Instructor L1 Use and Its Impact on L2 Classroom Learning

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Abstract: Despite a general tendency to avoid L1 use in the L2 classroom, pedagogical research has recently begun to challenge the predominantly monolingual approach to L2 teaching, and reassign the role of the L1 as a useful tool for both instructors and learners (Cook, 2001; Levine, 2011; Turball & Dailey O'Cain, 2009). However, while it is evident from previous research that the L1 serves several functions in the L2 classroom - and perhaps has an unavoidable presence that should be acknowledged - few studies look at how L1 use can positively impact L2 learners' classroom experiences and learning outcomes. The present study looks at instructor L1 use as it relates to learners' perceptions of their learning, as well as actual outcomes in terms of grammatical competence. Using data collected from a pilot study as well as an expanded follow-up study, this article aims to investigate the use of the L1 (English) in the L2 (Spanish) classroom in terms of instructor use and its relation to learners' perceived competence in L2 grammar. Results from both studies conform to previous findings in terms of the contexts in which the L1 is used by instructors. Furthermore, these results suggest that the L1 plays an important role in facilitating communication and establishing a rapport between instructors and learners, and through this may also positively impact learners' confidence and perceived competence in L2 grammar.

Keywords: instructor L1 use; classroom interaction; L2 learner perceived competence; grammatical competence

Introduction

Avoiding the use of the L1 in the L2 classroom has dominated pedagogical norms, particularly through the implementation of prevalent L2 teaching methods, including the communicative method (Cook, 2001). However, in recent years, pedagogical research has begun to emerge which justifies the presence of the L1 in the L2 classroom, arguing that it serves as a resource for students and instructors instead of as a detriment. (Cook, 2001; Levine, 2011; Turball & Dailey O'Cain, 2009). There are also several studies that have described the contexts in which L1 usage occurs, such as contrasting the L1 and L2 in terms of forms and concepts, giving instructions or activity objectives, verifying information, speaking about administrative issues and expressing humor (De La Campa & Nassaji, 2009). However, few studies connect L1 use to L2 learning outcomes. This descriptive study will examine the use of the L1 in the L2 classroom and investigate the potential relationship between its usage among instructors and L2 learners' classroom experiences; specifically, this study will reflect on results from learners' production tasks, as well as their self-evaluations of their perceived grammatical competence as related to these tasks. A better understanding of this relationship can serve to not only add to our knowledge of the role of input in L2 acquisition, but also inform best practices in L2 pedagogy.

Literature Review

Beginning in the 1980s, the fields of SLA and language pedagogy began to break away from traditional L2 teaching methods, most notably through the introduction of the natural method for L2 instruction (Krashen & Terrell, 1983) - an approach that centered around the development of communicative abilities, achieved by imitating L1 development. This later paved the way for the communicative method, a popular strategy in classrooms today. Nunan (1991) summarizes the general principles of the communicative method:

- 1. Emphasis on learning by communicating through interaction in the target language
- 2. Introduction to authentic texts

- 3. Providing opportunities to learners for focusing on the language and the learning process
- 4. Improvement on personal learning experiences such as important elements that contribute to learning in the classroom
- 5. An attempt to connect with the learner in the classroom with language activities outside the classroom

Much of what is emphasized by the above approach depends on the use of the L2 in the classroom in order to achieve these functions. According to Krashen and Terrell (1983), one purpose of the natural strategy is to minimize the tendency for learners to rely on the L1 for support, and that that can be achieved by placing an emphasis on acquisition activities in the classroom instead of conscious grammar practice. Through this strategy, the majority of the time the classroom is dedicated to comprehensible input and production (Krashen and Terrell, 1983). As a result, there is little room or need for the L1.

While many classrooms have L2-only policies in their curricula through the adoption of communicative approaches to language teaching (Storch & Wigglesworth, 2003), a number of studies have questioned this monolingual approach to teaching and have examined the use of the L1 in the L2 classroom, defending its use as a tool for L2 learners. Among earlier studies is that of Harbord (1992), which summarizes three principle functions of L1 use in the L2 classroom, based on instructor objectives. These functions include (1) facilitating communication between the instructor and learner; (2) facilitating a good relationship between the instructor and learner; and (3) facilitating learning. Additionally, in an investigation by Macaro (2001), the extent of L1 usage is examined through recordings of lessons in various L2 (French) classrooms. When instructors were asked why they switched between the L1 and L2 at certain moments, the reasons that they gave included (1) lack of comprehension on the part of the learners (or anticipated by the instructors, or a lack of demonstrable comprehension); (2) to

reprimand learners and/or maintain control of the classroom; (3) to form a good relationship with learners; and (4) to keep the lesson moving. Similar factors were found in a study by Grim (2010), who looked at both high school and college instructors' L1 use in the classroom, indicating that while there was some variance in motivations for using the L1 - such as high school instructors switching to the L1 for management/discipline and task instructions more so than college instructors - there was little variance in term of the quantity of L1 used by each group.

Similarly focusing on instructor L1 use, Edstrom (2006) did a self-evaluation of her own L1 use in the L2 classroom throughout one semester. Adding additional L1 contexts to the existing body of functions, Edstrom indicating using the L1 out of "moral obligation," or moments in class when her concern for her students as human beings went beyond her concern for language choice, and such sentiments are expressed better in the L1. However, one component of greater interest in this study is the discrepancy between perceived L1 use and actual use. While she had supposed that her L1 use would be between 5-10% of the time, in reality the average was much higher (monthly averages of 18%, 22%, 17% and 42%).

More recently, a series of studies have emerged that focus on the perspective of learners in terms of L1 use. One such example is that of Rolin-Ianziti and Varshney (2008). According to their findings, L1 use can aid in (1) understanding grammar and vocabulary; (2) understanding instructions/tasks; (3) regroup learners when they feel confused; (4) alleviate frustration or intimidation. Affective factors in particular - such as frustration and intimidation - are notably significant in impacting learner outcomes; learner anxiety as well as levels of self-confidence have been linked to L2 performance (Park & Lee, 2005). Scott & de la Fuente (2008) similarly focus on learner perspectives in their investigation on the relationship between L1 use and cooperative performance among intermediate learners when doing grammatical tasks that are centered around form. According to the results presented, the group of learners that were allowed to use both the L1 and L2 collaborated better and in a more coherent manner, while the group that was only allowed to use the L2 collaborated less and in a more fragmented manner. Additionally, reading, thinking and speaking appeared to be simultaneous processes in the first group, while in the second group these processes appeared to be sequential. Another notable observation in this study is that even among the group that only used the L2, the L1 still maintained a presence in that students in this group translated the text that they read and planned what they would say in the L2 before saying it. This study suggests that the L1 has a presence in the classroom that perhaps is impossible to avoid completely. Similarly, De La Colina & Mayo (2009) look at L2 learners performing a series of collaborative tasks and found that learners used the L1 to establish productive interaction, reflect in the L2, connect form to meaning, and complete activities at a high level. These findings correspond to those of previous studies on L1 use in collaborative tasks (Villamil & de Guerrero, 1996; Antón & DiCamilla, 1999; Storch & Wigglesworth, 2003).

Finally, given these more recent perspectives on L1 usage, there is a need to reevaluate current pedagogical approaches. Cummins (2007) argues that the monolingual approach to L2 teaching is not only unsupported by empirical research, but that it is also inconsistent with current theories in cognitive psychology that have instructional implications. For example, Cummins points out that learners often organize and interpret new information by activating prior knowledge, skills, and experiences. Although the L1 forms part of that body of prior knowledge, monolingual instructional approaches regard the L1 as a hindrance to L2 learning and therefore excludes it as a possible resource to which learners may refer. Cummins' argument is further supported by findings in a study by Liu & Zeng (2015), who surveyed and interviewed L2 instructors and learners, both of whom indicated positive attitudes towards L1 use in the L2 classroom, citing it as a means to understand L2 grammar, culture and syntax, particularly in introductory level L2 classes. Additionally, Levine (2003, 2011, 2014) argues that although the goal of any L2 classroom is to principally use the L2, the L1 already has a natural role in the classroom and it should be recognized. This is based on

the idea that the L2 classroom should be considered a multilingual community more than an imitation of an imaginary L2 monolingual community. Through this approach, Levine argues that L2 instruction should give learners opportunities to develop the conscious use and selection of languages, co-construct norms for selection of languages in the classroom, and reflect on the multilingual environment of the classroom. In this way, learners can view themselves as nascent bilinguals.

Present Study

While previous research has shown that the L1 demonstrably has a role in the L2 classroom - one that is recognized among instructors and learners - the scope of these studies does not extend to drawing connections between instructor L1 use and its impact on L2 learners. Although there are some perceived benefits to L1 use, there is a lack of empirical evidence that tests this belief. To explore this connection, the following research questions guide the present study:

- 1. In what contexts is the L1 (English) used by instructors in the L2 (Spanish) classroom?
- 2. Is there a relationship between L1 use and L2 learners' perceived competence in different grammatical concepts?
- 3. Specifically, does instruction that makes use of both the L2 and L1 facilitate learning specific grammatical concepts in a short-term context? (including the indicative/subjunctive distinction, the conditional, comparisons, accidental 'se,' and reciprocal verbs)

These questions will be addressed through an analysis of data collected from two different studies. The methodology and results of each study will be presented separately, followed by a discussion of both studies.

Study #1 (Pilot) Methodology

Participants

This pilot study used two groups of participants that consisted of university students enrolled in different sections of an intermediate level Spanish class. Owing to limitations where course sections with the same instructor were unavailable at the time of the study, each group had different instructors. The control group (7 learners) received their instruction completely in Spanish by an instructor whose pseudonym has been designated as 'Oliver,' while the variable group (10 learners) - whose instructor will be referred to as 'David' - had flexibility in allowing the use of English, both by instructor and students. While it is perhaps impossible to completely control the prohibition of English, the goal in having this control group was to establish an environment where it was understood by all participants that English did not have a place in the classroom and were therefore discouraged from using it. While each group had a different instructor, the lessons were the same in terms of content, and the two groups completed the same tasks in the investigation, described below. All students and instructors were aware of their participation in this study.

Tasks

First, participants completed a background questionnaire detailing their background in Spanish and their experience with Spanish and English use in the classroom. Throughout the semester, two specific lessons were observed for the purpose of identifying the contexts in which English was used by instructors. These lessons discussed (1) the subjunctive/indicative distinction and (2) the conditional. The rationale for choosing these specific concepts was that the subjunctive is a notably difficult grammatical construction for L2 learners of Spanish (Collentine, 1993; Sánchez-Naranjo, 2009) and comparing its instruction to that of an arguably simpler construct as the conditional - which, unlike the subjunctive, is not typically taught contrastively with any other grammatical concept - could shed light on the relationship between L1 use and the complexity of the L2 topic.

Additionally, participants completed brief cloze activities immediately after their lessons in order to compare the results between the two groups. Cloze activities had the same format: a paragraph appropriate to the course level that required that they fill in the blanks with the verbs provided in parentheses. In the first cloze activity, participants were required to correctly conjugate each verb in either the subjunctive or the indicative, and additionally indicated which mood they were using by marking either 'S' or 'I' after each verb. The second cloze activity required participants to only correctly conjugate the verbs in the conditional. Each activity was followed by a series of Likert-scale statements, which were included to evaluate participants' perceived mastery of the grammatical concepts in question.

The final component of this study included classroom visits in which each instructor was observed for their L1 usage. Despite the inclusion of a control and variable group and explicit instructions to the instructor of the control group to not use the L1, it was expected that both instructors would resolve to using it in their classrooms if they deemed it necessary. As such, L1 use by both instructors have been included in the analysis.

Results

One component of the background questionnaire requested participants to indicate an estimated percentage of time that they used the L1 in their classes. Table 1 includes the average and median percentages of both groups, along with the reasons that were provided as options to participants:

	Perceived classroom L1 use: average	Perceived classroom L1: median	Reasons for using L1
Control Group	63%	70%	"I don't know how to express what I want to say in Spanish" "The meaning I want to convey gets lost in Spanish" "I'm not sure my classmates will understand my Spanish"
Variable Group	59%	50%	"I don't know how to express what I want to say in Spanish" "It's faster to speak in English" "The meaning I want to convey gets lost in Spanish" Other: "It's intimidating"

Table 1. Perceived L1 use in previous coursework	Table 1. Per	ceived L1	use in	previous	coursework
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As Table 1 indicates, both groups indicated relying on the L1 significantly in their coursework, citing a variety of reasons. Among both groups these reasons included not knowing how to express themselves or believing they would not be able to express themselves accurately in the L2. Among other reasons selected less frequently, only one participant selected "other" as an option and wrote in his own reason, introducing an affective factor relating to his L1 use: "it's intimidating."

Next, functions of L1 use was observed in each class on two occasions. Table 2 summarizes instructor L1 use in the variable group, instructed by David:

Reason for L1 use	Example	Number of instances: subjunctive /indicative	Number of instances: conditional
Grammar explanations	"Mi familia is singular, so the verb's conjugation needs to be singular too."	8	4
Correcting errors	"He volvido." I have returned. "Actually, that one's irregular."	2	0
Statements that refer back to previous statements that were originally made in L1	"Lo he dicho" <i>I have said</i> <i>it.</i> "Another irregular."	1	0
When prompted in L1 by learners	(learner) "So how do you conjugate <i>llevar</i> ?" (David) "Ok, so with -ar verbs in the subjunctive the -a- will change to -e- ."	3	0

Table 2. David's L1 use	(variable group)
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As the above examples indicate, David frequently used the L1 in full sentences rather than single word insertions, and primarily used the L1 to provide grammatical explanations. Additionally, overall instructor L1 use was significantly lower on the second observation day, which occurred one month after the first observation. While this could be a reflection of decreased reliance on the L1 as a natural progression throughout the semester, this can also be attributed to the differences in the content being taught. Additionally, while learner L1 use was not the focus of this study, it is also worth noting that on both observations days, it was apparent that both instructors and learners mirrored each others' L1 and L2 use, which may reflect a great deal of rapport between instructor and learners, a possibility further reflected in learners' engagement and readiness to communicate with each other and with the instructor in their classes. Despite having a more rigid language policy, the L1 was still used occasionally in the control group, instructed by Oliver. His usage is summarized below in Table 3:

Reason for L1 use	Example	Number of instances: subjunctive /indicative	Number of instances: conditional
Translating from L2 when learners are unresponsive	"¿Cuándo usamos el subjuntivo? (after multiple repetitions and no response) When do we use it? ¿Cuándo usamos el subjuntivo?"	5	2

Table 3. Oliver's L1 use (control group)

In Oliver's case, L1 use conformed to one specific pattern in both of his classes: repeating himself in the L1 when learners were unresponsive to the same statements in the L2. The example in Table 3 demonstrates Oliver's typical pattern of L1 use: beginning in the L2, and - after multiple repetitions - translating to the L1 and repeating himself in the L2.

In comparison to David, Oliver's L1 use was restricted to a single context and therefore was not as elaborate; Oliver typically used the L1 as singular insertions in order to translate when learners did not appear to understand him, and promptly returned to the L2 in order to maintain an L2-only environment in his class. Oliver also continued to use the L2 even when learners asked questions in the L1, which contrasts with David's tendency to mirror his learners' language choice when they asked questions. Additionally, less rapport was observed between Oliver and the learners in the control group when compared with the variable group. This may relate to the fact that the L1

was used sparingly by the instructor, and only to engage learners when they appeared to be unresponsive to the instructor's prompts in the L2. Like David's class, however, L1 use also decreased from the subjunctive/indicative day to the conditional day, which were also one month apart.

The remaining results from Study #1 pertain to learners' perceptions as well their performance on the cloze tasks assigned to them. Tables 4 and 5 summarize the responses of participants' Likert-scale self-evaluations from the variable group:

Table 4. Learners' perceptions on learning the subjunctive and indicative

(Variable group, 10 participants)

Statements	Completely disagree	Somewhat disagree	Not sure	Somewhat agree	Completely agree
I know how to conjugate verbs in the indicative	0	2	0	4	4
I know how to conjugate verbs in the subjunctive	0	2	0	8	0
I know when to use the indicative vs. the subjunctive	0	2	1	6	1
I was able to complete the above exercise easily	0	6	0	3	1
I feel comfortable using the indicative and subjunctive in a conversation or written composition	2	2	1	5	0

Table 5. Learners' perceptions on learning the conditional

Statements	Completely disagree	Somewhat disagree	Not sure	Somewhat agree	Completely agree
I know how to conjugate verbs in the conditional	0	0	0	5	5
I know when to use the conditional	0	0	0	5	5
I was able to complete the above exercise easily	1	1	0	4	4
I would feel comfortable using the conditional in a conversation or in a written composition	1	1	0	5	3

(Variable group, 10 participants)

Results shown in Tables 4 and 5 indicate that participants from the variable group were more confident in their abilities to conjugate verbs in the indicative - more so than with the subjunctive. Still, several participants indicated understanding the distinction between these two moods and feeling comfortable using them correctly. The same participants evidently agreed more strongly with the Likert statements relating to the conditional and indicated either somewhat or completely agreeing that they understood both the form and function of the conditional, most of whom also indicated being able to complete the cloze activity easily and feeling comfortable using the conditional. The control group contrasts somewhat in their responses, as summarized below in Tables 6 and 7:

Table 6. Learners' perceptions on learning the subjunctive and indicative

(Control group, 7 participants)

Statements	Completely disagree	Somewhat disagree	Not sure	Somewhat agree	Completely agree
I know how to conjugate verbs in the indicative	0	0	2	3	2
I know how to conjugate verbs in the subjunctive	0	2	1	3	1
I know when to use the indicative vs. the subjunctive	0	3	1	2	1
I was able to complete the above exercise easily	1	4	1	1	0
I feel comfortable using the indicative and subjunctive in a conversation or written composition	2	1	2	1	1

Table 7. Learners' perceptions on learning the conditional

(Control group, 7 participants)

Statements	Completely	Somewhat	Not	Somewhat	Completely
	disagree	disagree	sure	agree	agree

I know how to conjugate verbs in the conditional	0	0	0	3	4
I know when to use the conditional	0	1	0	5	1
I was able to complete the above exercise easily	0	1	0	3	3
I would feel comfortable using the conditional in a conversation or in a written composition	1	1	0	3	2

As shown above, participants from the control group also indicated some degree of uncertainty relating to their abilities with the subjunctive and indicative distinction, not unlike the variable group. However, as shown in Table 6, most participants from the control group indicated not being able to complete the subjunctive/indicative cloze activity with ease, nor feeling comfortable using these moods. Like the variable group, however, the control group also showed more confidence with the conditional, with the majority somewhat or completely agreeing that they understood the form and function of the conditional, and also indicated being able to complete the cloze activity easily, as well as being comfortable using the conditional.

Next, participants' cloze activities were analyzed and compared across groups and grammatical concepts. Each cloze activity consisted of 10 tokens, and an average percentage was assigned for each cloze activity/test, based on the number of error-free tokens produced. Here, "errors" refer to using the incorrect grammatical mood, as well as incorrect subject conjugations. Table 8 summarizes the raw average scores relating to the indicative/subjunctive cloze activities and the conditional cloze activities.

	Subjunctive/indicative	Conditional
Control group	61.4%	90.0%
Variable group	66.0%	97.5%

Table 8. Raw average scores of cloze activities

As shown above, both groups produced far fewer errors in the conditional cloze activity in comparison to the subjunctive/indicative cloze activity, possibly a reflection of the simpler nature of this verbal paradigm. Additionally, the variable group on average produced more accurate responses compared to the control group for both cloze activities.

Study #2

Methodology

Participants

The second study took place at the same university, using participants that were also enrolled in the level of intermediate Spanish as those in the pilot study. The investigator's class consisted of 12 participants, while the second class - taught by another instructor, whose pseudonym in this study will be 'Ana' - had 16 participants. As in the case with the pilot study, course sections with the same instructor were unavailable at the time of study #2, and as such, no control/variable group distinction was made; instead, the constants in this study included those found in the pilot study: the grammatical concepts covered, course and study materials, and methods of data collection. However, the scope of study #2 extended to examining L1 in 5 different class sessions, each of which covered a different grammatical topic, including 1) comparisons

expressions, 4) subjunctive with expressions of doubt, and 5) reciprocal verbs. While

of equality and inequality, 2) accidental 'se,' 3) subjunctive with impersonal

there are two activities dedicated to the subjunctive, it should be pointed out that the curriculum in this language program stipulated that different uses of the subjunctive be taught over the course of several lessons, which overlapped with the scheduling of classroom observations. Furthermore, both instructors in this study used the same teaching materials and had comparable university-level teaching experience. As with the pilot study, all students and instructors were aware of their participation in this study as well.

Tasks

Tasks for this study were similar to those of Study #1, with some modifications. First, participants completed the same background questionnaire used in Study #1. Additionally, participants in this study completed cloze activities the same day the topics in question were introduced, and similarly followed with Likert-scale statements relating to participants' perceived mastery of the grammatical concepts taught in class that day. However, because study #1 only focused on the subjunctive/indicative and conditional moods and therefore strongly limited the ability to connect L1 use to L2 learning outcomes, this study included 5 different grammatical topics. Instructor L1 use was also examined in this study; however, given that the investigator was one of the instructors, classes were audio-recorded and later analyzed for 1) contexts in which English was used, and 2) quantity of English used. Because the scope of this study relates to instructor L1 use, student L1 use - though sometimes used in L1 interactions with their instructors - is not included in this analysis. This is due to the fact that instructors in this study had the recording device on their person at all times, and were often not in recording range of students who were interacting in the L1. Finally, following Edstrom's (2006) self-evaluations on L1 use in her own courses, both instructors wrote short journal entries immediately after each recorded class, reflecting on their perceived use of English and Spanish in terms of quantity, reasons for switching to English, and if their perceived English/Spanish usage that day had any impact on their teaching effectiveness that day. In including this particular task in Study

#2, instructor L1 use can be examined with greater accuracy, both in terms of its quantity and instructors' self-reported motivation for using the L1.

Participants' cloze activities were evaluated in the same manner as in Study #1. However, since this study also aims to quantify L1 use, instructors' L1 use was timed and measured against the total amount of time the instructor spoke in each class. Finally, excerpts from instructors' journal entries about their perceived use will be compared against their actual use, as well as participants' performance on the cloze activities.

Results

As with the pilot study, participants in Study #2 also completed a background questionnaire and indicated the extent to which they were accustomed to using the L1 in their previous Spanish courses. The averages, medians and frequently reasons are summarized below in Table 9:

Participants ′ instructor	Perceived L1 use in classroom: average	Perceived L1 use in classroom: median	Reasons for using L1
Ana	52%	50%	"I don't know how to express what I want to say in Spanish" "It's faster to speak in English" "The meaning I want to convey gets lost in Spanish" "I'm not sure my classmates will understand my Spanish"

Table 9	Perceived	T1	use in	previous	coursework
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Investigator	40%	25%	"I don't know how to express what I want to say in Spanish" "It's faster to speak in English" "The meaning I want to convey gets lost in Spanish" "I'm not sure my classmates will understand my Spanish" "I don't have enough time to put together/construct what I want to say in Spanish"
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Participants from both courses selected a variety of reasons for employing the L1, most opting to select more than one reason, ranging from knowledge gaps on their or their classmates' part, to efficiency and saving time.

Study #2 also incorporated data gathered from instructors. Specifically, each of the five observations were recorded and examined for L1 use. The below Table summarizes the L1 use of each instructor in minutes and seconds, as well as in percentage of class time.

	1	Ana	Investigator		
Topic	L1 use in a 40 minute period	Percentage of class time	L1 use in a 40 minute period	Percentage of class time	
Comparisons	3:14	8.10%	5:56	14.10%	
Accidental 'se'	10:05	25.50%	10:22	25.10%	
Subjunctive with impersonal expressions	9:29	23.80%	9:43	24.30%	
Subjunctive with doubt	9:37	24.00%	7:54	19.75%	
Reciprocal verbs	10:27	26.10%	5:03	12.60%	

Table 10. Instructor L1 use

Table 10 shows that both instructors varied somewhat in their L1 use in each class, with Ana using the L1 anywhere from 8.1%-26.1% of the class time and the investigator using the L1 anywhere from 12.6%-25.1% of the class time. Both instructors, however, used relatively the same amount of English on the days they taught accidental 'se' and the subjunctive with impersonal expressions.

Instructors also reflected on their L1 use in each of the above classes. Ana typically overestimated her L1 use, such as on the day she taught comparisons: "I did 80/20 Spanish to English or 70/30, to clarify and make sure they understood. I may use a little bit more English for more complex topics." Similarly, on the day she taught the subjunctive with impersonal expressions, Anna indicated, "I would say 50/50 because it is a difficult topic." However, she accurately estimated her L2 use on the day that she taught the subjunctive with doubt: "I used about 75% Spanish today." In addition to attributing English use to the complexity of the topics, Ana often connected L1 and L2 use to student participation, such as on the day she taught accidental 'se': "I tend to see more participation when I speak a bit more in English. I think they either get nervous or don't understand."

In contrast, the investigator's reflections did not include specific estimations, except for the day that accidental 'se' was taught, where the investigator slightly overestimated L1 use and indicated, "I feel like I used a lot of English today because accidental 'se' is a difficult construction. Maybe 70% Spanish." Like Ana, the investigator often connected L1 use to the difficulty or complexity of the concept being taught: "I used some English in class, but less than usual, I think...we did reciprocal verbs, which is a fairly straightforward topic." However, while Ana also connected L1 use to learner participation, the investigator connected L1 use to learner comprehension, such as the day that accidental 'se' was taught: "I was worried about them comprehending this...I'm not sure they would've understood that well had I stuck to Spanish the whole time."

Like the pilot study, learners' perceptions were also gauged for each grammatical concept in terms of how they viewed their own mastery of the topic in question. The below Tables show the average number of responses for each possible response ("totally disagree," "disagree," "neither agree nor disagree," "agree," "totally agree") for the following 5 questions, which were also used in the pilot study:

- 1. I know how to form this construction in Spanish.
- 2. I know when to use this construction in Spanish.
- 3. I was able to complete the above exercise easily.
- 4. I would feel comfortable using this construction in a conversation or in a written composition.
- 5. I felt that the proportions of English vs. Spanish used in class today helped me understand this concept better.

Figure 1 below summarizes the average responses of participants from the investigator's class:

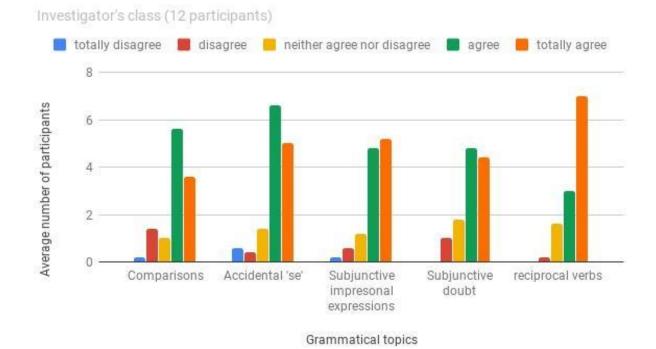
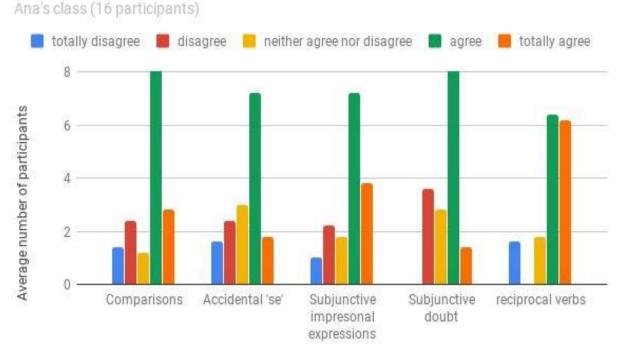


Figure 1. Learners' perceptions: Likert-scale Statements (Investigator's class)

As indicated, very few participants disagreed with the questionnaire statements, and most indicated feeling comfortable with all grammatical topics covered included in this study, most notably for accidental 'se' and reciprocal verbs. Taking into account the quantity of English used on each of these days, it is worth noting that while the L1 was heavily used for teaching the subjunctive with impersonal expressions (which was also participants' first exposure to the subjunctive) and decreased by the next subjunctive lesson (expressions of doubt), learners' perceived competence changed slightly between these two lessons.

In contrast, learners' responses from Ana's class produced more varied results, as shown in Figure 2 below:



Grammatical topics

Figure 2. Learners' perceptions: Likert-scale Statements (Ana's class)

While learners from Ana's class also generally selected "(totally) agree" across all statements and for all grammatical topics - much like learners from the investigator's class - there was a slightly greater degree of either disagreement or neither agreeing nor disagreeing, both of which were highest for subjunctive with doubt. In terms of how this corresponds to Ana's L1 use on each day, it is worth noting that Ana used significantly less English the day she taught comparisons (8.1% of class time), yet learners' perceived competence in this topic did not vary greatly from the others, where Ana's English usage ranged from 23%-26% of class time.

Participants in Study #2 completed similarly designed cloze activities as those used in Study #1, though covering a wider variety of grammatical topics. As with Study #1, an average percentage was assigned to each cloze activity, based on the number of error-free tokens produced. Here, "errors" vary according to grammatical topic, but include using the incorrect grammatical mood, subject conjugation and relevant grammatical word (such as an indirect object pronoun in the accidental 'se' activity, or using 'tan' or 'tanto' in comparison activity). Table 11 summarizes the raw average scores relating to each of five cloze activities:

	Comparisons	Accidental 'se'	Subjunctive with impersonal expressions	Subjunctive with doubt	Reciprocal verbs
Investigator's class	83.3%	69.0%	84.7%	72.3%	78.2%
Ana's class	81.5%	66.6%	89.3%	73.2%	84.6%

Table 11. Raw average scores of cloze activities

Raw scores fluctuate across cloze activities, as is evident among the participants' averages in both classes; however, the differences in scores between both classes are relatively minor for most categories, and are only exceptionally divergent for the

activity on reciprocal verbs. Additionally, it is also worth noting that in both classes, participants' scores decreased significantly from the first subjunctive activity to the second.

Discussion

Results shared in the above two studies aim to answer the following research questions: (1) In what contexts is the L1 (English) used by instructors in the L2 (Spanish) classroom? (2) Is there a relationship between L1 use and L2 learners' perceived competence in different grammatical concepts? (3) Specifically, does instruction that makes use of both the L2 and L1 facilitate learning specific grammatical concepts in a short-term context? Contrary to previous studies on L1 use in the L2 classroom that focus on various aspects of L1 use by either instructors or learners, the present study aims to address the above questions by investigating both groups. This dual focus helps to advance our understanding of the role of L1 use in L2 classrooms in that - ultimately - instructors are charged with providing input to learners and fostering communication in the L2, and therefore the linguistic means they use to achieve their ends are crucial to observe. At the same time, L2 learner outcomes are the ends to be achieved, and as such, their perspectives are equally important. In looking at L1 usage among instructors - based both on observations in Study #1 as well as instructors' reflections in Study #2 the contexts in which the L1 was used matches those cited in previous studies. Specifically, instructors used the L1 for a variety of reasons, such as facilitating learning (Harbord, 1992) and detecting a lack of L2 comprehension on the part of learners (Macaro, 2001), as evidenced by instructors' frequent L2-L1 translations in both studies. Additionally, the quantity of L1 use tracked in Study #2 matches closely with the results from Edstrom's (2006) self-evaluations, where both instructors used the L1 for over 20% of the class time in most instances. What is more notable from the results of these studies, however, is that instructors' reasons for using the L1 often mirror participants' own reported reasons for using the L1. One such example is the commonly expressed concern relating to comprehension while using the L2. Two of the most frequently

selected reasons in the background questionnaire that participants in both studies had chosen for using the L1 were, "the meaning I want to convey gets lost in Spanish" and "I'm not sure my classmates will understand my Spanish," echoing the findings from Rolin-Ianziti and Varshney's (2008) study on learner L1 use. This concern was also evident among instructors across both studies, including Oliver's use of the L1 to translate his questions in order to facilitate understanding despite having an otherwise explicit L2-only class.

Additionally, affective factors also play a role in L1 use; one participant in Study #1 had indicated that a reason he used the L1 was because the L2 was "intimidating," a concern that Ana had indicated she perceived among her own students, and was thus cited as a reason that she used the L1. Another example relates to establishing a rapport with learners and facilitating class participation. Ana specifically connected her L1 use to encouraging participation among her students, a connection that is also evident when comparing Oliver's and David's classes in Study #1, where participants in Oliver's L2only class rarely participated and were often unresponsive unless Oliver switched to the L1. In contrast, David's class participated more frequently and had a greater rapport with their instructor, which may be attributed to his L1 usage. This difference in classroom participation is critical to L2 learning, in that openness in communication may facilitate a better understanding of content by learners, thereby decreasing the likelihood of misunderstandings of input they receive. Moreover, knowing that the L1 can be used without consequences may improve the quality of learning in that learners are more comfortable asking questions and communicating their concerns to their instructors. As evidenced by the findings of previously cited studies (Scott & De La Fuente, 2008; Villamil & de Guerrero, 1996; Antón & DiCamilla, 1999; Storch & Wigglesworth, 2003), L1 use among L2 learners proved to facilitate productive and efficient interactions when completing collaborative tasks. The findings from the present study offer further support of this, but also extend beyond communication among learners and to communication involving instructors as well.

It is evident that the L1 is used heavily by instructors for a variety of functions, despite the commonly implemented practice of L2-only policies in university curricula. In terms of how this may impact L2 learners' classroom experiences, these studies looked at learner outcomes, as well as how learners perceived their own grammatical competence. While the quantity of instructors' L1 use changed from session to session and was often attributed to the complexity of the grammatical topic - participants' responses generally agreed with the Likert statements and indicated that they understood and felt comfortable with the grammatical concepts that had been taught in each of these sessions. Given that these responses had little variation despite the variation in instructor L1 use, it is possible that the increased L1 use based on topic complexity may have been beneficial to students, as a decrease in L1 usage based on topic complexity certainly did not see a decrease in understanding/perceived competence among participants. This may be a reflection of participants relying less on the L1 for these less complex topics.

In looking at participants' results from the cloze activities, it is evident from Study #1 that the accuracy of responses among both control and variable groups increased from subjunctive/indicative cloze activity to that of the conditional, with the variable group providing more accurate responses at each point; this increased accuracy also corresponds to these participants' comparatively greater degree of perceived competence, as demonstrated in the Likert-scale statements. While the variable group's instructor, David, did use more English than Oliver, it is also worth noting the possible impact of the difference in the type of L1 use in each instructor; David had primarily relied on English for the purpose of explicit grammatical explanations, while Oliver only used English to prompt his students to answer his questions when they were unresponsive to his use of Spanish. As such, this difference in L1 use may have contributed in facilitating a better understanding of grammatical concepts in David's class.

Results from Study #2 focused more on quantifying - rather than qualifying - instructor L1 use. However, the results from this study do not point to any clear relationship between the quantity of L1 use and learner outcomes. Increased L1 use in both the investigator's and Ana's class did not necessarily result in increased confidence among participants. Additionally, participants' average scores on the cloze activities did not always increase as L1 use increased. However, it is worth noting that the complexity of the grammatical topics included in both studies may be an important factor that influences the efficacy of L1 instructor use for learner outcomes. For instance, while both Ana and the investigator's L1 use when teaching comparisons was minimal (8.1%) and 14.1% of the time, respectively), participants' cloze activity results were among the most accurate of all activities (81.5% and 83.3%, respectively). Comparing this to a relatively more complex topic - the subjunctive with impersonal expressions - where both instructors used far more English (23.8% and 24.2% of the time, respectively), participants in both classes produced similarly scores as in the comparisons cloze activity (89.3% and 84.7%, respectively). This might indicate the need for increased L1 use when instructing grammatically complex topics.

Finally, it bears mention that while critiques of L1 use stem heavily from the prevalence of current L2 pedagogy - namely the natural method and communicative method - L1 use in both studies was limited, while the L2 remained the principal language throughout observations. Furthermore, observations from both studies suggest that instructors adhered to the general principles of the communicative method, as outlined by Nunan (1991), in that they primarily interacted in the target language and offered learners opportunities to focus on the L2. As such, these findings suggest that L1 use is not necessarily at odds with current language pedagogy, but rather is a useful communication tool for both instructors and learners. This offers further support to Levine's (2003, 2011, 2014) call to treat the L2 classroom as the multilingual community that it is, particularly given that both instructors and learners clearly rely on the L1 in various contexts.

Limitations and Concluding Remarks

These descriptive studies aimed to examine the use of the L1 in the L2 classroom in terms of contexts and frequency of use, as well as how learners' perceived and actual outcomes relate to instructor L1 use. While the results from these studies do not provide sufficient evidence to argue a direct correlation between L1 use and L2 learning and/or acquisition, it is evident that the L1 not only appears to have an unavoidable presence in the L2 classroom, but it also ostensibly affects the learning environment in a positive way by facilitating communication between instructors and learners, which in turn may support L2 acquisition. A number of limitations, however, restrict this conclusion to that of conjecture. Some of these limitations stem from the fact that both studies were conducted in real life settings, rather than in a lab or context created specifically for research. While conducting research in an authentic teaching/learning context offers its own advantages, access to multiple course sections taught by the same instructor was limited in any given academic term, and therefore, different instructors were used in both studies. As such, the differences observed in the study may be due to individual characteristics and/or beliefs of instructors and/or students, and not necessarily due to the extent of L1 and L2 use. Similarly, due to the smaller class sizes that were typical at the university where this research was conducted, the number of participants in each study is relatively low. These exploratory studies, then, lay the groundwork for further investigation in this area of inquiry; specifically, connecting L1 use to L2 learner outcomes and ultimately L2 acquisition. Additional empirical, in-depth studies need to be conducted that examine this possible connection in order to gain a better understanding of the role the L1 plays in helping or hindering L2 acquisition, as this will better inform instructors' pedagogical practices relating classroom language policies and whether to take a monolingual or bilingual approach to L2 teaching.

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