

**DEVELOPMENTAL STAGES IN THE ACQUISITION  
OF THE VERB GUSTAR**

by

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## ABSTRACT

Despite the general consensus regarding the existence of stages in the development of grammatical structures in L2, few studies have been conducted to identify the developmental stages of the Spanish psychological verb *gustar*. This verb creates difficulties for L2 learners, since unlike the verb *to like* —which follows a S-V-P structure (subject-verb-predicate)— the verb *gustar* follows a reverse P-V-S structure. The adoption of a dual theoretical perspective combining Lexical Functional Grammar (LFG) and Cognitive Linguistics (CL) is proposed here as a suitable framework for the analysis of the structure and acquisition of the verb *gustar*. On the one hand, LFG conceptualizes the construction of grammatical structures by means of levels ranging from semantics to syntax. On the other hand, Cognitive Linguistics (CL) complements the LFG approach by explaining how the construction of verb structures depends on the cognitive processes and conceptual structures underlying the surface form of a sentence (Marras & Cadierno, 2008).

The evolution of the use of the verb *gustar* across the Spanish curriculum at a four-year University in the United States is described, and the transfer stage hypothesis (a developmental phase characterized by the use of parsing strategies from L1 to build sentences in L2) is tested by means of a grammatical judgment test and a short production task administered to learners of Spanish ranging from the first to the fourth year of instruction at a North American University. Pedagogical implications of this investigation for the teaching of *gustar* and other similar psychological verbs will be discussed.

## Chapter 1

### LITERATURE REVIEW

Mitchel & Myles (1998) state that the existence of stages in the acquisition of grammatical structures was first proposed by Krashen's Natural Order Hypothesis (1982). This hypothesis claims that people who acquire a language, regardless of their L1, follow a predictable and inevitable order when the acquisition is natural. According to this hypothesis, the stages through which L2 learners progress are the same as those followed by L1 learners. However, McLaughlin (1987) criticizes Krashen's Natural Order Hypothesis, stating that it has methodological problems and does not apply in every circumstance.

In fact, there are several second language acquisition theories opposing the idea that the L2 and the L1 are acquired in the same way. These theories advocate that the L1 affects the L2 acquisition process. VanPatten's Input Processing Theory (1996), discussed in VanPatten and Williams (2015), claims that L2 learners with a low level of instruction use parsing strategies from the L1 to build sentences in the L2. These parsing strategies can be defined as the moment-by-moment implicit computation of sentence structure during real-time comprehension. According to this theory, the L1 structure of the verb *to like* affects the construction and understanding of the verb *gustar* for native English speakers learners of Spanish; this is especially the case for learners with low levels of proficiency. In addition, VanPatten's consideration of the role of the L1 on L2 development is shared by Ellis and his Usage-Based Approach (see VanPatten & Williams, 2015). This theory claims that the point of

departure when learning an L2 is the L1, given that the brain is tuned to the native language. If the L1 affects the L2, certain knowledge of the similarities and differences of a target structure in both languages (L1 and L2) seems appropriate to enhance the understanding of the L1 effects on the L2 acquisition process.

Lexical Functional Grammar (LFG) is a grammatical framework that has the necessary tools to analyze the morpho-syntactic features of verb structures. The LFG was developed by Joan Bresnan and Ronald Kaplan in 1970 and it explains the construction of grammatical structures by means of four different levels. These levels go from the deepest and most abstract concepts—such as the semantic level (agent, experience, theme, etc.)— to more superficial and concrete elements, such as the sentence and its syntax (Subject, Indirect Object, Direct Object, etc.). The LFG also includes a Lexical Mapping Theory (LMT), which explains the correspondences between one level and the level immediately above it. However, the LMT on its own does not seem to adequately explain the differences in lexical mapping for both the Spanish and English structures. For that reason, Cognitive Linguistics (CL) can be utilized to complement the explanation of the LMT on the construction and the differences between the structures of the verb *gustar* and the verb *to like*. According to CL, the differences in the construction of the verb structures depend on the cognitive processes and conceptual structures underlying the surface form of a sentence (the linguistic representation). CL claims that there is energy transmission among the different elements in a sentence; depending on that energy transmission, as well as on how important an element is considered in a given language, different roles—such as agents, themes, experiencer, etc.—will have different functions—e.g. Subject, Indirect Object, Direct Object, etc.

## **1.1 Lexical Functional Grammar**

In LFG and through LMT, several structures exchange information to allow for the identification of the grammatical functions of the components of a sentence. These structures go from the deepest level—where roles such as theme, experiencer and agent are defined—to a more superficial level, where roles such as Subject and Object are determined. Specifically, the LFG consists of four main structures, progressing from the deepest to the most superficial level: thematic structure ( $\theta$ -structure), argument structure (a-structure), functional structure (f-structure) and the constituent structure (c-structure).

### **Thematic Structure**

The  $\theta$ -structure is at the deepest level and dictates semantic roles, such as theme, experiencer, agent, etc., to the various components of a sentence. This thematic role assignment is based on a list of properties. Vanhoe (2002) modified Dowty's Thematic Theory, which consisted of two lists of properties used to discern the thematic role of the elements of a sentence: agent or patient. The two lists provided by Vanhoe (2002) to identify the agents and the patients are as follows:

1. Proto-agent properties:
  - a. the participant is involved volitionally in the event
  - b. the participant has the most prominent thematic role in a first subevent
  - c. the participant feels or perceives something
  - d. the participant contains or possesses something
2. Proto-patient properties:
  - a. the participant undergoes a change of state
  - b. the participant has the most prominent thematic role in a second subevent

- c. the participant is the object of a feeling or a perception
- d. the participant is contained in or enters something else, or is or comes into the possession of another participant

The elements mostly exhibiting the properties from the proto-agent list (1) are considered to be agents, whereas those with more properties from the proto-patient list (2) are understood as patients. Furthermore, following Alsina's suggestions, Vanhoe (2002) identifies a hierarchy among the properties of these two lists. Thus, agents which have property 1a, 1b or both are primary agents, and those which have 1c, 1d or both are secondary agents. The same applies for primary and secondary patients: Patients with property 2a, 2b or both are primary patients, and those with property 2c, 2d or both are secondary patients. These properties will be useful in understanding the explanation provided subsequently in this chapter on the construction and differences between the structures of the psychological verbs *gustar* and *to like*.

### **Argument Structure**

The argument structure (a-structure) comes after the thematic structure ( $\theta$ -structure), which means that it is one level above the latter. In fact, the a-structure is a mediator between the thematic structure and the functional structure, which is the structure directly above the a-structure. Once the agent and the theme have been identified at the  $\theta$ -structure, the Argument Selection Principle is applied. This principle claims that each type of agent or patient corresponds to a combination of two features:  $[\pm o]$  and  $[\pm r]$ . The former indicates whether the element can be an object  $[+o]$  or not  $[-o]$ , while the latter designates whether the element is explicitly restricted  $[+r]$  for its thematic role by overt morphological case or preposition, which is a language-

specific constraint. If the object is not restricted [-r] it can have several grammatical roles.

Vanhoe (2002) adapts Falk's rules to map the  $\theta$ -structure with the argument structure. The rules he proposes are the following:

3.  $\theta$ -structure to a-structure Mapping Rules
  - a. Primary agents correspond to [-o]
  - b. Secondary agents correspond to [+o] in the marked option (in Spanish, [+o] arguments are a subtype of primary agents)
  - c. Primary patients correspond to [-r]
  - d. Patients and themes map to [-r]
  - e. Secondary patients and themes map to [+o] as a marked option
  - f. Non theme/Patient arguments map to [-o]

These rules will also be important in studying the construction of the verbs *gustar* and *to like* later in this section.

### **Functional Structure**

As mentioned before, the functional structure (f-structure) is one level above the a-structure. It has also been explained that the role of the a-structure is to mediate between the  $\theta$ -structure and the f-structure. In fact, the f-structure is determined by the a-structure. The combination of the features [ $\pm o$ ] and [ $\pm r$ ] at the a-structure allows for a determination to be made on the possible grammatical roles of each particular element of the sentences within the f-structure. These roles are subject (SUBJ), object (OBJ), or oblique object (OBJ <sub>$\theta$</sub> ). The following chart, provided by Vanhoe (2002, p.206), summarizes this information:



	$[-o]$	$[+o]$
$[-r]$	SUBJ	OBJ
$[+r]$	OBL <sub><math>\theta</math></sub>	OBJ <sub><math>\theta</math></sub>

Taking this into account, Vanhoe (2002) adapts Bresnan and Falks' Lexical Mapping Principles of a-structure to f-structure and provides the following principles:

4. Principles of a-structure to f-structure
  - a. A  $[-o]$  argument corresponds to a subject
  - b. A  $[-r]$  argument links to a subject or object.
  - c. A  $[+o]$  argument is mapped into a  $\left\{ \begin{array}{c} \text{OBJ} \\ (\uparrow \text{DAT}) = + \end{array} \right\}$

These principles are essential in the formation of the structures of the psychological verbs *gustar* and *to like*. However, before proceeding to the construction and comparison of both structures, the last structure in LFG must be introduced: the constituent structure.

### Constituent Structure

The constituent structure (c-structure) is immediately after the f-structure and represents the most superficial level in the construction of a verb structure. The c-structure is the manifestation of the syntactic structure, and it is represented as a tree structure. In Lexical Functional Grammar, the c-structure is directly represented after the f-structure. In other words, there are no argument movements in the sentence, such as A-bar movements (see Lasnik & Saito, 1992). There are different phrases with their heads at the c-structure. Among these phrases, there is the *Complementizer*

*Phrase* (CP). In its head there is usually a word, called a *complementizer*, that marks the force of the sentence, such as a declarative —i.e., the sentence serves to make a statement— or an interrogative, where the sentence is used to ask a question. These words can be a word starting with *wh-*, *that*, *whether*, *if* or a covert marker ( $\emptyset$ ). Inside the CP, there is typically a Tense-Auxiliary Phrase (TP), which means that the sentence has a Verbal Phrase (VP) whose verb can be in different tenses, such as present or past. Additionally, this means that there is a subject that is in the nominative case and is either a CP or a Determiner Phrase (DP). Inside the DP, a *determiner* and a Noun Phrase (NP) can often be found. In the VP, a complement can ordinarily be found, which usually takes the form of a DP.

All of the aforementioned structures— $\theta$ -structure, a-structure, f-structure and c-structure—play an important role in the construction of any kind of structure. At every level—from the deepest and most abstract (the  $\theta$ -structure) to the most superficial and concrete (the c-structure)— there are rules which apply and affect the following level. Consequently, the construction and differences between the psychological verbs *gustar* and *to like* can be explained by analyzing the rules for each language at each level.

### **Comparison of the Verb *to Like* and the Verb *Gustar***

To better understand the acquisition stages of the verbs *to like* and *gustar*, it is crucial to have an awareness of the similarities between the structures in both languages and how they are constructed. First, it is important to recognize that the verb *gustar* and the verb *to like* are both atelic verbs (verbs that do not express the completion of the action) and belong to the psychological verb category, in which an

experiencer and a theme can be found. However, in Spanish the experiencer is marked as an indirect object, while in English it is marked as the subject.

As discussed above, the first level in the construction of a sentence is the  $\theta$ -structure. In Spanish, at this level, there is a participant that feels or perceives something (i.e., the experiencer). By applying the properties proposed by Vanhove (2002) to identify agents and patients, it can be seen that the experiencer matches property c from the proto-agent list (1c). This means that it is a secondary agent; i.e., it belongs to the last two properties of Vanhove's proto-agent list: property 1c. Vanhove's correspondence rules can then be applied between the following structure—the a-structure—and the  $\theta$ -structure. According to rule 3a, secondary agents map to [+o] arguments in the marked option. Vanhove (2002) suggests adhering to Alsina's understanding by regarding the indirect and direct objects as morphologically distinct instances of the same grammatical function “object”. Therefore, in accordance with Bresnan and Falks' Lexical Mapping Principles of a-structure to f-structure (Principle 4c), secondary agents map to [+o] arguments in the marked option, which is in turn mapped to OBJ with a dative mark. This is how LFG explains the reason for which the experiencer is seen as an indirect object in Spanish. Nevertheless, it remains difficult to explain why Alsina proposes viewing indirect and direct objects as morphologically distinct instances of the same grammatical function “object”. For this reason, Cognitive Linguistics is required to enable a better understanding of this functional mapping, which will be explained at length later in this section.

In Spanish, the theme is a secondary patient following property 2c—the participant is the object of a feeling or a perception—at the  $\theta$ -structure. In the next level, the a-structure, property 3d indicates that secondary patients are mapped into the

[-r] argument. Because there is no subject and patient arguments can be mapped into [-o] arguments as well, the theme is marked as a subject in the f-structure, as the combination [-o] [-r] results in this role. In other words, the theme is coded as the subject because the experiencer in Spanish takes another role at the functional level: the role of Indirect Object.

Like its Spanish counterpart, the English construction also has an experiencer with property 1c at the  $\theta$ -structure. This means that the experiencer in the English construction is also a secondary agent. However, it does not follow the marked option (property 3b), so it is mapped into [-o] and [-r] in the a-structure and into the subject in the f-structure. However, it is not sufficiently clear why this structure does not follow the marked option and, as before, Cognitive Linguistics discussed later in this section will aid in clarifying this issue. As for the theme of the verb *to like*, it is also a secondary patient following property 2c. Then, at the a-structure it is mapped into both [-r] and [+o] according to properties 3d and 3e respectively. This combination corresponds to the OBJ within the f-structure. As mentioned before, Lexical Mapping Theory is not always as clear as required to fully explain this topic. Therefore, the perspective of Cognitive Linguistics will be discussed later in order to provide a more complete understanding of this issue.

As indicated above, experiencers and themes in the constructions involving the psychological verbs *gustar* and *to like* do not have the same functions in both languages. In Spanish, the experiencer is an indirect object and the theme is the subject, while in English the experiencer is the subject and the theme is a direct object. In Gascon (1998, p. 5), Whitley distinguishes four types of psychological verbs, classified according to the functions fulfilled by experiencers and themes when

mapped onto the f-structures. Moreover, Whitley names themes as causes. The following are the four psychological verbs identified by Whitley:

Type 1: Direct transitive; for example, *desear*. The experiencer acts as the subject, the cause as direct object.

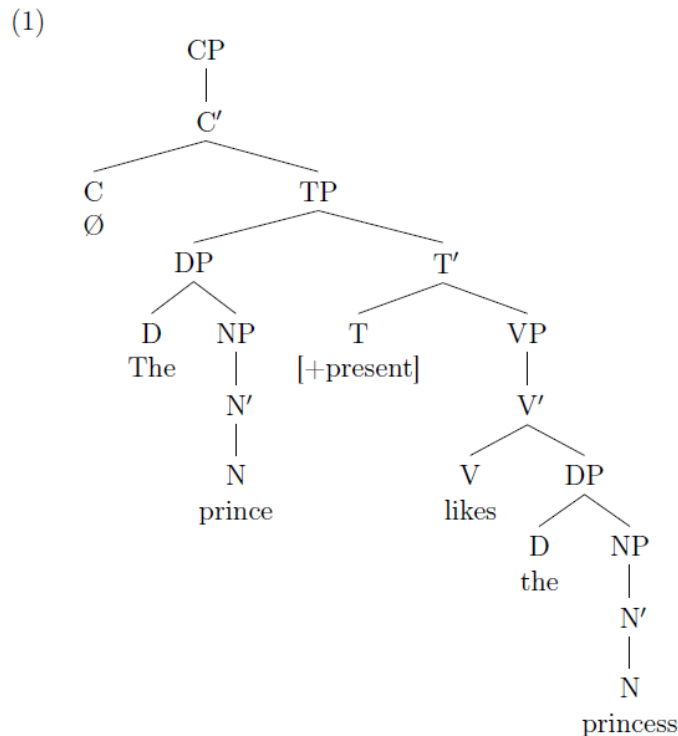
Type 2: Direct intransitive; for example, *gozar de/en*. The experiencer acts as subject, and the cause as an "oblique object" of a verb specific preposition.

Type 3: Reverse intransitive; for example, *gustar*. The experiencer is the indirect object, and the cause is cast as the subject. The indirect object is optional: the experiencer may be generalized or impersonal, as in *La música rock gusta en todas partes*.

Type 4: Reverse transitive; for example, *fascinar*. The cause functions as subject; the experiencer acts as the direct object.

Taking this into account, the c-structure is different in both languages. Following Chomsky's minimalism, in English (where the verb *to like* belongs to the first type in Whitley's classification: Direct transitive), the [NP *the princess*], which is the theme and object, merges with the [V *likes*] to form the [VP *likes the princess*]. Then, this merges with the [NP *the prince*], which is the experiencer and subject, to form the [TP *the prince likes the princess*]. Finally, this sentence merges with the covert force feature in C (the *complementizer*) that indicates that the sentence is declarative —i.e., the sentence serves to make a statement—. The following is the tree representation of the c-structure of the English sentence: "*The prince likes the princess.*"

(1) The prince likes the princess



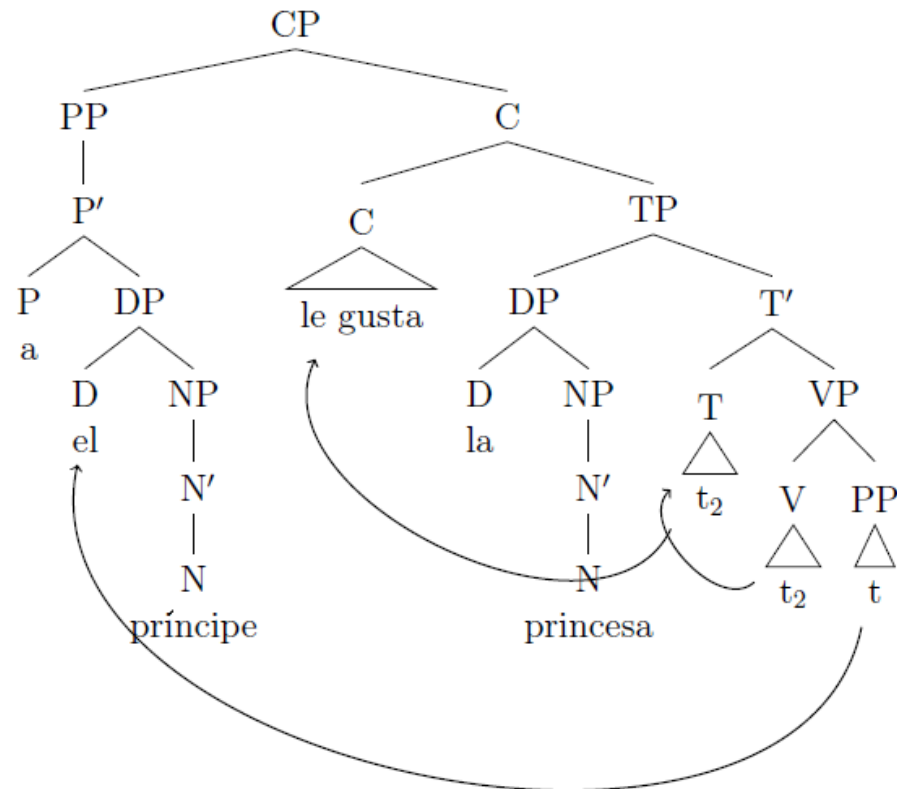
The Spanish c-structure is much more complex than its English counterpart. First, the [DP *el príncipe*], which is the experiencer, merges with the preposition *a* to form the [PP *a el príncipe*] and it is marked with the dative case; then it merges with the [VP *le gusta*], where *le* is a reduplication of the indirect object, the experiencer, with the stress pronoun. This merges with the [DP *la princesa*], which is the theme and subject of the sentence, to form the [TP *la princesa le gusta al príncipe*]. However, the PP constituent, which is an apposition, moves to the specifier position of the CP via the process known as topicalization. More specifically this process is an A-bar movement (see Lasnik & Saito, 1992). Thus, the PP constituent becomes a preverbal dative used to emphasize the experiencer. On the other hand, the [V' *le gusta*] undergoes two movements. First, it moves to T to obtain the tense inflection

feature. Then, it moves to the specifier position of C (the *complementizer*). Below is the tree representation of the c-structure of the verb *gustar*:

(2) *Al príncipe le gusta la princesa*

To the prince him is pleasing the princess

(2)



It is relevant to note that the dative-marked experiencer can be placed both before or after the verb, the first option being the most frequently used. Thus, the sentence seen in the deep structure of the verb *gustar* (*La princesa le gusta al príncipe*) is also correct, but less common.

## **1.2 The Cognitive Linguistics Perspective**

As mentioned before, Lexical Mapping Theory is not always as clear as one would like it to be with regard to semantic mapping. In order to enhance the understanding of the reasons why these mappings occur in the way they do, it is useful to study both of the psychological verb structures, *to like* and *gustar*, from the perspective of Cognitive Linguistics. In order to do so, this section is based on Marras and Cadierno's (2008) analysis of these structures.

Cognitive Linguistics conceives language as a faculty derived from bodily experience. According to Marras and Cadierno (2008): "Language is thus seen as an instrument of conceptualization and therefore cannot be separated from its cognitive and communicative functions" (p. 324). As a result, imaginative aspects of reason, such as metaphor, are involved in linguistic description. In fact, the authors focus on metaphorical processes to analyze the construction of the two psychological structures. They also emphasize that language is symbolic, since there is a link between form and function. In accordance with this view, the authors use two theoretical approaches for the analysis of both the Spanish and English structures: Categorization and Prototype Theory, as well as Figure/Ground segregation.

### **Categorization and Prototype Theory**

In order to analyze the structures of the verbs *to like* and *gustar*, Marras and Cadierno (2008) discuss the changes in the conception of different categories. Specifically, they state that traditional grammar categorization does not apply to every structure, especially the structures of the verb *to like* and *gustar*.

Marras and Cadierno (2008) define categorization as:



A mental process of classification through which we group and organize the information we perceive from the world around us into units. This process results in the formation of cognitive categories, which are heterogeneous units with fuzzy boundaries that are formed around cognitive reference points or mental concepts called prototypes. (p. 235)

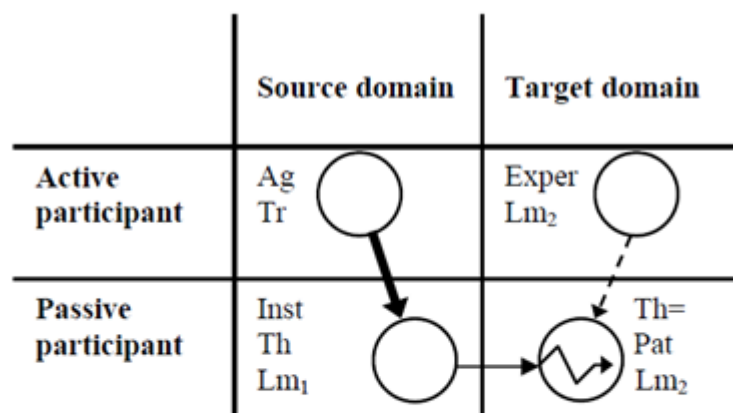
This conception differs from the classical approach in two main ways: (i) there are no clear boundaries between categories and (ii) prototypes —and what Wittgenstein (1958) calls *family resemblance*— are the basis for categorization. As Marras and Cadierno (2008) state: “categories are based on networks of similarities and, consequently, not all members of a category have equal status or share a set of common, necessary and sufficient attributes” (235). In the next sections, these differences regarding the boundaries will be developed in order to determine how they affect the targeted structures. First, the focus will be on the argument structure categories related to the constructions of the verb *gustar* and *to like*, i.e., Subject, Direct Object and Indirect Object and then the transitivity and intransitivity construction categories will be analyzed. However, before proceeding, it is necessary to explain three important concepts: *profiling*, *trajector* and *landmark*.

### **Figure/Ground Segregation and Relations among Role Archetypes**

As mentioned earlier, Cognitive Linguistics is influenced by experimentalism. According to Talmy (1978) and Langacker (1991) the syntactic structure of a clause depends on how one perceives an event and how important one deems the elements involved in it. This is what Langacker calls *profiling*. For instance, if one deems a particular element to be very important, it will probably be the subject and the topic of

the sentence. Langacker also distinguishes two main concepts related to *profiling*: the *trajector* and the *landmark*. The former is the entity in focus, the most important element of the sentence; therefore, it is equated with the grammatical subject. The latter, the *landmark*, is the segregation, which means that it is not as prominent as the *trajector*, and it is equated with the Direct Object or Indirect Object. These concepts are important because they enhance one's understanding of the reasons for which the structures of the verbs *gustar* and *to like* are different. In fact, they help to demonstrate that syntactic structure depends upon the importance assigned by each language to the experiencer and to the theme in question.

In order to better understand the interaction between these elements—the *trajector* and the *landmark*—Marras and Cadierno (2008) introduce Langacker's action chain, which is the prototype of energy transmission. In this action chain, there is a source domain and a target domain. In the source domain, the energy is originated and often syntactically coded by the agent and the instrument. In addition, the target domain is where the energy is consumed and syntactically coded by the theme and the experiencer. In both domains there is an active and a passive zone, which consists of active or passive participants depending on which zone they are found in. The active participant in the source domain initiates the energy transmission, while in the target domain it establishes a mental contact and affectedness. The passive participant is not an original source of energy, nor does it exhibit initiative capacity, such as establishing mental contact. Marras and Cadierno (2008, p. 237) provide a figure adapted from Langacker (1991) where they provide an example of an action chain of a prototypical finite clause with the verb *to give*.



Note: ○ = Participant; **→** = Energy transfer; **→** = Change of location; **---** = Mental contact; **↗** = Change of state; Ag = Agent; Th = Theme; Pat = Patient; Exper = Experiencer; Inst = Instrument; Tr = Trajector; Lm<sub>1</sub> = Landmark 1; Lm<sub>2</sub> = Landmark 2.  
Source: adapted from Langacker (1991).

**Figure 1. Energy transmission in prototypical finite clauses. (e.g. *give*) in Marras and Cadierno (2008, p. 237)**

This figure represents the energy transmission in a prototypical finite clause, in this case, the verb *to give*. In this type of construction, there is an agent—who is volitional and animate—that starts the energy transmission. Therefore, it is placed in the source domain and, as aforementioned, it is an active participant. For these reasons, it plays an important role and thus it is considered to be the *trajector*. This agent provides something to someone. That ‘something’ is an instrument, the theme at the  $\theta$ -structure, and also a landmark. It receives the energy that the *trajector* started, the changing of ownership. This takes the object to a change of state in the target domain: it now belongs to the second landmark, the patient. This *landmark* is also a

passive participant, since it is the receptor. Furthermore, in the active domain, this ‘someone’ is the experiencer, since he or she establishes a mental connection with the object, known as ownership.

Thus far, the concepts of *trajector*, *landmark*, *experiencer* and *theme* have been discussed. However, how are the arguments in the sentence, such as Subject, Direct Object, and Indirect Object determined? Traditional grammar provides sufficient and necessary conditions to differentiate these distinct arguments. However, applying Categorization and Prototype Theory, Marras and Cadierno (2008) prove that traditional grammar categorization is inaccurate, at least when applied to the *gustar* and *to like* structures. They explain in detail those traditional conditions at every level—syntactic, semantic and functional—for every argument, such as Subject,

Direct Object and Indirect Object. These conditions can be seen in the following table.

<b>Table 1. Traditional Conditions for Argument at Every Level</b>			
<b>Argument/level</b>	<b>Syntactic</b>	<b>Semantic</b>	<b>Functional</b>
<b>Subject</b>	Governs verbal agreement  Nominative case	Animate  Volitional agent	Topic of the sentence
<b>Direct Object</b>	Does not govern verbal agreement  Pronominalized in the accusative case (in Spanish)	Receives the verbal predication (patient)  Typically inanimate participant	Part of the comment of the sentence
<b>Indirect</b>	Non-verbal agreement	Beneficiary of the	Part of the

<b>Object</b>	Pronominalized in the dative case (in Spanish)	verbal predication (affectedness)  Typically animate participant	comment of the sentence
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The attributes presented in the table above seem to establish clear boundaries among the different categories. However, as Marras & Cadierno (2008) note, not all of these attributes are present in the arguments involved in the Spanish and English constructions of the verbs *gustar* and *to like*, respectively. Hence, Categorization and Prototype theory, which claims that there are no clear boundaries among categories, appears to be useful in analyzing these structures. The following table shows the actual attributes of the arguments of the verb *gustar* (e.g. *le gusta el queso*) and the verb *to like* (e.g. *he likes cheese*). Those attributes underlined are present in traditional grammar, while those in bold do not belong to the traditional grammar categorization. Traditional attributes that are not met have been crossed out. Furthermore, an observation column has been included to provide the relevant comments made by Marras & Cadierno (2008) in their discussion of the topic.

Table 2. Verb <i>gustar</i> construction attributes				Observations
Argument/level	Syntactic	Semantic	Functional	
<b>Subject</b> <i>(el queso)</i>	<u>Governs verbal agreement</u>      Nominative case	<del>Animate</del>  <b>Inanimate</b>  <del>Volitional agent</del>  <b>Non -volitional</b>  <b>Non-agent</b>	<del>Topic of the sentence</del>    <b>Comment position</b>	According to traditional grammar, this subject has the semantic and discoursal attributes of a Direct Object.
<b>Direct Object</b> <i>(ø)</i>	Does not govern verbal agreement	Receives the verbal predication (patient)	Part of the comment of the sentence	There is no Direct Object in the construction of the verb <i>gustar</i>

	Pronominalized in the accusative case (in Spanish)	Typically inanimate participant		
<b>Indirect Object</b> <i>(le)</i>	Non-verbal agreement  Pronominalized in the dative case (in Spanish)	<del>Beneficiary of the verbal predication (affectedness)</del>  <b>Non- volitional</b>  <b>Non- intentional</b>  <b>Non-agentive</b>  <u>Typically animate participant</u>	<del>Part of the comment of the sentence</del>  <b>Topic position</b>	This Indirect Object has common attributes with the traditional grammar subject







Similarly, traditional grammars also establish sufficient and necessary conditions to categorize transitivity and intransitivity. These concepts are important to this discussion, since the structures of the verb *to like* and *gustar* have transitive and intransitive arguments, respectively.

1. Transitivity attributes:
  - a. Two participants: It involves a volitional agent (the Subject), and a patient that undergoes a change of state (the Direct Object).
  - b. It refers to a predication that is not complete. The physical energy goes from the agent to the patient.
  - c. It allows passivization.

A sentence which meets these criteria would be *John ate cheese*

2. Intransitivity attributes:
  - a. There is only one participant that is the Subject. However, this Subject can be either an agent or a patient of the predication.
  - b. It refers to a complete predication, which still belongs to the Subject's sphere.
  - c. It does not allow passivization.

An example of a sentence that meets the intransitivity attributes would be *John swims*.

Again, traditional grammar categorization does not apply to the *gustar* and *to like* constructions regarding transitivity and intransitivity. On the one hand, in the English construction *he likes cheese*, the sentence is transitive; however, even if traditional grammar states that in transitive sentences the Subject is a volitional agent

(1a), the Subject in this sentence is an affected participant: an experiencer.

Furthermore, the Direct Object is not the patient, but the cause of the predication— as mentioned earlier— or an entity with which the experiencer establishes mental contact. Besides, this construction does not always allow passivization. On the other hand, the Spanish construction *le gusta el queso* is intransitive, since there is no Direct Object. Nevertheless, some of its attributes belong to the transitivity category. In attribute 1a there are two participants, and in attribute 1b the predication does not stay in the Subject's sphere, since it affects the Indirect Object.

Marras and Cadierno (2008) differentiate between two different types of intransitivity : unaccusativity and unergativity. In their prototypical manifestation, they are both considered to have only one participant. According to the first term, unaccusativity, the participant is similar to the Direct Object of a transitive clause, since it is a patient that undergoes a change of state and it is thematic. In this type of sentence, Langacker (1991) states that the focus of attention is on the target domain — meaning on the participant that receives and consumes the physical energy. A good example for this sentence is *the plane fell*. On the other hand, in the unergative category, the participant is similar to a Subject of a transitive clause, since it is a volitional agent that controls the event and is affected by it. As indicated by Langacker, the energy that exists in this type of a sentence stays in the source domain: the agent's sphere of action. A sentence that matches these criteria is *John swims*. In this sentence, John is a volitional agent, he decides to swim and he therefore does it. He is also in control of the action, since he can stop whenever he wants.

Marras and Cadierno's (2008) conclusions are similar to the previous reflections regarding the traditional categorization of arguments. In the Spanish and

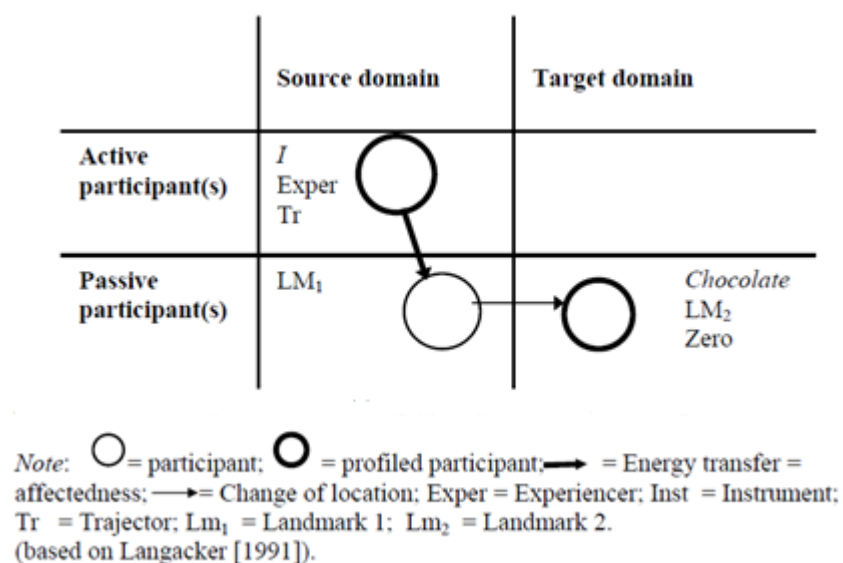
English constructions they are peripheral members of different categories, since they share attributes from different ones. According to them, the Spanish construction of the verb *gustar* is unaccusative, as the Subject of the clause is thematic, and the focus of the attention is on the target domain: the experiencer. However, as they indicate, this construction is a peripheral member of the unaccusative constructions, since it shares some attributes with the prototypical members of a transitive construction. For example, both constructions have two participants (1a) that are in mental contact with each other.

Marras and Cadierno (2008) explain that Vázquez Rozas (2006) characterized degrees of transitivity from more transitive to intransitive (+ to –). Following this, they establish a transition/intersection zone between the transitivity and intransitivity categories, which they call unaccusativity. The Spanish construction is a peripheral member of the unaccusative category, while the English one is a peripheral member of the transitive construction. In other words, the Spanish sentence *A ella le gusta el queso* is closer to what can be defined as unaccusative construction, whereas the English sentence *she likes cheese* is also closer to a transitive sentence.

### **Analysis of the Structures: *Gustar* VS. *to Like***

As previously indicated, when forming a structure, the syntactic structure of a clause depends on how people—as members of a language— perceive an event, and how important that language deems the elements involved in the structure. Furthermore, following Marras and Cadierno (2008) and the cognitive view, abstract concepts are transformed into more concrete ones due to metaphorical processes. For instance, mental interactions are usually coded as transitive clauses which usually

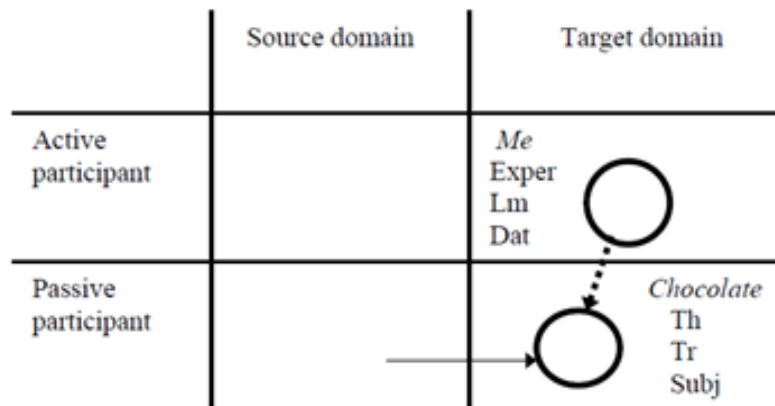
express physical processes. The mental interaction involving the verb *to give* is coded as a transitive clause, nevertheless, the verb *to like* does not match all the traditional grammar attributes for the transitive clause. However, due to these metaphorical extensions of the transitive, the experiencer is coded as the Subject —*the trajector* that is usually equated with the *agent*. This also happens because the syntactic structure of a clause depends on how important a language deems the elements involved in that structure. Hence, the experiencer is considered to be the source of the mental interaction or the initiator of the mental contact. Furthermore, since there is no transmission of energy, the Object differs from the prototypical patient because it is unaffected. According to Langacker (1991), this makes the semantic role of that element zero. Marras and Cadierno (2008, p. 244) illustrate this in the following figure:



**Figure 2. Energy transmission in mental interactions in Spanish: *Me gusta el chocolate* in Marras and Cadierno (2008, p. 244)**

In other words, the construction of the structure *to like* is similar, but not identical, to the transitive structure of the verb *to give*. Due to these similarities, the experiencer is identified as the subject and the theme as a direct object. One of the major differences between the structure of the verb *to give* and that of the verb *to like* is that in the latter there is an experiencer that establishes mental contact with an object (the *landmark*) that does not experience a change of state, as it does with *the landmark* for the verb *to give*. However, in the former, there is an agent that starts the energy transmission, which makes the object change state, since there is a change in the ownership of the object.

In the Spanish language, these mental interactions are coded differently. The relation between the experiencer and the stimulus is usually metaphorically coded by a clause from the unaccusativity prototype. This is due to the fact that in Spanish the experiencer is not considered to be as important as it is in the English structure. In fact, in Spanish the experiencer is not the *trajector*, but the *landmark*, or rather, the Indirect Object. As Marras and Cadierno (2008) state, according to Langacker (1991), the experiencer is the active participant in the target domain, while the stimulus is the *trajector* and coded by the Subject. Since it is not an agent, it is a thematic Subject that enters into, or already belongs to, the dominion of the experiencer. Hence, the mental energy only operates in the target domain, i.e., the experiencer's action sphere, where the action is mental contact or affectedness established by the experiencer with the theme. The table below provided by Marras and Cadierno (2008, p. 245) illustrates the energy transmission in the sentence with the verb *gustar*:



Note: ○ = Participant; → = Change of location; ..... = Mental contact;  
Th = Theme; Exper = Experiencer; Tr = Trajector; Lm = Landmark.  
(adapted from Maldonado [2002]).

**Figure 3. Energy transmission in mental interactions in Spanish: *Me gusta el chocolate* in Marras and Cadierno (2008, p. 245)**

To conclude, in both constructions there are no clear boundaries between the categories Subject, Direct Object, and Indirect Object, as well as transitive and intransitive clauses. Instead, due to metaphorical processes and how important the language considers the elements involved in the structure, they are coded in different ways. On one hand, the English construction is coded as a transitive. Furthermore, the *experiencer* is the participant with the highest level of activity, the *trajector*, which makes it the Subject and the theme is considered to be the *landmark*. On the other hand, the Spanish construction is represented by an intransitive clause, specifically, an unaccusative one. The *experiencer* is conceived as the *landmark*, since it is a participant affected by the initiator of the verbal predication, in this case, the theme, which is the *trajector*. These differences in metaphorical processes as well as those

found in the varying degrees of importance that every individual language allots to each of the elements involved in a structure, could explain the differences in the Lexical Mapping Theory rules that apply to the structures of the verb *gustar* and *to like*.

### **Implications for SLA**

According to Marras and Cadierno (2008), the relationship between the prominence of the experiencer and its syntactic function plays a role in the degree of difficulty of acquisition. This means that the acquisition of structures where there is a natural correspondence —i.e., the experiencer is identified as the Subject— is easier than the acquisition of structures where there is no such correspondence, as is the case for the Spanish verb *gustar*. In other words, in terms of cognitive mechanisms, it seems more natural and easy to identify the experiencer with the Subject than to identify it with an Indirect Object. In light of this, the acquisition and use of the verb *to like* is easier than the acquisition and use of the verb *gustar*. This claim does not only concern Spanish speakers acquiring the verb *to like* and English speakers acquiring the verb *gustar*, but it also concerns native speakers acquiring and using the verb *to like* or *gustar*. Marras and Cadierno (2008) provide research examples on the acquisition of this structure for first and second language acquisition. For example, Vázquez Rozas showed how Spanish-speaking children elicit utterances such as *Yo me gusta el chocolate*, or even Spanish-speaking adults that produce sentences such as *Hay gente que le gusta el chocolate*—where *que* is a subject relative pronoun—, instead of *a la que le gusta el chocolate*—where *a la que* is the correct dative pronoun. As observed, children, and even adults, tend to follow the natural correspondence



between the importance of the experiencer and its syntactic function. Montrul's (1997) also showed that in other constructions where the experiencers were coded as Indirect Objects, learners tended to confuse them with the Subject. This shows that the transfer of L1 is not merely a mechanistic transfer of structures, but of cognitive mechanisms.

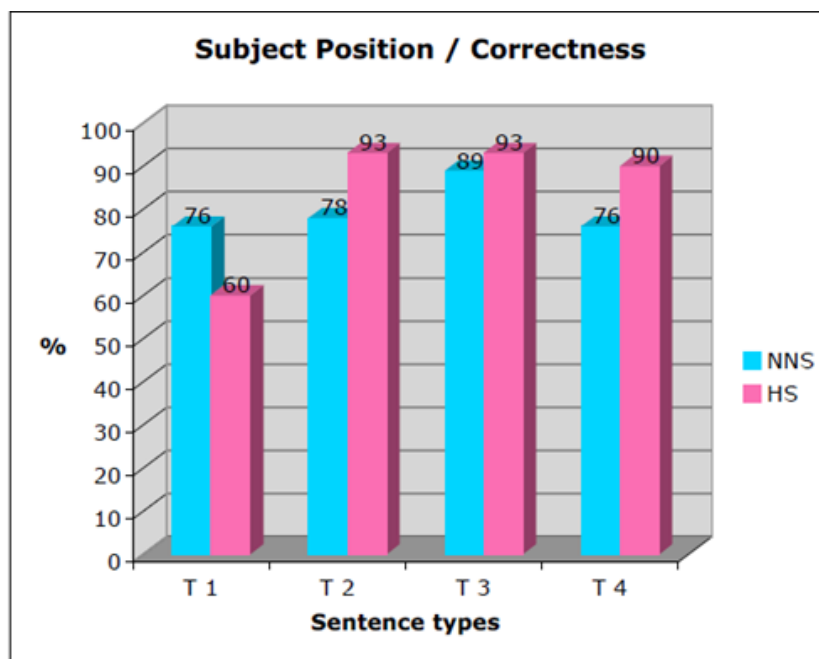
To validate their hypothesis, Marras and Cadierno (2008) suggest a bidirectional study to compare the acquisition process of both structures by L2 learners and by using production and interpretations tasks. In the production task they propose that learners could talk about their favorite singer, while in the interpretation task, they suggest that learners could choose the correct sentence to describe a given picture. Among the sentences there are experiencers coded by the Subject or by the Indirect Object. Both tasks are similar to those used in this thesis.

### **1.3 Further Studies on the Acquisition of the Verb *Gustar***

#### **1.3.1 Heritage Speakers and Non-Native Speakers Use of the Verb *Gustar***

Through a grammatical judgment test, Miglio and Miranda (2012) compared the perception of Heritage Speakers (HS) and advanced Non-Native Speakers (NNS) of Spanish regarding the grammatical correctness of *gustar* structures. In their findings, 60% of HS deemed incorrect the sentences where the subject of the verb *gustar* was in preverbal position, as in the deep structure of (2). However, more NNS (76%) perceived the preverbal position as correct. The opposite happened when the sentences followed a structure IO-V-S, as in the surface structure in (2): most of HS (93%) indicated they were correct, while less NNS (89%) indicated they were wrong. Nevertheless, in structures like S-V-IO or IO-V-S where the verb was not in agreement with the syntactic subject, HS did much better in recognizing the sentence

was wrong. As for the first structure —S-V-IO with wrong verb agreement—, HS obtained 93% and NNS 78%. Regarding the second structure, IO-V-S, heritage speakers scored 90% and NNS 76%. Miglio and Miranda (2012, p. 10) present these results in the following figure.



HS and NNS (AES) performance distinguishing syntactic structure of the sentence and its correctness. T1 = SV&Correct, T2 = SV&Incorrect, T3 = VS&Correct, T4 = VS&Incorrect.

**Figure 4. Subject Position/ Correctness in Miglio and Miranda (2012, p. 10)**

Miglio and Miranda (2012) tested students' reactions to the doubling of the experiencer. They found out that in sentences following the structure S-IOP (Indirect object pronoun)-V-CP (clarification phrase), NNS (75%) did better than HS (70%) at

the correct sentence recognition. However, in the most common structure: CP-IOP-V-S, HS did significantly better than NNS.

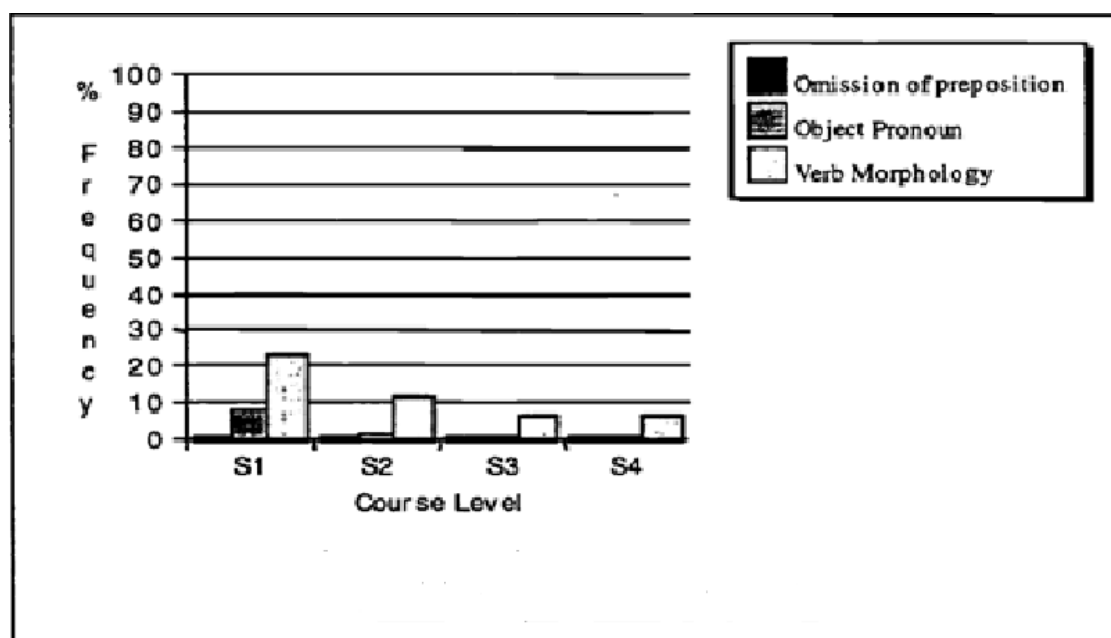
Miglio and Miranda (2012) also mention a study carried out by Dvorak & Kirschner (1982) on bilingual subjects of Puerto Rican origins in New York. In this research, Heritage speakers made mistakes when using first and second-person experiencers (yo, tú). In sentences with a third person experiencer (el/ella/ud.), heritage speakers consistently made the experiencers agree with the verb.

### **1.3.2 Mistakes Found at Different Stages of Linguistic Development**

The research conducted by Gascon (1998) can shed light on the acquisition stages of the structure of the verb *gustar*. His research took place in a college setting and the students' level ranged from beginners in their first semester to intermediate students in their fourth semester. He gave students three different tasks: describing their own likes, their friends' and their parents'. From these tasks, he distinguished several types of errors: (i) the omission of the preposition *a* at the beginning of the sentence; (ii) using the reflexive pronoun *se* instead of the indirect pronouns *le*, *les*; (iii) confusion in selecting the pronouns *le* and *les*; (iv) morphological errors (such as subject-object confusion and the use of singular verb for plural subject). The first three types of errors are related to the construction of the experiencer, while the fourth type concerns the subject-object distinction.

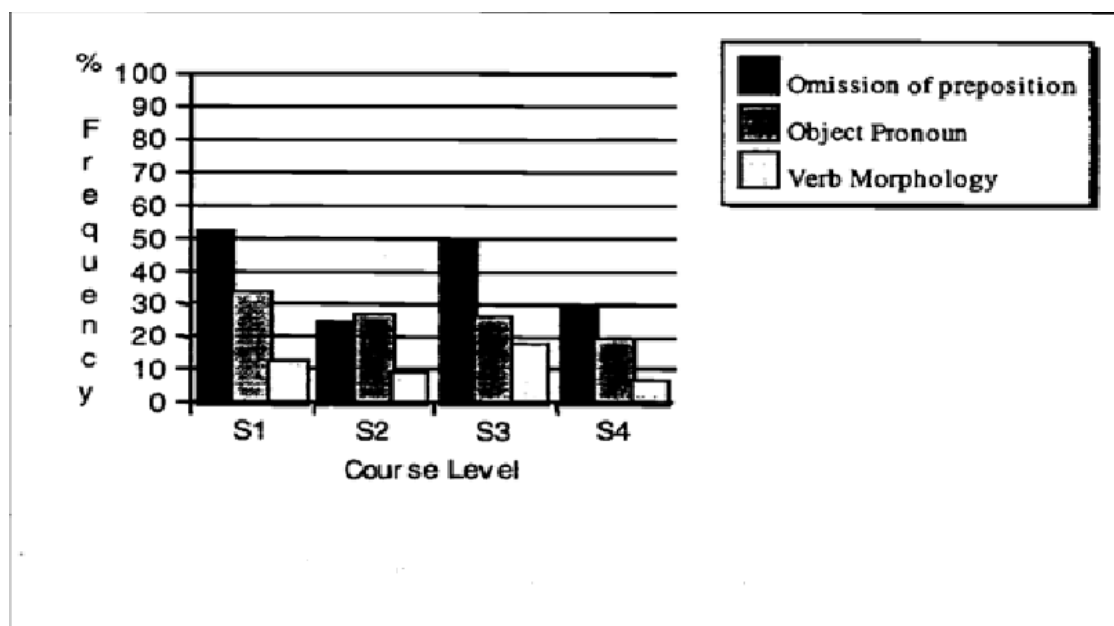
Gascón (1998) found out that in the first task (describing their own likes), the accuracy level using the verb *gustar* structure improved level by level with the non-significant exception of the students in the fourth semester, who obtained 7% less in their accuracy level, but were a smaller group. He also realized that students made no errors regarding the preposition *a*, since students seemed to avoid using the double

experiencer containing the clarification and emphatic phrase *a mí*. On the other hand, students did properly use the simple experiencer *me*. As for morphological errors,  $\approx 23\%$  of the errors made by students in their first semester were of this nature. At this level,  $\approx 15\%$  of the errors were motivated by subject-object confusion. The morphological error rates were  $\approx 11\%$ ,  $\approx 5\%$  and  $\approx 5\%$  for second, third and fourth semester students respectively. The object-subject confusion (or more specifically, the experiencer-verb agreement pattern) was the most common mistake with 15% of frequency. This error gradually decreased until 2% in the fourth semester. The figure below shows the percentages of every type of error in the first task (Gascón, 1998, p. 10).



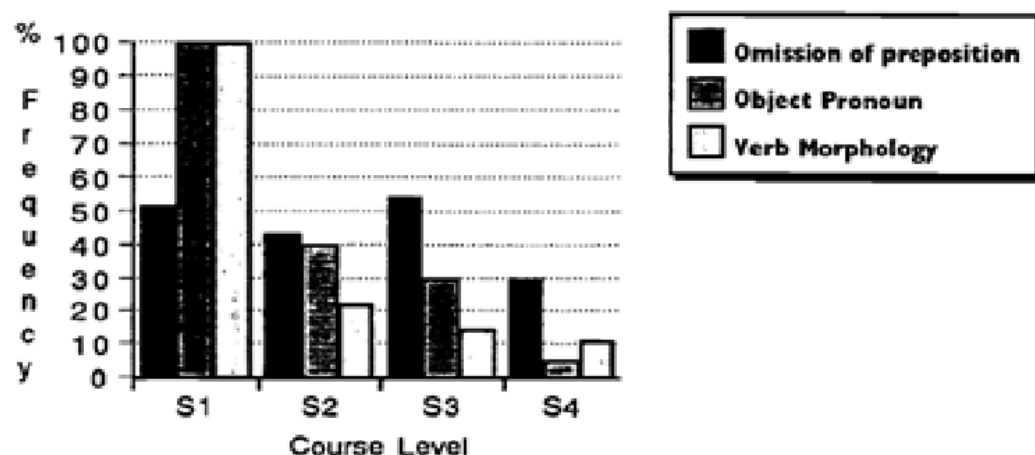
**Figure 5. Task 1 Error Types in Gascón (1998, p. 10)**

The results in the second task of the study (describing a friend's likes and dislikes) made by Gascon (1998) show that students progress level by level with the exception of the students at the third level, who were outperformed by the students at the second level. This was probably due to the fact that students in the second semester had been exposed to the verb *gustar* structure and had been explicitly taught about direct and indirect objects, while students in the third semester did not receive such explanation. Regarding the experiencer, the most common error was the omission of the preposition *a*. The omission of the preposition *a* could lead to interpret the experiencer codification as a wrong double codification, such as *mi familia le gusta*—which could be interpreted as *ella le gusta*. In terms of object pronoun confusions, they decreased level by level. As for pronouns, the most common error was their omission. Pronoun omissions were present 24% of the time and decreasing to 15% in the second semester and to 7% in the following semesters. The error rates for morphological mistakes in the second task were surprising between second and third semester students. Students in their first semester had  $\approx 12\%$ ; second semester students,  $\approx 10\%$ ; those in the third semester,  $\approx 18\%$ ; and students in the fourth semester,  $\approx 5\%$ . This can be explained if one takes into account that students of the second semester had practiced the structure shortly before the test, while students in the third semester were not exposed to practice of this nature. The figure below in Gascón (1998, p. 11) summarizes this data.



**Figure 6. Task 2 Error Types in Gascón (1998, p. 11)**

Finally, the data from the last task of Gascon (1998) shows a decreasing rate of error. However, students at all semesters did worse on the third task than on the other ones. The errors regarding the experiencer (omission of the preposition *a*) remain almost the same as in the previous tasks. As for the verb morphology errors and object pronoun choice in the third task, it is surprising that the error rate for students of the first semester was 100%. Then, it exponentially decreases to  $\approx 20\%$  for second semester students,  $\approx 14\%$  for students in their third semester and  $\approx 11\%$  for fourth semester students. Gascon (1998) explains this data by stating the great communicative value of the structure related to expressing ones' own likes and the fact that it is the most used and most frequent in the input and output. Below is the table showing this data (Gascón, 1998, p. 12).



**Figure 7. Task 3 Error Types**

Gascon (1998) distinguishes different stages in the acquisition of the verb *gustar*: a transfer stage, a restructuring stage, and two developmental stages. Subject-Object confusion as well as the omission of the object pronoun falls into the transfer stage. According to Lafford (and the Lafford & Ryan Naive Lexical Hypothesis), first year-level students build Spanish sentences by translating from English word-for-word. Since English and Spanish have different syntactic structures, this translation results in errors. According to Gascon (1998), in the transfer stage students master the *me gusta(n)* structure. The next stage is the “restructuring stage”, which consists in a decrease of transfer stage errors as a result of the adjustments students make to their interlanguage. At this stage, they improve in the *le, les gusta* structure. After the “restructuring stage”, following Corder’s continuum of development, students start relying on the L2 input instead of the L1, which would be the first developmental

stage. This developmental stage is therefore related to hypothesis formulations about the L2 structure. At this level students learn to differentiate between the *se* used for reflexives, reciprocals and double object pronouns from the *le, les* used in the reverse intransitive psychological verb structures. Students at the developmental stage I improve in the use of the *me gusta(n)* structure and experiment to form hypotheses related to the *le/les gusta* form. Finally, during developmental stage II, the *se* appears as an alternative to the object, which begins a new stage. The control of verb morphology is as high as ever and the acquisition of the construction for the first person singular and the third person singular seems within reach.

Miglio and Miranda's (2012) research identified two main features that may be problematic in the development of the verb *gustar* structure: the position of the subject (preverbal/post-verbal) and the verb agreement with the syntactic subject. On the other hand, Gascon (1998) established four different stages in the development of the verb *gustar* structure: the transfer stage, the restructuring stage, the developmental stage I and the developmental stage II. According to Gascon (1998), at the transfer stage students master the *me gusta(n)* structure, which is improved at developmental stage I. The verb morphology is highest at developmental stage II for the *me gusta(n)* and *le/les gusta(n)* structure. However, could the two features identified by Miglio and Miranda (2012) be part of the developmental stages in the acquisition of the verb *gustar* structure? If so, how do these two features develop across levels?



## **Chapter 2**

### **RESEARCH QUESTION**

Based on Lexical Grammar Theory and the role of its structures on Spanish psychological verbs (Vanhoe, 2002) as well as on Cognitive Linguistics (Marras & Cadierno, 2008), this study seeks to determine the stages of acquisition of the verb *gustar* among English-native-speakers learning Spanish at the college level in the United States. This research aims to answer the following question:

1. What are the stages of acquisition of the verb *gustar* among adult English-speakers learning Spanish as a second language?

### **Chapter 3**

## **METHODOLOGY**

This research was carried out using a quantitative approach. The research itself made use of a non-experimental, descriptive analysis designed to identify usage patterns of the verb *gustar* structure among American students in a college setting. Through a production task and a grammatical judgment test, the frequency of each pattern was established at every level of instruction. The usage pattern analysis per level was used to identify possible developmental stages in the acquisition of *gustar* for the population in question.

### *Questionnaire*

Participants completed a questionnaire (see Appendix) that consisted of three parts. In the first part, learners were asked to provide information about themselves and about their relation with, and use of, the Spanish language. In the second part, students were given a writing task (they were asked to write a letter telling a host mother in Spain the things they like in the context of food, activities, music...). The third part consisted of a grammatical judgment test. Learners were given a letter similar to the one they had to produce in the previous task. The letter had three gaps and three sentence banks. Students were asked to choose the sentences they deemed most appropriate to fill in each gap. Among the options, there were sentences featuring “experiencer-verb” agreement patterns; other sentences showed the correct “theme-verb” agreement but the experiencer was coded by a nominative pronoun or both a

nominative pronoun and an indirect object. The aim of these distracters was to elicit the students' codification of both the experiencers and themes. In other words, these distracters allowed the researcher to verify if students were codifying the experiencer and theme of the verb *gustar* structure as the syntactic subject and direct object (as it is in English) or as an indirect object and syntactic subject (as it is in Spanish).

### *Participants*

The students' profile was diverse. A total of 150 college students completed the questionnaire described in the previous subsection (see Appendix). These students were native English speakers in different course levels of Spanish that ranged from first year (100 level courses) to fourth year (400 level courses) of instruction at the college level —approximately from novice-mid to advanced-low levels of proficiency. They were both male and female, from different ages, and socio-cultural backgrounds. The courses ranged from elementary Spanish language and grammar to advanced courses in Spanish literature. The distribution of research participants by academic course as well as the courses' prerequisites can be found in Table 3.

<b>Table 4. Academic Courses, Prerequisites and Number of Participants</b>		
<b>Courses</b>	<b>Prerequisites</b>	<b>Number of Participants</b>
SPAN 106 Spanish Elementary-Intermediate Description: Increasing mastery of the Spanish basic skills of speaking, listening, reading and writing.	SPAN105 or two to three years of high school Spanish.	21
SPAN 107 Spanish Intermediate	SPAN 106 or four years of high school Spanish acceptable	23

Description: Review of grammar and practice basic skills: speaking, writing, and reading texts of average difficulty.		
<b>SPAN200 Spanish Composition and Grammar</b> Description: First part of a thorough grammar review and intensive practice: structures, vocabulary, speaking, listening and extensive writing.	SPAN 107	0
<b>SPAN201 Spanish Reading and Composition</b> Description: Reading, discussion, and analysis of various genres of Hispanic literature. Several short compositions. Grammar review where appropriate.	SPAN200.	17
<b>SPAN205 Spanish Conversation</b> Description: Oral reports and discussions. Basic conversational skills. Grammar review where appropriate, and/or some written work.	SPAN 107, SPAN112, SPAN200 or SPAN201. Minimum grade of B in SPAN 107.	23
<b>SPAN300 Advanced Spanish Composition</b> Description: Second part of a thorough review and intensive practice: structures, vocabulary, speaking, listening and extensive writing.	SPAN200	12
<b>SPAN 305 Oral Communication</b>  Description: Emphasis on refinement of expression of abstract ideas as well as	SPAN200. For individuals with a comprehensive knowledge of Spanish grammar and vocabulary.	12

mastery of practical communication.		
<b>SPAN314 Spanish Phonetics and Phonology</b>  Description: Study and practice of Spanish pronunciation and intonation.	SPAN200	14
<b>SPAN 401 Spanish Advanced Composition and Grammar II</b>  Description: Study and practice of selected problems of written and oral Spanish syntax and vocabulary as well as textual analysis.	One 300-level Spanish course.	10
<b>SPAN 455 Selected Authors, Works and Themes: Hispanic Crime Fiction</b> Description: Works of one or more outstanding authors or on a special theme.	300-level Spanish literature course	15
<b>SPAN 471 Latin American Film</b> Description: A study of cinematographic representation, with a focus on the techniques and tendencies, used by modern directors, of the history, politics, and culture of LA.	SPAN307, or SPAN308, or SPAN325, or SPAN326.	2
<b>SPAN 475 Topics in Hispanic Culture and Civilization</b>  Description: Study of topics in Hispanic culture	One of the following civilization and culture courses: SPAN307, SPAN308, SPAN325 or SPAN326.	1

and civilization, ranging through the geography, history, art and society of Spain and Latin American countries.		
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Several aspects of the courses and the students' levels of instruction should be discussed to enhance the understanding of the subjects' profiles. As observed, first-year students (SPAN 106 and SPAN 107) may have been placed in the course directly from high school. These students were also required to have studied Spanish a specific number of years. In the case of SPAN 106 students, 2-3 years were required, while 4 years were the requisite for SPAN 107. Students at higher level courses were required to have completed a language course at college, such as SPAN 107. Though none of the students from the SPAN 200 course completed the questionnaire, it is important to consider the SPAN200 course description, since this course is a prerequisite for higher level courses. Worth noting is the fact that students who completed the questionnaire at the 200 and 300 level courses probably reviewed the verb *gustar* structure the semester they were enrolled in the SPAN 200 course. Students in the 400 level courses were required to have completed a 300 level course. These courses range from advanced grammar to Hispanic literature, culture and civilization, where the verb *gustar* structure is not explicitly taught.

### *Procedure*

The dates and conditions of the questionnaire distribution were carefully planned to ensure reliable data. Questionnaires were distributed in paper format during the third week of the semester to avoid students' exposure to the verb *gustar* structure shortly before the completion of the questionnaire. The students were told to carefully

read the instructions and complete the questionnaires without any type of support (dictionaries, questions, notes, textbooks...). In order to reduce the anxiety level, if any, all the students were informed that the aim of the questionnaire was not to evaluate their Spanish level, but to study how students at all levels of instruction use the verb *gustar* structure.

To simplify the data analysis, the verb *gustar* structure was divided into three components: experiencer, verb morphology and theme. Each component was individually analyzed in the search for usage patterns at every level of instruction, both in the grammatical judgment test and the production task. The grammatical judgment test (Part 3 of Appendix), consisted of a letter to a host mother in Spain that students needed to complete by using three sentence banks. Among the sentences in the banks, some contained several mistakes regarding the components of the verb *gustar* structure. For example, a sentence could feature a wrong double experiencer (a personal pronoun plus an indirect pronoun) and a wrong verb morphology (an “experiencer-verb” agreement pattern) —such as *yo me gusto correr*. Other sentences in the banks only contained one single mistake, while other sentences were correct. The students’ selection of the different sentences allowed the researcher to tap into the students’ linguistic competence regarding these three components (experiencer, verb morphology and theme) at every level. The production task (Part 2 of Appendix), consisted of the production of a letter to a host mother in Spain. In the students’ production, the researcher identified the correct and incorrect uses, along with their frequency, which were used to formulate a correlation between *gustar* usage patterns and subjects’ years of instruction.

## Chapter 4

### RESULTS

#### 4.1 Experienter Results

##### SPAN 106 Level

##### *Grammatical Judgment Test*

Table 5 shows the SPAN 106 students' sentence selection percentages at the grammatical judgment test. As shown, in bank A, sentences featuring two different codifications were nearly evenly chosen (sentences A3 and A4). On the one hand, sentence A3 (chosen by 42.9% of the students) shows the correct double experienter codification: a clarification prepositional phrase plus an indirect pronoun (called hereafter PHI). The codification *A mí me* is an example of PHI for a first person singular experienter. On the other hand, sentence A4 (selected by 52.4% of the learners) contains a wrong double experienter codification consisting of a personal pronoun plus an indirect pronoun (called hereafter PRI). *Yo me* is the example of a PRI codification for a first person singular experienter. PHI and PRI are not generally concurrent in the grammatical judgment test, since students chose either sentence A3 or sentence A4. Only one student did deem correct both a sentence featuring PRI in one bank (A3) and a sentence with a PHI in another bank (C3). Regarding simple experiencers, students at the SPAN 106 level seem to appropriately recognize the correct simple experienter for the first person singular (*me*) in the verb *gustar* structure. In fact, 81% of the learners selected sentence B1 and 76.5% chose sentence



C5— which are correct sentences featuring a simple experiencer codification for the first person singular (*me*). SPAN 106 students who deemed PRI as correct seem to consider the personal pronoun in the PRI codification (*yo*) as optional—as is the clarification prepositional phrase in the PHI codification (*A mí*). This is evident because the students selecting sentence B4 deemed correct sentences B1 and C5.

Although the vast majority of SPAN 106 students were able to recognize the correctness of the simple experiencer coded by an indirect object, four students (19%) did not. These students considered correct the PRI, as well as the simple experiencer codification, and they also deemed correct the omission of the experiencer, in sentence B3 and C4. Only one student (4.8%) judged correct the sentences with a simple experiencer coded either by a personal pronoun or the indirect pronoun. This may suggest that a small portion of SPAN 106 students consider the PRI as a normal personal pronoun that, like all personal pronouns, can be omitted. The indirect pronoun would therefore appear to be only an extension of the personal pronoun for these students.

<b>Table 5. Grammaticality Judgment Test (SPAN 106)</b>		
<b>Sentence Banks</b>	<b>Sentences</b>	<b>Selection Percentage</b>
<b>BANK A</b>	1. Yo me gusto correr todos los días	0%
	2. Correr me gusto todos los días	0%
	3. A mí me gusta correr todos los días	42.9%
	4. Yo me gusta correr todos los días	52.4%
	5. Yo gusta correr todos	4.8%

	los días	
<b>BANK B</b>	1. Me gustan las hamburguesas	81%
	2. Yo gusto las hamburguesas	0%
	3. Gustan las hamburguesas	4.8%
	4. Me gusto las hamburguesas	14.3%
	5. Las hamburguesas me gustan	0%
<b>BANK C</b>	1. Gusto el chocolate	0%
	2. El chocolate me gusta	0%
	3. A mí me gusto el chocolate	19%
	4. El chocolate gusta	4.8%
	5. Me gusta el chocolate	76.2%

### *Production Task*

Table 6 shows the percentages of simple and double experiencer codification uses, regardless of their correctness. As suggested by the responses to the production task, SPAN 106 students tend to use simple experiencers (73.1% of the total production). Table 7 displays the percentages of correct and incorrect uses at the SPAN 106 level. As shown, 97.7% of the simple experiencer uses were correct. This shows that SPAN 106 students already master the simple experiencer codifications. However, as seen in Table 6, the mastery of the correct double experiencer codification seems to be more difficult for SPAN 106 students. At this level, 50% of the double experiencer codifications were wrong. The percentage of errors for every type of mistake and experiencer are represented in Table 8. As observed, regarding the double experiencer codifications, the use of PRI (Personal Pronoun plus Indirect Pronoun) is the most frequent error (87.5%). This preference for PRIs could be explained by the fact that for American learners at this level, the experiencer still is the

trajector of the sentence— the most important role in the sentence and the initiator of the energy transmission— as is the case in English. As for the simple experiencer mistakes, 50% corresponds to experiencer omission and 50% to the use of personal pronouns. However, simple experiencer mistakes are not very significant, since only 3.3% of the simple experiencer production was incorrect.

**Table 6. Types of Experiencer Codifications Use (SPAN 106)**

<b>Type of Codification</b>	<b>Percentage of Use</b>
<b>Simple</b>	73.1%
<b>Double</b>	26.8%

**Table 7. Experiencer Codification Correctness (SPAN 106)**

	<b>Types of Experiencers</b>	<b>Percentage of Use</b>
<b>Correct</b>	Simple (Indirect Pronoun)	97.7%
	Double (PHI)	50%
<b>Incorrect</b>	Simple	2.3%
	Double	50%

**Table 8. Experiencer Codification Errors (SPAN 106)**

	<b>Type of Error</b>	<b>Percentage in Production Task</b>
<b>Double Experiencer</b>	<b>PRI</b>	93.8%
	<b>Others</b>	6.2%
<b>Simple Experiencer</b>	<b>Omission</b>	50%
	<b>Personal Pronoun</b>	50%

## SPAN 107 Level

### *Grammatical Judgment Test*

The percentage of SPAN 107 students that selected each sentence on the grammatical judgment test is shown in Table 9. The recognition of the correctness of simple experiencers is acquired by the vast majority of SPAN 107 students. 95.5% of the students at the SPAN 107 level chose sentence B1 and 90.9% selected sentence C5. Sentence C1 is the only case of experiencer omission that appears at this level. In terms of double experiencer recognition, as shown in Table 5, 59.1% of the SPAN 107 students chose the sentence A3—a sentence featuring the correct double experiencer codification PHI (clarification Prepositional Phrase plus an Indirect Pronoun) for a first person singular (*a mí me*). However, in the same sentence bank, 36.4% of the students selected a sentence (A4) containing a wrong double experiencer codification PRI (Personal Pronoun plus Indirect Pronoun) for a first person singular (*yo me*). These two experiencer codifications PHI and PRI were not concurrent in the SPAN 107 students' choices in the grammatical judgment test, as was the case at the SPAN 106 level (except for one student that chose both sentence A3 and C3).

Table 9. Grammaticality Judgment Test (SPAN 107)		
Sentence Banks	Sentences	Selection Percentage
BANK A	1. Yo me gusto correr todos los días	0%
	2. Correr me gusto todos los días	0%
	3. A mí me gusta correr todos los días	59.1%
	4. Yo me gusta correr	36.4%

	todos los días	
	5. Yo gusta correr todos los días	4.5%
<b>BANK B</b>	1. Me gustan las hamburguesas	95.5%
	2. Yo gusto las hamburguesas	4.5%
	3. Gustan las hamburguesas	0%
	4. Me gusto las hamburguesas	0%
	5. Las hamburguesas me gustan	0%
<b>BANK C</b>	1. Gusto el chocolate	4.5%
	2. El chocolate me gusta	0%
	3. A mí me gusto el chocolate	4.5%
	4. El chocolate gusta	0%
	5. Me gusta el chocolate	90.9%

### *Production Task*

Table 10 presents the percentage of simple and double experimenter uses at the SPAN 107 level. As shown, students at the SPAN 107 level utilized the simple experimenter codification 89.5% of the time. The remaining 10.5% corresponds to double experimenter uses. Students at the SPAN 107 level have mastered for the most part the simple experimenter codification, since 97.9% of the uses were correct (see Table 11). The double experimenter codification was correct 41.2% of the time. This low accuracy indicates that students at the SPAN 107 level do not master the double experimenter codification yet. Table 12 shows the percentage of the types of mistakes students made for each experimenter codification. As can be observed, regarding the

double experiencer codifications, PRI was used 70% of the time. However, among the PRI codifications, constructions close to PRI were included. For instance, several students produced sentences such as *mis amigos y yo nos gusta comer* or *mi hermana le gusta bailar*. These sentences could be seen as the construction *ellos y yo nos gusta comer* or *ella le gusta bailar*, which would be a PRI codification. Furthermore, worth noting is the fact that the PRI construction is similar to a reflexive pronoun construction— *mis amigos y yo nos bañamos en la playa*. This suggests that students may be confusing the reflexive structure with the verb *gustar* structure, as Gascon (1998) discovered with the pronouns *le/les* and the use of reflexive *se* use. In terms of simple experiencer codification mistakes, though the error percentage was small, 50% of the mistakes correspond to experiencer omission and another 50% to incorrect pronoun use.

**Table 10. Types of Experiencer Codifications Use (SPAN 107)**

Type of Codification	Percentage of Use
Simple	89.5%
Double	10.5%

**Table 11. Experiencer Codification Correctness (SPAN 107)**

	Types of Experiencers	Percentage of Use
Correct	Simple (Indirect Pronoun)	97.9%
	Double (PHI)	41.2%
Incorrect	Simple	2.1%
	Double	68.8%

Table 12. Experiencer Codification Errors (SPAN 107)		
	Type of Error	Percentage in Production Task
Double Experiencer	PRI	70%
	Others	30%
Simple Experiencer	Omission	33.4%
	Wrong Pronoun	66.6%

### Second Year (SPAN201, 205)

#### *Grammatical Judgment Test*

The percentages of second-year students' choices on the grammatical judgment test can be found in Table 13. As shown, 83.8% of the students chose sentence A3—which features the correct PHI double experiencer codification (*a mí me*). 18.3% of the students selected the wrong double experiencer codification PRI in the sentence A4 (*yo me*). Worth noting is the fact that there was a concurrent selection of PHI and PRI in the second year. 2.7% of the students chose both the sentence A3 and A4. Furthermore, 5.4% of the students selected the PRI in sentence A4 and the PHI in sentence C3. This double concurrent codification could be the result of a restructuring phase where the PHI is affecting the already existing PRI in the students' interlanguage. Regarding the simple experiencer codifications, 100% of the second-year students chose sentences featuring a correct simple experiencer codification (*me*), such as in sentences B1, B4 and C5.

Table 13. Grammaticality Judgment Test (Second Year)		
Sentence Banks	Sentences	Selection Percentage

<b>BANK A</b>	1. Yo me gusto correr todos los días	0%
	2. Correr me gusto todos los días	0%
	3. A mí me gusta correr todos los días	83.8%
	4. Yo me gusta correr todos los días	18.3%
	5. Yo gusta correr todos los días	0%
<b>BANK B</b>	1. Me gustan las hamburguesas	94.6%
	2. Yo gusto las hamburguesas	0%
	3. Gustan las hamburguesas	0%
	4. Me gusto las hamburguesas	5.4%
	5. Las hamburguesas me gustan	0%
<b>BANK C</b>	1. Gusto el chocolate	0%
	2. El chocolate me gusta	0%
	3. A mí me gusto el chocolate	10.8%
	4. El chocolate gusta	0%
	5. Me gusta el chocolate	91.9%

### *Production Task*

Table 14 shows the usage percentage of the simple and double experienter codification at the second year. As observed, the simple experienter codification is the most used (85.7%), whereas the double experienter codification is used 14.3% of the time. 99.3% of the simple, as well as 100% of the double experienter codifications, were correct (Table 15). This indicates that second-year students have achieved substantial mastery of the experienter codifications, both simple and double. In terms of production errors, table 16 shows the percentage of errors for every type of



codification. As shown, the use of a personal pronoun corresponded to 100% of simple experiencer mistakes. However, this error is not significant, since only 0.7% of the simple experiencer production was incorrect.

**Table 14. Types of Experiencer Codifications Use (Second Year)**

<b>Type of Codification</b>	<b>Percentage of Use</b>
<b>Simple</b>	85.7%
<b>Double</b>	14.3%

**Table 15. Experiencer Codification Correctness (Second Year)**

	<b>Types of Experiencers</b>	<b>Percentage of Use</b>
<b>Correct</b>	<b>Simple (Indirect Pronoun)</b>	99.3%
	<b>Double (PHI)</b>	100%
<b>Incorrect</b>	<b>Simple</b>	0.7%
	<b>Double</b>	0%

**Table 16. Experiencer Codification Errors (Second Year)**

	<b>Type of Error</b>	<b>Percentage in Production Task</b>
<b>Double Experiencer</b>	<b>PRI</b>	0%
<b>Simple Experiencer</b>	<b>Personal Pronoun</b>	100%

### Third Year (SPAN300, 305,314)

#### *Grammatical Judgment Test*

The percentage of third-year students that selected each sentence on the grammatical judgment test is presented in Table 17. Regarding the simple experiencer codification, 97.4% of the students chose the sentence B1 and 92.3% sentence C5. Both sentence B1 and C5 feature the correct simple experiencer codification. In terms of double experiencer selection, 74.4% of the students selected sentence A3 featuring the correct double experiencer codification (*a mí*). However, an important percentage of students did also select sentences containing the wrong double experiencer codification (PRI). More specifically, 10.3% of the students chose sentence A1 and 20.5%, sentence A4. In the third year, there was a concurrent choice of PRI and PHI sentences. 10.3% of the students selected both sentences A3 and A4. The only case of experiencer omission found at the third year corresponds to 2.6% of the students.

Table 17. Grammaticality Judgment Test (Third Year)		
Sentence Banks	Sentences	Selection Percentage
BANK A	1. Yo me gusto correr todos los días	10.3%
	2. Correr me gusto todos los días	2.6%
	3. A mí me gusta correr todos los días	74.4%
	4. Yo me gusta correr todos los días	20.5%
	5. Yo gusta correr todos los días	0%
	1. Me gustan las hamburguesas	97.4%
	2. Yo gusto las	0%

<b>BANK B</b>	hamburguesas	
	3. Gustan las hamburguesas	0%
	4. Me gusto las hamburguesas	2.6%
	5. Las hamburguesas me gustan	17.9%
<b>BANK C</b>	1. Gusto el chocolate	2.6%
	2. El chocolate me gusta	15.4%
	3. A mí me gusto el chocolate	10.5%
	4. El chocolate gusta	0%
	5. Me gusta el chocolate	92.3%

### *Production Task*

The percentages of the different types of experiencer codifications used are represented in Table 18. Third-year students produced 14.2% of double experiencers codifications and 90.5% were correct. The remaining 85.8% of the experiencer codifications were simple and 99.3% were correct (see Table 19). This high accuracy in experiencer production shows that third-year students have both types of codifications. Similarly, 98.9% of the double experiencer codifications used by third-year students were correct. Table 20 displays the different types of errors students at the third year made. As shown, the only type of mistake for double experiencer codifications was the use of PRI (100%). Regarding the simple experiencer codification, 100% of the mistakes consisted of experiencer omission.

<b>Table 18. Types of Experiencer Codifications Use (Third Year)</b>	
<b>Type of Codification</b>	<b>Percentage of Use</b>
<b>Simple</b>	85.8%
<b>Double</b>	14.2%

**Table 19. Experiencer Codification Correctness (Third Year)**

	<b>Types of Experiencers</b>	<b>Percentage of Use</b>
<b>Correct</b>	<b>Simple (Indirect Pronoun)</b>	99.2%
	<b>Double (PHI)</b>	90.5%
<b>Incorrect</b>	<b>Simple</b>	0.8%
	<b>Double</b>	9.5%

**Table 20. Experiencer Codification Errors (Third Year)**

	<b>Type of Error</b>	<b>Percentage in Production Task</b>
<b>Double Experiencer</b>	<b>PRI</b>	100%
<b>Simple Experiencer</b>	<b>Personal Pronoun</b>	100%

#### **Fourth Year (SPAN401, 455, 471, 475)**

##### *Grammatical Judgment Test*

Table 21 displays the percentage of fourth-year students that selected each sentence on the grammatical judgment test. As shown, in terms of double experiencer codification, 85.7% of the fourth-year students chose sentence A3, which features the correct PHI codification (*a mí*). However, two sentences featuring a PRI codification (*yo me*) were also chosen by 25% of the students. As for the concurrent existence of both codifications (PRI and PHI), 14.3% of the fourth-year students chose both sentence A3 and A4. Regarding the simple experiencer codifications, 96.4% of the students selected the correct simple experiencer codification for first person singular in sentence B1 and C5 (*me*). However, only 3.6% of the fourth-year students deemed the experiencer omission correct in sentence B3 and 7.1% in sentence C1.

<b>Table 21. Grammaticality Judgment Test (Fourth Year)</b>		
<b>Sentence Banks</b>	<b>Sentences</b>	<b>Selection Percentage</b>
<b>BANK A</b>	1. Yo me gusto correr todos los días	3.6%
	2. Correr me gusto todos los días	0%
	3. A mí me gusta correr todos los días	85.7%
	4. Yo me gusta correr todos los días	25%
	5. Yo gusta correr todos los días	0%
<b>BANK B</b>	1. Me gustan las hamburguesas	96.4%
	2. Yo gusto las hamburguesas	0%
	3. Gustan las hamburguesas	3.6%
	4. Me gusto las hamburguesas	7.1%
	5. Las hamburguesas me gustan	35.7%
<b>BANK C</b>	1. Gusto el chocolate	7.1%
	2. El chocolate me gusta	21.4%
	3. A mí me gusto el chocolate	3.6%
	4. El chocolate gusta	0%
	5. Me gusta el chocolate	96.4%

### *Production Task*

The most frequent experiencer codifications in the fourth year are shown in Table 22. As can be observed, the simple experiencer codification is the most used among the fourth-year students (88.1%), followed by the double experiencer codification (11.9%). Table 23 presents the students' accuracy on the experiencer

codifications. As observed, 100% of the simple experiencer codifications and 94.2% of the double experiencer productions were correct. This high accuracy shows that fourth-year students have mastered for the most part the experiencer codifications. Table 24 displays the different types of experiencer codification errors in the fourth year. As shown, 100% of the rare double experiencer errors corresponded to a PRI production.

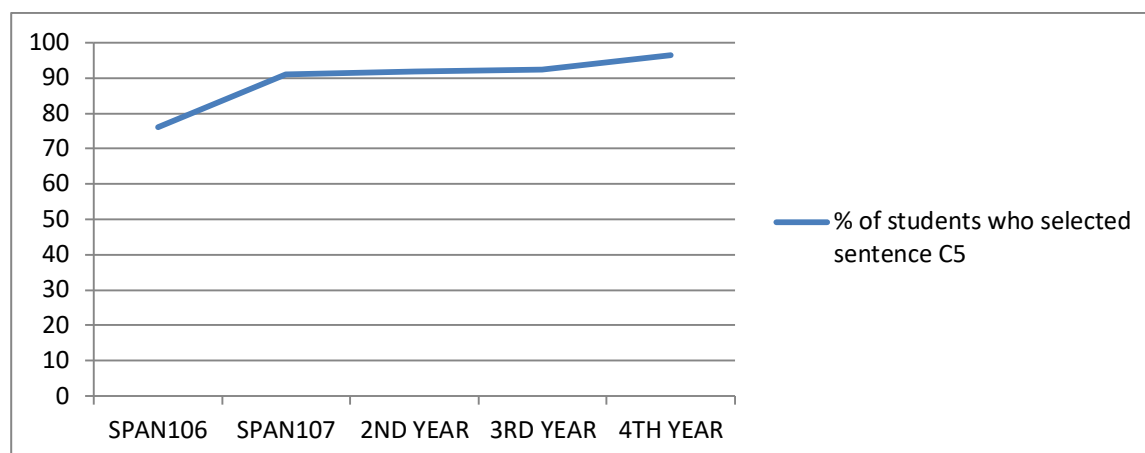
<b>Table 22.Types of Experiencer Codifications Use (Fourth Year)</b>	
<b>Type of Codification</b>	<b>Percentage of Use</b>
<b>Simple</b>	88.1%
<b>Double</b>	11.9%

<b>Table 23. Experiencer Codification Correctness (Fourth Year)</b>		
	<b>Types of Experiencers</b>	<b>Percentage of Use</b>
<b>Correct</b>	<b>Simple (Indirect Pronoun)</b>	100%
	<b>Double (PHI)</b>	94.2%
<b>Incorrect</b>	<b>Simple</b>	0%
	<b>Double</b>	5.8%

<b>Table 24. Experiencer Codification Errors (Fourth Year)</b>		
	<b>Type of Error</b>	<b>Percentage in Production Task</b>
<b>Double Experiencer</b>	<b>PRI</b>	100%

### **Developmental Stages of Experiencer Acquisition**

Figure 8 represents the evolution of the simple experiencer codification acquisition through the sentence C5 selection. As shown, 76.2% of the students at the SPAN 106 level recognized the correct simple experiencer codification for the first person singular in sentence C5. Then, the percentage of students that selected sentence C5 progressively increased from 90.9% at the SPAN 107 level to 92.3% in the third year. Finally, 96.4% of the fourth-year students chose sentence C5. These results suggest that the simple experiencer codification is relatively easy to acquire even at low levels of proficiency. This facility in acquiring the simple experiencer codification in Spanish may be the result of a transfer. According to Gascon (1998), Lafford & Ryan's Naive Lexical Hypothesis states that first year-level students build Spanish sentences by translating from English word-for-word. In this translation, students associate the simple experiencer in English (the personal pronoun *I*) with the Spanish indirect object *me*. The fact that some American English speakers also confuse the English personal pronoun *I* with the English object pronoun *me* would facilitate the acquisition of the indirect pronoun *me* as well.

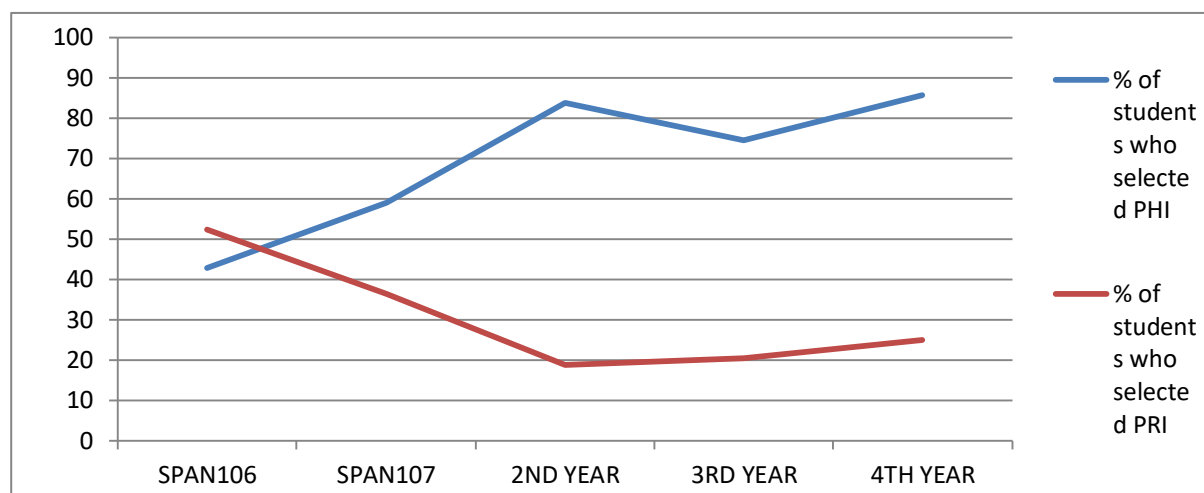


**Figure 8. Simple Experiencer Codification Selection in Sentence C5**

In terms of double experiencer codifications, two main options have been identified throughout all the levels in the grammatical judgment test: (i) a personal pronoun plus an indirect pronoun (PRI) and (ii) a clarification prepositional phrase plus an indirect pronoun (PHI). PRI is not a correct codification for double experiencers in Spanish. An example of a PRI can be found in sentence A4—*Yo me gusta correr todos los días*—where *yo me* is the PRI codification. Sentence A3—*A mí me gusta correr todos los días*— features the correct double experiencer codification PHI ( *a mí me*). Figure 9 shows the percentage of students who chose sentence A3 and A4 at every level. As it can be observed, the PRI codification in sentence A4 was the most recognized by SPAN 106 students (52.4%) and it progressively decreased to  $\approx 20\%$  at the second and third years. Then, it slightly increased to 25% at the fourth year. In terms of the PHI selection in sentence A3, it can be observed that 42.9% of the SPAN 106 students started recognizing the correctness of this codification. The PHI in sentence A3 selection percentage constantly increased level by level to 83.8% at the second year courses. This constant increase was interrupted at the third year,



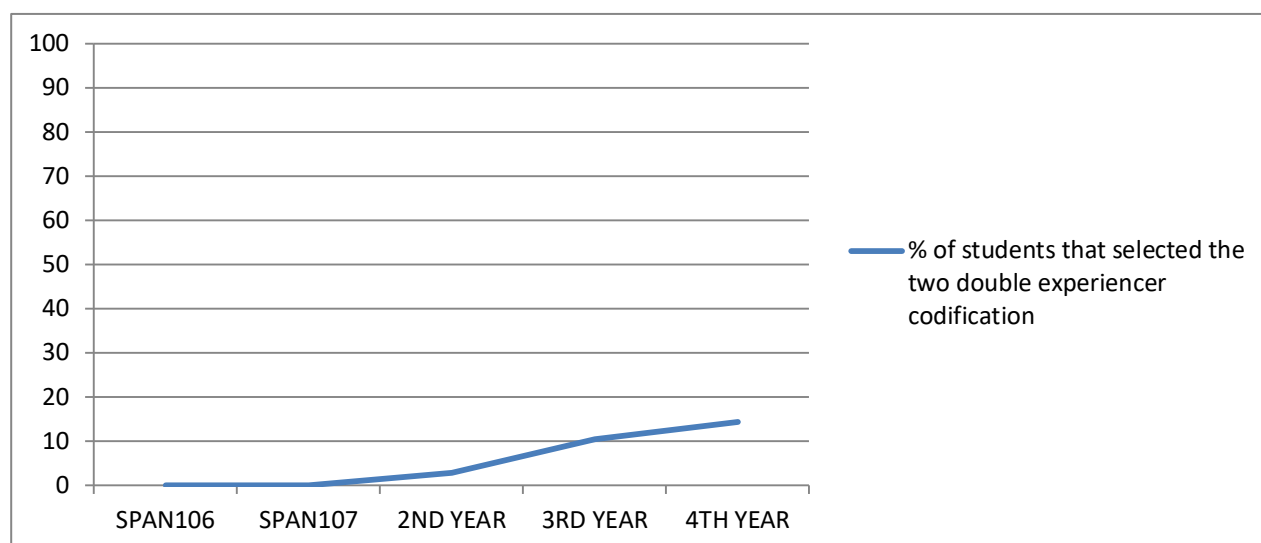
where the percentage of PHI selection in sentence A3 dropped to 74.4% before reaching 85.7% at the fourth year.



**Figure 9. Double Experencer Codifications Selection in Sentences A3 and A4.**

Worth noting is the concurrent selection of the PHI in sentence A3 and the PRI in sentence A4. Figure 10 illustrates the percentage of the students who chose both the PHI in sentence A3 and the PRI in sentence A4. As shown, there is a progressive concurrent selection that started at the SPAN 106 level (2.7%). Then, it increased to 10.3% in the third year and it reached 14.3% in the fourth year. This concurrent selection of PHI and PRI may indicate that regardless of the experencer codification used, students still consider the experencer to be the *trajector* of the sentence, as it is in English. In fact, the experencer-*trajector* correspondence is the most natural correlation even for Spanish speakers, as Vázquez Rozas found out in her research (Marras&Cadierno, 2008). The students' association of the experencer with the

subject of the sentence can also be explained by Pienemann's Processability Theory (1998), which is explained in VanPatten and Williams (2015). According to this theory, students could be affected by the Topic Hypothesis. This hypothesis states that learners of a second language map the first noun phrase in the sentence into the subject until they can differentiate between the topic and the subject. Then, in a sentence such as *a mi madre le gusta el chocolate* the first noun phrase (*mi madre*) would be mapped into the subject. Another theory explained in VanPatten and Williams (2015) that supports this idea is VanPattens' Input Processing (1995). In this theory, the First Noun Principle claims that learners tend to process the first noun or pronoun they encounter in a sentence as the subject. Thus, it is not surprising that students identify the experiencer with the syntactic subject of the sentence.



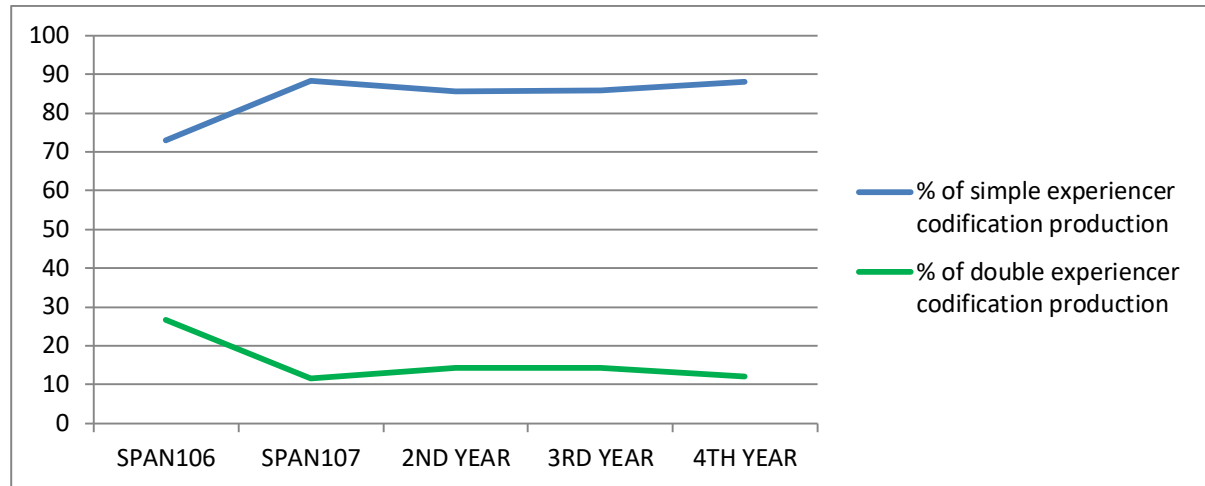
**Figure 10. Concurrent Selection of Double Experiencer Codifications**

### *Production Task*

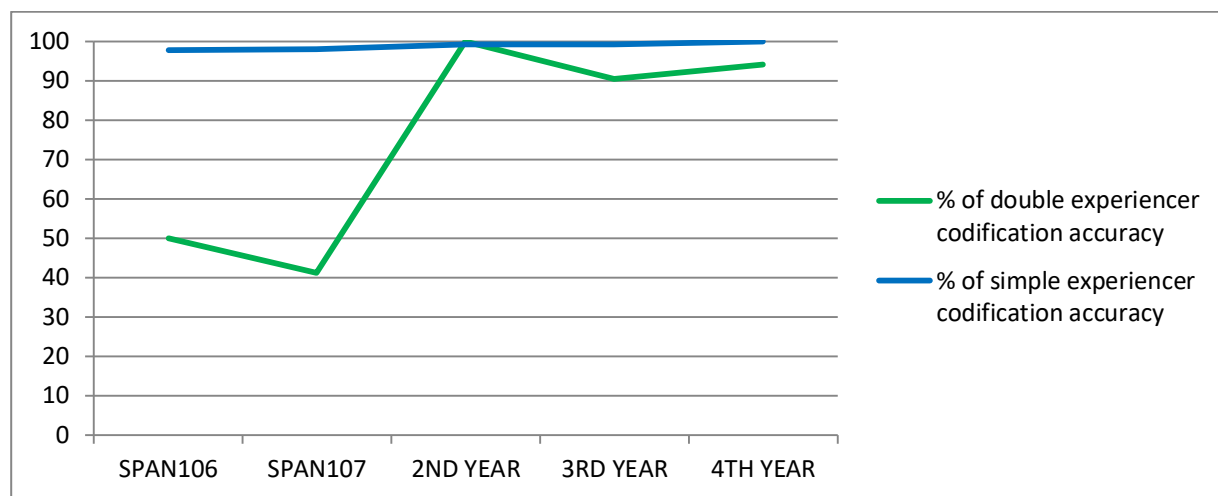
Figure 11 represents the students' preference regarding the production of simple and double experiencers. As shown, there is a clear preference for simple experiencers at all levels— which is in line with Gascon (1998)'s results. The reason for the simple experiencer preference could be that students master the simple codification earlier in the second acquisition process. In fact, SPAN 106 students had already mastered the simple experiencer production with 97.9% of accuracy (Figure 12). The simple experiencer production constantly increased to 99.3% in the second and third years and reached 100% in the fourth year. An explanation for the high accuracy in using the simple experiencer codification (based on Lafford & Ryan's Naive Lexical Hypothesis) could be that the students are associating the simple experiencer—which is one single indirect pronoun— with the personal pronoun used in the English structure. In other words, they are translating the pronoun *I* as *me*. That being the case, students probably identify the simple experiencer in Spanish—the indirect pronoun—with the *trajector* and syntactic subject of the sentence, as it is the personal pronoun in English. In addition, as commented, students seem to associate the personal pronoun *I* with the indirect pronoun *me*, as some American English speakers do with the personal pronoun *I* and the object pronoun *me*.

Among the small percentage of errors, Figure 13 displays the different types of mistakes in the simple experiencer based on the total percentage of error production at each level. As shown, the use of a personal pronoun—probably due to the use of L1 syntactic parsing strategies— was found in the SPAN 106 (50%), second year (100%) and third year (100%). The experiencer omission was produced by SPAN 106 (50%) and SPAN 107(50%) students —which, according to Gascon (1998), corresponds to a transfer stage. An incorrect pronoun was used only at the SPAN 107 level (50%).

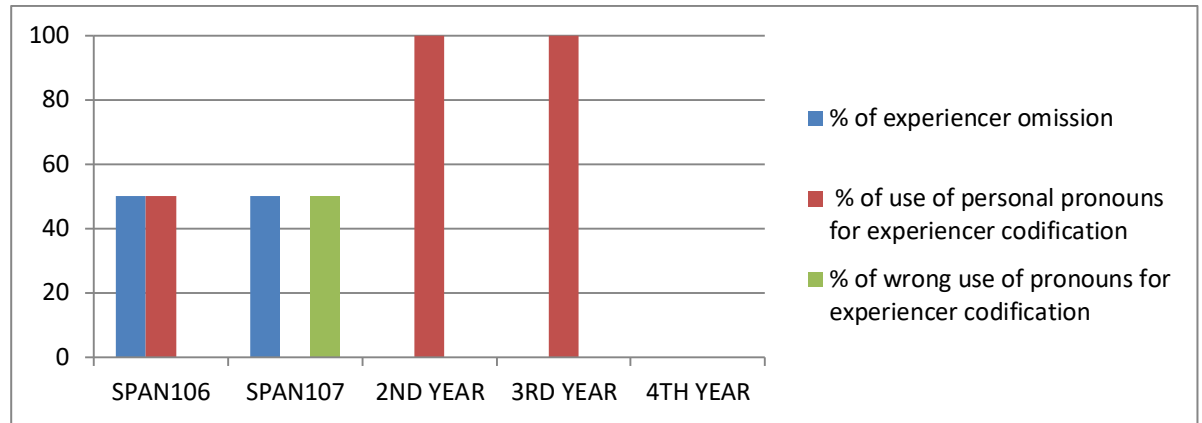
The double experiencer production was highest at the SPAN 106 level (26.8%) and it decreased to  $\approx 12\%$  at the other levels (see Figure 11). As mentioned before, the decrease in double experiencer production could be the result of the facility of acquiring the simple experiencer due to the possible association between the simple experiencer in Spanish (an indirect pronoun) and the experiencer in English (a personal pronoun). Though the double experiencer production decreased, the accuracy increased. At the first year levels, the students' accuracy percentage range was 40-50%, while the accuracy percentage range in the second, third and fourth years was 90-100%. The most common error found at the SPAN 106, SPAN 107, third year and fourth year was the PRI production (see Figure 14). This type of mistake could be the result of the students' confusion between the construction of the reflexive verbs and the experiencer of the verb *gustar*. For instance, the sentence *nosotros nos escribimos* contains a PRI (*nosotros nos*) that is used by students to codify the double experiencer in the verb *gustar*. However, as shown in Figure 12, the largest error percentages when producing double experiencers are found at the first year levels. Students at the first year levels who did not accommodate the double experiencer structure (PHI) may be using the PRI because of the reflexive verb influence.



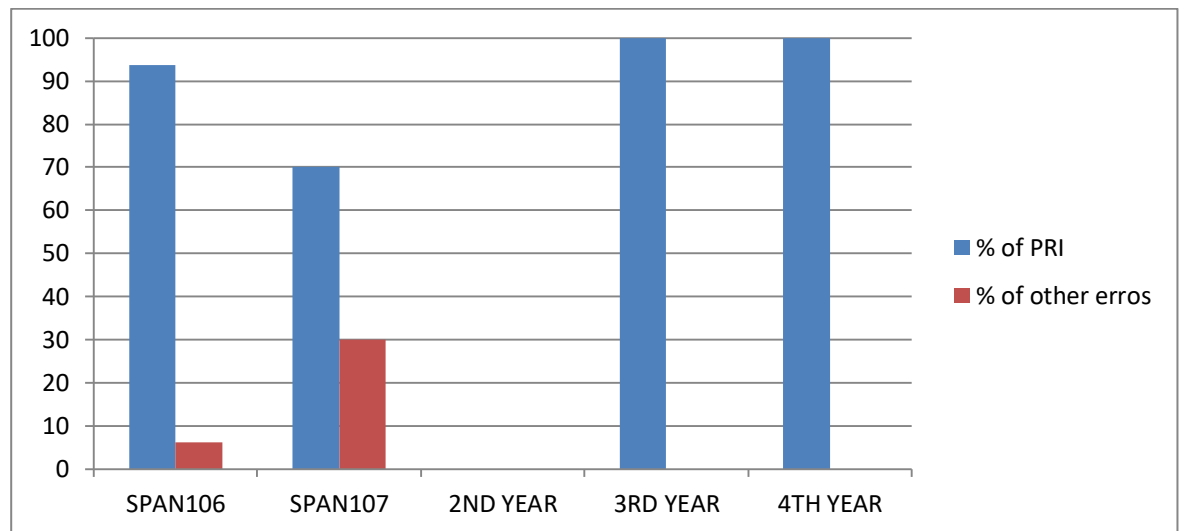
**Figure 11. Simple and Double Experienter Production**



**Figure 12. Simple and Double Experienter Accuracy**



**Figure 13. Simple Experiencer Error Types.**



**Figure 14. Double Experiencer Error Types**

## 4.2 Verb Morphology Results

### SPAN 106 Level

#### *Grammatical Judgment Test*

Table 25 displays the results of the grammaticality judgment portion of the assessment. As shown, 81% of the SPAN 106 students were able to identify the correct verb morphology in sentence B1 (a sentence featuring the correct verb morphology). Only 14.3% selected sentence B4 and 19% chose sentence C3 (both sentences containing a wrong “experiencer-verb” agreement pattern). This high level of accuracy in SPAN 106 learners suggests that by the end of the second semester of college instruction, most Spanish learners are able to recognize the peculiar verb conjugation pattern associated with psychological verbs like *gustar*. Although the number of students unable to identify the correct conjugation was relatively low, the type of grammaticality judgment error made by these students is noteworthy, as it provides evidence in support of the Lafford & Ryan Naive Lexical Hypothesis. According to this hypothesis, low proficiency learners may tend to expect the conjugation pattern “experiencer-verb” in the students’ native language (English) to express likes and preferences.

Table 25. Grammaticality Judgment Test (SPAN 106)		
Sentence Banks	Sentences	Selection Percentage
BANK A	1. Yo me gusto correr todos los días	0%
	2. Correr me gusto todos los días	0%
	3. A mí me gusta correr todos los días	42.9%
	4. Yo me gusta correr todos los días	52.4%

	5. Yo gusta correr todos los días	4.8%
<b>BANK B</b>	1. Me gustan las hamburguesas	81%
	2. Yo gusto las hamburguesas	0%
	3. Gustan las hamburguesas	4.8%
	4. Me gusto las hamburguesas	14.3%
	5. Las hamburguesas me gustan	0%
<b>BANK C</b>	1. Gusto el chocolate	0%
	2. El chocolate me gusta	0%
	3. A mí me gusto el chocolate	19%
	4. El chocolate gusta	4.8%
	5. Me gusta el chocolate	76.2%

### *Production Task*

The results for the SPAN 106 students' production task are presented in Table 26. As shown, it was observed that 86% of verb *gustar* uses were correct. The remaining 14% were uses with a number of agreement errors. Table 27 displays the percentages of every type of mistake. The vast majority of mistakes (88.6%) resulted from using the third person singular conjugation when the subject was plural, and 5.7% from using the third person plural when the subject was singular. The other 5.7% was due to the verb being in accordance with the experiencer (for instance, *me gusto el chocolate*), and it was produced by one of the students who deemed sentence B4 (a sentence featuring an “experiencer-verb” conjugation) to be correct in the grammatical judgment test.



**Table 26. Verb Morphology Correctness (SPAN 106)**

	<b>Percentage in Production Task</b>
<b>Correct</b>	86%
<b>Incorrect</b>	14%

**Table 27. Verb Morphology Errors (SPAN 106)**

<b>Type of Error</b>	<b>Percentage of Production</b>
<b>Conjugation pattern “experiencer-verb”</b>	5.7%
<b>Use of third person singular verb conjugation with third person plural subjects</b>	88.6%
<b>Use of third person plural verb conjugation with third person singular subjects</b>	5.7%

### **SPAN 107 Level**

#### *Grammatical Judgment Test*

Table 28 presents the results of the grammatical judgment test, indicating the percentage of students that selected each sentence from the three sentence banks available. Results of this test for SPAN 107 learners of Spanish indicate that 95.5% of students were able to identify the sentences with correct verb morphology. Only 4.5% of the students selected sentences with incorrect verb morphology, and in all cases (B2, C1 and C3), students incorrectly chose sentences featuring "experiencer-verb" agreement patterns. These results suggest that a small fraction of SPAN 107 learners may still be parsing the syntactic structure of Spanish psychological verbs based on their L1 experience. However, as it can be observed, the percentage of students who

chose sentence C3 at the SPAN 107 level (4.5%) dropped in comparison to the percentage of SPAN 106 students that selected sentence C3 (19%).

<b>Table 28. Grammaticality Judgment Test (SPAN 107)</b>		
<b>Sentence Banks</b>	<b>Sentences</b>	<b>Selection Percentage</b>
<b>BANK A</b>	1. Yo me gusto correr todos los días	0%
	2. Correr me gusto todos los días	0%
	3. A mí me gusta correr todos los días	59.1%
	4. Yo me gusta correr todos los días	36.4%
	5. Yo gusta correr todos los días	4.5%
<b>BANK B</b>	1. Me gustan las hamburguesas	95.5%
	2. Yo gusto las hamburguesas	4.5%
	3. Gustan las hamburguesas	0%
	4. Me gusto las hamburguesas	0%
	5. Las hamburguesas me gustan	0%
<b>BANK C</b>	1. Gusto el chocolate	4.5%
	2. El chocolate me gusta	0%
	3. A mí me gusto el chocolate	4.5%
	4. El chocolate gusta	0%
	5. Me gusta el chocolate	90.9%

### *Production Task*

Table 29 shows that SPAN 107 students reached an 89% of accuracy in verb agreement at the production task. Table 30 presents the percentages of every mistake. As observed, the most common error (64.5%) was the result of the conjugation pattern “experiencer-verb”—for instance, *me gusto el chocolate*. The “experiencer-verb” agreement indicates that some learners at the SPAN 107 level identified the experiencer with the subject of the sentence —possibly due to the use of L1 parsing strategies. Worth noting is the fact that this type of error was not exclusive to students who chose sentences with the conjugation pattern “experiencer-verb” on the grammatical judgment test. Students who were successful in selecting all the sentences featuring the correct verb morphology also produced “experiencer-verb” agreement patterns. This “experiencer-verb” agreement production means that, even if these SPAN 107 students had already accommodated the correct verb morphology in their interlanguage, these learners still have difficulties in retrieving the correct verb morphology form.

The remaining 35.5% of verb production errors had to do with subject-verb agreement issues pertaining to number. More specifically, 23.6% was the result of using the third person singular conjugation with plural subjects—for instance, *me gusta los coches*. The remaining errors (11.8%) also had to do with subject-verb agreement, but in the reverse manner: Here, the third person plural conjugation was used with singular subjects (for example, *me gustan el coche*).

Table 29. Verb Morphology Correctness (SPAN 107)	
	Percentage in Production Task
Correct	89%

<b>Incorrect</b>	11%
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<b>Table 30. Verb Morphology Errors (First year High-Level)</b>	
<b>Type of Error</b>	<b>Percentage of Production</b>
<b>Conjugation pattern “experiencer-verb”</b>	64.5%
<b>Use of third person singular verb conjugation with third person plural subjects</b>	23.6%
<b>Use of third person plural verb conjugation with third person singular subjects</b>	11.8%

### **Second Year (SPAN201, 205)**

#### *Grammatical Judgment Test*

The results gathered in the grammatical judgment test from the second-year students are presented in Table 31. As shown, 94.6% of students selected sentence B1 featuring the correct “theme-verb” conjugation. However, sentences containing “experiencer-verb” conjugations (sentences B4 and C3) were also chosen. More specifically, sentence B4 was selected by 5.4% of students and sentence C3 by 10.8%. In Bank C, 2.7% of the learners selected both a sentence presenting the incorrect ”experiencer-verb” conjugation (C3) and a sentence showing the correct “theme-verb” conjugation (C5). This concurrent choice of both conjugations is not exclusive to that 2.7 % of the students, since all of the learners that selected an incorrect verb conjugation also chose a correct ”theme-verb” conjugation in the other sentence banks. The “experiencer-verb” selection in sentence C3 suggests that 10.8% of the second-year students are utilizing the L1 syntactic parsing strategies. This percentage

is higher than the percentage of students who chose sentence C3 at the SPAN 107 level (4.5%).

<b>Table 31. Grammaticality Judgment Test (Second Year)</b>		
<b>Sentence Banks</b>	<b>Sentences</b>	<b>Selection Percentage</b>
<b>BANK A</b>	1. Yo me gusto correr todos los días	0%
	2. Correr me gusto todos los días	0%
	3. A mí me gusta correr todos los días	83.8%
	4. Yo me gusta correr todos los días	18.3%
	5. Yo gusta correr todos los días	0%
<b>BANK B</b>	1. Me gustan las hamburguesas	94.6%
	2. Yo gusto las hamburguesas	0%
	3. Gustan las hamburguesas	0%
	4. Me gusto las hamburguesas	5.4%
	5. Las hamburguesas me gustan	0%
<b>BANK C</b>	1. Gusto el chocolate	0%
	2. El chocolate me gusta	0%
	3. A mí me gusto el chocolate	10.8%
	4. El chocolate gusta	0%
	5. Me gusta el chocolate	91.9%

### *Production Task*

Second-year students show 86.3% of accuracy in verb conjugation on the production task, as observed in Table 32. Table 33 presents the percentages of errors made by students in the second year. As shown, the main error (78.1%) corresponds to number agreement; more explicitly, using the third singular person when the theme was plural. The remaining errors (21.9%) are related to “experiencer-verb” agreement conjugation pattern. Worth noting is the fact that the production of the “experiencer-verb” conjugation pattern was carried out both by students who were successful in selecting all the correct “theme-verb” conjugations in the grammatical judgment test, as well as by the learners who were not as successful. This concurrent use of correct and incorrect conjugations involving “theme-subject” and “experiencer-subject” correlations may indicate that second-year students are still moving from utilizing the L1 syntactic parsing strategies to the use of the Spanish ones. However, there is an important decrease in the production of “experiencer-verb” agreement patterns at the second year (21.9%) compared with the SPAN 107 level (64.5%). However, despite the fact that a higher percentage of second-year students chose sentence C3 on the grammatical judgment test, second-year students produced fewer “experiencer-verb” agreement patterns (21.9%) than the SPAN 107 learners did (64.5%).

<b>Table 32. Verb Morphology Correctness (Second Year)</b>	
	<b>Percentage in Production Task</b>
<b>Correct</b>	86.3%
<b>Incorrect</b>	13.7%

<b>Table 33. Verb Morphology Errors (Second Year)</b>	
<b>Type of Error</b>	<b>Percentage of Production</b>
<b>Conjugation pattern “experiencer-verb”</b>	21.9%
<b>Use of third person singular verb conjugation with third person plural subjects</b>	78.1%
<b>Use of third person plural verb conjugation with third person singular subjects</b>	0%

### **Third Year (SPAN300, 305,314)**

#### *Grammatical Judgment Test*

Table 34 displays the percentage of third-year students that chose each sentence available in the grammatical judgment test. As shown, 97.4% of the third-year students chose the sentence with the correct “theme-verb” conjugation pattern (B1). However, a few students selected wrong conjugation patterns featuring “experiencer-verb” agreement. More precisely, in Bank A, 10.3% of the students chose sentence A1 and 2.6% selected sentence A2. In Bank B, 2.6% chose sentence B4, while in Bank C, 10.5% selected sentence C3. Despite these wrong choices, all of the students who chose sentences featuring “experiencer-verb” conjugation patterns did also select other sentences containing the correct conjugation pattern either in the same bank or another one. Thus, a low percentage of students at the intermediate level seem to be using the syntactic parsing strategies from the L1. More specifically, the percentage of second-year students choosing sentence C3 (10.8%) is very similar to the percentage at the third year (10.5%).

<b>Table 34. Grammaticality Judgment Test (Third Year)</b>		
<b>Sentence Banks</b>	<b>Sentences</b>	<b>Selection Percentage</b>
<b>BANK A</b>	1. Yo me gusto correr todos los días	10.3%
	2. Correr me gusto todos los días	2.6%
	3. A mí me gusta correr todos los días	74.4%
	4. Yo me gusta correr todos los días	20.5%
	5. Yo gusta correr todos los días	0%
<b>BANK B</b>	1. Me gustan las hamburguesas	97.4%
	2. Yo gusto las hamburguesas	0%
	3. Gustan las hamburguesas	0%
	4. Me gusto las hamburguesas	2.6%
	5. Las hamburguesas me gustan	17.9%
<b>BANK C</b>	1. Gusto el chocolate	2.6%
	2. El chocolate me gusta	15.4%
	3. A mí me gusto el chocolate	10.5%
	4. El chocolate gusta	0%
	5. Me gusta el chocolate	92.3%

### *Production Task*

As seen in Table 35, at the intermediate level, students produced 90.7% of correct “theme-verb” conjugation patterns. Out of the 9.3% of incorrect verb conjugation uses, shown in Table 36, 78.5% correspond to the use of the third person singular verb when the theme (and subject) of the sentence is plural. 14% of the errors



are the result of “experiencer-verb” conjugation patterns. This type of mistake was produced by a student who deemed correct a sentence featuring an “experiencer-verb” conjugation pattern in the grammatical judgment test, as well as by one learner who was consistent in choosing the sentences with the correct “theme-verb” agreement. This could mean that regardless of the students’ level and accommodation to the form in the third year courses, some students still fail in accessing the correct “theme-verb” morphology in their interlanguage on the production task. It is worth noting the fact that, as in the second year, the percentage of students selecting the sentence C3 at the grammatical level (10.5%) was higher than the percentage of students choosing the sentence C3 at the SPAN 107 level (4.5%). However, as expected, third-year students (14%) outperformed the SPAN 107 learners (64.5%) in “experiencer-verb” agreement production. Finally, 7.3% of the errors are the result of using the third person plural conjugation when the theme (and subject) of the sentence is singular.

**Table 35. Verb Morphology Correctness (Third Year)**

	<b>Percentage in Production Task</b>
<b>Correct</b>	90.7%
<b>Incorrect</b>	9.3%

**Table 36. Verb Morphology Errors (Third Year)**

<b>Type of Error</b>	<b>Percentage of Production</b>
<b>Conjugation pattern “experiencer-verb”</b>	14%
<b>Use of third person singular verb conjugation with third person plural subjects</b>	78.5%

<b>Use of third person plural verb conjugation with third person singular subjects</b>	7.5%
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#### **Fourth Year (SPAN401, 455, 471, 475)**

##### *Grammatical Judgment Test*

The selection percentage for every sentence in the fourth year is represented in Table 37. As shown, the sentence B1 featuring the correct “theme-verb” agreement was chosen by 96.4% of the students. Incorrect sentences (A1, B4, C1 and C3) that contain “experiencer-verb” agreement patterns were also selected in a smaller percentage than sentences featuring correct “theme-verb” agreement. In Bank A, 3.6% of the learners chose the sentence A1; 7.1% selected sentence B4 in Bank B; finally, in Bank C, 7.1% of the students chose sentence C1 and 3.6% selected sentence C3. As shown, there is a significant decrease in the number of students choosing sentence C3 (3.6%) in the fourth year compared to the third and second years (10.5% and 10.8%, respectively).

<b>Table 37. Grammaticality Judgment Test (Fourth Year)</b>		
<b>Sentence Banks</b>	<b>Sentences</b>	<b>Selection Percentage</b>
<b>BANK A</b>	1. Yo me gusto correr todos los días	3.6%
	2. Correr me gusto todos los días	0%
	3. A mí me gusta correr todos los días	85.7%
	4. Yo me gusta correr todos los días	25%
	5. Yo gusta correr todos los días	0%
	1. Me gustan las hamburguesas	96.4%
	2. Yo gusto las	0%

<b>BANK B</b>	hamburguesas	
	3. Gustan las hamburguesas	3.6%
	4. Me gusto las hamburguesas	7.1%
	5. Las hamburguesas me gustan	35.7%
<b>BANK C</b>	1. Gusto el chocolate	7.1%
	2. El chocolate me gusta	21.4%
	3. A mí me gusto el chocolate	3.6%
	4. El chocolate gusta	0%
	5. Me gusta el chocolate	96.4%

### *Production Task*

The results of the production task are shown in Table 38. As can be observed, fourth-year students had 84.5% of correct verb production. Table 39 presents the percentages of the different types of mistakes. The main error (86.5%) was the use of the third person singular when the theme (and subject) of the sentence was plural. The remaining errors share the same percentage: “experiencer-verb” agreement pattern (4.5%), using the infinitive instead of conjugating the verb *gustar* (4.5%), and using the wrong mood (4.5%). Worth noting is the fact students who are consistent in choosing the sentences featuring the correct “theme-verb” conjugations on the grammatical judgment test do not always elicit the correct verb morphology in the production task. This could indicate that fourth-year students, even if they already accommodated the correct form, do not always have access to it.

**Table 38. Verb Morphology Correctness (Fourth Year)**

	<b>Percentage in Production Task</b>
<b>Correct</b>	84.5%
<b>Incorrect</b>	15.5%

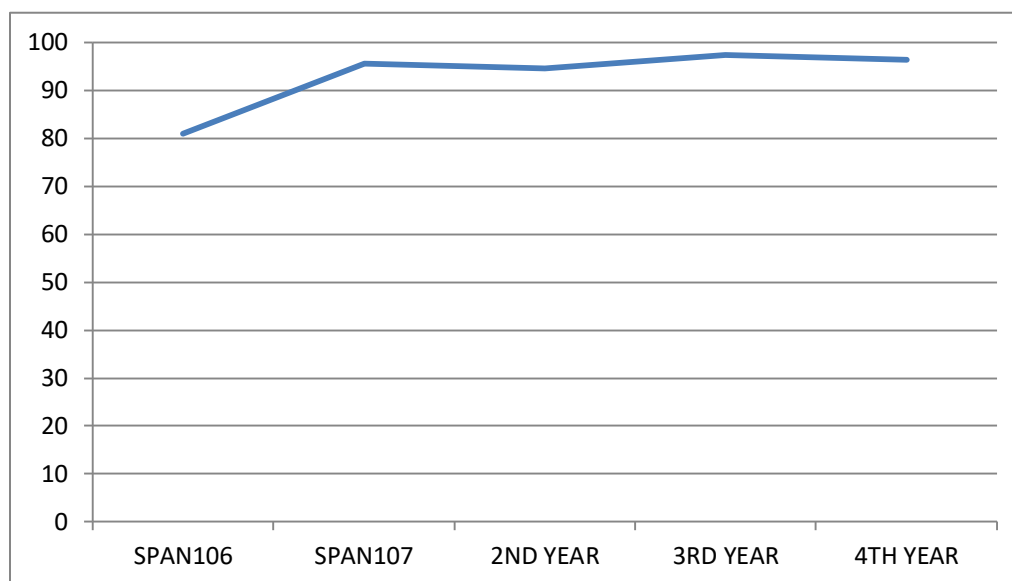
**Table 39. Verb Morphology Errors (Fourth Year)**

<b>Type of Error</b>	<b>Percentage of Production</b>
<b>Conjugation pattern “experiencer-verb”</b>	4.5%
<b>Use of third person singular verb conjugation with third person plural subjects</b>	86.5%
<b>Using the infinitive of the verb <i>gustar</i></b>	4.5%
<b>Using the wrong mood</b>	4.5%

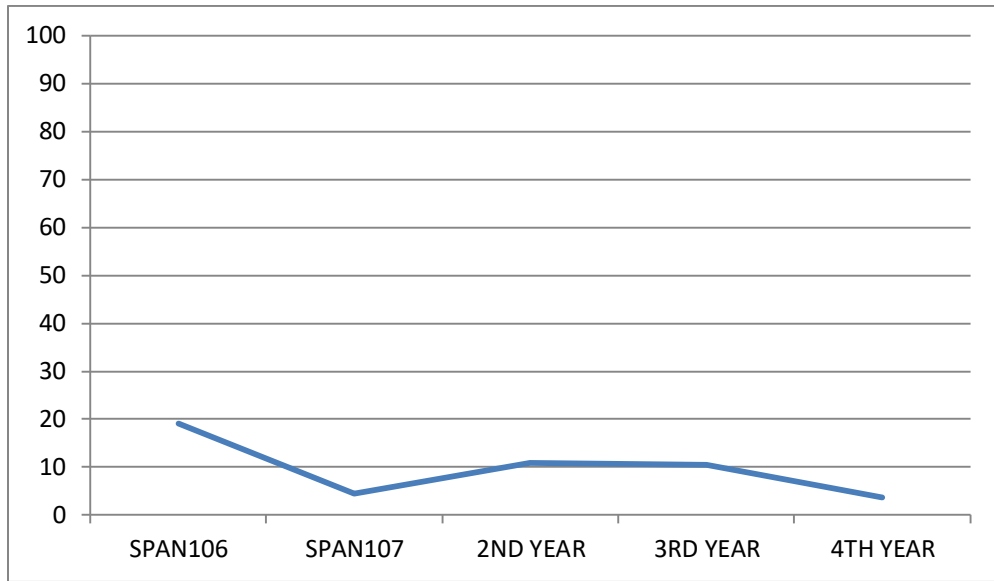
### **Developmental Stages of Verb Morphology Acquisition**

A progressive evolution in the acquisition of verb *gustar* morphology can be observed on the grammatical judgment test. As observed in Figure 15, 81% of the SPAN 106 students identified the correct verb morphology featuring the “theme-verb” conjugation pattern in sentence B1. The percentage is similar for the SPAN 107 and second years ( $\approx 95\%$ ). Then, it slightly increases to  $\approx 97\%$  in the third and fourth years. However, a small portion of learners at all levels selected incorrect verb morphology featuring an “experiencer-verb” conjugation pattern despite their choosing the correct verb morphology (for example, sentences featuring the incorrect “experiencer-verb” conjugation pattern, such as sentence C3, were chosen at all levels).

Figure 16 shows the development of the “experiencer-verb” agreement pattern recognition across the different years of instruction through the sentence C3 selection. As can be observed, there is a progressive decrease from the SPAN 106 level (19%) to the fourth year (3.6%). However, the SPAN 107 level represents an exception to that decrease. The percentage of students selecting sentence C3 dropped to 4.5% at the SPAN 107 level and increased again to 10.8% and 10.5% at the second year and third years, respectively. It is worth noting that “theme-verb” agreement mistakes were not included in the grammatical judgment. Had this type of verb error been included, it would have given more insights about students’ subject recognition and verb morphology at every level.



**Figure 15. Correct “Experiencer-Theme” Agreement Selection in Sentence B**

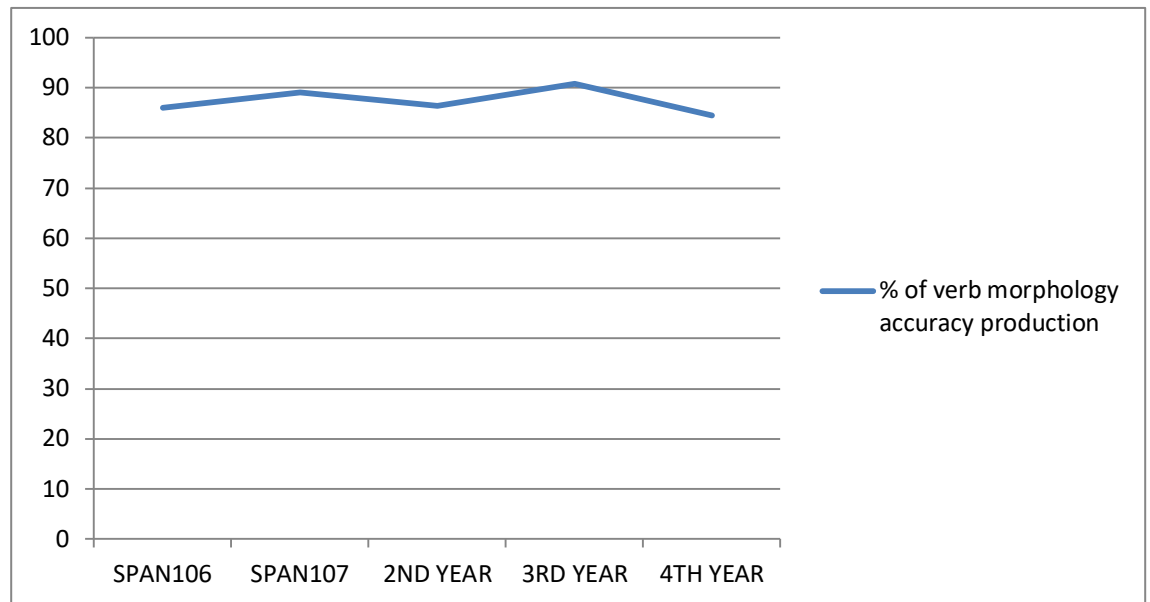


**Figure 16. Incorrect “Experiencer-Verb” Agreement Selection in Sentence C3**

Figure 17 shows the verb production pattern for the different years of instruction. Evidently, there is no clear improvement pattern in the use of *gustar* across level of instruction. Accuracy levels fluctuated across the years of instruction scale, with higher scores in the third year (90.7%) and SPAN 107 (89%), and lower scores in the fourth year (84.5%), second year (86.3%) and SPAN 106 (86%).

The verb production results in the second year and in the fourth year are not what it is expected in a progressive development. The fourth year showed the lowest accuracy level (84.5%) of verb morphology production. This unexpected accuracy pattern seems to be associated with the type of theme students used at every level. In fact, with the exception of the SPAN 107 level —whose main error was “experiencer-verb” agreement pattern— a correlation between plural noun theme use and the verb-morphology accuracy level can be observed. Table 40 shows the verb morphology

correctness and plural noun theme correlation at every level. In levels where there was a higher use of plural noun themes —such as the case of the fourth year— there also was lower verb morphology accuracy.



**Figure 17. Verb Accuracy Production**

**Table 40. Correlation between Plural Noun Theme Use and Verb Morphology Correctness**

Years of Instruction	Plural Noun Theme	Verb Morphology Correctness
<b>SPAN 106</b>	22.7%	86%
<b>SPAN 107</b>	20.5%	89%
<b>2<sup>ND</sup> YEAR</b>	19.8%	86.3%
<b>3<sup>RD</sup> YEAR</b>	16.7%	90.7%
<b>4<sup>TH</sup> YEAR</b>	31.5%	84.5%

Figure 18 presents the frequency of the different verb morphology errors. The main error at all levels (except for the SPAN 107 level) is number agreement. More specifically, the use of the third person singular when the theme and subject of the sentence is plural. An example of this verb morphology error is *me gusta los coches*. The lowest percentage of this error excluding the SPAN 107 level is 78.1% (second year) and the highest 88.6% (SPAN 106). This high use of the third person singular conjugation may not be surprising, since infinitives and singular noun themes require this conjugation. Thus, students will need the third person singular conjugation of the verb *gustar* (*gusta*) more often than the third person plural (*gustan*). Furthermore, for the same reason, the third person singular conjugation is more likely to appear in the input students receive than the third person plural conjugation. This number disagreement may also indicate that in the syntactic parsing strategies, the verb form *like* —as in the sentence *I like chocolate*— is the same as both the verb forms *gusta* and *gustan*—as in the sentences *Me gusta el coche* and *me gustan los coches*.

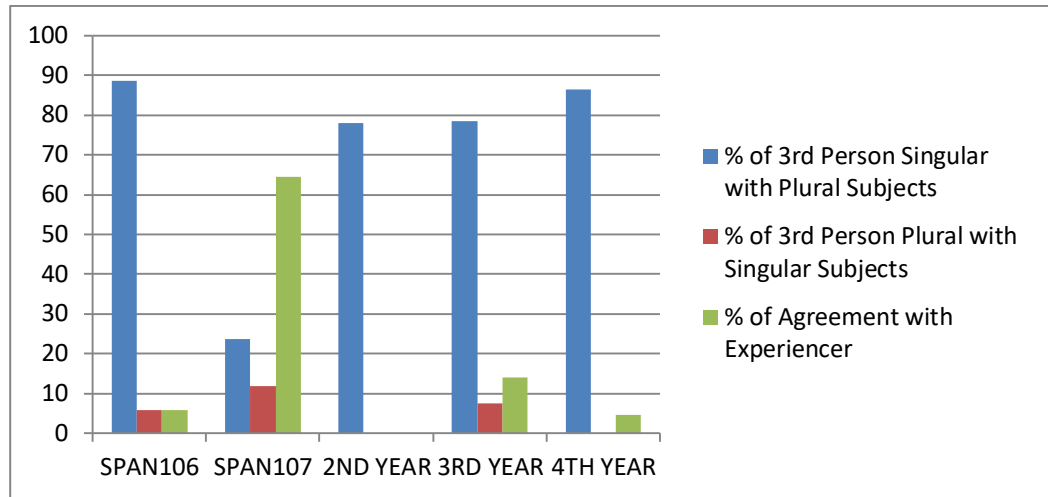
The second main mistake is the production of “experiencer-verb” agreement pattern (for instance, the sentence *me gusto el coche*)— which was the major mistake in the study made by Gascon (1998). At the SPAN 107 level, the “experiencer-verb” agreement pattern is the most frequent error (64.5%). This error could be the result of students’ use of the L1 syntactic parsing strategies. The SPAN 106 (5.7%) and fourth year (4.5%) levels showed the lowest frequency of “experiencer-verb” agreement error. The explanation for the low percentage of “experiencer-verb” production at the SPAN 106 level may be that these students are still reproducing chunks they have memorized. However, once the learners start being creative and more independent with language, they rely more on the L1 experience. This starting point of independent



and creative use of language could be the explanation for the high use of “experiencer-verb” agreement pattern at the SPAN 107 level. Then, as has been observed and after comparisons with the results collected by Gacon (1998), this error decreased level by level as students’ proficiency increased.

Finally, the least frequent error at all levels is the use of the third person plural with singular subjects (*me gustan el helado*). This verb morphology error is only present at the SPAN 106 (5.7%), SPAN 107 (11.8%) and third year (7.5%) levels in a small proportion.

As observed, the main error is number agreement (especially the use of the third person singular conjugation with plural noun themes). Pienemann’s Processability Theory (1998) could shed some light on this agreement issues. The Processability Theory (see VanPatten & Williams, 2015) claims that students can only understand and produce the forms that the processor can handle. This processor compares and stores information about the different features of the elements in a sentence (for example, features like gender or noun). According to this theory, there is a hierarchy in this process of information exchange that allows for feature unification —i.e., making the elements in a sentence agree. The hierarchy ranks the different information exchanges (such as inside a NP, a VP or a sentence) from the easiest and earliest to the most difficult and latest in the acquisition process. In this hierarchy, the sentence procedure information exchange — for instance, the subject-verb agreement— is the second most difficult. Hence, this theory explains why students even at higher levels of proficiency still make number agreement errors. According to this, even if students are recognizing the syntactic subject, their language processor may not be ready to handle a sentence procedure information exchange.



**Figure 18. Frequency of Verb Morphology Error**

### 4.3 Theme Results

#### SPAN 106 Level (SPAN 106)

##### *Grammatical Judgment Test*

Table 41 represents the percentage of SPAN 106 students that chose each sentence in the grammatical judgment test. As shown, none of the students selected any of the correct sentences where the theme—and subject of the sentence in Spanish— was in preverbal position (B5, C2). However, a small percentage of the SPAN 106 students (4.8%) did choose the incorrect sentence C4 featuring a preverbal theme. This low preverbal theme sentence selection indicates that SPAN 106 students do not recognize themes in the preverbal position. The difficulty of SPAN 106 students to recognize the preverbal theme as a correct option may be explained by the use of the L1 syntactic parsing strategies — the theme usually occupies the post-verbal position as a direct object in English. Besides, the post-verbal position may be the most frequent in the input students receive, as post-verbal themes are used the most in Spanish. In addition, according to the First Noun Principle (Input Processing) and the Topic Hypothesis (Processability Theory), students at low levels of instruction interpret the first noun phrase as the syntactic subject of the sentence. However, since the syntactic subject of the English sentence is the experiencer, students tend to reject sentences featuring a preverbal theme. Thus, the majority of the SPAN 106 students selected sentences featuring post-verbal themes.

Table 41. Grammaticality Judgment Test (SPAN 106)		
Sentence Banks	Sentences	Selection Percentage
	1. Yo me gusto correr todos los días	0%
	2. Correr me gusto todos	0%

<b>BANK A</b>	los días	
	3. A mí me gusta correr todos los días	42.9%
	4. Yo me gusta correr todos los días	52.4%
	5. Yo gusta correr todos los días	4.8%
<b>BANK B</b>	1. Me gustan las hamburguesas	81%
	2. Yo gusto las hamburguesas	0%
	3. Gustan las hamburguesas	4.8%
	4. Me gusto las hamburguesas	14.3%
	5. Las hamburguesas me gustan	0%
<b>BANK C</b>	1. Gusto el chocolate	0%
	2. El chocolate me gusta	0%
	3. A mí me gusto el chocolate	19%
	4. El chocolate gusta	4.8%
	5. Me gusta el chocolate	76.2%

### *Production Task*

SPAN 106 students produced post-verbal themes 97.5% of the time (see Table 42). The remaining 2.5% corresponded to preverbal uses featuring a relative clause that was used without a relative pronoun (*el coche (que) me gusta...*). This omission of the relative pronoun could be the result of using the L1 syntactic parsing strategies—*the chocolate (that) I like...*— where the relative pronoun that is optional in English.

Table 43 displays the percentages of the different types of themes students at the SPAN 106 level used. As shown, the most frequent themes were infinitives (51.3%) —*me gusta correr*—, followed by singular nouns (26.1%)—*me gusta el chocolate*—, and plural nouns —*me gustan los coches*—(22.7%).

85.2% of the infinitive themes produced by SPAN 106 students were correct (Table 44). As shown in Table 45, the only error when producing the infinitive theme was the “experiencer-infinitive” agreement —*me gusta canto*. This type of mistake suggests that a portion of students at the SPAN 106 level do not recognize the syntactic subject of the verb *gustar* sentence.

In this study, SPAN 106 students produced correct noun themes 55.2% of the time (see Table 46). The main mistakes in noun theme production are presented in Table 47. As shown, the main error was determiner omission (71.9%), such as in the sentence *me gusta (el) chocolate*. The determiner omission could be the result of the L1 experience, since definite determiners are not used in the *to like* construction. The next main mistake was the use of Anglicisms (*me gusta lemon*) (15.6%). This relatively high incidence of Anglicisms is not surprising, since students at low levels of instruction possess only a limited vocabulary.

**Table 42. Theme Position Use (SPAN 106)**

Theme Position	Percentage of Use
Post-verbal	97.5%
Preverbal	2.5%

**Table 43. Types of Themes (SPAN 106)**

Type of Theme		Percentage of Use
Infinitive	Infinitive	51.3%
Noun	Singular	26.1%
	Plural	22.7%

**Table 44. Infinitive Theme Correctness (SPAN 106)**

<b>Correct</b>	85.2%
<b>Incorrect</b>	14.8%

**Table 45. Infinitive Theme Errors (Fourth Year)**

<b>Type of Error</b>	<b>Percentage in Production Task</b>
<b>Infinitive-Verb Agreement</b>	100%

**Table 46. Noun Theme Correctness (SPAN 106)**

<b>Correct</b>	55.2%
<b>Incorrect</b>	44.8%

**Table 47. Noun Theme Errors (Fourth Year)**

<b>Type of Error</b>	<b>Percentage in Production Task</b>
<b>Omission of Determiners</b>	71.9%
<b>Use of Anglicism</b>	15.6%
<b>Omission of preverbal relative pronouns</b>	6.3%
<b>Others</b>	6.3%

## SPAN 107 Level

### *Grammatical Judgment Test*

SPAN 107 students only selected sentences (A3, B1 and C5) featuring a theme in post-verbal position (Table 48). This is evidence of the SPAN 107 students' failure to recognize the correctness of the theme —and syntactic subject of the sentence— in preverbal position. The reason for this failure could be the use of the L1 syntactic parsing strategies, since in the L1 the theme normally occupies the post-verbal position as an object. Furthermore, as commented earlier, themes in preverbal position are not as usual in Spanish as in post-verbal position, which may affect the input students receive by limiting the exposure of students to themes in preverbal position. As commented, the First Noun Principle and the Topic Hypothesis—which state that students interpret the first noun phrase as the syntactic subject— may also explain why students reject preverbal themes as they could think that the syntactic subject must be the experiencer. As a result, SPAN 107 students mostly chose sentences containing a post-verbal theme (such as A3, B1 and C5).

<b>Table 48. Grammaticality Judgment Test (SPAN 107)</b>		
<b>Sentence Banks</b>	<b>Sentences</b>	<b>Selection Percentage</b>
<b>BANK A</b>	1. Yo me gusto correr todos los días	0%
	2. Correr me gusto todos los días	0%
	3. A mí me gusta correr todos los días	59.1%
	4. Yo me gusta correr todos los días	36.4%
	5. Yo gusta correr todos los días	4.5%
	1. Me gustan las	95.5%

<b>BANK B</b>	hamburguesas	
	2. Yo gusto las hamburguesas	4.5%
	3. Gustan las hamburguesas	0%
	4. Me gusto las hamburguesas	0%
	5. Las hamburguesas me gustan	0%
<b>BANK C</b>	1. Gusto el chocolate	4.5%
	2. El chocolate me gusta	0%
	3. A mí me gusto el chocolate	4.5%
	4. El chocolate gusta	0%
	5. Me gusta el chocolate	90.9%

### *Production Task*

In this study, 100% of the themes were produced in post-verbal position at the SPAN 107 level, as Table 49 illustrates. Such an absolute preference for post-verbal position is not surprising given the results at the grammatical judgment test—none of the students selected any sentence featuring a theme in preverbal position.

Theme type percentages at the SPAN 107 level are presented in Table 50. Infinitives were the most produced themes by participants in this investigation (60.9% of the time) in sentences such as *me gusta correr*. The second type is plural noun themes (20.5%) —*me gustan los coches*—, and the third corresponds to singular noun themes (18.6%) —*me gusta el chocolate*.

SPAN 107 students accurately produced infinitive themes 94.9% of the time (Table 51). The only type of error (see Table 52) is “experiencer-infinitive” agreement—such as *me gusta canto*. This “experiencer-infinitive” agreement error is likely to be the result of the SPAN 107 students’ inability to recognize the syntactic subject of the



*gustar* sentence—which is the theme, inability that has already been documented in the grammaticality test (Table 53).

Students’ accuracy at the SPAN 107 level when producing noun themes was 63.5% (Table 54). As shown in Table 14, the main error was the omission of determiners (69.7%) —such as *me gusta chocolate*. The fact that determiners are not used in the English *to like* structure may very well explain why these first-year students of Spanish failed to produce them in the writing task of this investigation. Other mistakes (such as spelling) were produced 26.1% of the time. This was followed by the use of Anglicisms (4.3%).

**Table 49. Theme Position Use (SPAN 107)**

Theme Position	Percentage of Use
Post-verbal	100%
Preverbal	0%

**Table 50. Types of Themes (SPAN 107)**

Type of Theme		Percentage of Use
Infinitive	Infinitive	60.9%
Noun	Singular	18.6%
	Plural	20.5%

**Table 51. Infinitive Theme Correctness ( SPAN 107 Level)**

<b>Correct</b>	94.9%
<b>Incorrect</b>	5.1%

**Table 52. Infinitive Theme Errors (SPAN 107)**

<b>Type of Error</b>	<b>Percentage in Production Task</b>
<b>Infinitive-Verb Agreement</b>	100%

**Table 53. Noun Theme Correctness (SPAN 107)**

<b>Correct</b>	63.5%
<b>Incorrect</b>	36.5%

**Table 54 Noun Theme Errors (SPAN 107)**

<b>Type of Error</b>	<b>Percentage in Production Task</b>
<b>Omission of Determiners</b>	69.7%
<b>Use of Anglicisms</b>	4.3%
<b>Omission of preverbal relative pronouns</b>	0%
<b>Others</b>	26.1%

## **Second Year (SPAN201, 205)**

### *Grammatical Judgment Test*

Table 55 displays the percentage of second-year students who selected each sentence on the grammatical judgment test. As shown, none of the second-year

students recognized the correctness of the preverbal themes represented in sentences A2, B5, C2 and C4. This difficulty in recognizing the correctness of preverbal themes may derive from the lack of appearance of the preverbal theme position in the input—given the fact that post-verbal themes are the most used in Spanish—, as well as the use of the L1 syntactic parsing strategies. Another explanation could derive from the First Noun Principle and Topic Hypothesis, which indicates that students interpret the first noun phrase as the syntactic subject of the sentence. However, the syntactic subject in English is the experiencer. Thus, second-year students only selected sentences featuring post-verbal themes, such as sentences A3, B1 and C5.

<b>Table 55: Grammaticality Judgment Test (Second Year)</b>		
<b>Sentence Banks</b>	<b>Sentences</b>	<b>Selection Percentage</b>
<b>BANK A</b>	1. Yo me gusto correr todos los días	0%
	2. Correr me gusto todos los días	0%
	3. A mí me gusta correr todos los días	83.8%
	4. Yo me gusta correr todos los días	18.3%
	5. Yo gusta correr todos los días	0%
<b>BANK B</b>	1. Me gustan las hamburguesas	94.6%
	2. Yo gusto las hamburguesas	0%
	3. Gustan las hamburguesas	0%
	4. Me gusto las hamburguesas	5.4%
	5. Las hamburguesas me gustan	0%
	1. Gusto el chocolate	0%

<b>BANK C</b>	2. El chocolate me gusta	0%
	3. A mí me gusto el chocolate	10.8%
	4. El chocolate gusta	0%
	5. Me gusta el chocolate	91.9%

### *Production Task*

The percentages of the different theme positions used in the production task are represented in Table 56. As can be observed, the vast majority of second-year students produced post-verbal themes (97.1% of the theme uses). Only 2.9% of the students produced preverbal themes that consisted in a relative clause. The L1 syntactic parsing strategies could explain the use of relative clause themes, since in English sentences such as *the chocolate (that) I like* are correct. In such sentences the relative pronoun *that* is optional. Thus, second-year students produced sentences such as *el chocolate ~~(que)~~ me gusta es...* omitting the use of the obligatory relative pronoun *que* in Spanish.

Table 57 shows the different types of themes used by second-year students. Students mostly produced infinitive themes (53.5%) —*me gusta correr*. This infinitive theme production was followed by singular noun themes (25%) —*me gusta el chocolate*—, and plural noun themes (19.8%) —*me gustan los coches*.

96.7% of the infinitive themes were accurately produced by second-year students (see Table 58). Although the percentage of infinitive theme errors was small, a new type of mistake at the intermediate- low level was found: the use of the gerund—such as *me gusta cantando*. As shown in Table 59, the use of the gerund

represented 66.7% of the infinitive theme mistakes. The other type of mistake (33.3%) corresponded to “infinitive-verb” agreement patterns —such as *me gusta canto*.

55.8% of the noun theme production was completely correct (Table 60). As shown in Table 61, the main error was the omission of determiners (82.4%) —such as *me gusta ~~el~~ chocolate*. The determiner omission may be the result of using the L1 syntactic parsing strategies, since the definite determiner is not used in verb *to like* construction. 14.7% of the mistakes corresponded to other types of mistakes (such as spelling) and 2.9% consisted in the omission of the relative pronoun omission in preverbal themes.

**Table 56. Theme Position Use (Second Year)**

Theme Position	Percentage of Use
Post-verbal	97.1%
Preverbal	2.9%

**Table 57. Types of Themes (Second Year)**

Type of Theme		Percentage of Use
Infinitive	Infinitive	53.5%
Noun	Singular	25%
	Plural	19.8%
Others	Other	1.7%

**Table 58. Infinitive Theme Correctness ( Second year)**

<b>Correct</b>	96.7%
<b>Incorrect</b>	3.3%

**Table 59. Infinitive Theme Errors (Second Year)**

<b>Type of Error</b>	<b>Percentage in Production Task</b>
<b>Infinitive-Verb Agreement</b>	33.3%
<b>Gerund</b>	66.7%

**Table 60. Noun Theme Correctness (Second Year)**

<b>Correct</b>	55.8%
<b>Incorrect</b>	44.2%

**Table 61. Noun Theme Errors (Second Year)**

<b>Type of Error</b>	<b>Percentage in Production Task</b>
<b>Omission of Determiners</b>	82.4%
<b>Use of Anglicisms</b>	0%
<b>Omission of preverbal relative pronouns</b>	2.9%
<b>Others</b>	14.7%

**Third Year (SPAN300, 305,314)**

*Grammatical Judgment Test*

Students in the third year selected both sentences featuring a preverbal and a post-verbal theme in the grammatical judgment test (Table 62). On the one hand, 17.9% of the third-year students selected sentence B5 and 15.4% chose sentence C2 (both sentences containing a preverbal theme). In light of this, students at the third year start recognizing the correctness of preverbal themes. Students seemed to more easily recognize preverbal plural noun themes (sentence B5) as a correct option than preverbal singular noun themes (sentence C2). However, the difference between the sentence B5 and C2 selection percentage is not significant (2.5%). On the other hand, the vast majority of the third-year students selected post-verbal theme sentences (such as A3, B1 and C5).

<b>Table 62. Grammaticality Judgment Test (Third Year)</b>		
<b>Sentence Banks</b>	<b>Sentences</b>	<b>Selection Percentage</b>
<b>BANK A</b>	1. Yo me gusto correr todos los días	10.3%
	2. Correr me gusto todos los días	2.6%
	3. A mí me gusta correr todos los días	74.4%
	4. Yo me gusta correr todos los días	20.5%
	5. Yo gusta correr todos los días	0%
<b>BANK B</b>	1. Me gustan las hamburguesas	97.4%
	2. Yo gusto las hamburguesas	0%
	3. Gustan las hamburguesas	0%
	4. Me gusto las hamburguesas	2.6%
	5. Las hamburguesas me gustan	17.9%

<b>BANK C</b>	1. Gusto el chocolate	2.6%
	2. El chocolate me gusta	15.4%
	3. A mí me gusto el chocolate	10.5%
	4. El chocolate gusta	0%
	5. Me gusta el chocolate	92.3%

### *Production Task*

Table 63 displays the different theme positions produced in the third year. As could be expected from the grammatical judgment test results, there was an increase in preverbal themes (6.7% of the total theme production). This increase of preverbal themes is limited, which is expected, since preverbal themes —though grammatically correct— are not heavily used in Spanish. The preverbal themes were produced both by students who chose the preverbal theme sentences in the grammatical judgment test and by the students who did not choose any sentence featuring a preverbal theme. However, this last type of students could be producing sentences using the L1 syntactic parsing strategies.

The percentages indicating the frequency of each type of theme in the third year are represented in Table 64. As shown, the most common theme was the infinitive (57.3%). Singular noun themes were produced 23.3% of the time and plural themes, 16.7%.

Table 65 displays the accuracy percentage of infinitive themes by third-year students. As observed, the third-year students fully mastered the use of infinitive themes with 100% of accuracy.



60% of the total noun theme production in the third year was correct (Table 66). As shown in Table 67, the main mistake made by third-year students is the lack of determiners 79.2% —such as *me gusta chocolate*. The determiner omission may derive from the L1 experience, since the English theme is not generally accompanied by a definite determiner. The lack of determiners was followed by the omission of the relative pronoun in preverbal themes (8.4%) and other types of mistakes (8.4%). Finally, only 4.2% of the noun theme mistakes corresponded to the use of Anglicisms.

**Table 63. Theme Position Use (Third Year)**

Theme Position	Percentage of Use
Post-verbal	93.4%
Preverbal	6.7%

**Table 64. Types of Themes (Third Year)**

Type of Theme		Percentage of Use
Infinitive	Infinitive	57.3%
Noun	Singular	23.3%
	Plural	16.7%
Others	Other	2.7%

**Table 65. Infinitive Theme Correctness (Third Year)**

Correct	100%
Incorrect	0%

<b>Table 66. Noun Theme Correctness (Third Year)</b>	
<b>Correct</b>	60%
<b>Incorrect</b>	40%

<b>Table 67. Noun Theme Errors (Third Year)</b>	
<b>Type of Error</b>	<b>Percentage in Production Task</b>
<b>Omission of Determiners</b>	79.2%
<b>Use of Anglicisms</b>	4.2%
<b>Omission of preverbal relative pronouns</b>	8.4%
<b>Others</b>	8.4%

#### **Fourth Year (SPAN401, 455, 471, 475)**

##### *Grammatical Judgment Test*

Table 68 represents the sentence selection percentages by fourth-year students on the grammatical judgment test. As shown, the vast majority of students selected sentences featuring a post-verbal theme. 35.7% of the fourth-year students chose sentence B5 and 21.4% selected sentence C2. Both sentences, B5 and C2, are correct sentences featuring a preverbal theme. The selection of sentences B5 and C2 shows that a decent amount of fourth-year students recognized the correctness of preverbal themes. Similarly to the third year, the preverbal plural noun theme sentence (B5) seems easier to be recognized as a correct option than the preverbal singular noun theme sentence (C2). However, the difference of the selection percentage of sentences B5 and C2 is more significant at the fourth year (14.3%). The singularity of the verb morphology for plural noun themes—if compared with the verb morphology for both

infinitives and singular noun themes— may help students identify the correctness of preverbal plural noun themes better than preverbal singular noun themes. Identifying both sentence B5 and C2 as correct options may be an indicator that students recognized the syntactic subject of the sentence. The rest of the choices corresponded to sentences containing post-verbal themes, such as sentences A3, B1 and C5.

<b>Table 68. Grammaticality Judgment Test (Fourth Year)</b>		
<b>Sentence Banks</b>	<b>Sentences</b>	<b>Selection Percentage</b>
<b>BANK A</b>	1. Yo me gusto correr todos los días	3.6%
	2. Correr me gusto todos los días	0%
	3. A mí me gusta correr todos los días	85.7%
	4. Yo me gusta correr todos los días	25%
	5. Yo gusta correr todos los días	0%
<b>BANK B</b>	1. Me gustan las hamburguesas	96.4%
	2. Yo gusto las hamburguesas	0%
	3. Gustan las hamburguesas	3.6%
	4. Me gusto las hamburguesas	7.1%
	5. Las hamburguesas me gustan	35.7%
<b>BANK C</b>	1. Gusto el chocolate	7.1%
	2. El chocolate me gusta	21.4%
	3. A mí me gusto el chocolate	3.6%
	4. El chocolate gusta	0%
	5. Me gusta el chocolate	96.4%

### *Production Task*

Fourth year students produced 5.6% of preverbal themes (see Table 69). As commented in third-year students' results, the increase of preverbal themes is limited by the restricted use of preverbal themes in Spanish. Worth noting is the fact that the vast majority of the preverbal theme productions were carried out by students who did not choose the preverbal theme sentences in the grammatical judgment. This discrepancy between students' sentence selection and students' sentence production may be the result of the use of L1 syntactic parsing strategies. In other words, some students may produce preverbal themes because they are used in the L1, rather than producing preverbal themes because these students mastered the preverbal theme structure in Spanish.

The frequency of the different types of themes produced by fourth-year students is represented in Table 70. As shown, infinitive themes were the most used (37.1%); plural noun themes were very close in use to infinitive themes (31.5%). Finally, singular noun themes were used 29.4% of the time.

Although fourth-year students fully mastered the infinitive theme use (see Table 71), only 66.7% of the noun theme production was correct (Table 72). Table 73 displays the percentage of every type of noun theme mistake. As with previous levels, the lack of determiners constituted the primary mistake (86.2%). This determiner omission could be the result of the use of L1 syntactic parsing strategies, since such use of the definite determiner is not employed in the verb *to like* structure. The remaining 13.8% corresponded to other mistakes (such as spelling).

Table 69. Theme Position Use (Fourth Year)	
Theme Position	Percentage of Use
Post-verbal	94.4%

<b>Preverbal</b>	5.6%
------------------	------

**Table 70. Types of Themes (Fourth Year)**

<b>Type of Theme</b>		<b>Percentage of Use</b>
<b>Infinitive</b>	<b>Infinitive</b>	37.1%
<b>Noun</b>	<b>Singular</b>	29.4%
	<b>Plural</b>	31.5%
<b>Others</b>	<b>Other</b>	2%

**Table 71. Infinitive Theme Correctness (Fourth Year)**

<b>Correct</b>	100%
<b>Incorrect</b>	0%

**Table 72. Noun Theme Correctness (Fourth Year)**

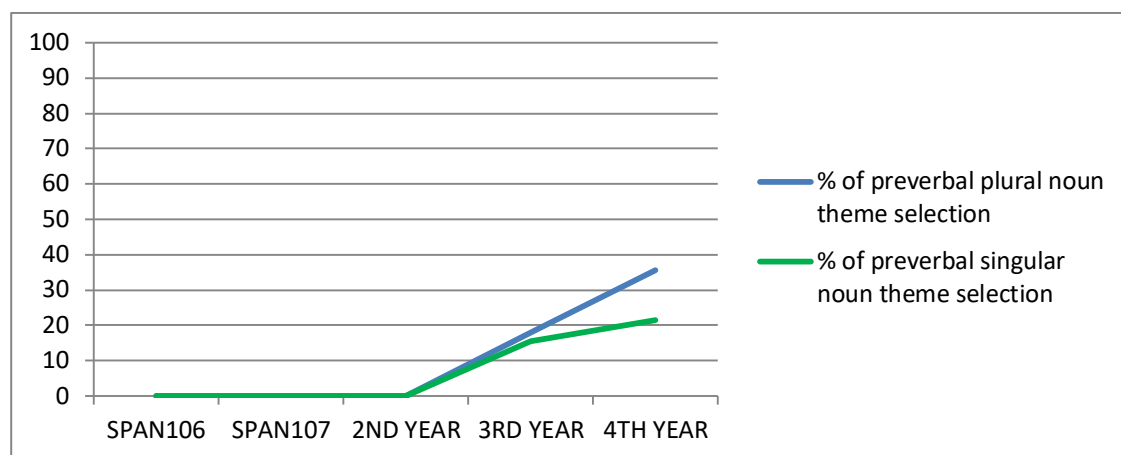
<b>Correct</b>	66.7%
<b>Incorrect</b>	33.3%

**Table 73. Noun Theme Errors (Fourth Year)**

<b>Type of Error</b>	<b>Percentage in Production Task</b>
<b>Omission of Determiners</b>	86.2%
<b>Use of Anglicisms</b>	0%
<b>Omission of preverbal relative pronouns</b>	0%
<b>Others</b>	13.8%

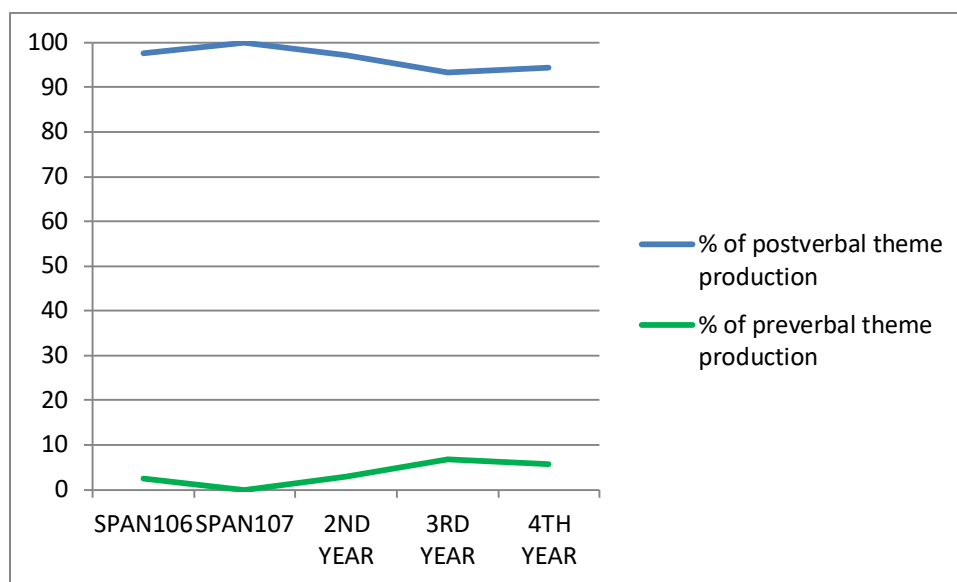
### **Developmental Stages of Theme Acquisition**

Students at all levels chose sentences featuring post-verbal themes—which is the most common position both in English and Spanish. The selection of sentences containing a preverbal theme seems to appear later in the acquisition process. Figure 19 shows the evolution of the preverbal theme recognition through the selection of sentences B5—a sentence featuring a preverbal plural noun theme—and C2—a sentence featuring a preverbal singular noun theme—in the grammatical judgment test. As observed, students started recognizing preverbal themes at the third year of instruction and there was not a significant difference (2.5%) between preverbal plural noun theme (17.9%) and singular noun theme selection (15.4%). However, this difference was more significant at the fourth year of instruction (14.3%). 35.7% of the fourth-year students chose the preverbal plural noun theme in sentence B5, while only 21.4% selected the preverbal singular noun theme in sentence C2. The verb morphology may explain why preverbal plural noun themes are easier to recognize as a correct option. The verb morphology for plural noun themes (*gustan*) stands out when compared with the singular noun and infinitive verb morphology (*gusta*). Besides, SLA theories discussed in VanPatten and Williams (2015), such as Pienemann's Processability Theory (1998)—Topic Hypothesis—and VanPatten's Input Processing Theory (1995)—First Noun Principle—state that second language learners tend to identify the first noun in the sentence as the subject of the sentence. Therefore, the recognition of preverbal noun themes by students at the third year and fourth years may be an indicator that students start to recognize the syntactic subject of the sentence.



**Figure 19. Selection of Preverbal Plural and Preverbal Singular Themes in Sentences B5 and C2.**

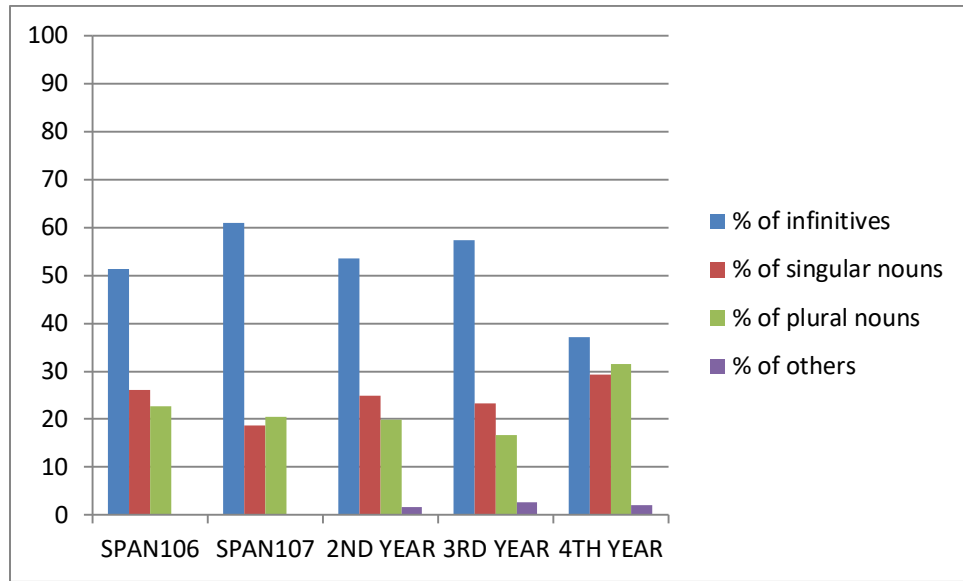
Figure 20 shows the percentage of preverbal and post-verbal theme production at every level. The vast majority of the theme production throughout all the levels is the post-verbal position. This clear preference for post-verbal theme production is not surprising, since post-verbal themes are the most common option in Spanish. However, a significant increase in preverbal production can be observed in the third year (6.7%) and fourth year (5.6%) of instruction, where students obtained better results at identifying the preverbal themes in the grammatical judgment test. The preverbal theme uses at SPAN 106 (2.5%) and second year (2.9%) levels could have been the result of the L1 syntactic parsing strategies. The preverbal themes were produced by using a relative pronoun, as is done in English —such as in the sentence *the chocolate (that) I like*— where the relative pronoun *that* is optional in English. In fact, the students who produced this type of sentence omitted the Spanish relative pronoun *que*; however, unlike in English, the use of the Spanish relative pronoun is obligatory.



**Figure 20. Post-Verbal and Preverbal Theme Production**

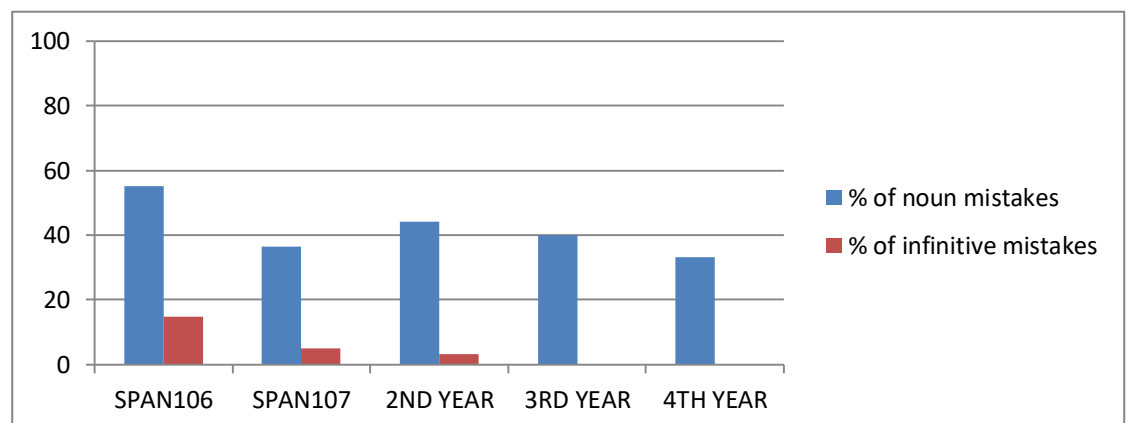
The percentages of the different types of themes produced are represented in Figure 21. As shown, infinitives are the most common themes at all levels —above 50% except for the fourth year (37.1%). Singular noun themes are next in use at the SPAN 106 (26.1%), second year (25%), and third year (23.3%) levels. Plural noun themes are the second most used themes at the SPAN 107 (20.5%) and fourth year (31.5%). The types of themes used are important to be considered, since themes are the syntactic subject of the *gustar* construction and they therefore affect the verb morphology. As commented on the verb morphology section, there seems to be a correlation between plural noun theme uses and verb morphology accuracy, where the latter increases as the former decreases.





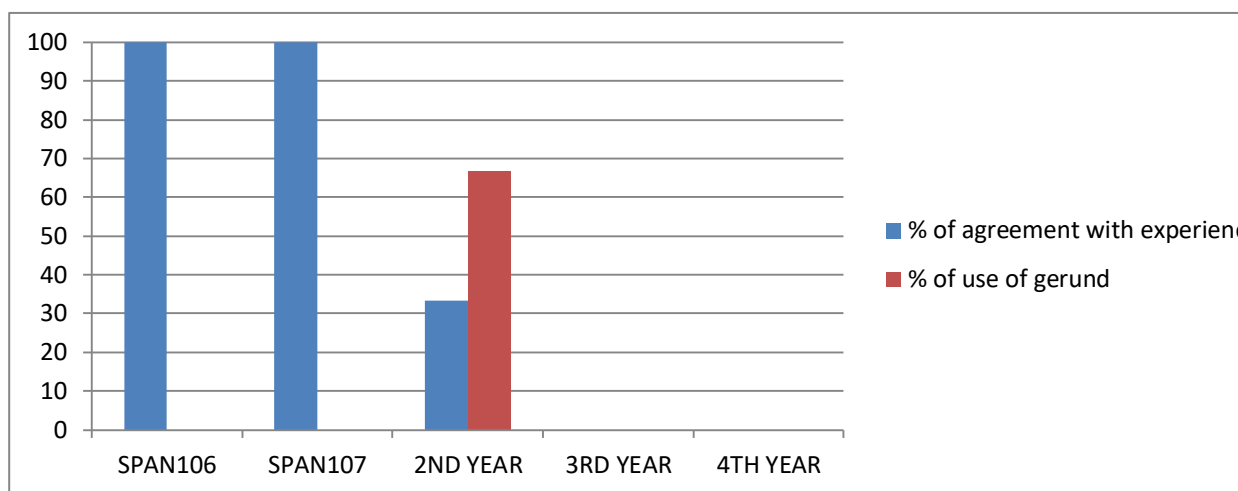
**Figure 21. Types of Themes Produced**

In terms of error production, Figure 22 displays the percentages of infinitive and noun theme error productions at every level. As shown, there is a clear progression of improvement in infinitive theme productions, while noun theme productions do not show such a pattern.



**Figure 22. Theme Error Production**

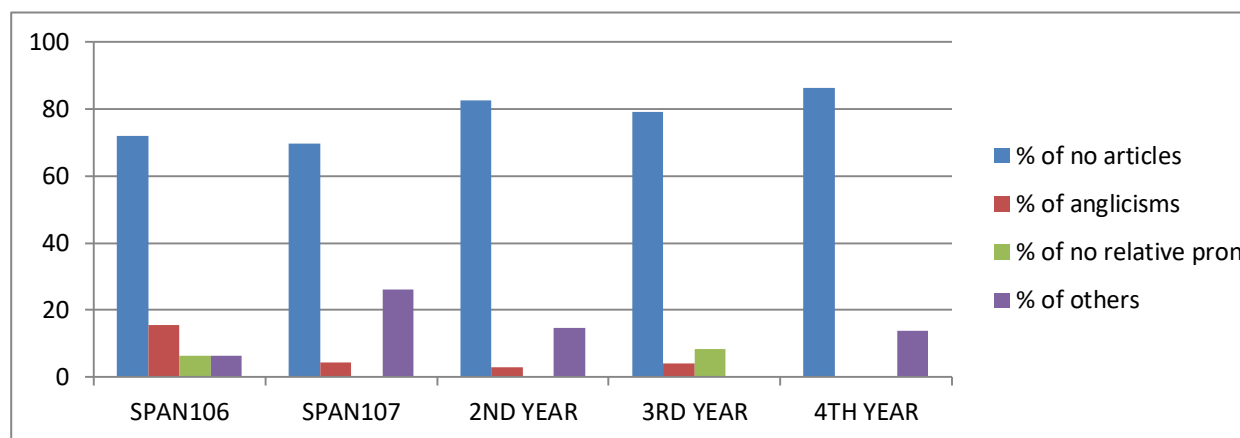
Figure 23 shows the nature of infinitive theme errors at every level. As can be observed, the “experiencer-infinitive” agreement progressively decreases from the SPAN 106 level (100% of the total infinitive theme mistakes) to 33.3% in the second year (the last level where infinitive theme mistakes were made). The use of gerund only appeared at the second year of instruction (66.7%).



**Figure 23. Types of Infinitive Errors**

The lack of determiners is the primary mistake made by students at all levels (See Figure 24). The lack of determiners is not surprising, since among other reasons, following VanPatten’s Input Processing Principles, determiners lack content and it is therefore more difficult for them to become intake and eventually output. Furthermore, the use of L1 syntactic parsing strategies could also be playing a role in the students’ determiner omissions. In fact, the use of definite determiners in the English theme of the verb *to like* structure is rare. As for the lack of a relative pronoun, this error could be the result of the L1 experience as well. In English, the relative pronoun can be omitted. For instance, the relative pronoun in the sentence *the*

*chocolate (that) I like*, is optional. In fact, the relative pronoun omission was a common mistake when students produced relative sentences. Finally, the use of Anglicisms decreased level by level as students acquired a wider lexicon in Spanish.



**Figure 24. Types of Noun Theme Errors**

## Chapter 5

### DISCUSSION AND CONCLUSIONS

The main goal of this thesis was to determine the stages of acquisition of the verb *gustar* among adult English-speakers learning Spanish as a second language. In order to achieve this goal, the mastery and usage patterns of the verb *gustar* structure by students at every level (from SPAN 106 to fourth years) was examined by analyzing the students' use of the experiencer, the verb morphology and the theme.

As indicated in the theme results, students seem to start differentiating the topic and the subject in the *gustar* sentence in the third year of instruction, and especially, in the fourth year of instruction. In this research, students with low levels of proficiency (SPAN 106, SPAN 107 and second-year students) did not select any of the sentences featuring a preverbal theme. This failure in recognizing the correctness of the preverbal theme could be the result of the lack of preverbal themes in the input—since preverbal themes, though correct, are not the most common in use. Another explanation could be a “subject-experiencer” mapping confusion. In other words, these students may be identifying the preverbal theme as the subject—following the First Noun Principle and the Topic Hypothesis— and as the experiencer of the sentence. This “subject-experiencer” mapping confusion, as Marras and Cadierno (2008) suggested, could derive from the transfer of English cognitive mechanisms —the English syntactic subject is the experiencer and the *trajector* of the sentence —, as well as from the transfer of the English LFG Lexical Mappings involved in the construction of the verb *to like*. However, the transfer of the lexical

mapping and cognitive mechanisms seems to occur in a reverse manner (from the c-structure to the  $\theta$ -structure). Students first interpret the first noun phrase as the syntactic subject and then map it to the thematic role assigned to it in English. Hence, sentences such as C2 (*el chocolate me gusta*) could have been interpreted as *the chocolate likes me* by students who did not choose that sentence due to its illogical meaning. In order to verify this hypothesis, in future research, besides the inclusion of sentences where the same theme is in post-verbal and preverbal positions, there could also be images depicting the situation expressed in the sentences and other pictures depicting the opposite situation where the theme becomes the experiencer and vice versa. Students would need to match the sentences with the image that corresponds to their interpretation of the sentence.

Students in the third and fourth years of instruction did select sentences featuring a preverbal theme, which suggests that these higher-level learners are not identifying the first noun phrase with the experiencer. Nonetheless, it is not possible to assume that these third-year and fourth-year students are mapping that first noun phrase (the theme) to the syntactic subject. Although some third-year and fourth-year learners selected sentences featuring the preverbal theme and the correct verb morphology—which could be proof of syntactic subject recognition— sentences featuring a preverbal theme and an incorrect verb morphology pertaining to number agreement were not provided in the grammatical judgment test. In fact, the only verb morphology error included in the grammatical judgment test was the “experiencer-verb” agreement. Had morphology errors pertaining to number agreement been included, it would have provided further insights into the stage in which learners identify the subject and therefore recognize the correct verb morphology

corresponding to the syntactic subject. However, from the production task data, it is possible to make some conclusions. Among the fourteen third year and fourth-year students who selected sentences featuring a preverbal theme, 64.3% used plural noun themes; based on that percentage, 66.7% did not make any agreement errors in the verb morphology, and 100% out of the fourteen students used correct experiencer codifications. Thus, there seems to be an improvement pattern in verb morphology and experiencer production among the fourteen students who selected both the preverbal and post-verbal theme sentences.

Although the students' selection (and production) of the correct verb morphology pertaining to number agreement would be the ultimate evidence of theme to syntactic subject mapping, this mapping could have been developed earlier in the acquisition process. According to Pienemann's Processability Theory (1998), discussed in VanPatten and Williams (2015), there is a hierarchy in the process of information exchange that allows for feature unification —i.e., making the elements in a sentence or phrase agree. The hierarchy ranks the different information exchanges (such as inside a NP, a VP or a sentence) from the easiest and earliest to the most difficult and latest in the acquisition process. In this hierarchy, the sentence procedure—which is in charge of the subject-verb agreement—is the second most difficult and latest to acquire. Hence, this theory explains why students would not identify or produce the correct verb morphology even if they were able to identify the correct syntactic subject of the *gustar* sentence.

The syntactic subject recognition in the third year and fourth years is also questionable due to the double experiencer usage. 21.4% of the fourteen students that selected the preverbal theme sentences at the third year and fourth years did also

choose the incorrect double experiencer codification PRI and 28.6% chose both the PRI and PHI. On the other hand, 50% of the students that selected preverbal theme sentences chose the PHI sentences. As observed, there seems to be a transitional stage where students start identifying the preverbal themes while improving at the correct double experiencer recognition (PHI). Though it is not possible to affirm that the fourteen third year and fourth-year students recognized the syntactic subject, it can be assumed that they start differentiating the Topic Position and the subject. It is assumable because regardless of the position the experiencer or the theme occupies in the sentences featuring a preverbal and a post-verbal theme, students deem both of them correct.

Contrary to Gascon (1998)'s findings, a progressive development in verb morphology accuracy was not found in this investigation. The only improvement pattern identified in the verb morphology was the “experiencer-verb” agreement pattern decrease. Though SPAN 106 students produced some “experiencer-verb” agreement patterns, it was more common at the SPAN 107 levels— when students start being creative and rely less on memorized chunks. The “experiencer-verb” agreement pattern progressively decreased to 4.5% in the fourth year. However, the most common error at every level—except for the SPAN 107 level— was the number agreement (more specifically, the use of the third person singular with plural subjects). Singular noun and infinitive themes require the same conjugation (third person singular) for the verb *gustar*. It is probably the conjugation students are exposed to the most in the input. Therefore, it is not surprising that students may have associated the English verb form *like* —as in the verb morphology in the sentence *I like cars*—with the Spanish verb form *gusta* —as in the incorrect verb morphology in the sentence *me*

*gusta los choches*, regardless of the syntactic subject number. This was supported by the fact that most of the students at every level—except for the SPAN 107 students—produced the form *gusta* even if they were interpreting the experiencer as the subject. In fact, if students tend to exclusively use the third person singular of the verb *gustar* (*gusta*), they are more likely to be correct most of the time (unless they use a plural noun theme). As shown in the verb morphology results, there seems to be a correlation between the theme types and the verb morphology accuracy (the more plural noun themes are used, the worse the accuracy of the verb morphology becomes). This may explain why fourth-year students did worse at the verb accuracy production. This correlation was true for all levels, except for the SPAN 107, since the most frequent verb morphology error SPAN 107 learners made was the “experiencer-verb” agreement pattern use. Had Gascon provided the theme types used by students in his research, it would have probably been possible to explain the differences between his results and the results of this thesis pertaining to the accuracy of the verb morphology. If his students barely used plural noun themes, that could explain the high verb morphology accuracy. In addition, the hierarchy proposed by the Processability Theory (1998)—which states that the subject-verb agreement process is the second most difficult process to acquire— helps also to explain why students at higher levels still make mistakes pertaining to number agreement even if they can recognize the syntactic subject of the sentence.

In terms of experiencers, there are two main types in the Spanish construction: simple and double. The simple experiencer is coded in Spanish by an indirect object. Through the grammatical test, it was observed that the simple experiencer codification was accommodated in the students’ interlanguage from the first year of instruction. In



the production task, matching Gascon (1998)'s results, it was found that students used the accurate simple experiencer for the first person singular (*me*). This facility in accommodating and accurately producing the simple experiencer could be the result of a transfer—the students associate the English simple experiencer codification for a first person (*I*) with the Spanish simple experiencer codification for the same person (*me*). Furthermore, some American English speakers also confuse the English personal pronoun *I* with the English object pronoun *me*. This confusion in the students' native language would facilitate the accommodation and usage of the Spanish indirect object *me*. Then, matching the findings on the interpretation of preverbal themes, students from SPAN 106 to the third year are most likely identifying the indirect object at the beginning of the sentence with the subject — following the First Noun Principle and the Topic Hypothesis. Though the fourteen third year and fourth-year students selecting the preverbal and post-verbal theme sentences may be also identifying the indirect pronoun as the syntactic subject, they are aware of the mobility of the subject in the sentence.

The L1 syntactic parsing strategies are more evident in the double experiencer codification in Spanish, since first-year students used the PRI codification, which contains a personal pronoun (like the English structure) and an indirect pronoun. A decrease in PRI codification was observed at the second year, third year and fourth years of instruction. In terms of the correct double experiencer codification, the PHI selection percentage progressively increased from the SPAN 107 level. A concurrent selection of both the PRI and PHI started and progressively increased level by level in the second year. The concurrent selection of PRI and PHI could indicate that students are considering both the PRI and PHI as the syntactic subject and *trajector* of the

sentence, as it is in English. The PRI and PHI interpretation as a subject could be explained by the Topic Hypothesis and the First Noun Principle. However, as noted before, there seems to be an improvement pattern in syntactic subject recognition among the fourteen students that selected sentences featuring the preverbal and post-verbal themes.

There is an important increase in the double experiencer accuracy in the second year (100%) and it remains close at the intermediate high (90.5%) and fourth year (94.2%) levels of instruction. As mentioned, this high accuracy in double experiencer production matches Gascon (1998)'s results. According to his research, students at the fourth semester of instruction (second year) are in a developmental stage where they differentiate the reflexive pronouns and the indirect pronouns (*le/les/se*). In this research, students in the second year also started differentiating the PRI (close to a reflexive construction) and the PHI. This ability to use the correct PHI could be the result of differentiating the reflexive pronouns from the indirect pronouns.

In relation to the preverbal theme interpretation, two main stages were identified. In the first stage— ranging from the SPAN 106 to the second year of instruction— students do not recognize the preverbal theme as a correct option. Students —following the First Noun Principle and the Topic Hypothesis— may be interpreting the first noun phrase in the sentence as the subject. Furthermore, that subject is probably mapped to the experiencer in a reverse fashion— from the c-structure to the  $\theta$ -structure — due to a transfer of L1 cognitive mechanisms and L1 Lexical Functional Grammar Mapping Rules. This reverse transfer could explain why students in the SPAN 106, SPAN 107 and second year rejected sentences featuring a

preverbal theme. In the second stage, some students seem to recognize the preverbal theme as a correct option. Specifically, fourteen third-year and fourth-year students started to distinguish between the topic sentence and the subject. Unfortunately, it was not possible to determine if students were recognizing the syntactic subject of the Spanish sentence (regardless of the position it could occupy) through the grammatical judgment test. The inclusion of sentences featuring an incorrect verb morphology pertaining to number agreement would have helped determine when students recognize the syntactic subject of the sentence. However, in the production task, it was observed that among the fourteen students who selected the preverbal and post-verbal theme sentences, there seems to be an improvement pattern in the verb morphology and the experiencer codification use, which could support the hypothesis that, at this second stage, these students recognize—or they started recognizing—the syntactic subject. However, following the Processability Theory (1998), students may have recognized the subject before they manifest it through the “subject-verb” agreement.

In terms of the simple experiencer, it seems to be acquired early (perhaps during the first year of college instruction), since the vast majority of the students used and selected the correct simple experiencer. This high simple experiencer accuracy may be explained by considering the effect of L1 syntactic parsing strategies. Students may be associating the simple experiencer in English (a single personal pronoun) with the Spanish simple experiencer (a single indirect pronoun), regardless of their syntactic function in the English *to like* and the Spanish *gustar* constructions (Subject and Indirect Object, respectively). However, since SPAN 106, SPAN 107 and second-year students did not select any preverbal theme sentences and they are probably being affected by the First Noun Principle and the Topic Hypothesis—the first noun phrase

is interpreted as the subject— it is possible to state that they are most likely interpreting the indirect object (and experiencer) as the syntactic subject of the sentence. After the second year of instruction, it was not possible to determine to what extent students consider the experiencer as the syntactic subject of the sentence. This is not possible due to the lack of sentences featuring the incorrect verb morphology pertaining number agreement in the grammatical judgment test. However, in the production task, it was observed that students who selected sentences featuring a preverbal and a post-verbal theme showed an improvement pattern at the verb accuracy and experiencer production.

Concerning the double experiencer, there seem to be two different stages of acquisition. In the first stage, there is a high use of L1 syntactic parsing strategies observed through the grammatical judgment and production task (first-year students mostly produced and selected the incorrect double experiencer codification). This wrong double experiencer codification (PRI) is similar to a reflexive construction. Students at the intermediate level and above began to differentiate the correct double experiencer codification (*a mí me*) PHI from the PRI codification similar to a reflexive construction (*yo me*).

As for the verb morphology, it is possible to distinguish three main stages. In the first stage (SPAN 106), almost 20% of the students chose the wrong “experiencer-verb” agreement pattern in the grammatical judgment test. However, low level students rely mainly on memorized chunks to produce sentences, which would explain their verb accuracy in the production task.

In the second stage, SPAN 107 students tended to produce “experiencer-verb” agreement patterns, though the selection of the “experiencer-verb” agreement pattern

decreased in the grammatical judgment test. This pattern production could be the result of the L1 syntactic parsing strategies and L1 cognitive mechanisms and mapping transfer

In the third stage, second year, third year and fourth-year students overused the third person singular conjugation (*gusta*). This overuse of the third person singular conjugation created a correlation between the types of theme used and the verb morphology accuracy. The overuse of the form *gusta* could be the result of the student's association of the form *like* to the *gusta* form, regardless of the subject. Students that used the most plural noun themes did worse in verb morphology accuracy, as was the case for the fourth-year students.

Table 74. Preliminary Formulation of the Developmental Path of <i>Gustar</i>					
Use/Year	First Year		Second Year	Third Year	Fourth Year
	SPAN 106	SPAN 107			
Simple experiencer codification	<p>High accurate production and selection of the correct simple experiencer (indirect object).</p> <p>Example: <i>Me gusta comer</i></p>				
Double experiencer codification)	<p>Low accurate production and selection of the correct clarification prepositional phrase plus indirect object.</p> <p>Example: <i>A mí me gusta correr.</i></p> <p>High production of the incorrect PRI codification (personal pronoun or noun plus indirect object pronoun).</p>		<p>High accurate production and selection of the correct clarification prepositional phrase plus indirect object.</p> <p>Example: <i>A mí me gusta correr.</i></p>		

	Example: <i>Yo me gusta correr</i> <i>Maria le gusta correr</i>		
<b>Preverbal Theme</b>	Complete rejection of preverbal theme sentences.  Example: <i>El chocolate me gusta</i>		Some recognition of preverbal theme sentences. Example: <i>El chocolate me gusta</i>
<b>Verb Morphology</b>	Reproduction of chunks containing the third person singular form. Example: <i>Me gusta comer</i>	Creative use of the language. Students utilize L1 syntactic parsing rules that results in the production of experiencer-verb agreement patterns.  Example: <i>Me gusto comer</i>	Use of the third person singular form of the verb <i>gustar</i> regardless of the number of the subject, probably due to the association of the third person singular ( <i>gusta</i> ) with the form <i>like</i> .  Example: <i>Me gusta los coches</i>

## Chapter 6

### PEDAGOGICAL IMPLICATIONS

Based on the identified stages in the acquisition of the verb *gustar*, this section provides one pedagogical implication for each component of the *gustar* sentence (experiencer, theme and verb morphology) that might make students' transitions between stages faster and more efficient:

1. Double experiencer codification: Both the grammaticality test and the production task showed that students at the first year of instruction have problems with the correct double experiencer codification, which is made of the clarification prepositional phrase plus the indirect object pronoun (*a mí me...*). Instead they produce an incorrect double experiencer codifications consisting of a personal pronoun or noun plus an indirect object pronoun (*yo me, María le...*). In light of this, teachers may want to reinforce the codification of double experiencers as "chunks" in both the input and the output (*a mí me, a ti te, a él le...*) for first year students.

2. Verb morphology: In the production task, students' main mistake across all years of instruction was the use of the third person singular (*gusta*) with plural themes. The only exception was SPAN 107 students, whose main mistake was the production of "experiencer-verb" agreement patterns. Considering this, instructors may want to enhance the frequency of plural verb forms (*gustan*) in all classroom tasks (which would entail reinforcing plural noun subjects) at all levels of instruction. Output activities will be especially important for SPAN 107 students, since they need to verify through feedback their hypothesis regarding the "experiencer-verb" agreement pattern use.

3. Preverbal theme: The grammatical judgment test showed that students at the first and second year of instruction do not deem correct preverbal sentences. Bearing this in mind, teachers may wish to reinforce the postverbal theme sentences in the input and output for first and second year students and increase the preverbal theme sentences in the input at the third and fourth years of instruction.

In this research, there is some evidence that students, at least in the first and second years, are processing the *gustar* structure under English cognitive mechanisms.

Students at the first and second year of instruction reject sentences with preverbal themes such as *el chocolate me gusta*. These students seem to be interpreting the theme as the experiencer and the experiencer as the theme (*the chocolate likes me*). Future research could carry out a grammatical judgment test where students need to match Spanish sentences of the verb *gustar* featuring preverbal themes with images or English translations of the Spanish sentences. Among the options, there should be a correct interpretation and a wrong interpretation where the theme is the experiencer and the experiencer is the theme. If students are indeed interpreting the first noun phrase as the experiencer, they are also probably interpreting it as the subject (as is in English). That could explain the confusion of the reflexive construction *yo me* and the clarification prepositional phrase plus indirect pronoun (*a mí me*). The students' interpreting of the first noun as the subject and experiencer of the sentence would also indicate that using the verb morphology *gusta* or *gustan* does not imply that students recognize the syntactic subject, but rather that students have associated the form *like* to either *gusta* or *gustan* (especially the former, since it is more likely to appear in the input).

If first year and second-year students are mapping the first noun phrase to the experiencer (and subject) of the sentence, it would be useful to know what happens when students start recognizing the preverbal theme uses. The fact that students accept both preverbal and postverbal theme sentences indicates they know the subject does not need to be placed in the topic position. However, there is no evidence to affirm that they are mapping the theme to the subject. In fact, students at the third and fourth years may still be mapping the Spanish experiencer to the subject. For future research, the inclusion of different types of verb morphology errors ("experiencer-verb"



agreement patterns, subject-verb number and person disagreement), as well as other themes rather than third person themes (*yo, tú, nosotros*) may help to identify when students are recognizing the syntactic subject of the sentence. However, students may have recognized the syntactic subject before they manifest it through the subject-verb agreement, according to Pienemann's Processability Theory (see VanPatten & Williams, 2015).

If future research proves that students are indeed using English cognitive mechanisms to process the *gustar* structure, another three pedagogical implications may be considered to enhance the students' cognitive processing of the *gustar* structure in all years of instruction:

1. Preverbal theme interpretation: In order to prevent students in all years from interpreting the preverbal theme as the experiencer of the *gustar* sentence, instructors may use visual support depicting the correct interpretation for preverbal theme sentences.
2. Subject and indirect object distinction: With the aim of facilitating the students' recognition and processing of the subject and the indirect object, teachers may want to explicitly compare the *gustar* structure and other SVP structures of *-ar* verbs that allow for an indirect. However, the *-ar* verbs should have the following characteristics: (i) the subject in the verb *gustar* and the other *-ar* verb must be the same (ii) the indirect object in both structures must also be the same. An example of a structure matching these characteristics with a singular subject would be: *mi hermana le da un libro a Pedro* (*my sister gives a book to Pedro*) compared with *mi hermana le gusta a Pedro* (*Pedro likes my sister*), and with a plural subject: *mis hermanas le dan un libro a Pedro* (*my sisters give a book to Pedro*), compared with *mis hermanas le gustan a Pedro* (*Pedro likes my sisters*).
3. Verb morphology and subject recognition: In order to enhance the students' recognition of the subject and the "subject-verb" agreement, instructors may wish to include other themes different than third person singular and plural in the input and output and compare sentences such as *yo te doy un libro a ti* (*I give you a book*) with the sentence *yo te gusto a ti* (*you like me*).

This research used a grammatical judgment test and a production task to collect data on the use of the verb *gustar* from American college students. The data was organized in the search for usage patterns at each year of instruction to determine the possible existence of stages and their characteristics. In order to simplify the data analysis, the *gustar* verb structure was divided into three main components: experiencer, verb morphology and theme. Research findings confirmed the essential hypothesis of this investigation, which theorized that each component of this grammatical structure would develop in a series of distinct stages at each level of instruction. Several suggestions were given based on this developmental sequence in order to help teachers facilitate their students' transition between stages and their eventual acquisition of the structure.

Although the essential hypothesis of this investigation was confirmed, this research had some limitations: it was not possible to determine whether students were recognizing the syntactic subject of the sentence, nor if students in the first and second years of instruction were identifying the preverbal theme as the experiencer. Future research may want to use a grammatical judgment test including a wide variety of verb morphology errors, as well as another grammatical judgment test where students need to match the Spanish preverbal theme sentences with translations or images depicting two interpretations (the theme as a theme and the theme as the experiencer). These two grammatical judgment tests could allow for a better understanding of the students' recognition of the syntactic subject.

The results of this investigation are likely to enhance Spanish teachers' understanding of the cognitive processes that underlie the second language acquisition experienced by their learners at all levels of instruction. Also, this information can

assist textbook authors and language teachers in general with the development of new and more pedagogically sound materials to tackle challenging syntactic structures like the ones associated with the verb *gustar*. Although, much has been learned here about the acquisition of the structure of the Spanish verb *gustar* among native speakers of English, we still need more information about the impact of the cognitive mechanisms involved in the acquisition of the verb *gustar* and other grammatical structures by different populations. We hope that this investigation can provide a sound framework for this analysis, and inspire other researchers to take a closer look at the acquisition patterns of other syntactic aspects of Spanish to provide a more empirical foundation to our pedagogical practice.

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**Appendix A**  
**QUESTIONNAIRE**

**Developmental Stages of the Verb Gustar**

Thank you for participating in this study on the acquisition of Spanish verbs. This survey is anonymous, and the information you provide cannot allow anyone to identify your answers. Participation is fully voluntary and there will be no negative consequences for not participating.

If you have any questions concerning the study, you may contact José Luis Garrido Rivera <jlgarriv@udel.edu>, Spanish TA and MA candidate, Spanish Language and Pedagogy, Department of Languages, Literatures and Cultures. If you have questions about your rights as a subject or about any issues concerning the use of human subjects in research, please contact the Chair of the Institutional Review Board, University of Delaware (302-831-2137).

**PART 1**

- 1. Please, indicate your age**
  
  
  
  
  
- 2. Please, indicate your sex**  
☐ Male  
☐ Female
  
  
- 3. What is your Class Standing?**  
☐ Freshman  
☐ Sophomore  
☐ Junior  
☐ Senior
  
  
- 4. What Spanish course(s) are you enrolled in this semester?**
  
  
  
  
  
- 5. Approximately, for how long have you been studying Spanish (include years of Spanish at elementary, middle school or high school)?**

- ☐ This is my first Spanish course
- ☐ For about a year
- ☐ For two years
- ☐ For three years
- ☐ For four years
- ☐ For five years
- ☐ For more than five years

**6. Is Spanish spoken at your home?**

- ☐ Yes
- ☐ No

**7. On typical week, how often do you...**

<b>Activity/Frequency</b>	<b>Everyday</b>	<b>frequently (three or more times per week)</b>	<b>sometimes (once or twice a week)</b>	<b>rarely (once a week or less)</b>	<b>Never</b>
<b>Listen to music in Spanish</b>					
<b>Listen to podcasts/radio in Spanish</b>					
<b>Chat with friends, family or acquaintances in Spanish</b>					
<b>Watch TV shows/movies in Spanish</b>					
<b>Watch videobloggers, youtubers, viners... in Spanish</b>					
<b>Read the news in Spanish</b>					
<b>Read books/texts in Spanish</b>					

**PART 2**

**8. Imagine that you are preparing to participate in a study abroad program in Spain. Write a short message (150 words) in Spanish to your host mother discussing some of your likes (what foods, movies, singers... you like, what activities you like to do in your free time, etc.).**



### **PART 3**

**9. A friend of yours is also writing to the mother of his host family, but he is having trouble with some sentences. Help him select the best option from the choices provided below. There may be more than one possible option.**

*Hola, familia española:*

*Les escribo para que puedan conocerme un poco más. Yo soy muy activo, hago mucho deporte. \_\_\_\_\_(1). La comida no es un problema para mí. Aunque prefiero comer verduras, ¡\_\_\_\_\_!(2) Aquí en América yo como muchas hamburguesas. También ¡\_\_\_\_\_!(3) En España quiero comer los churros con chocolate. ¡Dicen que están muy buenos! ¡Espero recibir una carta de ustedes pronto!*

*Un saludo.*

- ☐ (1) Yo me gusto correr todos los días
- ☐ (1) Correr me gusto todos los días
- ☐ (1) A mí me gusta correr todos los días
- ☐ (1) Yo me gusta correr todos los días
- ☐ (1) Yo gusta correr todos los días
- ☐
- ☐ (2) Me gustan las hamburguesas
- ☐ (2) Yo gusto las hamburguesas
- ☐ (2) Gustan las hamburguesas
- ☐ (2) Me gusto las hamburguesas
- ☐ (2) Las hamburguesas me gustan
- ☐
- ☐ (3) Gusto el chocolate
- ☐ (3) El chocolate me gusta
- ☐ (3) A mí me gusto el chocolate
- ☐ (3) El chocolate gusta
- ☐ (3) Me gusta el chocolate

**Appendix B**  
**INSTITUTIONAL REVIEW BOARD LETTER**



**RESEARCH OFFICE**

210 Hullihen Hall  
University of Delaware  
Newark, Delaware 19716-1551  
*Ph:* 302/831-2136  
*Fax:* 302/831-2828

DATE: August 26, 2016

TO: Jose Luis Garrido Rivera  
FROM: University of Delaware IRB

STUDY TITLE: [930687-1] Developmental Stages of the Verb Gustar

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS  
DECISION DATE: August 26, 2016

REVIEW CATEGORY: Exemption category # (2)

Thank you for your submission of New Project materials for this research study. The University of Delaware IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will put a copy of this correspondence on file in our office. Please remember to notify us if you make any substantial changes to the project.

If you have any questions, please contact Nicole Farnese-McFarlane at (302) 831-1119 or [nicolefm@udel.edu](mailto:nicolefm@udel.edu). Please include your study title and reference number in all correspondence with this office.