no Modern Standard Arabic classes in high school. It should be note that at the university where the study was carried out, students who did not complete the first level of Modern Standard Arabic were required to take a placemat test before enrolling in the second semester of Arabic. The results from the questionnaire also indicated that many participants had some kind of contact with Arabic outside the classroom, in that 35 participants (59.32%) claimed that they had contact with Arabic through either their friends or family members, while 24 participants (40.67%) claimed no contact with Arabic outside the class. Of these 24 participants, 12 were from the TI group and 12 were from the PI group.

Figure 4.3 displays the reasons why students took Modern Standard Arabic.

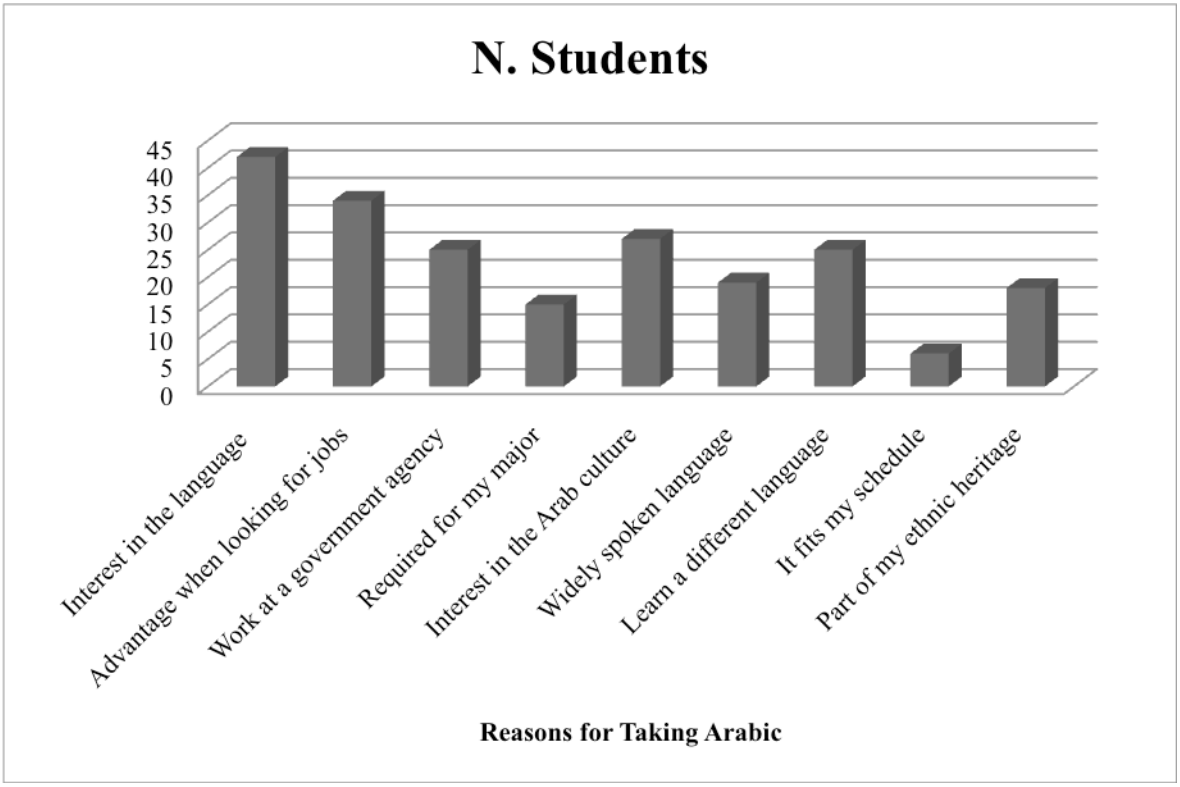

Figure 4.3. Reasons for Taking Arabic

As shown in the figure, 42 students (71.18%) claimed that their interest in Arabic was the major factor behind taking the language. 34 (57.62%) of the students indicated that the second major reason was the advantage that Arabic might give them while looking for jobs after graduation. The last of the reasons behind taking Arabic was the flexibility of the class schedule, six students only (10.16%), and the major requirement 15 students (25.42%). Overall, it seems that students in both PI and TI groups were motivated to take the Arabic classes and also to participate in this current study in order to maximize their learning of Arabic grammar.

Regarding the materials designed for the study, the posttreatment questionnaire asked participants whether they thought that the directions in the package were clear and easy to follow. Participants were also asked to rate if they learned anything from the package materials. In addition, participants were asked if they preferred the types of activities provided in their

specific treatment package to their regular classroom activities. Finally, the participants were asked if they enjoyed learning Modern Standard Arabic grammar using the materials provided in their treatment package.

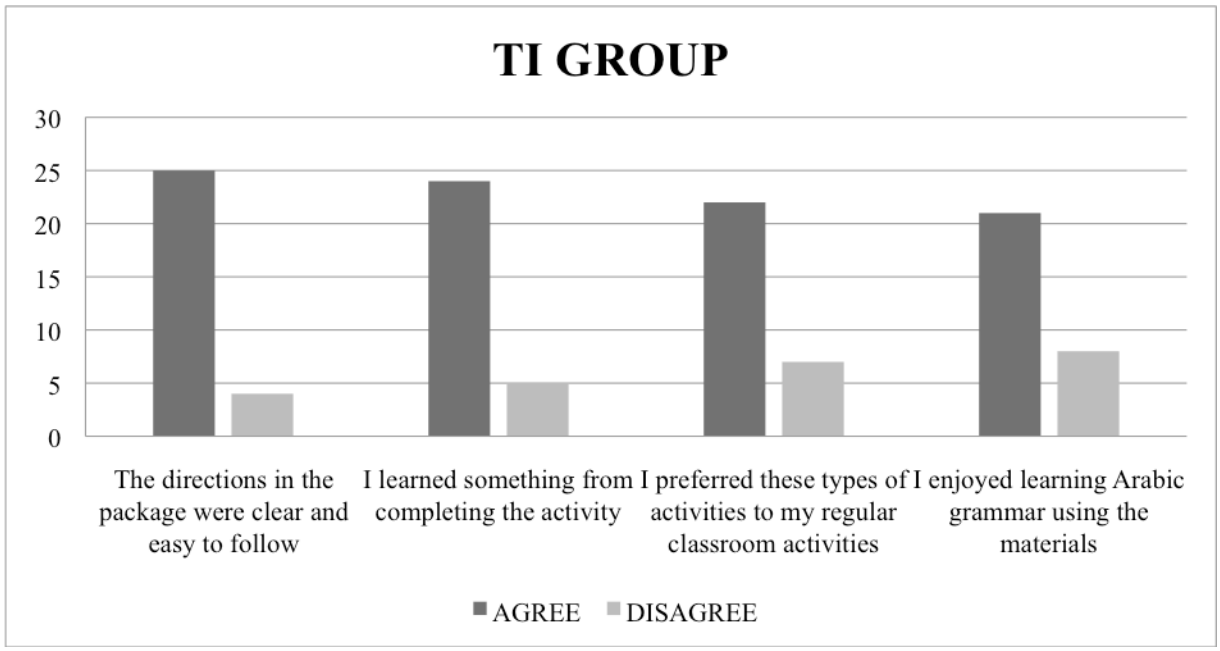

Figure 4.4. Responses of Students Regarding the Study Materials by TI Group.

As shown in Figure 4.4, the results of the posttreatment questionnaire indicated that 25 participants from TI group (86.20%) believed that the directions in the treatment package were clear and easy to follow. Only 4 students (13.79%) of participants in the TI group claimed that the directions and instructions were not clear and easy to follow. In contrast, as shown in Figure 4.5, 19 participants from the PI group (63.33%) stated that the directions and instructions were clear and easy to follow and 11 participants (36.66%) indicated that it was not clear or easy to follow instructions in the treatment. Overall, the results indicated the clarity and the easiness of the directions and instructions provided in the treatment packages.

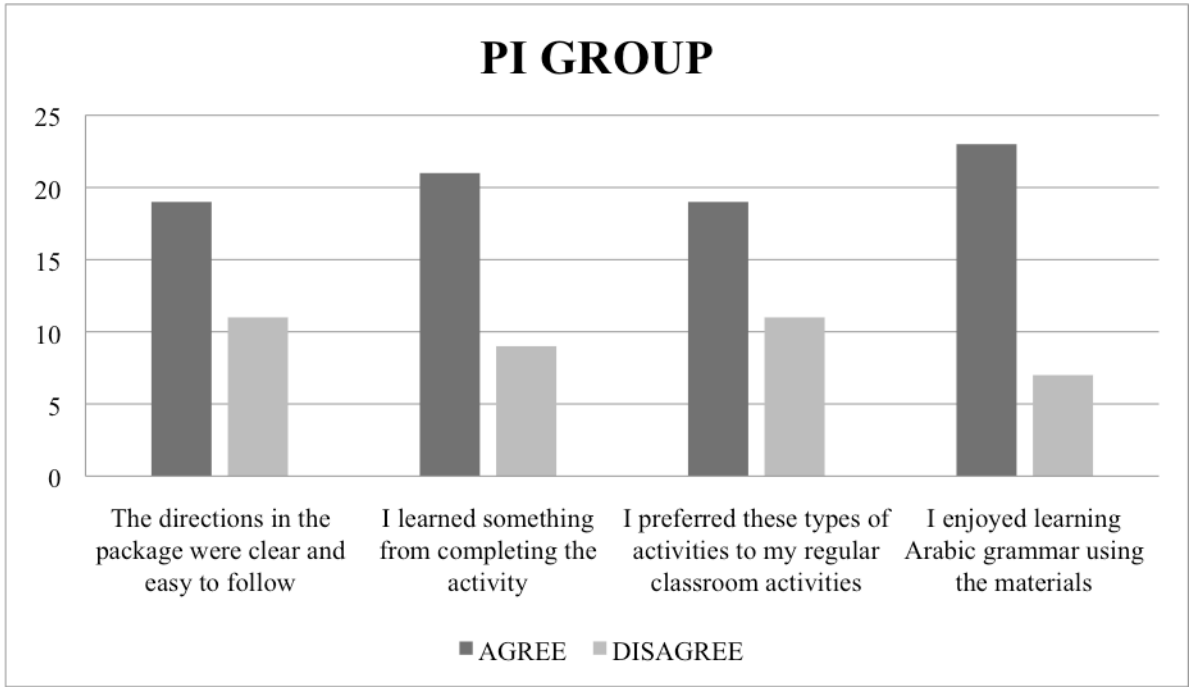

Figure 4.5. Responses of Students Regarding the Study Materials by PI Group.

When participants were asked if they learned anything from the activity, 24 of participants (82.75%) from the TI claimed they indeed learned something from completing the activity, and only 5 participants (17.24%) in the TI group stated the opposite. As far as the PI group is concerned, Figure 4.5 shows that 21 (70%) stated that they learned from the grammar activity while 9 only (30%) stated that they did not learn much from the grammar treatment. In a related question, participants were asked if they enjoyed learning Modern Standard Arabic grammar using the treatment materials. The results indicated that participants overall enjoyed learning the grammar activity, in that 21 participants (72.41%) from the TI and 23 (76.66%) from the PI expressed their enjoyment of learning Arabic grammar using the materials provided. In contrast, only 8 participants from the TI group (27.58%) and 7 participants (23.33%) from the PI group did not seem to enjoy learning grammar in the treatments.

The last question of the posttreatment questionnaire asked if the students preferred the

type of activities provided in their treatment packages to their regular classroom activities. The majority of participants from the TI group 22 (75.86%) claimed that they indeed preferred the package activities to their normal classroom activities even though these activities were relatively similar to what they had in Arabic main textbook. 19 Participants from the PI group (63.33%) also stated that they preferred the package activities to the regular classroom activities, while 11participants from this group (36.66%) stated the opposite. By reading Figure 4.6 that displays the combined results of the posttreatment questionnaire, it is evident that participants from both groups did indeed enjoy and learn from the treatment packages.

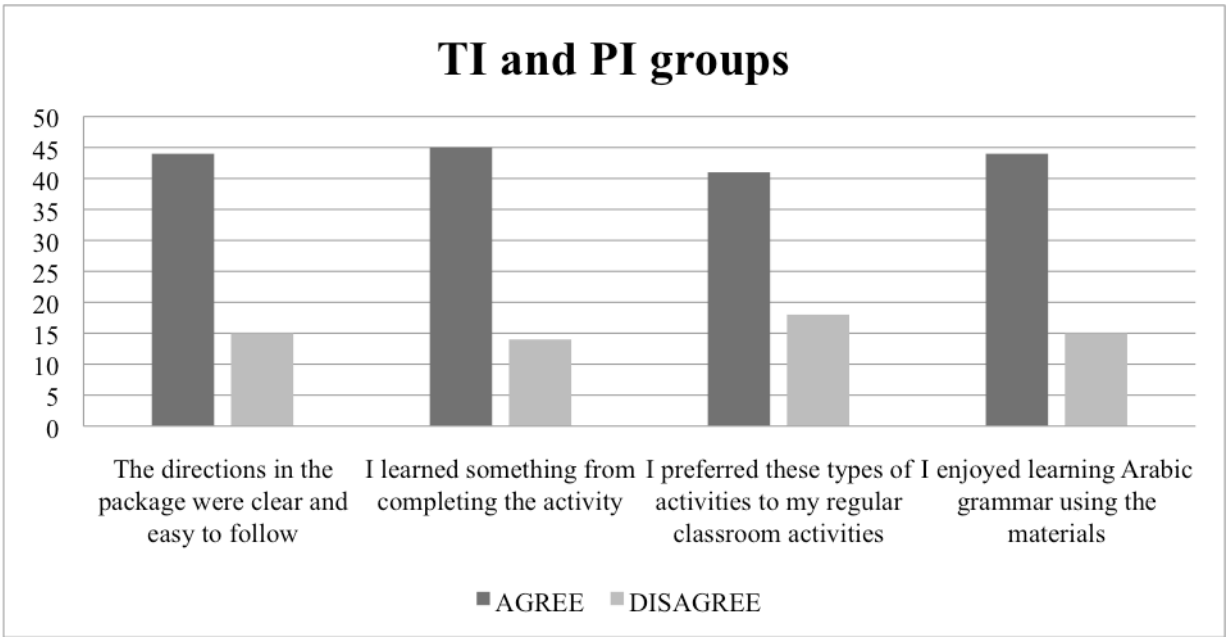

Figure 4.6. Responses of Students Regarding the Study Materials by both Groups

CHAPTER 5:

DISCUSSION

Introduction

This chapter presents a discussion of the results of the instructional experiment that compared the effects of PI and TI on the acquisition of the subjunctive by beginning-level learners of Modern Standard Arabic. In the first section of this chapter, the results of the experiment are discussed in regard to the research questions. The second section presents a discussion of the conclusions regarding the results of the experiment and the study's theoretical and pedagogical implications. The final section discusses some limitations of the present study and provides some suggestions for future research.

Discussion of Findings in Relation to the Research Questions

This study compared PI, a novel technique informed by research in second language acquisition, and TI. PI focuses on form that is informed by input processing in order to modify learners' processing strategies to improve intake (VanPatten, 2003). In this study, PI was operationalized to include explicit grammar explanation of the Arabic subjunctive that was not paradigmatic, information about processing strategies, referential and affective structured input activities. In contrast, the other type of instruction employed in this study was the TI, which contained activities and practices that progressed from mechanical, to meaningful, and then to communicative.

Within the context of this study, two main questions are addressed:

1) Is there a difference between beginning-level Arabic language learners who are exposed to processing instruction and those exposed to traditional instruction with respect to their performance on the Arabic subjunctive *interpretation* tasks over time (as measured by a pretest, an immediate posttest, and a delayed posttest)?
2) Is there a difference between beginning-level Arabic language learners who are exposed to processing instruction and those exposed to traditional instruction with respect to their performance on the Arabic subjunctive *production* tasks over time (as measured by a pretest, an immediate posttest, and a delayed posttest)?

As for the first question, the results from this study revealed that Arabic language learners who were exposed to PI performed significantly better than those exposed to TI with respect to their performance on the immediate posttest and the delayed posttest as measured by the Arabic subjunctive interpretation tasks. Therefore, this study corroborates the findings of past studies that compared PI with TI. Those studies found that both PI and TI brought about significant performance improvement on interpretation tasks. Also, those studies found that PI was superior to TI for interpretation tasks (Cadierno, 1995; VanPatten & Cadierno, 1993a, 1993b; Benati, 2001, 2005; VanPatten & Wong, 2004). The repeated measures ANOVA that was performed on the interpretation test scores showed that both PI and TI led to significant performance improvement for interpreting grammatical forms. In addition, the repeated measures ANOVA also showed that PI was superior to TI for interpreting the Arabic subjunctive.

Regarding the second question, the study's results showed that the Arabic language learners who were exposed to PI performed equally as those exposed to TI with respect to their performance on the immediate posttest and the delayed posttest as measured by the Arabic subjunctive production tasks. Thus, the results from this study corroborate the findings of studies

in the PI strand (Cadierno, 1995; VanPatten & Cadierno, 1993a, 1993b; Benati, 2001, 2005; VanPatten & Wong, 2004; Russell, 2009 and 2012). Those studies found that processing and TI were similar for production tasks. The repeated measures ANOVA that was performed on the production test scores showed that both groups demonstrated significant performance improvement for producing grammatical forms overtime. Also, the repeated measures ANOVA results revealed that no differences were found between PI and TI for producing the Arabic subjunctive.

Interpretation and Production of the Indicative

Prior to the instructional treatments, participants already had knowledge on how to form and use the indicative mood in Arabic. The instructional treatments provided participants with activities that required making contrasts between subjunctive and indicative forms. As an attempt to determine if there was any overgeneralization of the subjunctive by using the subjunctive forms in sentences where indicative forms were required, the scores from the indicative component of the interpretation test and scores from the indicative component of the production test were submitted for analysis. If there was a decrease in scores for interpretation or production of the indicative over time, it could mean that participants overgeneralized the Arabic subjunctive form.

The results from the repeated measures ANOVA that was performed on the scores of the indicative component of the interpretation test revealed that there were no significant differences between the groups over time. Also, the results revealed that was not a significant main effect for time. Since the scores did not decrease from pretest to posttest or delayed posttest, the subjunctive forms did not seem to have been overgeneralized as a result of students' receiving instructional treatments.

Similar to the interpretation component, the results from the repeated measures ANOVA that was performed on the scores of the indicative component of the production test revealed that there were no significant differences between the groups over time. Also the results revealed that there was not a significant main effect for time. Since the scores did not decrease from pretest to posttest or delayed posttest, the subjunctive forms did not seem to have been overgeneralized as a result of students' exposure to instructional treatments.

Theoretical and Pedagogical Implications

As a first theoretical implication, there was a significant difference between the PI and TI groups as was revealed by the statistical analysis of the interpretation test scores, and the analysis for the production test scores did not reveal any significant difference between the two groups. It seems that the results of study aligned with those of the previous studies that have compared PI with TI (Benati, 2001, 2005; Cadierno, 1995; VanPatten & Cadierno, 1993a, 1993b; VanPatten & Wong, 2004), as in these studies PI was found to be more beneficial to learners than TI in regard to interpretation tasks. In contrast, the results of this study indicated that PI and TI had similar effects on how Arabic language learners produced the Arabic subjunctive.

Only a few studies have examined the subjunctive mood in Spanish in the PI strand. One such study did not compare PI with TI; rather, Farley (2001a) compared the effects of PI with meaning output-based instruction (known as MOBI) for the acquisition of the subjunctive when it occurs in nominal clauses after expressions of doubt. Farley (2001a) found that PI was superior to MOBI for the interpretation part and equal to it for the production part. The present study compared PI with TI and indicates that PI participants outperformed TI participants for the interpretation tasks, and that both groups performed similarly on the production tasks. Thus, this study provides additional support in favor of PI in its effect in enhancing interpretation of the

subjunctive. However, when Farley replicated this study with more participants and tasks (Farley, 2001b), his findings differed from his 2001a study and were more aligned with other studies in the PI strand that examined the Spanish subjunctive (Collentine, 1998; Collentine & Collentine, 2015; Farley, 2001b; Fernandez, 2008; Russell, 2009, 2012).

The majority of studies that compared the effects of PI and TI for the acquisition of the Spanish subjunctive found that PI and TI were equally effective for both interpretation and production tasks (Collentine, 1998, Collentine & Collentine, 2015, Farley, 2001b, Fernandez, 2008, Russell, 2009, 2012). Collentine (1998), Farley (2004a), Fernandez (2008) and Russell (2009, 2012) proposed that PI may be more effective than TI for acquiring simple grammatical forms but not for complex forms such as the Spanish subjunctive and Collentine and Collentine (2015) asserted that both output and input activities are beneficial for the acquisition of complex grammatical structures when the practice activities are meaningful. The present study supports the findings of previous studies that examined the Spanish subjunctive on the production tasks but not on the interpretation tasks. Because the present study examined the effects of PI on the subjunctive of Arabic as a non-romance language and since PI was found to be superior to TI on the interpretation tasks, it provides some evidence that PI can be effective for processing a complex form such as the subjunctive in a language other than Spanish.

The efficacy of PI in helping learners gain mood-selection accuracy on the interpretation task may be attributed to the following factors. First, the Arabic subjunctive was presented to participants in ways that were strategically meaningful and syntactic. For example, in most of the structured input activities, the tasks were broken down into two components. PI participants had to process the main clause in one part and the subordinate clause and its mood in another part. In doing so, the PI may have nullified learners' syntactic deficiencies, which may explain the

superiority of PI over TI on the interpretation tasks. As pointed by Farley (2004b), Farley and McCollam (2004), and McNulty (2011), PI can lead to sustained gains in mood-selection accuracy regardless of learners' readiness. Second, the PI may have helped in drawing learners' attention to the subjunctive form because of the perceptual salience of the subjunctive form in Arabic as compared the same form in Spanish. While the Spanish subjunctive mood requires a vowel switch, which makes it difficult to perceive by learners, the Arabic subjunctive requires switching a consonant with a long vowel for the following persons: you (f), you (pl), and they. Thus, the Arabic subjunctive mood has an increased visual and acoustic salience, which may explain the difference between the results of this study and those of previous studies on the subjunctive (Collentine, 1998; Collentine & Collentine, 2015; Farley, 2001b; Fernandez, 2008; Russell, 2009, 2012).

Another theoretical implication of this study lies in its contribution to the PI research strand by exploring the efficacy of PI with L1 English learners of a non-romance language such as Modern Standard Arabic. In addition, the subjunctive construct in Arabic differs from the one in other languages such as Spanish because it involves a combination of two verbs with the insertion of a subjunctive particle to break the cluster. Prior to conducting the study, it was not clear if PI would bring about any learning gains as it did in previous PI studies. This study serves as an additional support for the efficacy of PI in acquiring grammatical features like the Arabic subjunctive. Future studies with a larger sample size examining Arabic subjunctive or other grammatical features of Arabic would either further confirm or refute the findings of this study.

As a pedagogical implication, the findings of this study relate to the implementation of PI for teaching Modern Standard Arabic, as well as other dialects such as the *Shaami* (Levantine) and *Masri* (Egyptian) which are used along with the Standard variety and discussed in most of

the main textbooks that are used in teaching Arabic in the United States and abroad. Given that PI brings about significant improvement, for both interpretation and production, as shown in this study, input-based activities as described in the PI studies can be incorporated in Arabic textbooks and their companion websites. More specifically, the input-based activities can be added to the existing mechanical drills in the *Al-Kitaab* Arabic language program with its companion website in order to help with the activation of grammar which takes long hours of homework for learners and equally long hours of correcting by instructors and assistants (Brustad et al, 2011). Given that the textbook companion website already has mechanical exercises with a closed set of answers that are all provided online as auto-correcting drills, and that the website provides students with instant feedback (Brustad et al, 2011), the incorporation of input-based activities can allow students and teachers to work more effectively and help students speed up the acquisition of some Arabic grammatical forms by changing the underlying linguistic system.

A close reading of the answers from the posttreatment questionnaire suggests that there is a need for both TI and PI activities in the Arabic classes. To illustrate, 24 participants (82.75%) from the TI group and 21 participants (70%) from the PI groups claimed they indeed learned something from completing the activity and 21 (70%) stated that they learned from the grammar activities. In addition, the results from the posttreatment questionnaire indicated that the majority of participants did enjoy learning the grammar activities, in that 21 participants (72.41%) from the TI and 23 (76.66%) from the PI expressed their enjoyment of learning Arabic grammar using the materials provided. The results from the posttreatment questionnaire also suggested that the majority of participants (75.86% from the TI group and 63.33% from the PI) did prefer the package activities to their normal classroom activities even though the TI activities were

relatively similar to what they had in their Arabic main textbook. Therefore, since the participants from both types of instruction (PI and TI) made learning gains in the interpretation and production posttests, the need to incorporate PI and TI activities in Arabic classrooms seems clear. As suggested by Shintani et al (2013), grammar instruction may be most effective if it "involves a combination of comprehension-based and production-based activities" (Shintani et al 2013, p. 323)

The application of PI to the teaching of Arabic can be demanding and constitutes a complex process, but it can be a very beneficial addition to maximize the learning of grammar among students. Teachers of Arabic willing to incorporate the PI approach in their classrooms should take many points into consideration. It is important to understand the nature of the processing problem that students may have when processing a specific grammatical feature. For example, the construct phrase *"Idaafa"* is an Arabic grammar aspect that is difficult for native speakers of English to process due to ineffective processing strategies. First, when trying to process Idaafa, learners often make the first term of *Idaafa* definite by attaching an alif laam "the" to the first word in the construct. For example: in English, the construct phrase can be constructed in two different ways:

The book of the student
Or
The student's book.

In the two examples above, the first word of the construct phrase takes a definite article. In Arabic, however, the first word in "*Idaafa*" never takes an alif laam or nunation because it is definite by position. Therefore, the phrase "the student's book" can be translated into Arabic as كتابُ التلميذِ "kitabu attilmidhi". To avoid the faulty processing strategy, teachers can explicitly explain that "alif laam" should never be placed at the beginning of a construct phrase. Second, learners tend to treat the first word of Idaafa as an attributive adjunct (Mudaaf Ilaih) because

most learners tend to shift to English (if it is their L1) when processing the Iddafa. Consider the translation to the following phrase: The student's book. Students most likely would start with "Attaalib" first and then "Alkittab". To address this inefficient processing strategy, students should be explicitly advised that: 1) The best way to process idaafa is to think of the other English construct "the book of the student" with deleting the construct "of" because it is implied in Arabic "Idaafa" and 2) the preposition "of" is present in English and implied in Arabic.

The *Idaafa* becomes even more complicated when students are required to interpret the construct phrase when the second term (attributive adjunct) is in a possessive case. Here, the sentence location principle comes into play because students tend to not notice possessive pronouns suffixed to the attributive adjunct. Following the metalinguistic information, which has to be presented in a non-paradigmatic way, and the information on the processing strategies, the input structured activities should be designed according to the guidelines set by Lee and VanPatten (2003). These activities should force learners to process the target form (construct phrase, subjunctive, etc) in the input and to make form-meaning connections (VanPatten 1993, 1996, 2002, 2004).

Limitations and Suggestions for Future Research

The first limitation of this study relates to the small sample size of the study in that the number of participants was only 64. Also, all participants were in their second semester language course at the same university, and they all studied according to one language curriculum, which means that they all received similar language instruction. In light of the learner profile, the findings from this study are mostly related to the population that undertook the research study and, therefore, generalizing the results to other populations should be made with caution.

Another limitation was the duration of the instructional treatments, which lasted for one

week for both groups. Given the complexity of the subjunctive and the number of the instructional activities (ten activities for each group), some participants may have experienced a heavy cognitive load or fatigue during the treatments. Future research with more treatment time may result in a different outcome regarding the performance of both groups on the interpretation and productions tests. In addition, the delayed posttest was taken only two weeks after the immediate posttest due to time constraints. The learning gains of participants from both PI and TI may have been different from the ones observed in the present study if the delayed posttests were administered after a longer time period. Future studies examining the effects of PI and TI could give more insights into the acquisition of the subjunctive if more time were allotted for treatment and testing.

Future studies are encouraged to examine the effects of PI on grammatical features of Standard Arabic with heritage language learners. While the subjunctive construct in Standard Arabic requires the insertion of subjunctive particles, most Arabic dialects do not require subjunctive particles to break the cluster of verbs. Therefore, the acquisition of the subjunctive may be even more challenging to heritage speakers because of the potentially ineffective processing strategy heritage speakers may use when they transfer back to their own dialects when processing the subjunctive in Modern Standard Arabic. This line of research would lend more evidence about the effectiveness of PI in acquiring grammatical structures by heritage speakers.

Another consideration that future research should take into account is to carry out a study online to compare input-based instruction to output-based instruction and their effects on acquiring grammatical features of Standard Arabic. For example, Russell' (2009) study was conducted online in its entirety, thus leading to an examination of the effects of pure output-

based instruction that is entirely free from the incidental input that learners may receive in studies that are conducted in face to face classrooms.

In conclusion, this study contributes to the ongoing debate about the effectiveness of PI in second language acquisition. Although the results of this study suggested a superior role of input over output in the interpretation tasks, both types of instruction appeared to have positive effects on how participants interpreted and produced the Arabic subjunctive. More studies investigating the effects of PI and TI on Arabic grammatical features can only enrich the field of second language acquisition in general and PI in particular.

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APPENDICES

Appendix A

Interpretation Tests A, B, and C

Interpretation Test (Version A)

You will hear the beginning of a sentence. Then choose the ending that correctly fits. You will be able to hear the sentence twice. Circle the correct answer:

.1

a. تلعبوا التنس

b. تلعبونَ التنس

.2

a. يدرسونَ في المكتبة

b. يدرسوا في المكتبة

.3

a. يعرفوا رقم تليفوني؟

b. يعرفونَ رقم تليفوني؟

.4

a. أدرسُ التاريخ العربي أيضا

b. أدرسَ التاريخ العربي أيضا

.5

a. تنجحوا في الإمتحان

b. تنجحونَ في الإمتحان

.6

a. تستمعَ إلى الموسيقى

b. تستمعُ إلى الموسيقى

.7

a. يشربُ العصير كل يوم

b. يشربَ العصير كل يوم

.8

a. يحصلوا على الدكتوراه

b. يحصلونَ على الدكتوراه

.9

a. يسافرونَ في الصيف؟

b. يسافروا في الصيف؟

.10

a. تنجحَ دائماً

b. تنجحُ دائماً

.11

a. يتخرجوا من المدرسة الإبتدائية

b. يتخرجونَ من المدرسة الإبتدائية

.12

a. تشربونَ الشاي في الليل

b. تشربوا الشاي في الليل

.13

a. تكتبوا الدرس الجديد

b. تكتبونَ الدرس الجديد

.14

a. تسافرينَ دائماً

b. تسافري دائماً

.15

a. ندرسَ فيها كثيرا

b. ندرسُ فيها كثيرا

.16

a. يشاهدونَ فيلم أمريكي في السينما

b. يشاهدوا فيلم أمريكي في السينما

Interpretation Test (Version A)

Script:

.1
أنتم تلعبون كرة القدم ولكن لا

.2
طلابي يحبون أن

.3
هل هم يريدونَ أن

.4
أدرسُ اللغة العربية و

.5
أنتم تدرسونَ كثيرا لِـ

.6
"ماري" تشاهدُ التلفزيون و

.7
جون

.8
أصحابي يريدونَ أن

.9
هل أصحابك يحبون أن

.10
أنتَ لا تحفظ الكلمات و لكن

.11
هم

.12
أنتم لا تحبون أن

.13
أنتم لا تريدونَ أن

.14
أنتِ تحبينَ الشرق الأوسط و

.15
نحبُ جامعتنا لكن لا

.16
يذهبونَ إلى السينما لِـ

Translation of the Words (Interpretation Test, Version A)

English	*Arabic*	*English*	*Arabic*
To play	يلعب	*Summer*	الصيف
Tennis	التنس	*To succeed*	ينجح
To study	يدرس	*always*	دائماً
library	المكتبة	*To graduate*	يتخرج
To know	يعرف	*Elementary school*	المدرسة الإبتدائية
My phone number	رقم تليفوني	*Tea*	الشاي
To study	يدرس	*Night*	الليل
Arabic history	التاريخ العربي	*To write*	يكتب
Also	أيضا	*The new lesson*	الدرس الجديد
To succeed	ينجح	*To travel*	يسافر
Exam	الإمتحان	*A lot*	كثيرا
To listen	يستمع	*To watch*	يشاهد
Music	الموسيقى	*American movie*	فيلم أمريكي
To drink	يشربُ	*Movie theater*	السينما
Juice	العصير		
Every day	كل يوم		
To obtain	يحصل		
Doctorate	الدكتوراه		
To travel	يسافر		

Interpretation Test (Version B)

You will hear the beginning of a sentence. Then choose the ending that correctly fits. You will be able to hear the sentence twice. Circle the correct answer:

1.
a. يرسموا هذه الصورة؟
b. يرسمونَ هذه الصورة؟

2.
a. تطبخوا الكسكس يوم الجمعة
b. تطبخونَ الكسكس يوم الجمعة

3.
a. ترسمُ في غرفتها كل يوم
b. ترسمَ في غرفتها كل يوم

4.
a. يحفظونَ كل الكلمات
b. يحفظوا كل الكلمات

5.
a. يأكلونَ البيتزا في المطعم الإيطالي
b. يأكلوا البيتزا في المطعم الإيطالي

6.
a. يتكلمَ اللغة العربية؟
b. يتكلمُ اللغة العربية؟

7.
a. تسافرينَ إلى ميامي بالسيارة؟
b. تسافري إلى ميامي بالسيارة؟

8.
a. ينجحونَ في الإمتحان

b. ينجحوا في الإمتحان

9.

a. يعرفونَ عنوان بيتي

b. يعرفوا عنوان بيتي

10.

a. أستمعُ إلى الموسيقى في سيارتي

b. أستمعَ إلى الموسيقى في سيارتي

11.

a. يشاهدوا فيلم عربي

b. يشاهدونَ فيلم عربي

12.

a. يسافرونَ في الربيع؟

b. يسافروا في الربيع؟

13.

a. لا نشربَ القهوة في الصباح

b. لا نشربُ القهوة في الصباح

14.

a. تلعبُ كرة القدم مع مها؟

b. تلعبَ كرة القدم مع مها؟

15.

a. يدرسوا اللغة الإنجليزية

b. يدرسونَ اللغة الإنجليزية

16.

a. يسبحوا

b. يسبحونَ

Interpretation Test (Version B)

Script

.1
الأولاد يريدونَ أن

.2
أنتم

.3
صديقتي منى

.4
أصحابي يريدونَ أن

.5
هم يحبون أن

.6
هل سامي

.7
مها، هل أنتِ

.8
الطلاب يحبون أن

.9

أصحابي لا

.10
أنا دائماً

.11
إخوتي لا يحبونَ أن

.12
سارة، هل زملائك يريدونَ أن

.13
أنا و أسرتي

.14
عادل،هل

.15
أصحاب خالد يذهبونَ الى الجامعة ل

.16
هم يذهبونَ إلى الشاطئ ل

Translation of the Words (Interpretation Test, Version B)

English	*Arabic*	*English*	*Arabic*
To draw	يرسم	*To know*	يعرفَ
This photo	هذه الصورة	*My home address*	عنوان بيتي
To cook	يطبخ	*To listen*	يستمع
Couscous	الكسكس	*Music*	الموسيقى
Friday	يوم الجمعة	*My car*	سيارتي
Her room	غرفتها	*To watch*	يشاها
Every day	كل يوم	*Arabic movie*	فيلم عربي
To memorize	يحفظَ	*Spring*	الربيع
All words	كل الكلمات	*To drink*	يشرب
To eat	يأكلَ	*coffee*	القهوة
Pizza	البيتزا	*morning*	الصباح
Italian restaurant	المطعم الإيطالي	*To play*	يلعب
To speak	يتكلمَ	*Football*	كرة القدم
Arabic language	اللغة العربية	*Maha (female proper name)*	مها
To travel	يسافر	*To study*	يدرس
Miami	ميامي	*English language*	اللغة الإنجليزية
By car	بالسيارة	*To swim*	يسبح
To succeed	ينجحَ		
Exam	الإمتحان		

Interpretation Test (Version C)

You will hear the beginning of a sentence. Then choose the ending that correctly fits. You will be able to hear the sentence twice. Circle the correct answer:

.1
a. تشاهدي هذه السيارة الجميلة؟
b. تشاهدينَ هذه السيارة الجميلة؟

.2
a. يأكلونَ البيتزا
b. يأكلوا البيتزا

.3
a. يرسموا الصورة؟
b. يرسمونَ الصورة؟

.4
a. أشربُ قهوة عربية كل يوم
b. أشربَ قهوة عربية كل يوم

.5
a. تحصلوا على الماجيستير
b. تحصلونَ على الماجيستير

.6
a. تسكنَ قريباً من الجامعة؟
b. تسكنُ قريباً من الجامعة؟

.7
a. نكتبُ الكلمات الصعبة في الجامعة
b. نكتبَ الكلمات الصعبة في الجامعة

.8
a. يشاهدوا الأخبار على الجزيرة

b. يشاهدونَ الأخبار على الجزيرة

.9

a. يسافرونَ في الربيع؟

b. يسافروا في الربيع؟

.10

a. ترسمَ دائما في غرفتها

b. ترسمُ دائما في غرفتها

.11

a. تعرفوا هذا الكتاب جيدا

b. تعرفونَ هذا الكتاب جيدا

.12

a. تشربونَ القهوة في الليل

b. تشربوا القهوة في الليل

.13

a. تحفظوا الدرس الجديد

b. تحفظونَ الدرس الجديد

.14

a. يستمعَ إلى الأخبار كل صباح

b. يستمعُ إلى الأخبار كل صباح

.15

a. يتكلمونَ اللغة الفرنسية

b. يتكلموا اللغة الفرنسية

.16

a. يدرسونَ التاريخ

b. يدرسوا التاريخ

Interpretation Test (Version C)

Script:

.1
هل أنتِ

.2
طلابي يحبون أن

.3
هل هم يريدونَ أن

.4
أنا

.5
أنتم تدرسونَ كثيرا لِـ

.6
هل أنتَ

.7
أنا و أصدقائي

.8
أصحابي يريدونَ أن

.9
هل أصحابك يحبون أن

.10
أختي

.11
أنتم

.12
أنتم لا تحبون أن

.13
أنتم لا تريدونَ أن

.14
مايكل

.15
أصدقائي

.16
يذهبونَ إلى السينما لِـ

Translation of the Words (Interpretation Test, Version C)

English	*Arabic*	*English*	*Arabic*
The beautiful car	*السيارة الجميلة*	*To draw*	*يرسم*
To watch	*تشاهدينَ*	*always*	*دائما*
To eat	*يأكلَ*	*Her room*	*غرفتها*
Pizza	*البيتزا*	*To know*	*يعرف*
To draw	*يرسم*	*This book*	*هذا الكتاب*
The photo	*الصورة*	*Well*	*جيدا*
To drink	*يشرب*	*To drink*	*يشرب*
Arabic coffee	*قهوة عربية*	*Coffee*	*القهوة*
Every day	*كل يوم*	*At night*	*في الليل*
To obtain	*تحصلوا*	*To memorize*	*يحفظ*
Master's degree	*الماجيستير*	*The new lesson*	*الدرس الجديد*
To live	*يسكن*	*To listen*	*يستمعَ*
Close to the University	*قريباً من الجامعة*	*Every morning*	*كل صباح*
To write	*يكتب*	*To speak*	*يتكلم*
The difficult words	*الكلمات الصعبة*	*French language*	*اللغة الفرنسية*
The news	*الأخبار*	*To study*	*يتكلم*
Al-Jazeera (news channel)	*الجزيرة*	*history*	*التاريخ*
To travel	*يسافر*		
Spring	*الربيع*		

Appendix B

Production Tests A, B, and C

Production Test (Version A)

Complete the following sentences by conjugating the verbs in parentheses in the appropriate form.
Make sure you PUT MARKS on the last letter of the verbs.

١.

أنا و أسرتي.....(يسكن) في المدينة الجديدة

٢.

زملائي لا يحبونَ أن.....(يتكلم) اللغة الألمانية

٣.

أصدقائي يحبونَ أن.....(يدرس) في ستاربكس

٤.

صديقي أحمد..... (يعمل) في المكتبة

٥.

الأساتذة يريدونَ أن.....(يستمع) الموسيقى التركية

٦.

يا طلاب، هل أصحابكم يريدونَ أن.....(يكتب) الواجب في البيت أو الفصل؟

٧.

أنتَ.....(يشرب) قهوة مع صديقك عادل

٨.

الطلاب في الجامعة يدرسونَ العربية ل.....(يفهم) تاريخ الشرق

الأوسط

٩.

ماري، هل أنتِ.....(يسبح) في شاطئ ميامي؟

١٠

الأولاد يحبونَ أن.....(يشاهد) التلفزيون

١١.

الطلاب العرب يريدونَ أن.....(يسافر) إلى أروبا

١٢.

مها.....(يعرف) المغرب جيداً

١٣.

أنتَ و أصحابك.....(يفهم) القصة جيداً

١٤.

هم يدرسونَ اللغة الفرنسية و.....(يدرس) اللغة اليابانية أيضاً

١٥.

هم يحبون أن.....(يشرب) الحليب في الصباح و المساء

١٦.

أنا لا.....(يذهب) إلى مدينة نيويورك

Translation of the Words (Production Test, Version A)

English	*Arabic*	*English*	*Arabic*
My family and I	أنا و أسرتي	*To drink*	يشرب
To live	يسكن	*coffee*	قهوة
The new city	المدينة الجديدة	*your friend Adil*	صديقك عادل
My classmates	زملائي	*To understand*	يفهم
To speak	يتكلم	*The history of the Middle East*	تاريخ الشرق الأوسط
The German language	اللغة الألمانية	*Mar (female proper name)*	ماري
My friends	أصدقائي	*To swim*	يسبح
To study	يدرس	*Miami beach*	شاطئ ميامي
Starbucks	ستاربكس	*The boys*	الأولاد
My friend Ahmad	صديقي أحمد	*To watch*	يشاهد
To work	يعمل	*The Arab students*	الطلاب العرب
The library	المكتبة	*To travel*	يسافر
Teachers	الأساتذة	*Europe*	أروبا
To listen	يستمع	*Maha (female proper name)*	مها
Turkish music	الموسيقى التركية	*To know*	يعرف
students	طلاب	*Morocco*	المغرب
Your friends	أصحابكم	*well*	جيداً
To write	يكتب	*To understand*	يفهم
homework	الواجب	*The story*	القصة
French language	اللغة الفرنسية	*Japanese language*	اللغة اليابانية
also	أيضاً	*To drink*	يشرب
Milk	الحليب	*To go*	يذهب
Day and night	الصباح و المساء	*New York City*	مدينة نيويورك

Production Test (Version B)

Complete the following sentences by conjugating the verbs in parentheses in the appropriate form.

Make sure you PUT MARKS on the last letter of the verbs.

١.

أفراد أسرتي لا يحبون أن.....(يشاهد) كرة القدم

٢.

هل أنتَ.....(يدرس) دائما، يا عادل؟

٣.

هم يحبون أن.....(يلعب) كرة القدم يوم الجمعة فقط

٤.

أنتم لا.....(يسكن) في مدينة تامبا

٥.

الأستاذة سلوى.....(يأكل) قليلاً

٦.

أنا لا.....(يلعب) كرة القدم يوم الإثنين

٧.

أصدقائي لا يريدون أن.....(يسافر) في فصل الشتاء

٨.

أصحابي لا يحبونَ أن.....(يعمل) في المطعم العربي

٩.

أصدقائي.....(يعرف) فيلم تيتانيك

١٠.

لماذا يا طلاب تريدونَ أن.....(يعرف) عنوان الأستاذ؟

١١.

نحن نكتب الكلمات جيدا و لكن لا..... (يفهم) الدرس

١٢.

والدي.....(يعمل) في البيت

١٣.

الطلاب لا يحبونَ أن.....(يستمع) إلى الموسيقى قبل النوم

١٤.

هل الطلاب الأمريكيون يحبونَ أن.....(يتكلم) اللغة العربية ؟

١٥.

ماجدة، هل أنتِ.....(يعرف) هذا الفيلم؟

١٦.

سامي، هل إخوتك يريدونَ أن.....(يرسم) هذه الصورة في البيت؟

Translation of the Words (Production Test, Version B)

English	*Arabic*	*English*	*Arabic*
My family members	أفراد أسرتي	*To know*	يعرف
To watch	يشاهد	*Titanic movie*	فيلم تيتانيك
Football	كرة القدم	*why*	لماذا
To study	يدرس	*students*	طلاب
always	دائما	*The address of the teacher*	عنوان الأستاذ
Adil (proper male name)	عادل	*The words*	الكلمات
To play	يلعب	*To understand*	يفهم
Friday only	يوم الجمعة فقط	*The lesson*	الدرس
To live	يسكن	*My father*	والدي
The city of Tampa	مدينة تامبا	*To listen*	يستمع
Teacher Salwa	الأستاذة سلوى	*Music*	الموسيقى
To eat	يأكل	*The American students*	الطلاب الأمريكيون
A little	قليلاً	*To speak*	يتكلم
My friends	أصدقائي	*language*	اللغة
To travel	يسافر	*Majda (female proper name*	ماجدة
Winter season	فصل الشتاء	*Sami (male proper name)*	سامي
My friends	أصحابي	*To draw*	يرسم
To work	يعمل	*The photo*	الصورة
The Arab restaurant	المطعم العربي		

Production Test (Version C)

Complete the following sentences by conjugating the verbs in parentheses in the appropriate form.

Make sure you PUT MARKS on the last letter of the verbs.

١.

زملائي يحبونَ أن.....(يشاهد) الأخبار

٢.

أنا و أصدقائي .....(يفهم) الدرس الجديد

٣.

هم لا يريدونَ أن.....(يكتب) كل الكلمات

٤.

هل هم يريدونَ أن.....(يتكلم) العربية مع صديقي؟

٥.

أنتِ لا.....(يذهب) إلى المركز الرياضي كل يوم

٦.

أصدقائي، هل تريدونَ أن.....(يذهب) إلى الفصل معي؟

٧.

أنا لا..... (يعمل) في مدينتي

٨.

أنتم دائما.....(يسبح) في شاطئ ميامي

٩.

هم لا يريدونَ أن.....(يساعد) أصدقائهم في الواجب

١٠.

صديقي أحمد.....(يدرس) التاريخ في جامعة ميامي

١١.

سلوى، لماذا لا يريدونَ أن.....(يستمع) إلى الموسيقى الأمريكية؟

١٢.

هم لا يريدونَ أن.....(يسكن) في مدينة شيكاغو

١٣.

هل أنتَ.....(يشرب) القهوة بالسكر؟

١٤.

أختي.....(يأكل) البيتزا كل يوم

١٥.

إصدقائي دائما يحبون أن.....(ينجح) في الإمتحان

١٦.

طلابي لا .....(يعرف) رقم هاتفي

Translation of the Words (Production Test, Version C)

English	*Arabic*	*English*	*Arabic*
my classmates	زملائي	*Salwa (female proper name)*	سلوى
to watch	يشاهد	*why*	لماذا
the new lesson	الدرس الجديد	*To listen*	يستمع
to write	يكتب	*American music*	الموسيقى الأمريكية
All the words	كل الكلمات	*To live*	يسكن
To speak	يتكلم	*The city of Chicago*	مدينة شيكاغو
Arabic with my friend	العربية مع صديقي	*To drink*	يشرب
To go	يذهب	*Coffee with sugar*	القهوة بالسكر
The gym	المركز الرياضي	*To eat*	يأكل
The classroom	الفصل	*Pizza*	البيتزا
To work	يعمل	*Every day*	كل يوم
My city	مدينتي	*To succeed*	ينجح
to swim	يسبح	*The exam*	الإمتحان
Miami beach	شاطئ ميامي	*To know*	يعرف
always	دائما	*My phone number*	رقم هاتفي
to help	يساعد		
homework	الواجب		
to study	يدرس		
history	التاريخ		

Appendix C:

Informed Consent Form

Informed Consent to Participate in Research

Information to Consider Before Taking Part in this Research Study

eIRB # 15840

You are being asked to take part in a research study. Research studies include only people who choose to take part. This document is called an informed consent form. Please read this information carefully and take your time making your decision. Ask the researcher or study staff to discuss this consent form with you, please ask him/her to explain any words or information you do not clearly understand.

We are asking you to take part in a research study called:

The Effects of Processing Instruction and Traditional Instruction on the Acquisition of Arabic Subjunctive.

The person who is in charge of this research study is *Youness Mountaki***.** This person is called the Principal Investigator. However, other research staff may be involved and can act on behalf of the person in charge. He is being guided in this research by *Dr. Wei Zhu.*

The research will be conducted at the University of South Florida (Rooms: CPR 463 and 250).

Purpose of the study

The purpose of this study is to:

- *This study attempts to investigate the effects of two different instructional techniques on the acquisition of the Arabic subjunctive. We are asking you to participate because you are taking Modern Arabic at USF.*

Should you take part in this study?

Before you decide:

- Read this form and find out what the study is about.
- You may have questions this form does not answer. You do not have to guess at things you don't understand. If you have questions ask the person in charge of the study or study staff as you go along. Ask them to explain things in a way you can understand.
- Take your time to think about it.

This form tells you about this research study. This form explains:

- Why this study is being done.
- What will happen during this study and what you will need to do.
- Whether there is any chance of benefits from being in this study.
- The risks involved in this study.
- How the information collected about you during this study will be used and with whom it may be shared.

Taking part in this research study is up to you. If you choose to be in the study, then you should sign this informed consent form. If you do not want to take part in this study, you should not sign this form.

Why is this research being done?

The purpose of this study is to find out if there is any advantage of using one type of instruction over another in acquiring the Arabic subjunctive. The research will be carried out according to the following format:

Day 1: PI collects informed consent

Day 3: Pretest

Day 8: Posttest

Day 22: Delayed posttest

All the activities related to this research will be conducted at the WLE computer lab at USF.

Why are you being asked to take part?

We are asking you to take part in this study because you are a student taking Arabic at USF. We want to find out if the Arabic subjunctive can be learned better if instructors use different instructional techniques.

What will happen during this study?

You will be asked to spend about 3 hours in this study. During this study, you can drop out any time you want without any penalty or effect towards your grade.

There will be 4 different classes in this study and students from each class will be assigned to a different treatment group.

Group 1: will first take a pretest, and then the PI will give explicit information about the grammatical feature, Information about strategies, and Structured Input Activities. This group will take a posttest right after they complete the instructional package. 1 week later, the group will be asked to take the delayed posttest test. It should be noted that instruction and all tests would be taken during class time.

Group 2: will first take a pretest, and then the PI will give explicit information about the grammatical feature and Output Activities: mechanical, meaningful, and communicative. This group will take a posttest right after they complete the instructional package. 1 week later, the group will be asked to take the delayed posttest test. It should be noted that instruction and all tests would be taken during class time.

If you choose not to participate in the study you will receive the same instructional package because it is part of the class materials anyway (Arabic subjunctive is to be introduced during the semester). However, when participating students take the tests you will receive activities that aim to strengthen your knowledge of the subjunctive.

Total Number of Participants

About 44 individuals will take part in this study at USF.

Alternatives

You do not have to participate in this research study.

Benefits

You will receive no benefits for taking part in this study.

Risks or Discomfort

This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you face every day. There are no known additional risks to those who take part in this study.

Compensation

You will receive no payment or other compensation for taking part in this study.

Cost

There will be no additional costs to you as a result of being in this study.

Privacy and Confidentiality

We will keep your study records private and confidential. Certain people may need to see your study records. By law, anyone who looks at your records must keep them completely confidential. The only people who will be allowed to see these records are:

- The research team, including the Principal Investigator, study coordinator, and all other research staff**.**
- **C**ertain government and university people who need to know more about the study. For example, individuals who provide oversight on this study may need to look at your

records. This is done to make sure that we are doing the study in the right way. They also need to make sure that we are protecting your rights and your safety.

- Any agency of the federal, state, or local government that regulates this research. This includes the Department of Health and Human Services (DHHS) and the Office for Human Research Protection (OHRP).
- The USF Institutional Review Board (IRB) and its related staff who have oversight responsibilities for this study, staff in the USF Office of Research and Innovation, USF Division of Research Integrity and Compliance, and other USF offices who oversee this research.

We may publish what we learn from this study. If we do, we will not include your name. We will not publish anything that would let people know who you are.

Voluntary Participation / Withdrawal

You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study. Your decision to participate or not to participate will not affect your student status, course grade, letters of recommendation, access to courses in the future, or access to other academic experiences

You can get the answers to your questions, concerns, or complaints.

If you have any questions, concerns or complaints about this study, call Youness Mountaki at 813-506-4118.

If you have questions about your rights, general questions, complaints, or issues as a person taking part in this study, call the USF IRB at (813) 974-5638.

Consent to Take Part in Research

It is up to you to decide whether you want to take part in this study. If you want to take part, please read the statements below and sign the form if the statements are true. I freely give my

consent to take part in this study. I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

_____ _____

Signature of Person Taking Part in Study Date

_____

Printed Name of Person Taking Part in Study

Statement of Person Obtaining Informed Consent

I have carefully explained to the person taking part in the study what he or she can expect from their participation. I hereby certify that when this person signs this form, to the best of my knowledge, he/ she understands:

- What the study is about;
- What procedures will be used;
- What the potential benefits might be; and
- What the known risks might be.

I can confirm that this research subject speaks the language that was used to explain this research and is receiving an informed consent form in the appropriate language. Additionally, this subject reads well enough to understand this document or, if not, this person is able to hear and understand when the form is read to him or her. This subject does not have a medical/psychological problem that would compromise comprehension and therefore makes it hard to understand what is being explained and can, therefore, give legally effective informed consent. This subject is not under any type of anesthesia or analgesic that may cloud their judgment or make it hard to understand what is being explained and, therefore, can be considered competent to give informed consent.

_____ _____

Signature of Person Obtaining Informed Consent Date

_____

Printed Name of Person Obtaining Informed Consen

Appendix D

Posttreatment Questionnaire

Posttreatment Questionnaire: This information will remain confidential and will only be used for means of data collection.

Background Information

1. Name: _____ 2. Age: _____ 3. Gender: ☐ Male ☐ Female

4. What language did you grow up speaking?_____

5. What language is spoken in your home?_____

6. Level: ☐ Freshman ☐ Sophomore ☐ Junior ☐ Senior ☐ Graduate

7. Major: _____

8. Arabic courses taken at USF: ☐ ARA I ☐ ARA II

9. Arabic courses taken in another college: NO YES (If yes, how many semesters ____)

10. Arabic courses taken in high school: NO YES (If yes, how many semesters ____)

11. Do you have other contact with Arabic?

(Friends, family, internet, travel, etc.) _____

12. Why are taking this Arabic class?

☐ interest in the language ☐ required for my major ☐ learn a different language

☐ Advantage when looking for jobs ☐ interest in the Arab culture ☐ it fits my schedule ☐ work at a government agency ☐ widely spoken language ☐ part of my ethnic heritage

Other:-

_____

Treatment Questionnaire:

Please indicate the degree to which you agree or disagree with the following statements. Mark 1 for statements with which you strongly agree and mark 5 for statements with which you strongly disagree.

1. The directions in the package were clear and easy to follow

   1 2 3 4 5

2. I learned something from completing the activity package

   1 2 3 4 5

3. I preferred these types of activities to my regular classroom activities

   1 2 3 4 5

4. I enjoyed learning Arabic grammar using the materials

   1 2 3 4 5

Comments:_____

_____

_____

_____

_____

_____

_____

_____

Appendix E

Information about Processing Strategies

Information on processing strategies

The subjunctive is an Arabic grammar aspect that is difficult for native speakers of English to process due to ineffective processing strategies.

First, when trying to process the subjunctive in Arabic learners have difficulty noticing the subjunctive in sentences because the present subjunctive endings are similar to the present indicative endings.

For example:

➔ the 1st person singular form of the verb (يدرسُ) in the present indicative is (أدرسُ)

➔ and the 1st person singular form of the verb (يدرسُ) in the present subjunctive is (أدرسَ)

As you can see the only difference between the two forms are the marks placed on the end of each verb. Present subjunctive takes "fatha" and the present indicative takes "Demma".

The second difficulty is with the following forms (أنتم) , (أنتِ) and (هـم). Learners usually tend to treat all the forms similarly. consider the following sentence in English.

They want to go to the university

English speaking students usually transfer to their L1 and therefore produce the following sentence:

هـم يريدونَ أن يذهبونَ إلى الجامعة

(يذهبونَ) here is incorrect because it is located after the subjunctive particle (أن) and therefore it should be written as (يذهبوا)

➔ So make sure you treat the verbs after the subjunctive particles differently from the verbs that come before the the subjunctive particles.

Learners also tend to ignore the subjunctive particles because they are located in the middle of the sentence. This difficulty is represented in both comprehension and production.

While in English learners use the infinitive before and after the particles, they tend to apply the same structure on Arabic sentences.

Some subjunctive particles are more noticeable than others in Arabic sentences. Consider the following:

هم يريدونَ أن ينجحوا في الإمتحان

هم يدرسون لينجحوا في الإمتحان

Learners usually notice the particle (أن) more than (لِـ) because it is written separately. (لِـ) on the other hand is attached to the verb that follows it.

So, always renumber to treat the cluster of two verbs differently for all the forms in Arabic.

Now that you are aware of this, you can try to pay more attention to verbs and verb endings that occur in the middle of sentences. This strategy will help you notice the subjunctive more easily, which will enable you to interpret and produce Arabic subjunctive correctly.

Appendix F

Processing Instruction Treatment Package

1. Read each of the following phrases and check off the the phrase which correctly ends each statement.

1 - الطلاب لا يريدونَ أن .....

- ❒ يتخرجوا هذه السنة
- ❒ يتخرجونَ هذا الفصل الدراسي

2 - الأولاد يحبونَ أن.....

- ❒ يشربوا الشاي كل صباح
- ❒ يشربونَ الحليب

3 - أصحابي يحبون أن.....

- ❒ يشاهدون الأخبار كل يوم
- ❒ يشاهدوا التلفزيون كل يوم

4 - خالد و أصدقاؤه .....

- ❒ يأكلوا البيتزا في المطعم العربي
- ❒ يأكلونَ البيتزا في المطعم العربي

5 - أفراد عائلتي لا يحبونَ أن.....

- ❒ يستمعونَ الى الموسيقى الأمريكية
- ❒ يستمعوا الى الموسيقى الأمريكية

6 ـ هم يريدون أن.....

❒ يزوروا أصدقائهم في "ميامي"

❒ يزورونَ أصحابهم في "ميامي"

7 ـ الناسُ في هذه المدينة .....

❒ يرسمونَ كل يوم

❒ يرسموا كل يوم

8 ـ الأولاد لا يحبونَ أن.....

❒ يشربوا عصير البرتقال

❒ يشربونَ عصير البرتقال

Translation of the Words (Activity 1)

English	Arabic	English	Arabic
students	الطلاب	*TV*	التلفزيون
to want	يريد	*Khalid and his friends*	خالد و أصدقاؤه
to graduate	يتخرج	*to eat*	يأكل
this year	هذه السنة	*Arabic restaurant*	المطعم العربي
this semester	هذا الفصل الدراسي	*my family members*	أفراد عائلتي
the boys	الأولاد	*to listen*	يستمع
to like	يحب	*American music*	الموسيقى الأمريكية
to drink	يشرب	*to visit*	يزور
tea	الشاي	*people in this city*	الناسُ في هذه المدينة
every morning	كل صباح	*to draw*	يرسم
milk	الحليب	*every day*	كل يوم
my friends	أصحابي	*the boys*	الأولاد
to watch	يشاهد	*orange juice*	عصير البرتقال
news	الأخبار	*every day*	كل يوم

Instructor Scripts:

1. **مروى و أصدقاؤها يحبون أن يعملوا في الصيف**
2. **مروى و أصدقاؤها يدرسون في المكتبة**
3. **الطلاب يعملونَ كثيرا ويدرسون قليلا**
4. **الأساتذة يريدون أن يكتبوا الدرس**
5. **أصحابي لا يحبون أن يسافروا إلى أروبا**
6. **أصحابي يسكنون و يدرسون في كاليفورنيا**

2. Read the sentences below. Then, determine if the sentences include examples of the subjunctive.

	Subjunctive	No subjunctive
1.	❒	❒
2.	❒	❒
3.	❒	❒
4.	❒	❒
4.	❒	❒
5.	❒	❒
6.	❒	❒

Translation of the Words (Activity 2)

English	Arabic	English	Arabic
Marwa and her friends	مروى و أصدقاؤها	*the students*	الطلاب
to like	يحب	*a lot*	كثيرا
to work	يعمل	*a little*	قليلا
in the summer	في الصيف	*the male teachers*	الأساتذة
to study	يدرس	*to write*	يكتب
in the library	في المكتبة	*the lesson*	الدرس
to want	يريد	*my friends*	أصحابي
to live	يسكن	*to like/love*	يحب
Tampa city	مدينة تامبا	*to travel*	يسافر
in the University	في الجامعة	*Europe*	أروبا
California	كاليفورنيا		

3. Read and circle the correct form of the verb of each sentence.

أحمد وعائلته (يسكنونَ / يسكنوا) في مدينة تامبا. هم يريدونَ أن (يسافرونَ / يسافروا) إلى الشرق الأوسط لِـ (يزورونَ / يزوروا) أصدقائهم

أحمد وعائلته يريدونَ أن (يذهبونَ / يذهبوا) إلى القاهرة لِـ (يشاهدونَ / يشاهدوا) الأهرامات.

أصحاب "خالد" لا يريدونَ أن (يذهبونَ / يذهبوا) إلى مصر. هم يفضلونَ أن (يسافرونَ / يسافروا) إلى سوريا لِـ (يزورونَ / يزوروا) صديقهم أمير

Translation of the Words (Activity 3)

English	Arabic	English	Arabic
Ahmad and his Family	أحمد وعائلته	*Cairo*	القاهرة
to live	يسكن	*To watch*	يشاهد
The city of Tampa	مدينة تامبا	*The Pyramids*	الأهرامات
to want	يريد	*The friends of Khaled*	أصحاب "خالد"
to travel	يسافر	*Egypt*	مصر
The Middle East	الشرق الأوسط	*to prefer*	يفضلونَ
To visit	يزور	*Syria*	سوريا
their friends	أصدقائهم	*to visit*	يزور
to go	يذهب	*Their friend*	صديقهم

4. Read the following sentences and choose the correct answer to make the sentences grammatically correct.

1 - يذهبون إلى السينما لِـ..... فيلم عربي ❐ يشاهدونَ ❐ يشاهدوا

2 - يدرسون كثيراً لِـ..... في الإمتحان ❐ ينجحُوا ❐ ينجحون

3 - نكتبُ الدرس و .....الكلمات ❐ نحفظَ ❐ نحفظُ

4 - هم يريدونَ أن .....إلى مصر ❐ يسافروا ❐ يسافرونَ

5 - أنتَ و إخوتكَ ..... كل يوم ❐ تطبخوا ❐ تطبخونَ

6 - أصحابي يريدونَ أن..... في الأمم المتحدة ❐ يعملوا ❐ يعملونَ

7 - أصدقاؤه لا يحبون أن..... إلى الجيش ❐ يذهبوا ❐ يذهبونَ

8 - أنتِ لا ..... في المكتبة ❐ تدرسي ❐ تدرسينَ

Translation of the Words (Activity 4)

English	Arabic	English	Arabic
to go	يذهب	*to travel*	يسافر
the Movie theater	السينما	*your brothers and you*	أنتَ و إخوتكَ
Arabic Movie	فيلم عربي	*every day*	كل يوم
to watch	يشاهد	*to cook*	يطبخُ
to study	يدرس	*my friends*	أصحابي
a lot	كثيراً	*the United Nations*	الأمم المتحدة
in the exam	في الإمتحان	*to work*	يعمل
to succeed	ينجحُ	*his friends*	أصدقاؤه
to write	يكتبُ	*to like*	يحب
the lesson	الدرس	*the Army*	الجيش
the words	الكلمات	*to study*	يدرسُ
to memorize	يحفظَ	*the library*	المكتبة
to want	يريد	*Egypt*	مصر

5. Mark the following sentences if they apply to your close friends.

		لا	نعم
1	أصحابي يذهبونَ إلى الجامعة كل يوم		
2	يدرسونَ العربية ليسافروا إلى الشرق الأوسط		
3	أصحابي يحبونَ أن يسبحوا في الشاطئ		
4	أصحابي لا يحبون المركز الرياضي		
5	أصحابي يحبونَ أن يأكلوا البيتزا		
6	هم يحبونَ أن يسافروا كل صيف		

Translation of the Words (Activity 5)

English	Arabic	English	Arabic
my friends	أصحابي	*the Middle East*	الشرق الأوسط
to want	يريد	*to like*	يحب
to go	يذهب	*to swim*	يسبح
the university	الجامعة	*the beach*	الشاطئ
every day	كل يوم	*the sport center*	المركز الرياضي
to study	يدرس	*to eat*	يأكل
Arabic	العربية	*every summer*	كل صيف
to travel	يسافر		

6. Mark the things your friends would like to do in the future.

		نعم	لا
1	يريدونَ أن يسافروا إلى أروبا		
2	يريدونَ أن يتخرجوا من جامعة جنوب فلوريدا		
3	يريدونَ أن يدرسوا الفرنسية		
4	يريدونَ أن يسبحوا في شاطئ هاواي		
5	يريدونَ أن يستمعوا إلى موسيقى عربية		
6	يريدونَ أن يفهموا الثقافة العربية		

Translation of the Words (Activity 6)

English	Arabic	English	Arabic
to want	يريد	*to swim*	يسبح
to travel	يسافر	*Hawaii beach*	شاطئ هاواي
Europe	أروبا	*to listen*	يستمع
to graduate	يتخرج	*Arabic music*	موسيقى عربية
the University of South Florida	جامعة جنوب فلوريدا	*to understand*	يفهم
to study	يدرس	*Arabic culture*	الثقافة العربية
French language	الفرنسية		

7. Read each of the following phrases and check off the phrase which correctly begins each statement.

1. ..... يطبخوا الدجاج في البيت

- ❒ الناس يريدون أن
- ❒ الناس يريدون

2. ..... يساعدوا الطالب على الواجب

- ❒ هم يريدونَ أن
- ❒ هم يريدونَ

3. ..... يتذكرونَ الكلمات

- ❒ أصحابي يكتبونَ و
- ❒ أصحابي يكتبوا و

4. .....يحفظوا الكلمات الصعبة

- ❒ الطلابُ يحبونَ
- ❒ الطلابُ يحبونَ أن

5. .....يدرسوا في المكتبة

- ❒ الأولاد يحبون
- ❒ الأولاد يحبون أن

6. .....يتكلموا مع الأستاذ

- ❒ أصدقائي لا يريدونَ أن
- ❒ أصدقائي لا يريدونَ

Translation of the Words (Activity 7)

English	Arabic	English	Arabic
to cook	يطبخ	*to write*	يكتب
chicken	الدجاج	*to memorize*	يحفظ
in the house	في البيت	*the difficult words*	الكلمات الصعبة
the people	الناس	*the students*	الطلابُ
to want	يريد	*to like/love*	يحب
to help	يساعد	*to study*	يدرس
the student	الطالب	*the library*	المكتبة
on the homework	على الواجب	*the boys*	الأولاد
to remember	يتذكر	*to speak*	يتكلم
the words	الكلمات	*the teacher*	الأستاذ
my friends	أصحابي	*my friends*	أصدقائي

8. "Maha" and her friends are planning for their next weekend activities. Read each statement below and decide which sentence is a more logical ending.

1. مها و أصحابها يريدونَ أن
   - ❒ يشاهدوا الفيلم العربي في السينما
   - ❒ يشاهدونَ الفيلم العربي في السينما
2. مها و أصحابها يريدونَ أن
   - ❒ يحفضوا الكلمات الصعبة
   - ❒ يحفضونَ الكلمات الصعبة
3. مها و أصحابها يريدونَ أن
   - ❒ يسافروا إلى ميامي بالطائرة
   - ❒ يسافرونَ إلى ميامي بالطائرة
4. مها و أصحابها يريدونَ أن
   - ❒ يطبخوا الدجاج و الفلافل
   - ❒ يطبخونَ الدجاج و الفلافل
5. مها و أصحابها يريدونَ أن
   - ❒ يذهبوا إلى مدينة "أورلاندو"
   - ❒ يذهبونَ إلى مدينة "أورلاندو"

Translation of the Words (Activity 8)

English	Arabic	English	Arabic
Maha and her friends	مها و أصحابها	*Miami*	ميامي
to want	يريد	*by plane*	بالطائرة
to watch	يشاهد	*to cook*	يطبخ
the Arabic movie	الفيلم العربي	*falafel and chicken*	الدجاج و الفلافل
in the movie theater	في السينما	*to go*	يذهب
to memorize	يحفظ	*Orlando*	"مدينة "أورلاندو
	الكلمات الصعبة	*to drink*	يشرب
	يسافر	*tea*	الشاي
		with their classmates	مع زملائهم

9. Which of the following activities you and your friends would like to do the most in the free time. Place these statements in order from 1, being the least important to you, to 5 being the most important. Write the number in front of each statement.

1. نريدُ أن نشاهدَ فيلم عربي _____

2. نريدُ أن نسبحَ في الشاطئ _____

3. نريدُ أن نسافرَ إلى ميامي _____

4. نريد أن نذهبَ إلى المطعم _____

5. نريدُ أن نشربَ الشاي _____

Translation of the Words (Activity 9)

English	Arabic	English	Arabic
to want	يريد	*Miami*	ميامي
to watch	نشاهدُ	*to go*	يذهب
Arabic movie	فيلم عربي	*restaurant*	المطعم
to swim	يسبح	*to drink*	نشرب
the beach	الشاطئ	*tea*	الشاي
to travel	يسافر		

10. Choose the right endings for the following statements:

1. أصحابي يريدونَ أن
   - ❒ يتذكرونَ كل الكلمات
   - ❒ يتذكروا كل الكلمات
2. أفراد أسرتي
   - ❒ يكتبوا القصص القصيرة
   - ❒ يكتبونَ القصص القصيرة
3. زملائي لا يريدونَ أن
   - ❒ يأكلوا الفلافل
   - ❒ يأكلونَ الفلافل
4. صديقي يحبُ أن
   - ❒ يستمعَ إلى الموسيقي
   - ❒ يستمعُ إلى الموسيقى
5. هل أنتِ
   - ❒ تسافري كل سنة ؟
   - ❒ تسافرينَ كل سنة ؟
6. أصحابكَ
   - ❒ يدرسونَ كل يوم
   - ❒ يدرسوا كل يوم

Translation of the Words (Activity 10)

English	Arabic	English	Arabic
my friends	أصحابي	*my friend*	صديقي
to want	يريد	*to listen*	يستمع
to remember	يتذكر	*music*	الموسيقى
all words	كل الكلمات	*to travel*	يسافر
my family members	أفراد أسرتي	*every year*	كل سنة
short stories	القصص القصيرة	*your friends*	أصحابكَ
my classmates	زملائي	*to study*	يدرس
to eat	يأكل	*every day*	كل يوم
Falafel	الفلافل		

Appendix G

Traditional and Processing Instruction Explicit Grammar Explanation

Explicit Information about the Arabic Subjunctive (TI)
What is the Arabic Subjunctive:

- Present tense verbs in Arabic are said to be in the Indicative Mood. However, this present tense is moody because verbs which express hope, desire, purpose, like, dislike, doubt, fear, uncertainty, obligations, etc., change their mood from the regular Indicative to the Subjunctive.

- That also requires that they should follow one of the Subjunctive particles, such as لِـ and أن

Note the purpose expressed in the following sentence:

أذهبُ إلى الجامعةِ لأدرسَ العربية

I go to the university in order to study Arabic

As you can see from the previous example the subjunctive can be formed by placing "Fatha" at the end of the verb that follows the subjunctive particle.
However, not all the verbs follow the same structure. Consider the following examples:

Subjunctive	Indicative	Subject Pronoun
أدرسَ	أدرسُ	أنا
تدرسَ	تدرسُ	أنتَ
تدرسي	تدرسينَ	أنتِ
يدرسَ	يدرسُ	هو
تدرسَ	تدرسُ	هي
ندرسَ	ندرسُ	نحن
تدرسوا	تدرسونَ	أنتم
يدرسوا	يدرسونَ	هم

In the **Subjunctive Mood** of the Arabic verb, the final (نَ) of the second and third person masculine plural is dropped and replaced by a silent (ا) .

- they (m) go	يَذهبونَ
- in order for them (m) to go	لِيذهبوا
- you (m) study	تدرسونَ
- in order for you (m) to study	تدرسوا

يذهبونَ إلى الجامعةِ ليدرسوا العربية

They (m) go to the university in order to study Arabic

The original form of the underlined verb is (يدرسونَ)

Please note that the final (نَ) of the second person feminine singular should also be dropped, but without replacement with silent (ا).

you (f.s.) study تَدرُسينَ

so that you (f.s.) study لتَدرسي

تذهبينَ إلى المدرسةِ لتدرسي العربية

You (f.s.) go to the school in order to study Arabic

The original form of the underlined verb is (تَدرُسينَ)

- The particle أنْ is the most common subjunctive particle in Arabic , it usually sits between two verbs referring to the same or a different person, and thus, functioning something like particle "to" in English. If you examine the sentence carefully, you will notice that أنْ introduces a subordinate clause which functions as an object for the main verb.

أريدُ أنْ أذهَبَ إلى المكتبةِ

I want to go to the library

Explicit Information about the Arabic Subjunctive (PI)
What is the Arabic Subjunctive:

- Present tense verbs in Arabic are said to be in the Indicative Mood. However, this present tense is moody because verbs which express hope, desire, purpose, like, dislike, doubt, fear, uncertainty, obligations, etc., change their mood from the regular Indicative to the Subjunctive.

- The present subjunctive verb follows one of the Subjunctive particles, such as لِـ and أن

Note the purpose expressed in the following sentence:

أنتم تذهبونَ إلى الجامعة لتدرسوا العربية

you go (2nd person plural) to the university in order to study Arabic

- As you can see from the previous example the subjunctive can be formed by deleting the the final (نَ) and replacing it with a silent (ا) at the end of the verb that follows the subjunctive particle (لِـ)

In the Subjunctive Mood of the Arabic verb, the final (نَ) of the second and third person masculine plural is dropped and replaced by a silent (ا) .

- they (m) go	يَذهبونَ
- in order for them (m) to go	لِيذهبوا

and now consider,

- you (m) study	تدرسونَ
- in order for you (m) to study	تدرسوا

يذهبونَ إلى الجامعةِ لِيدرسوا العربية

They (m) go to the university in order to study Arabic
The original form of the underlined verb is (يدرسونَ)

The particle أنْ is the most common subjunctive particle in Arabic , it usually sits between two verbs referring to the same or a different person, and thus, functioning something like particle "to" in English. If you examine the sentence carefully, you will notice that أنْ introduces a subordinate clause which functions as an object for the main verb.

يريدونَ أن يذهبوا إلى المكتبة
They want to go to the library

Appendix H

Traditional Instruction Treatment Package

1. Conjugate the verbs in parentheses in the present subjunctive.

1 ـ يذهبون إلى السينما لـِ.....(يشاهد) فيلم عربي

2 ـ يدرسونَ كثيراً لـِ.....(ينجح) في الإمتحان

3 ـ يكتبونَ الدرس و.....(يحفظ) الكلمات جيداً

4 ـ هم يريدونَ أن .....(يسافر) إلى مصر

5 ـ إخوتكَ لا .....(يطبخ) كل يوم

6 ـ يريدونَ أن.....(يعملُ) في الأمم المتحدة

7 ـ أصدقاؤه لا يحبون أن.....(يذهبُ) إلى الجيش

8 ـ الطلاب لا يحبونَ أن.....(يدرسُ) في المكتبة

Translation of the Words (Activity 1)

English	Arabic	English	Arabic
to go	يذهب	*to travel*	يسافر
movie theater	السينما	*Egypt*	مصر
he watches	يشاهد	*history*	التاريخ
Arabic movie	فيلم عربي	*your brothers*	إخوتكَ
to study	يدرس	*to like/love*	يحب
a lot	كثيراً	*to cook*	يطبخ
to suceed	ينجح	*to work*	يعملُ
exam	الإمتحان	*his friends*	أصدقاؤه
to write	يكتب	*army*	الجيش
lesson	الدرس	*students*	الطلاب
to memorize	يحفظ	*library*	المكتبة
to want	يريد		

2. Read the following statements about some people and decide which beginning does fit to complete each sentence.

1 ـ أخي لا يريدُ أن.....(يتخرجُ) هذه السنة

2 ـ عمتي.....(يشربُ) الشاي كل صباح

3 ـ أنا.....(يشاهدُ) الأخبار كل يوم

4 ـ خالد و أصدقاؤه يحبونَ أن.....(يأكلُ) البيتزا

5 ـ مروى لاتحبُ أن.....(يستمعُ) الى الموسيقى

6 ـ أنتم تريدونَ أن.....(يزورُ) أصدقائكم في ميامي

7 ـ نحن.....(يرسمُ) كل يوم

8 ـ هل أنتِ.....(يشربُ) عصير البرتقال دائما؟

Translation of the Words (Activity 2)

English	Arabic	English	Arabic
my brother	أخي	*to eat*	يأكلُ
to want	يريدُ	*Pizza*	البيتزا
to graduate	يتخرجُ	*Arabic restaurant*	المطعم العربي
year	السنة	*to listen*	يستمعُ
my aunt	عمتي	*American music*	الموسيقى الأمريكية
to drink	يشربُ	*you (plural)*	أنتم
tea	الشاي	*to visit*	يزورُ
every morning	كل صباح	*we*	نحن
to watch	يشاهدُ	*to draw*	يرسمُ
news	الأخبار	*oranje jiuce*	عصير البرتقال
every day	كل يوم	*always*	دائما
his friends	أصدقاؤه	*to like/love*	يحبُ

3. Rewrite the entire sentences to make them negative.

1	مروى وأصدقاؤها يحبونَ أن يسافروا اليوم
	.....
2	والدة مروى تريدُ أن تطبخَ الكسكس
	.....
3	أحمد يريدُ أن يسافرَ في الصيف
	.....
4	أنتَ تدرسُ العربية في الشرق الأوسط
	.....
5	أنتَ و أسرتك تحبون أن تسافروا كل صيف
	.....

Translation of the Words (Activity 3)

English	Arabic	English	Arabic
her friends	أصدقاؤها	*to study*	يدرس
to like/love	يحب	*arabic language*	العربية
to travel	يسافر	*the middle east*	الشرق الأوسط
mother	والدة	*you and your family*	أنتَ و أسرتك
to want	يريدُ	*to like/love*	يحب
to cook	يطبخ	*every summer*	كل صيف
Couscous	الكسكس	*summer*	الصيف
to be able	يستطيعُ		

4. Rewrite the entire sentences to make them affirmative.

1	هم لا يحبونَ أن يكتبوا الدرس
	.....
2	لا أريدُ أن أساعدَ أسرتي
	.....
3	نحن لا نريدُ أن ننجحَ في الإمتحان
	.....
4	أنتم لا تحبونَ أن تأكلُوا البوظة في الصباح
	.....
5	صديقكَ عمر لا يريدُ أن يسبحَ في شاطئ ميامي
	.....

Translation of the Words (Activity 4)

English	Arabic	English	Arabic
to like/love	يحب	*the exam*	الإمتحان
to write	يكتب	*to eat*	يأكلُ
the lesson	الدرس	*Ice cream*	البوظة
to want	يريدُ	*in the Morning*	في الصباح
to help	يساعدُ	*your friend*	صديقكَ
my family	أسرتي	*to swim*	يسبحُ
to succeed	ينجحُ	*Miami beach*	شاطئ ميامي

5. Read the questions below and then fill in the blank with the correct verb form.

1 ـ هل عندك قاموس عربي؟
2 ـ هل أخوك يحب أن يعمل في الصباح؟
3 ـ هل والدتك تحب أن تطبخ الكسكس؟
4 ـ هل تحب أستاذ اللغة العربية؟
5 ـ هل أختك تحب أن تدرس في البيت أو في المكتبة؟
6 ـ هل صديقك يحب أن يذهب "إلى وول مارت"؟
7 ـ هل والدك يعمل في الأمم المتحدة؟
8 ـ هل الطلاب يحبون أن يستمعوا إلى الموسيقى؟

1 ـ نعم،.....قاموس عربي

2 ـ لا، أخي.....في الصباح

3 ـ نعم،والدتي.....الكسكس

4 ـ لا، أنا.....أستاذ العربية

5 ـ ـ أختي.....في البيت

6 ـ لا، صديقي.....إلى وول مارت

7 ـ لا، والدي.....في الأمم المتحدة

8 ـ نعم، الطلاب .....إلى الموسيقى

Translation of the Words (Activity 5)

English	Arabic	English	Arabic
Arabic dictionary	قاموس عربي	*in the house*	في البيت
my brother	أخي	*my friend*	صديقي
in the morning	في الصباح	*"Walmart" store*	وول مارت
my mother	والدتي	*my father*	والدي
Couscous	الكسكس	*United Nations*	الأمم المتحدة
teacher	أستاذ	*students*	الطلاب
Arabic language	العربية	*my clasroom*	فصلي
my sister	أختي	*music*	الموسيقى

6. Complete the sentences using the endings provided. Conjugate the verb in either the subjunctive or the indicative as appropriate.

1 ـ أدرسُ مع صديقي أحمد الذي يحبُ أن.....(يدرسُ في المكتبة)

2 ـ أصدقائي يريدون أن.....(يكتبُ الواجب على الكمبيوتر)

3 ـ سلمى لا تحبُ أن.....(يحفظ المفردات)

4 ـ الطلاب العرب يسافرون إلى أمريكا لِـ.....(يدرسُ الإنجليزية)

5 ـ يجبُ أن أشاهدَ الفيديو لِـ.....(أتذكرُ المفردات)

6 ـ هي تريدُ.....(يعملُ مع والدتها في الجامعة)

Translation of the Words (Activity 6)

English	Arabic	English	Arabic
to study	يدرسُ	*words/vocabulary*	المفردات
with my friend	مع صديقي	*Arab students*	الطلاب العرب
who	الذي	*to travel*	يسافر
to like/love	يحبُ	*America*	أمريكا
to study	يدرسُ	*English language*	الإنجليزية
in the library	في المكتبة	*to watch*	يشاهدُ
my friends	أصدقائي	*video*	الفيديو
to want	يريد	*to remember*	يتذكرُ
to write	يكتبُ	*to work*	يعملُ
homework	الواجب	*with her mother*	مع والدتها
on the computer	على الكمبيوتر	*in the university*	في الجامعة
to memorize	يحفظ		

7. Choose from the following items to complete the sentences below. Why do you study Arabic: لماذا تدرسُ العربية ؟

١. أدرسُ العربية لـِ.....

يسافرُ إلى الشرق الأوسط - يعملُ في الحكومة الأمريكية - يفهمُ الثقافة العربية جيداً - يتكلمُ مع أصحابي العرب - يدرسُ الأدب العربي

٢. أدرسُ العربية لـِ.....

يسافرُ إلى الشرق الأوسط - يعملُ في الحكومة الأمريكية - يفهمُ الثقافة العربية جيداً - يتكلمُ مع أصحابي العرب - يدرسُ الأدب العربي

٣. أدرسُ العربية لـِ.....

يسافرُ إلى الشرق الأوسط - يعملُ في الحكومة الأمريكية - يفهمُ الثقافة العربية جيداً - يتكلمُ مع أصحابي العرب - يدرسُ الأدب العربي

٤. أدرسُ العربية لـِ.....

يسافرُ إلى الشرق الأوسط - يعملُ في الحكومة الأمريكية - يفهمُ الثقافة العربية جيداً - يتكلمُ مع أصحابي العرب - يدرسُ الأدب العربي

٥. أدرسُ العربية لـِ.....

يسافرُ إلى الشرق الأوسط - يعملُ في الحكومة الأمريكية - يفهمُ الثقافة العربية جيداً - يتكلمُ مع أصحابي العرب - يدرسُ الأدب العربي

Translation of the Words (Activity 7)

English	Arabic	English	Arabic
to study	يدرسُ	*the Arab culture*	الثقافة العربية
to travel	يسافرُ	*well*	جيداً
the Middle East	الشرق الأوسط	*to speak*	يتكلمُ
to work	يعملُ	*my Arab friends*	أصحابي العرب
the American government	الحكومة الأمريكية	*the Arab literature*	الأدب العربي
to understand	يفهمُ		

8. Read the beginning of each sentence and then fill in the blank with conjugating the verb in either the subjunctive or the indicative as appropriate.

1 **الناس يريدون أن**
2 **هم يريدونَ أن**
3 أصحابي يكتبونَ و
4 **الطلابُ يحبونَ أن**
5 الأولاد **يحبون أن**
6 أصدقائي **لا يريدونَ أن**

1. ..... (يشربُ) العصير

2 ..... (يتخرجُ) من الجامعة

3. ..... (يتذكرُ) الكلمات

4. .....(يذهبُ) إلى السينما

5. .....(يرسمُ) الصورة

6. .....(يزورُ) الأستاذ

Translation of the Words (Activity 8)

English	Arabic	English	Arabic
people	*الناس*	*to graduate*	*يتخرجُ*
to want	*يريد*	*from the University*	*من الجامعة*
they	*هم*	*to remember*	*يتذكرُ*
my friends	*أصحابي*	*words*	*الكلمات*
to write	*يكتب*	*to go*	*يذهبُ*
students	*الطلابُ*	*to the movie theater*	*إلى السينما*
to like/love	*يحب*	*to draw*	*يرسمُ*
the boys	*الأولاد*	*the picture*	*الصورة*
my friends	*أصدقائي*	*to visit*	*يزورُ*
to drink	*يشربُ*	*the teacher*	*الأستاذ*
juice	*العصير*		

9. Listen to the following question and fill in the blank with the correct verb form (subjunctive or indicative):

1	هل يحبونَ أن يشاهدوا الفيلم على التلفزيون؟
	نعم، هم يحبونَ أن ..... الفيلم على التلفزيون
2	هل تريدون أن تذهبوا إلى البيت أو المكتبة؟
	نريدُ أن ..... إلى المكتبة
3	هل أصحابكَ يحبونَ أن يذهبوا إلى السينما؟
	نعم، هم يحبونَ أن ..... إلى السينما
4	هل تريدون أن تشربوا الشاي في "ستاربكس"؟
	لا نريدُ أن ..... الشاي في "ستاربكس"
5	هل تريدون أن تزوروا بيتي اليوم؟
	نعم، نريدُ أن .....بيتكَ
6	هل زملائكَ يريدونَ أن يسبحوا الآن؟
	نعم، هم يريدونَ أن..... الآن

Translation of the Words (Activity 9)

English	Arabic	English	Arabic
to like/love	يحب	*the tea*	الشاي
to watch	يشاهد	*"Starbucks"*	"ستاربكس"
the movie	الفيلم	*to visit*	يزورُ
on the TV	على التلفزيون	*my house*	بيتي
to want	يريد	*today*	اليوم
to go	يذهب	*your house*	بيتكَ
the house	البيت	*your classmates*	زملائكَ
the library	المكتبة	*to swim*	يسبح
your friends	أصحابكَ	*now*	الآن
the movie theater	السينما	*they*	هم
to drink	يشربُ		

10. Read the following prompts and then complete the sentences in a logical manner.
These sentences are about what your friends are likely to do in their free time. Use any verb from the list to complete the sentences.

(travel, watch a movie, drink tea, eat pizza, go to gym, listen to music)

1. أصدقائي يحبونَ أن.....

2. أصدقائي يحبونَ أن.....

3. أصدقائي يحبونَ أن.....

4. أصدقائي يحبونَ أن.....

5. أصدقائي يحبونَ أن.....

6. أصدقائي يحبونَ أن.....

Translation of the Words (Activity 10)

English	Arabic	English	Arabic
My friends	أصدقائي	*tea*	الشاي
to like/love	يحب	*to eat*	يأكلُ
to travel	يسافرُ	*to go*	يذهبُ
to watch	يشاهدُ	*gym (sport center)*	المركز الرياضي
movie	فيلم	*to listen*	يستمعُ
to drink	يشربُ	*music*	الموسيقى

ABOUT THE AUTHOR

Youness Mountaki was born in Casablanca, Morocco on January 9. Youness has been teaching Arabic as foreign language for ten years. He earned his *baccaluaréat* in *letteres Modernes* in 2001, and another *baccaluaréat* in Experimental Sciences in 2005. After earning his Bachelor's degree *"licence"* in English Linguistics, he taught English courses at Sunshine language Institute. In 2006, he received a Fulbright scholarship under the Foreign Language Teaching Assistant program (FLTA) where he taught Arabic and Moroccan culture classes to students at Lock Haven University of Pennsylvania (LHU). He graduated from LHU with a master's degree in Education in teaching and learning and another master's degree in Liberal Arts in 2009.

In addition to his experience in teaching Arabic at LHU, he taught Modern Arabic for Middlebury Language Academy at two different locations: Green Mountain College and St. Patrick's college in Vermont. Recently, he was a course director for the English language program for St. Giles institution in St. Petersburg and an ESOL language instructor at USF.

At present, he is teaching Modern Arabic courses at the University of South Florida and the University of Tampa. In addition, he is the academic advisor of the Arabic Cultural Association at USF.