



**The Effects Of Inductive Teaching On The Learning Of Spanish Pronouns
In Advanced Grammar Courses:
A Pilot Study**
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Resumen: This study is a preliminary investigation of the effectiveness of the inductive teaching approach on the usage of Spanish pronouns in an advanced Spanish grammar class. The inductive approach is a teaching technique that allows students to discover grammatical rules by themselves, leading to enhanced rule retention. Direct object, indirect object, relative, and reflexive pronouns were taught using the inductive approach to 27 college students. Study results show that (a) frequency of errors concerning direct object, indirect object, and relative pronouns decreases substantially after inductive instruction; and (b) frequency of errors concerning reflexive does not decrease considerably. Although inductive teaching did not considerably decrease the rate of errors regarding reflexive pronouns, participants still showed minor improvement.

Palabras clave: advanced Spanish grammar, inductive teaching approach, pronouns, written compositions

1. Objetivos o propósitos:

The present study investigates the impact of inductive grammar teaching on the acquisition of Spanish pronouns at the advanced level of Spanish learning. The effectiveness of the inductive grammar teaching approach was analyzed through measures of written productions.

2. Marco teórico:

Teaching approaches to grammar

Among the many approaches used in the foreign language (FL) classroom, the inductive and deductive approaches have been frequently compared and contrasted due to conflicting results. On the one hand, the inductive teaching approach requires learners to infer grammatical rules based on examples provided (Dekeyser, 1994). Within the inductive approach, there are two slightly different types of approaches, implicit induction and explicit induction (Lin, 2009). Implicit induction implies that learners induce underlying grammar rules subconsciously, whereas in explicit induction, learners discover underlying grammar rules consciously and further present the rules to the class (Shaffer, 1989). According to Lin (2009) explicit induction raises more student awareness than implicit induction. Additionally, explicit induction facilitates observation-based research.

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On the other hand, the deductive teaching approach presents students with explicit grammatical rules followed by numerous practice exercises.

Research to date contrasting the effectiveness of deductive and inductive approaches has produced conflicting evidence about the effectiveness of these two teaching techniques (Erlam, 2003). It appears that each study took place within a different range of circumstances, populations, languages, proficiency levels, and study designs. Even though these studies present similar conditions for the deductive approach, the inductive model takes wide-ranging formats. Studies, such as Andrews (2007); Chan (2004); Hammerly (1975); Herrom and Tomasello (1992); Mohamed (2004); Tode (2007); Vogel, Herron, Cole and York (2001); and Wang (2002); confirm that results vary significantly.

Although the benefits of the inductive approach on grammar learning have been often challenged (Brown, 1994), few studies have examined the effects of such an approach on the grammatical accuracy of advanced students in the context of writing assignments.

3. Metodología:

Research method

This pilot study estimates the causal impact of an intervention, in this case inductive teaching approach, on its target population. It entails only one group of participants who complete a pre-test and post-test under the same exact conditions

Participants

Participants included 27 university students divided into two sections of advanced Spanish grammar and composition at a public university in the southwestern United States. All participants, majors or minors in Spanish, were native English speakers and did not qualify as heritage speakers. The instructor, with extensive experience teaching advanced grammar, went through extensive training on the inductive approach. Participants in the study were familiar with steps involved in the inductive teaching procedure.

Teaching procedures

The pedagogical steps used to conduct the inductive lesson involved five important phases:

- (1) instructor presents the targeted grammatical forms (pronouns) within a meaningful context, usually a written text.
- (2) instructor encourages learners in pairs to recognize grammatical patterns presented in the text. For this purpose students focus solely on the target structure.

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(3) students formulate the grammatical rule and make generalizations about the target form and function within the context of the text.

(4) learners, as well as the instructor, confirm the accuracy of the rule. Once students confirm the correct use and placement of the target structure, the instructor offers extra clarification about the structure if necessary.

(5) learners engage in meaningful practice.

The pedagogical material was divided in the two sections. The first section was centered on grammatical accuracy. The second focused on reading and writing skills. For this purpose, the second section included pre-reading and pre-writing activities, but it also included extra grammar practice activities. Both sections were thematically interwoven. Students worked in pairs to complete the first section (grammar section) in class. Upon completion, a pair of students shared the answers with the whole class and discussed them with instructor. "Class discussion is specially helpful in an inductive approach where students, during the hypothesis formation process, benefit from input from their teachers and peers" (Shaffer, 1989:400). The whole teaching unit was covered in six 50 minutes sessions (two weeks)

Target structures

The specific grammatical structures targeted in this study were divided into two groups, personal and relative pronouns. Within personal pronouns, the study focused on the use and placement of direct object, indirect object, and reflexive pronouns. Table 1. shows the specific pronoun categories and syntactical functions investigated in the study.

Table 1. Categories and syntactical functions of targeted pronouns

Categories	Personal Pronouns			Relative Pronouns			
Type	Unstressed		Reflexive				
Syntactical function	Direct Object	Indirect Object	varies	Subject	Direct Object	Indirect Object	Adverbial complement

Target structures were introduced in the order suggested by the required textbook in the class. Direct object, indirect object, and reflexive pronouns were grouped as personal pronouns, and relative pronouns were grouped in a different pronoun section. Pronouns were selected because they lend themselves well to inductive teaching practice. It is important to point out that participants had been previously exposed to pronouns in previous language courses. In basic courses students were only expected to recognize and use pronouns within a low level of grammatical complexity. In this course students are expected to analyze more complex uses and use the pronouns in sophisticated instances.

Assessment procedures

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The following instruments were used to assess the impact of inductive grammar teaching on the learning of pronouns.

Table 2. Timeline and instruments of the study

Week of the semester	Instructor preparation	Pre-treatment assessment for students	Treatment	Post-treatment assessment for students
3 rd	Provide pre-reading and pre-writing activities for students Create instructions for in-class composition #1	Composition #1: "Historia de horror" Words: 300-350 Time: 50 min. No dictionary or translation devices allowed.		
13 th	Prepare inductive lesson plan		Inductive grammar lesson: Direct object, indirect object, and reflexive pronouns	
14 th	Prepare inductive lesson plan		Inductive grammar lesson: relative pronouns	
15 th				Composition #2: "Historia de horror" Words: 300-350 Time: 50 min. No dictionary or translation devices allowed.

As table 2 points out, pre-treatment and post-treatment assessments consisted of a creative writing assignment, also called compositions. The topic of both assignments was exactly the same: a horror story. To increase student involvement in the study, each composition was awarded 7% of student final grade. After students completed the pre-treatment assignment, the researcher added up all instances in which students used the target structures and calculated all instances in which students used the target structures incorrectly, regarding placement and pronoun selection. Repeated errors were also counted once. The same classification procedure was applied for the post-treatment composition at the end of the semester.

4. Discusión de los datos, evidencias, objetos o materiales

The researcher calculated the frequency of errors related to pronoun use and placement in the pre-treatment composition, and compared it to the frequency of pronoun errors found in the post-treatment. Study results show that frequency of

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errors concerning direct object, indirect object, and relative pronouns decreases considerably after inductive instruction; and frequency of errors concerning reflexive pronouns does not decrease significantly. Albeit, although the inductive teaching approach did not significantly decrease the rate of errors related to reflexive pronouns, participants still showed a minor improvement in the use and placement of this particular pronoun in the post-test writing assignment.

The results have a number of important implications. First, the fact that students were able to considerably decrease the rate of errors for direct object pronouns should be considered a critical finding. Direct object pronouns, as Erlam (2003) confirms, require more decisions than other pronouns. Erlam (2003) states in her study with beginning French students, that the acquisition of direct object pronouns requires the learner to focus on several morphosemantic aspects, such as gender, person, and number. Indirect object and reflexive pronouns do not require the students to focus on gender, but only on person and number. With reference to indirect object pronouns, the most evident finding was the increase in the correct use of the prepositional phrase along with the indirect object pronoun. For example, *les dijo a su hermano que no fueran a la cueva*. In the pre-treatment composition, students tended to omit the indirect object pronoun before the main verb in sentences where the pronoun was required. Post-treatment compositions though, showed an increase of correct uses of indirect object pronouns along with the prepositional phrase in sentences where both, pronoun and prepositional phrase, are required.

Regarding relative pronouns, it is important to point out that Spanish language offers twenty different options before selecting the correct relative pronoun. English only offers six different options. A possible explanation for the significant decrease of the percentage of errors regarding relative pronouns could be attributed to level of difficulty commonly associated with the use and placement of relative pronouns. Since placement of relative pronouns in Spanish can vary significantly from English, it could be hypothesized that students invested more effort to learn this particular target structure.

Regarding reflexive pronouns, although the rate of errors decreased in the post-treatment composition, the difference between both averages is not higher than 5%.

The results of this study find similarities with much past research about the use of the inductive approach to teach certain target structures. Results are consistent with the study conducted by Haight, Herron, and Cole (2007) about learning certain French grammatical structures at the college elementary level; and Vogel, Herron, Cole, and York's (2011) study, in which it was confirmed that guided inductive approach impacted students' short-term learning of ten grammatical structures significantly.

However, it contradicts Erlam's (2003) results, in which she concludes that the impact of deductive and inductive teaching on the learning of direct object

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pronouns in French is significantly different, favoring the deductive over inductive approach.

5. Resultados y/o conclusiones

Table 3 summarizes the number of instances that students attempted to use a specific pronoun during both, pre-treatment and post-treatment compositions; the number of instances that students used these pronouns incorrectly; and the error rate for each pronoun category.

Table 3. Pronoun usage and error frequency breakdown (n=27)

	Pre-treatment composition			Post-treatment composition			Difference between percentage of errors
	instances	errors	% of errors	instances	errors	% of errors	
Direct object pronouns	61	22	36%	59	18	30.5%	5.5% *
Indirect pronouns	48	19	39.5%	44	12	27.2%	12.3%*
Reflexive pronouns	154	50	32.4%	130	38	29.2%	3.2%
Relative pronouns	113	40	35.3%	130	30	23%	12%*

* Percentage of errors decreased by 5% or more.

6. Contribuciones y significación científica de este trabajo:

Findings in the present study contribute another chapter to the longstanding debate over the effectiveness of the inductive learning approach in FL classrooms. To conclude, results present significant evidence in favor of the inductive learning approach as an approach to teach use and placement of Spanish direct object, indirect object pronouns and relative pronouns to advanced FL learners. The number of errors associated with direct, indirect, and relative pronouns noticeably

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decreased as demonstrated by the open-ended writing assignments. The study does not provide strong enough evidence about the impact of the inductive approach on the learning and use of reflexive pronouns.

Limitations are inborn in all studies involving classroom research. The findings from this study might not be generalizable to populations of students in advanced grammar and composition courses at other academic settings. Furthermore, in terms of assessing grammar skills, this study focused on the effects of the inductive approach on open-ended creative written assignments. The purpose for this type of assessment was to measure language in a less controlled and more natural setting as opposed to a controlled activity, such as fill in the blanks, cloze exercises or multiple-choice. Ultimately, the possibility of crossover effects, or rather changes in the performance of the participants due to their previous knowledge of pronouns may have limited the final results. Nonetheless, the fact that participants were instructed by the same professor on the same day, with the same pedagogical material, along with the fact that the post-treatment composition was finalized a week after the inductive treatment, counterbalances most of the limitations described above.

The study highlights the strong relationship that exists between the effectiveness of the inductive approach and the complexity of the target structures. It also emphasizes the difficulty of designing measurement tools that encourage participants produce language creatively as opposed to a controlled focused on form testing procedure.

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