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Vocabulary use and classroom practices through teacher talk: a comparative and longitudinal study

By

LANI GUADALUPE LÓPEZ BASTIDAS
DISSERTATION

Submitted in partial satisfaction of the requirements for the degree of

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Abstract

This dissertation project aims to investigate (1) how three different L2 Spanish instructors treat vocabulary in their beginner Spanish course (SPA 1) depending on their teaching experience, and (2) how an instructor treats vocabulary in a beginner Spanish course during the three academic quarters of his first year of teaching at the university level. Concretely, their classroom talk was analyzed with a focus on the (1) input provided by the instructor, output generated by the students, and the number of student interactions in the classroom, and (2) lexical frequency and word repetition in the input.

The aim of the study is to get a better understanding of how different instructors' input and overall classroom management may affect incidental vocabulary learning and how such input may change over time as an instructor gains more teaching experience throughout one academic year. Results from this research will hopefully provide relevant insights into how to better train new instructors and how to better connect instructors to vocabulary research in ways to avoid the current disconnect between the scientific literature on the subject and what instructors do in their classrooms.

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- My dear family, thank you for your unconditional support. For accepting my absences from birthday parties, family reunions, and important celebrations with nothing but understanding.

Dedication

To my dear late Father who sacrificed his life and everything he ever knew in his home country

to provide a better life for his family. I will forever be grateful for the opportunities that this

sacrifice has provided for me, and now for my son.

To my dear Son that without knowing so has taught me the importance of time management.

Who showed me that a tired mom can still get a ton of work done during cat naps. I love you my

little one, and I hope you will be as passionate as I am about learning languages and exploring

different cultures through language learning.

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Chapter 1: Introduction

1.1 Background

Second language (L2) research throughout the years has contributed a great deal of data to better understand how vocabulary is learned or what vocabulary should be prioritized in the classroom. Several aspects of vocabulary research have been emphasized lately, such as the need to provide relevant input in the L2 (Nation, 2003), the importance of repeating words in that input (Pellicer-Sánchez & Schmitt, 2010; Sánchez-Gutierrez, Pérez Serrano & Robles García, 2019; Webb, 2007), the relevance of considering the different aspects that promote deeper word knowledge in teaching new vocabulary (Nation, 2013), or the central role of lexical frequency in selecting appropriate vocabulary to teach in the classroom (Nation, 2006; Schmitt & Schmitt, 2014).

As happens in many areas of L2 learning and teaching, research results do not seem to directly impact what happens in actual classrooms or, at least, what appears in language textbooks. For example, with respect to vocabulary in textbooks, several studies have demonstrated (1) how lexical frequency is not the guiding principle in choosing which words to include in textbooks (Davies & Face, 2006; Lopez Bastidas & Sánchez-Gutierrez, 2020; Sánchez-Gutiérrez, Marcos Miguel & Olsen, 2019), and (2) how vocabulary items tends to be presented once or only a few times, thus not promoting incidental learning and long term retention (Matsuoka & Hirsh, 2010; Sánchez-Gutiérrez & Sampedro Mella, 2017).

While utilizing textbooks as proxies for what ultimately happens in the classroom is a good starting point (Harwood, 2014), we know that instructors use textbooks to different extents, making more or less additions or changes to them depending on their beliefs, previous

experiences and teaching context (Marcos Miguel, 2015; Shawer, 2010). As such, making assumptions about language teaching based solely on textbook contents might impair our understanding of what learners are really exposed to in the classroom and how this varies according to instructor differences. However, very few studies have directly approached vocabulary treatment in the classroom by recording and analyzing real classrooms. To the best of my knowledge, only a handful of articles have utilized this methodology and closely looked at teacher talk and its impact on vocabulary learning: Dobinson (2001), Donzelli (2007), Horst (2010), Plonsky and Loewen (2013), Daidone, (2019), and Jin and Webb (2020), which differed from the other articles in the fact that this article analyzed teacher talk by having student listen to a video of a teacher conducting a lesson. These studies have focused on a single instructor, but no work to date has compared different instructors teaching the same contents or looked longitudinally at one single instructor's evolution in teaching techniques and beliefs throughout their first year of teaching. The aim of the present dissertation is to add to this research and offer a broader view of what happens in the classroom by analyzing data from different classrooms. For this study, two different corpora have been created and analyzed. In Study 1, a corpus of recordings from three instructors during a period of three years are compared while Study 2 analyzes a corpus of one single instructor throughout three academic quarters.

1.2 Purpose of the Study

As was mentioned above, this dissertation project aims to investigate (1) how three different L2 Spanish instructors treat vocabulary in their beginner Spanish course (SPA 1) depending on their teaching experience, and (2) how an instructor treats vocabulary in a beginner Spanish course during the three academic quarters of his first year of teaching at the university level. Concretely, their classroom talk was analyzed with a focus on the following themes:

1. Input provided by the instructor, output generated by the students, and students' interactions in the classroom.

2. Lexical frequency and word repetition in the input.

The aim of the study is to get a better understanding of how different instructors' input and overall classroom management may affect incidental vocabulary learning and how such input may change over time as they gain more teaching experience throughout one academic year. Results from this research will hopefully provide relevant insights into how to better train new instructors or how to better connect instructors to vocabulary research results in ways that avoid the current disconnect between the scientific literature on the subject and what instructors do in their classrooms.

1.3 Research Questions and Structure of the Dissertation

Previous literature has demonstrated that there is a clear mismatch between the recommendations of vocabulary researchers and textbook contents (Davies & Face, 2006; Godev, 2009; López Bastidas & Sánchez Gutiérrez, 2020; Sánchez Gutiérrez, Marcos Miguel & Olsen, 2019). Little is known, however, about what actually happens in L2 classrooms and how the choices from the textbooks (e.g., word selection and word repetition) are addressed (or not) by instructors. Only a small number of studies have looked at teacher talk as a source of relevant input for vocabulary learning (Dobinson, 2001; Donzelli, 2007; Horst, 2010; Jin & Webb, 2020; Plonsky, Loewen, 2013). All articles looked at the lexical frequency of words used in the classroom and the number of repetitions of those words. However, no study to date has specifically addressed the following questions, which will be the ones driving my own research efforts in this dissertation: (1) *How do classroom time management practices vary across classrooms, depending on the characteristics of the instructor? (2) To what extent do teachers*

vary their vocabulary use and repetitions of high frequency words when teaching the same

contents? (3) *How do classroom time management practices change over time as an instructor*

gains more teaching experience? (4) To what extent does the vocabulary use, and repetitions of

high frequency words change over time when teaching the same contents?

In order to answer the research questions in my dissertation, I will contextualize my work

in the broader literature, then present the two studies that I carried out and, finally, discuss how

my results connect to the literature. The chapters will be organized as follows:

Chapter 1: Introduction

Chapter 2: Literature Review

Chapter 3: Study 1: Comparison of Classroom Discourse by Three Different Instructors

Chapter 4: Study 2: Longitudinal Study of One Instructor

Chapter 5: Discussion

Chapter 6: Conclusion

Chapter 2: Literature Review

2.0 Introduction

The field of second language acquisition (SLA) has been shaped throughout the years based on new theories and hypotheses. In the 80s two important and revolutionary hypotheses were made available to teachers and other researchers: the input hypothesis and the output hypothesis (Krashen, 1985; Swain 1985, 1995, 1999, 2005). Both hypotheses are of great interest when one investigates vocabulary learning in real classroom interactions, as students both need to be exposed to input and to produce output when they interact with each other and with their teachers.

2.1 Language Learning Theories and Hypotheses

2.1.1 The Input Hypothesis

The Input Hypothesis (Krashen, 1985) states that languages are learnt by receiving 'comprehensible input' and having the ability to decode a given message. The way these messages can be decoded is by receiving input that students can understand embedding structures that are one level above that of the student. Krashen explains this phenomenon using a simple formula: (i+1), where 'i' represents the level of the students at the moment of receiving the input, and '+1' represents the next level of difficulty. By providing comprehensible input, students are able to comprehend unknown language structures or vocabulary based on the context making use of their already acquired linguistic knowledge. An example of this in a classroom setting would be a teacher showing a picture or illustration to students in which students know the names of two of the three objects in the picture. As the teacher repeats the names of all the objects, including the ones students do not know yet, learners can easily

recognize the new word and associate it with the object they could not name before (Krashen, 1985). Ideally, this process would happen automatically, without the explicit intervention of the teacher, through implicit learning. Krashen states that there are two corollaries to the Input Hypothesis:

(1) Language production is the evidence that acquisition has happened, not its cause. Thus, receiving comprehensible input will give students the tools to build competence and speech will emerge from there.

(2) If the input provided is at the right level and students are exposed to sufficient amounts of it, the grammar structures that are still unknown but necessary for adequate comprehension will be learned implicitly.

Therefore, Krashen proposed that teaching explicit grammatical rules is unnecessary. Theories of language acquisition have significantly evolved since Krashen's initial proposal, recognizing the importance of explicit language teaching, in particular when grammar structures are not salient enough to be "noticed" (Hall, 2022; Mougeon & Rehner, 2017).

Despite the importance given to classroom input at the theoretical level, no corpus currently exists that includes classroom teacher talk from various Spanish L2 teachers with similar educational backgrounds but different experience levels, or even a longitudinal corpus which limits our understanding of the lexical and grammatical exposure that students receive during their language classes. Some articles have analyzed the speech of one single instructor in their classroom (Daidone, 2019; Horst, 2010; Plonsky & Loewen, 2013) in order to better understand how teacher talk corresponds to what students ultimately produce themselves. Additionally, there are a number of studies that explore grammar learning through teacher talk

on a small scale. (Didone 2019; Gurzynski-Weiss, L., Geeslin, K. L., Long, A. Y., & Daidone, D. 2017; Mathieu, C. S., Marcos Miguel, N., & Jakonen, T. 2021).

Mathieu, et al., (2021) highlights the need for studying classroom discourse and classroom materials. A recent example of such endeavors is Daidone (2019), who recorded 24, 50-minute lessons taught by one Spanish language instructor in order to analyze their use of the preterit and the imperfect. The author found that the instructor tended to overuse the preterit, thus offering few instances of the imperfect, and reducing students' opportunities to develop a better sense of the uses of the latter tense. Furthermore, studies that focus on analyzing corpus of real classroom interactions point to the need of studying teacher talk more in-depth, paying close attention to the features of the input that students are exposed to. In another study, Gurzynski-Weiss, et al., (2017) the authors analyzed the teacher talk of five native-speaker instructors of Spanish. The instructors were video recorded teaching lower division language courses and one Hispanic linguistics course (in the case of one instructor). The aim of the study was to analyze the variable use of explicit subjects versus null subject use by different instructors with different backgrounds and experience. The results suggest that null subjects were more common than overt forms. Analyzing classroom discourse allows researchers and teachers to access data that has never been accessed before, and learn from this data, for instance the results of Daidone (2019) has the potential of helping teachers balance their use of the preterit vs. imperfect use to help students learn both tenses equally. This is one of the main reasons more studies of classroom discourse are needed, to learn from what teachers are doing in the classroom and adjust their practices to better help students in their learning process. Both studies analyze teacher talk, although none of them include a longitudinal component and a comparative component with instructors with similar professional formation but different experience levels.

2.1.2 The Output Hypothesis

Classroom discourse, however, is a complex combination of input, mostly provided by the teacher, and students' output, as they are repeatedly asked to answer questions and complete tasks and activities in groups. This is important to state because focusing exclusively on classroom input, as seen in teacher talk, would provide a limited picture of what actually happens in a class. Importantly, language production, and not only input, has a direct impact in second language (L2) acquisition (Swain 1985, 1995, 1999, 2005). According to Swain, by speaking or writing, learners develop their linguistic fluency and test their interlanguage to achieve their communicative goals. In pushing themselves to communicate, learners realize what they can or cannot do with the language abilities they possess (Swain 1995). Furthermore, Swain (1995) proposes three functions of output that may promote language learning and increase accuracy. First, *the noticing/triggering function,* which leads students to notice a gap in their knowledge as they are trying to communicate or produce language. By noticing their linguistic gap in knowledge, learners may become aware of specific target structures/vocabulary they need to learn to communicate effectively using their L2. Second, *the hypothesis-testing function* which claims that L2 learners will produce output to test their hypotheses and it will result in the modification of future output based on the feedback received. Finally, *the metalinguistic function/conscious reflection,* this hypothesis claims that using language to reflect on language itself inhibits language learning. Swain proposed that "learners may use their output as a way of trying out new language forms and structures as they stretch their interlanguage to meet communicative needs…" (Swain 1995, pg. 131). By using language in this way, L2 students have the chance to test their output to find out if it works or not in a communicative setting.

A number of articles have studied the effects of output-based classroom instruction (Izumi, 2000; Jernigan 2012; Morgan-Short & Wood Bowden, 2006). Izumi (2000) conducted a review of empirical studies that investigates the noticing function of input and output-base instruction. The results of this study reveal that learners that engaged in output-input exhibit greater language gain than learners exposed only to input. Morgan-Short and Wood Bowden (2006) obtained similar results that lead to the belief that output-base instruction leads to interpretation and production knowledge gain of grammatical structures. Lastly, Jernigan (2012) conducted a study to test the effectiveness of "output-focused video-based instruction" for pragmatic knowledge development. The results of this study show significant pragmatic knowledge recognition through output-focused instruction, which supports Swain's Output Hypothesis (1985,1995).

This dissertation will thus, not only analyze the input provided by the instructor but also the output produced by students to express themselves orally. Even though their specific output could not be transcribed due to IRB constraints, instances of them working in groups or responding to teacher's questions were coded to reflect the number of opportunities they had to participate and actively produce output.

2.1.3 The Interaction Approach in Language Learning

Most current approaches to L2 teaching, such as communicative language teaching (Nunan, 1987; Richards, 2005) or task-based language teaching (Ellis 2019, 2021; Long, 2015), are centered around interaction, recognizing that mastering a language is not a matter of knowing its grammar but rather of being able to communicate in it. For example, it is not rare, nowadays, that teachers advise their students to immerse themselves in the target language as much as possible by going to Latin restaurants and ordering their food in Spanish as a way to practice

dialogues that they have practiced in class. Indeed, language socialization is seen as a central component of L2 learning and, as such, L2 classrooms should provide plenty of opportunities for students to interact with each other in the target language.

Ellis (2008) states that "people and language create each other, grow from each other, and change and act under the influence of each other" (p. 31). Zhang (2010) also states that cooperative language learning gives students higher chances to receive comprehensible input and output. Although it can be challenging to expose students to real life situations in a classroom, they can still be encouraged to work with their peers cooperatively. Indeed, Gass (2017) argues that learning languages through interaction sets a way for second language acquisition in that students engage in processes of negotiation of meaning which allow them to further develop their linguistic system. As students intend to clarify certain parts of their message, those forms become salient and easier to learn. In this case interaction with the language sometimes requires clarification and meaning negotiation which ends up facilitating language acquisition.

In order to quantitatively assess the efficacy of interactive practices in L2 learning, Mackey and Goo (2007) carried out a meta-analysis of 28 articles that studied the outcomes of interactions. Their results suggest that the groups of learners who repeatedly engage in interaction experience greater benefits in L2 learning in all aspects than those who engage in little or no interaction in class. Interactive practices impact the learning of lexis more significantly at first but then its benefits extend to grammar learning. Importantly, the positive influence of interaction on different aspects of language learning are long-lasting, as evidenced by the fact that effects could still be strongly observed in the delayed post-tests of the studies they analyzed.

2.1.4 L1 and L2 Use in the Classroom

The use of L1 in L2 classrooms has been more accepted in recent years. Some researchers (Galindo Merino 2011; Hall & Cook, 2012; Nation 2001) argue that the use of L1 helps instructors show respect to students and it helps students to feel respected in a multicultural and multilingual community. However, as Nation (2001) points out, the situation is not as simple. Indeed, the author argues that the L1 should be used strategically as a way of promoting a "higher level of L2 performance" (p. 3). Concretely, the use of L1 should be seen as a tool to promote learning, similar to other important and useful tools commonly used in the L2 classroom such as "pictures, real objects, and demonstrations" (p. 5). Finally, Nation also mentions that the use of the L1 in some situations is necessary to show respect to the students' language. In this same vein, Hall and Cook (2012) propose that the entirely monolingual approach to teaching brings devastating ideologies to both non-native English teachers and students since they are made to believe they need to reach a native like proficiency, which for some learners is an unreasonable goal. Similarly, to Nation (2001), the authors conclude that the L1 should be used for several reasons: to validate the students' own language, to promote student participation, to create a more welcoming class environment, as a tool to learn the new language, among others. In sum, using the L1 is not only a learning tool but it is also an ethical issue. As such, it should not be discouraged or prohibited, instead it should be used to promote language learning. Some researchers have investigated teachers' beliefs and practices when it comes to the use of the L1 in the L2 classroom to assess whether the shifts observed in the literature from a L1-only to a more inclusive linguistic perspective affect instructors' endeavors (De la Campa & Nassaji 2009; Kraemer, 2006).

Kraemer (2006) conducted a study that analyzed the use of English in a multi-section

Elementary German language course. Kraemer's study consisted of interviewing and recording

five German instructors with different amounts of teaching experience, different native

languages, and different training backgrounds. Three instructors were native speakers of

German, while two were not, also three of the instructors considered themselves as novice

teachers, while two had extensive teaching experience. The author observed and recorded each

instructor two times for 50 minutes in the same semester while they were all teaching the same

materials. Results revealed that the instructors used English for eight different purposes. The

three most common reasons to use the L1 were *classroom management, translation,* and

repetition or explanation. Also, the instructors with more teaching experience, as well as those

with more explicit teacher training used a considerably more limited amount of English in their

classes, which showed that teacher training can overcome the lack of teaching experience.

Illustrated on Table 1.

Purpose for L1 use	Definition
Classroom management/Administrative Vocab.	● Explain homework assignments. ● Go over already corrected exams. ● Discuss future material.
Translation	● Translation of individual words.
Repetition/explanation	● Automatic use of English to anticipate students' possible comprehension issues.

Table 1: Purpose for L1 Use Kraemer (2006).

Similarly, De la Campa and Nassaji (2009) audio- and video- recorded two instructors

who were native speakers of German. One of the instructors had more than 20 years of

experience, and the other was considered a novice. In addition to the audio and video recordings,

the authors conducted interviews as well as simulated recall sessions using the recordings. Each

instructor was recorded four times for 50 minutes. The recordings were transcribed and

subsequently coded to identify instances of L1 use. Fourteen categories of L1 use instances in the classroom were identified. The results revealed that both instructors used a noticeable and similar amount of L1 in their classes. Although both instructors used the L1 for translations much more than other uses, the experienced instructor used it much less (21.6%) than the novice instructor (41.8%) for this particular purpose. The other two most frequent purposes for L1 use diverged between the experienced and the novice instructor, as the former used *personal comment* followed by *instructor as bilingual* while the novice instructor used *activity instruction* followed by *administrative issues*. The results of the interviews and the *stimulated recalls* showed that the experienced instructor used the L1 as a way to make his students feel more comfortable and welcomed, whereas the novice instructor used the L1 more often to translate and make classroom activities more effective. As a result, both instructors used the L1 as a tool to teach the L2 and as a way to connect with students and offer a more positive learning experience, even though the specific reasons for using the L1 differed between them. Illustrated on Table 2.

Purpose for L1 use	Definition
Translation	● Direct translation of L2.
Personal comment	● Episodes in which the instructor added a comment to express their personal opinion.
Instructor as bilingual	● Episodes of code-switching.
Activity instruction	● Episodes where the instructor used the L1 to guide an activity and engage students.
Administrative issues	● Use of L1 to make announcements like coming up deadlines, exams, and other administrative issues.

Table 2: Purpose for L1 Use De la Campa and Nassaji (2009).

De la Campa and Nassaji (2009) mention that the limitation of their study is the small amount of teacher talk recorded as well as the small number of instructors included in the

research. Similarly, Kraemer (2006) mentions the unnaturalistic environment in which the data was collected for her study, which consisted of only two observations by the author and audio recordings. According to the author, this way of collecting data is not ideal because the instructors seemed tense and did not act as they normally would do while teaching. The present study aims to address these issues.

First, the instructors who participated in this study recorded their own classes, and never had an observer altering the typical dynamics of their classes. Second, a different number of classes were collected per instructor, for instance, David recorded 82 classes, Clara recorded 54, and Pedro recorded 13 of his classes in order to create a more sizable corpus of teacher talk for each instructor. The relatively large number of recordings gathered per instructors will allow us to analyze (1) the input they provided, both in Spanish (i.e., the L2) and in English (i.e., the L1), the opportunities that students had to express themselves (i.e., number of minutes where they spoke or interacted with each other) and the number of occasions per class where they could interact with each other on collaborative tasks.

2.1.5 In-class Material Consumption and Instructor's Characteristics

It is well known that when a university in the US offers more than one section for the same language course, the same textbooks and same syllabus is used across sections, furthermore, all students from all sections receive the same midterms and final exams. This practice is an effort to keep all sections on track and make sure all students have a similar experience and the same language abilities when they advance to the next level. In most of the cases the instructors teaching these types of classes are graduate students with different levels of teaching experience, teaching philosophy and with different backgrounds. The same class can be taught by a graduate student doing research on Peninsular literature from the Middle Ages or a

graduate student doing research on historical linguistics. The fact is that each graduate student utilizes the textbook and follows the class syllabus according to their convictions and language teaching abilities (Guerrettaz & Johnson 2013). According to Guerrettaz and Johnston (2013) less experienced teachers rely more on textbooks than those with more experience. Moreover, the authors analyzed the relationship between the materials utilized in the classroom and the students in an ESL classroom. Their results revealed that textbooks function as content organizers, and that the relationship between the textbooks and the students is a key point for language learning.

Consequently, instructors still pay close attention to the order and date in which each grammatical construction or vocabulary list needs to be learnt, but they decide to put more or less emphasis to the items on the syllabus as they see fit and by using the activities that their students or them as teacher prefer the most. Therefore, even though the materials are exactly the same and all need to prepare their students for identical exams, contents can be delivered using slightly different strategies.

Furthermore, Marcos Miguel (2015) conducted a study to investigate the material consumption in the classroom. Three TAs participated in this study, all of them had more than four years of teaching experience. The author audio recorded all TAs teaching different sections of the same class for one week. The analysis on textbook use was contrasted with Shawer's (2010) study which states that there are three different types of instructors when it comes to textbook delivery: curriculum developers, curriculum makers, and curriculum transmitters. Curriculum transmitters stay very faithful to the curriculum and do not leave room to make changes or adapt to the students' learning needs. Curriculum makers create the curriculum based exclusively on their students' needs, and curriculum developers make changes to the curriculum

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based on the classroom context. Marcos Miguel (2015) found that the TAs she recorded do not fall under one specific category, instead, their delivery strategies put them between curriculum transmitters and curriculum developers. According to the author, these results were expected based on the nature of the multi-section course. The multi-section courses in some ways forces teachers to follow the curriculum more closely due to the existence of common testing materials across sections, and teachers have less freedom to make curriculum changes. Concretely, the setting in which the data collection for this dissertation took place is very similar to the one just described.

2.2 Vocabulary and SLA

2.2.1 Lexical Coverage and Frequency in Language Learning

Research in vocabulary acquisition and teaching has demonstrated the usefulness of lexical frequency lists in selecting the words that need to be prioritized inL2 classrooms (Keck 2012). Indeed, lexical frequency counts are extracted from corpora of authentic native speaker's conversations and written texts, which provide rich information about what words are more and less used and, thus, more and less useful for day-to-day real-life interactions (e.g., ESF Corpus, Perdue, 1993). In this context, corpus data (and the resulting frequency counts) offer a sound selection criterion when deciding which words should be taught, and in what order, to facilitate the student's learning experience.

In terms of the exact number of words that should be prioritized in the L2 classroom, researchers propose that the first 2,000 to 4,000 words would be a reasonable goal. This conclusion comes from analyses of lexical coverage in different types of oral and written text. For instance, in his now classical study of 2006, Nation found that with knowledge of the first 4,000 word-families in English the reader will be familiar with 95.06% of the words in a novel of

over 120,000 tokens, such as *Lady Chatterley's Lover*. This means that readers who know the 4,000 most frequent words in English will encounter one unknown word in approximately every 20 words, which does not significantly hinder overall comprehension but is not enough for fluent reading without the support of a dictionary (Laufer, 1989; Laufer & Ravenhorst-Kalovski, 2010). In a shorter literary text, such as *The Picture of Dorian Gray*, the first 3,000 word-families plus proper nouns reached 98.86% of text coverage, although this type of high coverage, which does grant a more fluent reading experience, is generally achieved with more than 4,000 words in most texts. For instance, in his analysis of the movie *Shrek*, a vocabulary size of 7,000 word-families plus proper nouns was needed to reach 98.08% coverage, while 8,000 to 9,000 words would be necessary to reach 98% of coverage in newspapers or most novels.

Schmitt and Schmitt (2014) partly replicate these findings, but they argue that the first 3,000 word-families, and not the first 4,000, in English should be considered as high frequency vocabulary whereas any word beyond that threshold would be classified as mid- or low-frequency. The authors offer several arguments for this proposal: (1) the amount of coverage accounted for by each rank of 1,000 words drops considerably after the first 3,000, such that learning the next 1,000 words (words 3,001 to 4,000) would contribute less than 1% of additional coverage for most texts. It is thus reasonable to propose that, after the first 3,000 words, learners should focus on the vocabulary that most directly responds to their specific communicative needs and interests. (2) The authors also noticed that graded readers for language learners rarely present more than 3,000 different words, and (3) the 3,000 most frequent words tend to correspond to the ones included in L2 learner dictionaries, which indicates that lexicographers' intuitions about what words should be taught in L2 classrooms generally match objective frequency criteria.

Finally, Davies (2005) is the only study in which Spanish text coverage is analyzed. Findings show that in order to understand 94% of oral text, knowledge of the first 3000 most common words is required. He also explains that in Spanish it is more common to use lemma units to analyze text coverage, unlike English which usually uses word families. Consequently, as the lemma unit "separates the nominal, verbal and adjectival uses" (p. 109) the same number of words could result in less coverage than English, which uses word family units. Finally, based on the findings of this article, teaching the first 3000 most common words in Spanish should be of high priority for language instructors.

2.2.2 Relevance of Vocabulary in Language Development

Words are considered as the building blocks of a language (Read, 2000). It is true that grammar is important although, if a student masters or memorizes grammatical rules but never studies vocabulary, communication will be hard to achieve (Schmitt, 2000). On the other hand, possessing knowledge of enough vocabulary to allow for communication can be beneficial for the acquisition of even more vocabulary and the grammatical structures those words are embedded in (Nation, 2001; 2011; Rivers & Nunan, 1991). Furthermore, knowing how to produce grammatically correct sentences does not bring much value to the learners when they do not have the vocabulary to participate in authentic conversations in their L2 (Wilkins, 1972). With the purpose of testing the students' knowledge of the first 3k most frequent words of the Spanish language, Robles-Garcia (2020) designed a yes/no lexical recognition test in Spanish, the 3K-LEx test. Concretely, the results showed that L2 learners do not know enough frequent vocabulary, and explicit teaching of it is necessary. Similarly, Blake (2020) used the 3K LEx to test the knowledge of upper-division students enrolled in a Spanish linguistics class. Both aforementioned articles arrived at the same conclusion, L2 learners struggle to acquire the most

frequent vocabulary which results in communication problems (Blake 2020). Hence, it is crucial that students get the opportunity to learn vocabulary explicitly in their elementary, intermediate, and even advanced courses. Interestingly, ten years earlier, Folse (2010) had already advocated for this issue. In his study, the author indicated that even in reading classes the explicit focus on vocabulary was almost null, unlike the explicit teaching of grammar. The author suggested that teachers need explicit training to support the vocabulary needs of learners, although according to the author, students also "need training in noticing, practicing, and retaining vocabulary" (153). Moreover, Sánchez-Gutiérrez, Robles-García, and Serrano (2022) conducted a study in which they analyze teacher beliefs by conducting interviews. The results revealed that teachers tend to favor the explicit teaching of grammar over vocabulary in their classes. This finding shows that students lack opportunities to learn vocabulary in class explicitly although teachers expect them to learn by simple exposure to the input.

2.2.3 Word Repetition for Incidental Vocabulary Learning

It is not completely clear how many repetitions of a word are needed to gain long term knowledge of it, yet there is no denying that frequency of exposure does play a central role in the lexical acquisition of L2 learners. Some authors suggest that five repetitions are sufficient while others propose that at least 10 repetitions of a word are needed in order to ensure proper future recognition and recall (Pellicer Sanchez & Schmitt, 2010; Sánchez-Gutierrez, et al., 2019; Webb 2007). These differences may be due to what has constituted the definition of what knowing a word is in the different studies cited above. Indeed, lexical knowledge is a multifaceted construct that includes, among other aspects, knowledge about what a word means, how it relates to other words from the same morphological family or which words appear more frequently next to them.

In his study, Webb (2007) investigated the effects of encountering a series of target words 1, 3, 7, and 10 times in a text on the attainment of lexical knowledge and confirmed that knowledge gains increase as words are increasingly repeated in the text. However, while this may hold true for most aspects of vocabulary knowledge, some of them may require more or less encounters in the text to start developing. Concretely, Webb measured 10 different aspects of productive and receptive knowledge, orthographic form, meaning and form, grammatical functions, syntax, and associations. The results indicated that with three encounters of a word, there was a significant gain of receptive knowledge for orthography, grammatical functions, and syntax to start developing. The productive knowledge of associations also presented a significant gain with three encounters, but seven encounters were necessary to observe significant gains in most other aspects of productive knowledge, such as orthography, or meaning and form. Overall, however, the author found that knowledge gains of every tested knowledge aspect were greater as the encounters kept increasing.

Similarly, Pellicer Sanchez and Schmitt (2010) tested different aspects of word knowledge, namely spelling recognition, word class recall, meaning recall and meaning recognition, after different amounts of word encounters: 1, 2-4, 5-8, 10-17, and 28+. One of the differences between this study and Webb's (2007) is that Webb used adapted readings where learners were expected to know all the words in the reading except the 10 made up words used to measure word knowledge, while Pellicer Sanchez and Schmitt used a raw and authentic novel where the words expected to be unknown came from a different language. Thus, their participants were native Spanish speakers, and advanced learners of English, with over 10 years of experience with the language. The participants read a book in English, with only a few words in a language that they were not familiar with. Their experience is, therefore, quite different from

that of a beginner or intermediate L2 learner reading a text in their L2. Although their results were similar to those of Webb (2007), the authors found that incidental learning occurred in all of the aspects of word knowledge tested but a substantial knowledge gain was overall noticed after 10-17 encounters. Measurable learning was gained in 28% of the cases or in 9.39 out of the 34 words tested. Meaning recognition was the aspect of knowledge with the most gains with 43% of the cases or 14.45 out of the 34 target words learned on average.

Additionally, Pavia, Webb and Faez (2019) conducted a study in which they investigate the relation between oral input through listening to songs and incidental vocabulary acquisition. Their findings show that listening to songs promotes incidental vocabulary acquisition of spoken forms for collocations and single-word items. Listening to a song multiple times also has a positive impact in vocabulary learning, although many encounters of the same word are necessary for long term learning to take place. On the same line of research addressing incidental vocabulary acquisition, Van Zeeland and Schmitt (2013), Vidal (2011), and Newton (2013) found similar results than the aforementioned article.

In conclusion, the previous studies display several main findings; first, that knowledge of a word starts developing even with 2 or 3 encounters of a word. Second, even if certain knowledge of a word is developed with few encounters, 10 or more repetitions seem to support long term knowledge retention. Third, word frequency is not sufficient for vocabulary learning, and last, not all words are learned at the same rates as some words might be easier to learn than others based on meaning and use.

2.2.4 Word Repetition in Teacher Talk

When it comes specifically to the effect of teacher talk on incidental vocabulary learning, two studies, to the best of our knowledge, have delved into this issue. First Jin and Webb (2020)

conducted a study with 140 advanced students majoring in English in a university in China. They used a 26-minute-long prerecorded lesson which contained 2901 running words and all students listened to it. The aim of their study was to investigate if teacher talk contributes to the learning of single word items and collocations. They tested three different variables: frequency of occurrence, L1 translation, and note taking. Their results showed that L1 translation and note taking contributes significantly to the learning of single word items in the immediate posttest, while note taking contributes significantly to single word learning in the delayed posttest. Teacher talk also contributed to the retention of collocations. Importantly, frequency of occurrence did not have an impact on the retention of single words or collocations. These results might be due to the lack of encounters with the target words as only 2 of the target words were encountered 10 times. Concretely, 26 minutes of teacher talk does not provide sufficient repetitions for learning to take place. Moreover, their methodology lacks interaction, which is one of the most important principles of a class. Being present in a face-to-face class versus watching a video of a lesson does not compare to each other, therefore, they cannot be treated as equals. For instance, online classes are designed using different principals than those used for a face-to-face class.

The other example of research that looked into incidental vocabulary learning through teacher talk is Plonsky and Loewen (2013). The authors analyzed one instructor's speech during a six-week course that met four days a week, two hours per day, at a US university. Twenty-three students participated in the study taking pre- and posttests. The tests measured the students' knowledge of seven words selected by the authors. Some of those seven words occurred in only one day (*crisol, emborracharse, orgulloso*), and some occurred almost every day (*vale, ya, guay*). The pretest and posttest scores indicated that *crisol, emborracharse,* and *guay* showed the

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highest gain, whereas *ya, vale*, and *parecer* showed the lowest improvement of knowledge. Furthermore, *crisol* with 14 repetitions and*, emborracharse* with 11 repetitions, were repeated that many times in only one day. However, each word was at the center of several episodes of focus on form, started by both the teacher and the students, thus receiving a great amount of explicit attention. *Guay*, on the other hand, occurred 56 times in multiple days and had six episodes of focus on form. *Ya* was not retained by the students even though it was the most repeated word of all, with a total of 214 uses throughout the six weeks. However, it only was mentioned once in a focus-on-form episode. The analysis of these data points to the evidence that frequency alone is not enough for vocabulary learning to occur, and that explicit attention to a word greatly contributes to enhancing students' chances of learning it. It is important to note, though, that this study looked at a very limited number of words and that the one that some of the words that were not retained were not content words but rather informal exclamations (i.e., *ya, vale*), equivalent to *okay* or *yeah*, in English. Therefore, students did not need to understand their meaning in order to get a sense of what was going on in the classroom.

Similarly, even though she did not test students' vocabulary knowledge, in an attempt to reveal how rich teacher talk is and the opportunity it gives students to learn vocabulary incidentally, Horst (2010) analyzed one teacher's talk in a conversation class designed for advanced English learners. The speech of the teacher was recorded for 9 weeks, twice per week, two hours per day. A corpus of 121,000 words of teacher talk was collected at the end of the course. Horst analyzed the teacher talk by using the BNC-base frequency list by Nation (2006). She found that students need knowledge of the 2,000 most frequent words to comprehend 96% of teacher talk, and knowledge of the 4,000 most frequent words and some from the 5,000 to reach 98% of comprehension. The number of unfamiliar words found in the corpus per class

session ranged from 53 to 25 families. Furthermore, only 14 families showed 30 or more repetitions, and only 245 to 110 families were repeated six times or more, which means students encountered only six new families per class session. The speech genre analysis revealed that language focused speech offered more opportunities for learning new words followed by text-based speech and classroom management speech. Finally, the words never used by the instructor pertained to specific categories, for example, business, government, and words that are more highly used in writing. Horst's conclusion pointed out that teacher talk alone does not offer learners the opportunity to learn words that are important in the English language.

Other than these three studies, to the best of our knowledge, no more articles have been published that look into teacher talk, its characteristics, and the opportunities for vocabulary learning that it provides. Additionally, these three studies focused on one single instructor and do not allow for comparisons across teachers or for comparisons of teachers in different contexts. Overall, it is noteworthy that, to this day, no corpora of teacher talk taken from actual classrooms have been published and been shared with the broader academic community to allow for in-depth analyses of learners' lexical exposure. One explanation for this, and the reason why it is much easier to investigate textbooks instead of actual teacher talk, is the fact that the creation of teacher talk corpora is very time consuming as one must transcribe each of the classroom recordings. Another challenge that can be encountered in this type of corpus creation, is the fact that instructors are not looking forward to being recorded which makes it very difficult to create a corpus which includes instructors from many different backgrounds, education level, and teaching experience. Even after knowing how arduous this task was going to be, I decided to accept the challenge as I know the importance of analyzing real teacher talk and stop pretending

that textbook investigation can provide accurate information of what really happens in the classroom.

2.2.5 Vocabulary Selection in Spanish L2 Textbooks

Due to the limited amount of data available on vocabulary used in real classrooms, textbooks offer a proxy of what ultimately is prioritized in the classroom, as these books are often used to guide everyday instruction. Concretely, several studies have investigated how words are selected in L2 textbooks and have specifically analyzed whether they followed a frequency-based selection criterion or not (Davies & Face, 2006; Godev, 2009; López Bastidas & Sánchez Gutiérrez, 2020; Sánchez Gutiérrez, Marcos Miguel & Olsen, 2019). All studies concur in their conclusions, observing that textbooks present a great number of low frequent words, and they never include all the 3,000 most frequent words of the L2 are actually introduced as part of the active vocabulary that students are expected to learn.

For instance, in 2006, Davies and Face conducted a study to investigate the type of vocabulary included in beginner and intermediate Spanish textbooks. The authors gathered six textbooks in total, three for beginners and three for intermediate Spanish courses to analyze the active vocabulary they contained, namely the vocabulary lists included at the end of each chapter. Results showed that about 93% of the first most frequent 500 words were included in at least one of the textbooks analyzed, 82% of the second 500-word frequency band, 67% of the third band of 500 words, and the number decreased drastically every 500 words. First year textbooks offered a better coverage of most frequent vocabulary, however, second year textbooks did not offer as much coverage of the less common words as would be expected. A qualitative investigation into why textbooks might not rely on lexical frequency for vocabulary selection revealed that textbooks are organized by thematic fields (e.g., food, health, travel, etc.), which

sometimes require the inclusion of words that are not frequent among native speakers but that are relevant for a given field. For instance, when teaching the vocabulary of the clothes, words in that field may not be extremely frequent, but they are relevant when one wants to cover the lexical items related to that specific field. For instance, the word *blusa* is not in the first 3000 most frequent words, according to Davies and Davis (2017), it ranks on the 5032nd place in frequency. On the other hand, this reliance on vocabulary lists based on semantic relatedness allows for the exclusion of words that are frequent among native speakers because they do not fit into any of the semantic fields included in the chapters.

Godev (2009) replicated the study conducted by Davies & Face (2006) but focused exclusively on five beginner Spanish textbooks published in the United States and did not analyze any intermediate level textbooks. She also used Davies' (2006) frequency list to assess the frequency of active vocabulary as well as the words included in one reading per textbook to analyze reading coverage and opportunities for vocabulary acquisition. The results revealed that only between 23% and 30% of the words included at the end of the chapters pertained to the first 1,000 most frequent words in the frequency dictionary. The reading coverage analysis indicated that those most frequent words offered between 73% and 89% of coverage, which, according to the author, is not sufficient to promote vocabulary acquisition and fluent reading. Finally, Godev pointed out that the most frequent 1,000 words in the textbooks did not coincide with the 1,000 most frequent words in the frequency dictionary and stated that the elementary Spanish textbooks analyzed in her study did not seem to be designed by using frequency dictionaries or any other systematic and explicit guiding principle of vocabulary selection.

Two recent studies, Sanchez-Gutierrez, Marcos Miguel and Olsen (2019), and Lopez Bastidas and Sanchez-Gutierrez (2020) obtained similar results as those aforementioned articles

from the early 2000s. These findings confirm that the flows of the textbooks remain unchanged with an overrepresentation of low frequency words and an underrepresentation of high frequency ones in beginner and intermediate Spanish textbooks broadly used in US universities.

Interestingly, to our knowledge, no study today has looked into how instructors manage vocabulary selection and prioritization in the classroom by recording teacher talk. For instance, if a chapter includes too many words to learn and teach, do the instructors choose a subset of those that they practice more systematically because they believe they are more useful? Do they repeat the most frequent words more, just to make sure that students get a better grasp at those words that may be considered as more relevant? For instance, even though they teach both *carne [meat]* and *filete [steak]*, repeating the former more than the latter would make sense from a frequency viewpoint, as the word is more frequent. All these questions need to be answered by recording and analyzing actual teacher behavior and talk in real classrooms, which will be the main contribution of this dissertation.

On the other hand, Sánchez-Gutiérrez et. al. (2022) conducted a study in which they studied the beliefs of instructors teaching in US universities. Their study consisted of interviews in which the participants self-reported their vocabulary practices in the classroom. The results indicate that instructors give much more attention to grammar than to vocabulary as (1) they believe grammar is more challenging for students to learn and end up spending more time teaching grammar than vocabulary, (2) as materials call for more grammar attention than it does for vocabulary, instructors focus less time on vocabulary than they do on grammar teaching, (3) instructors feel insecure about the way vocabulary selection should be approach as no clear guidelines for it are set in their course syllabus, and (4) reproduction of their own experience as

language learners. Of course, the results of this study are based on the instructors' self-reporting, which may or may not reflect the actual classroom practices of instructors.

2.2.6 Vocabulary Repetitions in L2 Textbooks

In terms of what is known about word repetition in textbooks, Matsuoka and Hirsh (2010) and Martini (2012) explored this aspect in L2 English textbooks and found that most of the relevant words in a textbook are generally not repeated enough times to ensure incidental learning and/or long-term retention after the first exposure. As mentioned before, some authors argue that a minimum of 10 repetitions of a word is needed for long-term vocabulary learning (Pellicer Sanchez & Schmitt, 2010; Webb 2007).

Concretely, Matsuoka and Hirsh (2010) analyzed all the words included in a higher-intermediate L2 English textbook to investigate how big a vocabulary is needed to read the whole textbook, and how the learning of the words that compose that vocabulary is (or not) ensured through their repeated appearance in the textbook. Their results indicated that knowledge of the first 2,000 most frequent words was necessary to achieve an adequate level of comprehension of the contents in textbooks analyzed. However, the books themselves did not offer sufficient opportunities to favor the learning of those critical 2,000 words. Indeed, 33.3% of them only appeared once per textbook, while 31% appeared five times, 21.2% seven times, and 12.1% 10 or more times. These numbers are appalling when one remembers that the minimal threshold for incidental vocabulary learning through reading is of 10 encounters with a new word. Matsuoka and Hirsh' (2010) study thus demonstrates that textbooks not only include a wide array of words that do not pertain to the most frequent of the L2 (see section 2.3.2.) but they also hinder the learning of the ones that are frequent by limiting the number of repetitions of those target words.

Along the same lines, Martini (2012) analyzed a corpus of three L2 English textbooks along with their workbooks, with the purpose of analyzing their introduction and recycling of high- and mid-frequency words. The frequency distribution results indicated that the textbooks included most of the high-frequency words, specifically 98% of the 1k level word families, 95% of the 2k level, and 85% of the 3k level. Alternatively, the recycling of the words did not show similar results, 94% of the words from the 1k level were repeated 10 or more times, 65% of the 2k level, and 27% of the 3k level reached that same criterion. According to the results, most mid-frequency 4k-8k are missing, and even high frequency words in the corpus are not recycled enough times to ensure learning, since only few of them occur 10 times or more. Finally, the author created a list containing the underrepresented high-frequency words in the corpus with the purpose of teaching them explicitly.

Finally, in a recent study Lopez Bastidas and Sanchez-Gutierrez (2020) reach similar conclusions when analyzing four Spanish L2 textbooks. The study consisted of analyzing two chapters per textbook, specifically the chapters in which the food vocabulary and regular verbs are treated. Their results indicate that textbooks include an overwhelming amount of vocabulary which is not well treated to promote incidental learning. However, few studies have gone one step further and tried to find out if instructors do compensate for the lack of repetitions of important words in the textbooks by providing additional exposure to the most frequent words that should be prioritized in the classroom.

Considering all the information discussed above, this dissertation aims to analyze the vocabulary and the repetitions presented in the input provided by the instructors that participated in this study as well as offer a panoramic vision of the opportunities offered to students to create

output and interact with the language with their peers. To achieve this goal, two parallel studies were conducted:

a.   A comparative study that contrasts the input, output and opportunities for interaction provided by three instructors with different teaching experiences between 2016 and 2019.

b.   A longitudinal study that analyzes these same variables in one novice instructor as he teaches the same course three times in successive academic terms during his first year as a Teaching Assistant in a large Spanish graduate program in the United States.

Chapter 3: Study 1: Comparison of Classroom Discourse by Three Different Instructors

3.1 Objectives of the Study and Research Questions

The aim of this study is to get a better understanding of how the input and teaching practices of different instructors differ, or resemble each other, in terms of their presentation and repetition of highly frequent Spanish words. To my knowledge, only a handful of studies have systematically looked at teacher talk as a source of relevant input for incidental vocabulary learning (Dobinson, 2001; Donzelli, 2007; Horst, 2010; Jin & Webb, 2020; Plonsky & Loewen, 2013). Additionally, Dobinson (2001), Plonsky and Loewen (2013), as well as Jin and Webb (2020) used information about the input to assess its impact on the learning of specific lexical items by the students. No overall analysis of the input itself, in terms of the general affordances that it could provide for vocabulary learning in general, was carried out. In Horst (2010), the author did analyze the input of one teacher, but it was in a L2 English class that was taking place in a city where the L2 was spoken alongside French (i.e., Montreal) and with students at a relatively high proficiency level. The present study adds to the conversation that Horst initiated by using a corpus of classroom talk in beginner L2 Spanish classes taught by three different instructors whose teaching backgrounds and specific education and training characteristics will be discussed in section 3.2.

Critically, the inclusion of data from three different instructors will make it possible to respond to the following research questions: *How do classroom time management practices vary across classrooms, depending on the instructor's level of experience? To what extent do teachers with different level of experience vary their vocabulary use and repetitions of high frequency words when teaching the same contents?* In order to answer the above question, the classroom

talk of three instructors was analyzed with a focus on (1) the overall input provided by the instructors, time for student output (by analyzing the change of turn between students and instructors), and interaction offered in class. And (2) the lexical frequency of the words utilized by the instructor as well as the number of repetitions of these words.

By studying the input of different instructors and looking at both their general classroom management style (i.e., favoring more or less interaction, talking more or less themselves, or giving more or less space to the students to talk), and their specific use and repetition of words at various frequencies, this study presents unique insights into how classroom practices can affect vocabulary use. While I will not directly test the impact of such practices on the learning of specific vocabulary items, I hope to provide a general overview of the opportunities for incidental vocabulary learning that different instructors may offer. Additionally, future studies could use this corpus of teacher talk (adding more recordings from even more instructors) in order to establish a vocabulary frequency list that corresponds to real classroom input for a certain proficiency level. This would then allow for a more in-depth study of the relationship between classroom frequency and learners' lexical knowledge. However, for now, this is out of the scope of the present dissertation.

3.2 Participants

Three instructors participated in this study, while teaching Spanish 1 (the first course of the beginner series) at UC Davis at the time they recorded themselves. The school year is divided into three quarters. The syllabus and textbook used in all classes were identical but the roles and years of experience of the instructors differed greatly. Table 3 presents the common and divergent characteristics of all of them. The instructors will be named with pseudonyms.

	Clara	Pedro	David
Native language & variation	Spanish/North of Spain	Spanish/North of Spain	Spanish/North of Spain
Role in the department	Professor	TA	TA
Highest level of education	Ph.D. in Spanish Applied Linguistics	M.A. in Spanish Applied Linguistics	M.A. in Spanish Applied Linguistics
Years of Spanish teaching experience at the university level	10	1	0
Experienced teaching the recorded course	Yes	Yes	No

Table 3. Characteristics of the instructors.

All instructors are from Spain and are native speakers of Spanish more specifically, they all speak the same Spanish variety from the north of Spain. This fact helps the vocabulary analysis as all the instructors use vocabulary from the same variety and differences in the vocabulary usage results are due to their teaching philosophy or style rather than differences in language variation. Furthermore, all instructors completed their BA in Spain. Clara's BA was in Spanish Philology whereas Pedro's and David's were in Education. Pedro and David both had completed an MA in Spanish Applied Linguistics and were enrolled in a PhD program in the same field at the time of recording. Clara held a PhD in the same area and was working as a professor and as the coordinator of the courses taught by all of them. All participants were therefore interested in Spanish language teaching both from a teacher and a researcher perspective. Clara had 10 years of experience teaching L2 Spanish classes. Pedro had taught as a TA for one complete year at UC Davis when he participated in the study and David had no previous Spanish language teaching experience by the time he started recording his classes. It was his first experience teaching a language at the university level. Both David and Pedro, however, had previous experience teaching kindergarten and primary school children. In sum, the instructors in question exhibit three different profiles: Clara the most experienced who also trained Pedro, and David.

Pedro, who had some experience in the program, and David who was new to the program. Pedro and David took a mandatory seminar for new instructors taught by Clara. The seminar consisted of second language teaching methodologies, class observations amongst instructors and the professor of the course, and topics of translanguaging, plurilingualism, and materials selection and development.

Finally, it is important to mention that all instructors used the same textbook, and the online portion of the textbook was not required for students to purchase. Instructors also used the same PowerPoints created by Clara which every instructor teaching Spanish 1 had access to and could download and adapt them as they wished. The PowerPoints were created following the criterion of the syllabus, which did not follow the textbook page by page.

3.3 Corpus of Audio Recordings

The three instructors audio-recorded their Spanish 1 course, which were conducted in a traditional focus on forms manner, and the textbook was used as a syllabus content organizer. All instructors audio-recorded themself teaching Spanish 1 during a period of 3 years from 2016 to 2019. A mini-Sony recorder was used to record all classes. After each quarter, the recordings were transferred to a computer to be transcribed. A total of 159 recordings were collected out of approximately 240 possible classes. The recordings were gathered from different school years and quarters. For instance, Pedro audio-recorded himself during Fall 2016. On the other hand, Clara recorded herself during Fall 2016 and Fall 2018. Finally, David recorded himself during the 2018-2019 school year, and recordings from all quarters were utilized for this study. It is important to note here that the syllabus and textbook did not change in the different years and quarters during which the data collection for the study took place. Therefore, differences in how

instructors taught the contents cannot be due to the fact that the curriculum was different, or the textbook had changed.

In order to compare instructors on similar topics, if two of them had recorded a specific new topic but the third one had not, this topic was discarded. Only topics that had been presented by the three of them were analyzed in the study. A typical beginner language course at UC Davis consists of approximately 50 days of instruction and 50 minutes per day, however not all lessons were recorded by the instructors. All instructors participated in the study voluntarily and they were given complete freedom and agency to record themself, which resulted in a more naturalistic classroom setting. The recording device was given to them days before the beginning of the quarter and the recordings were collected periodically throughout the quarter. The instructors were responsible for turning on the recorder to start recording their classes, as well as turning them off. They were even responsible for changing the batteries in the recorder if they were low. As instructors were responsible for recording their own classes, some classes were not recorded at all, limiting the number of topics that could be analyzed. For example, Pedro only recorded his class 13 days out of 50, as David and Clara had over 24 recordings per quarter. In total, six topics, which are listed in Table 4, were selected that matched the criteria explained above.

David		Clara		Pedro	
New topic/s	**Revised topic/s**	**New topic/s**	**Revised topic/s**	**New topic/s**	**Revised topic/s**
Descripciones físicas	*Pronunciación*	*Descripciones físicas*	*Tener, ser, estar*	*Descripciones físicas*	*Vocabulario de la clase*
Ser y estar	*Características físicas*	*Ser y estar*	*Partes del cuerpo*	*Ser y estar*	*Descripciones físicas*
Verbo gustar	*Verbos regulares*	*Verbo gustar*	*Comparativos*	*Verbo gustar*	
La hora	*Verbos regulares*	*La hora*	*Números, meses, pronombres*	*La hora*	*Verbos*

Verbos irregulares	Verbo gustar	Verbos irregulares		Verbos irregulares	Verbos
Futuro ir a+inf		Futuro ir a+inf		Futuro ir a+inf	Interrogativos

Table 4. List of topics for all selected audio recordings.

3.4 Transcriptions

3.4.1 Details of the Transcriptions

The recordings were transcribed manually by research assistants and the principal investigator using the online software *Transcribe.wreally.com* which allowed the transcribers to use a foot control pedal to pause, stop, and play the recording for a faster approach to transcribing. All teacher talk was transcribed including when the instructor used the students' L1. The transcriptions were marked with the timestamp of every change of turn (i.e., student(s) vs. teacher talk) in conversation. However due to restrictions in the IRB, student talk was not transcribed, the timestamps corresponding to times when students were talking to the instructor were marked, as were those that corresponded to moments where students completed work on their own, group work and interactive conversations with peers.

Extract 1, shows how the transcription was carried out in order to offer a detailed description of classroom talk episodes while maintaining the anonymity of the students, per IRB requirements. The transcriptions were made verbatim, although only orthographical words were analyzed leaving out speech markers (i.e., uhhh, mmm, eeeh, etc.):

Extract 1:
[00:02:13] Bueno. Hola, chicos.
[00:02:15] [respuesta de los estudiantes]
[00:02:16] ¿Qué tal estáis?
[00:02:18] [respuesta de los estudiantes]
[00:02:19] Hola [nombre de un estudiante] ¿Qué tal?
[00:02:23] [respuesta de un estudiante]

3.4.2 Issues with the Transcriptions and Corrections

As many transcriptions were completed by undergraduate students acting as research assistants, a second revision of all the transcriptions was made by the principal investigator to correct possible mistakes. Several corrections were made spelling, time stamps that were off, words that were missing were added, and words that were misheard were also corrected. Finally, in order to ensure a correct lemmatization of the words, all verbs with a clitic were changed to its infinitive form as the program used for the lemmatization was not recognizing them.

3.5 Methodology of the Analysis

3.5.1 Class Time Distribution

After all transcriptions were revised and corrected, the different time stamps coded in the transcriptions were extracted and the times between timestamps were calculated to determine the time allocated to the different categories of input or output that were established. Indeed, four different categories were identified which allowed for the best analysis of the data considering the limitations of the IRB: (1) instructor talk (input), (2) student talk (output), (3) other input (outside sources), and (4) organization.

The first category consists of all *teacher talk* including the use of the L1. The second category consists of all *student talk*, including group work, work in pairs, and single student interventions. *Other input* consists of all input in the target language not coming from the instructor, e.g., songs, videos, audios, etc. *Organization* consists of all the time the instructor spent organizing the class without talking, e.g. loading a video, giving exams back, passing handouts, etc. this category also includes the time students spent getting in groups, and speech that did not come from the assigned class instructor, e.g. an instructor visiting the class to give students an announcement to participate in a research study or to persuade students participate in

a study abroad program. One thing to keep in mind is that, when the *Organization* category

shows a zero, it does not mean that the instructor did not spend any time during the aforesaid

activities, it only means that the instructor kept talking to students as he was setting up classroom

activities (multitasking). One last category was added that does not pertain to how time is spent,

but it will allow the author to identify the number of times students intervene in a single class.

This category is called *interactions*, and it consists of the total number of interventions students

carried in the class as a whole, not while they were working in pairs or groups. Every time a

student talks it counts as an interaction. e.g., to answer a question the teacher asked, to ask for

translations, to ask for help, or to participate. For instance, Extract 2 below shows three student

interactions during a whole class discussion initiated by the instructor.

Extract 2
  [00:02:13] Bueno. Hola, chicos.
  [00:02:15] [respuesta de los estudiantes] (1)

  [00:02:16] ¿Qué tal estáis?

  [00:02:18] [respuesta de los estudiantes] (2)

  [00:02:19] Hola [nombre de un estudiante] ¿Qué tal?

  [00:02:23] [respuesta de un estudiante] (3)

3.5.2 Lemmatization

An AntConc lemmatization list was used to lemmatize the words. In order to ensure

accuracy, the automatic lemmatization was then manually revised and corrected, when

necessary. AntConc 3.5.8.0 was also used to extract the number of repetitions of the words in

every selected class. Subsequently, Sublime Text was used to divide the words in four frequency

groups, which were listed in separate text files:

- words with 1 repetition
- words with 2-5 repetitions
- words with 6-9 repetitions
- words with 10 or more repetitions

3.5.3 Frequency

The frequency of the words in each group was assessed using AntWordProfiler based on the frequency lists from the *Corpus del Español* (Davies, 2002-…). The words from the corpus were then divided into frequency bands of 1,000 words, so that band 1 would include the first 1,000 most frequent words in the corpus, band 2 would correspond to the second 1,000 most frequent words in the corpus, etc. Those bands were separated in different lists, to obtain a list of words that were in band 1, with 6-9 repetitions, band 2 with 6-9 repetitions, band 1 with 1 repetition, etc. This allowed for the organization of words (1) by number of repetitions and (2) by lexical frequency, answering the following questions: how many times are words in each band repeated per class or quarter? How frequent are the words that are repeated the most each class or quarter?

3.6 Results

Up to this point this chapter presented the methodologies used to gather and analyze the data that was used in this dissertation. This section now presents the results of analyses that were conducted in order to answer the following questions: (1) How do classroom time management practices vary across classrooms, depending on the characteristics of the instructor? (2) how many times are words in each frequency band repeated per class or quarter? and (3) How frequent are the words that are repeated the most each class or quarter?

The next section will discuss the overall results on how time is spent in each of the teachers' classrooms. It also explores the overall amount of Spanish and English spoken in each class.

3.6.1 Quantitative Overview of Classroom Discourse

Table 5 illustrates how time is spent in each of the instructor's classrooms. For instance, Clara recorded all her classes from the first minute until the last as the total time for all her recordings analyzed here is slightly over five hours (05:02:20), whereas David and Pedro had a couple of incomplete classes with a total of (04:31:50 and 04:33:34, respectively). As a reminder, each class is 50 minutes long therefore, all six classes recorded should be (05:00:00) if the recordings were complete. By analyzing each of the transcriptions it was noted that David and Pedro did two things, (1) they forgot to record some of their classes from the beginning and (2) they decided to end class earlier than the assigned end class time.

Furthermore, Table 5 shows four categories that represent how each instructor organizes their time in class. Pedro gave his students the most opportunities for output with a total of 02:07:15 (46.24%), followed by David with 01:40:15 (37.27%), and Clara with 01:37:59 (32.44%). To some extent, these numbers match the student number of interactions per class, Pedro's class shows the highest number of interactions (966), followed by Clara's class with 872, and David's with 581. With the high number of interactions in Pedro's and Clara's class, it is clear that their students had very brief interactions, whereas in David's, these lasted generally longer. Therefore, even though David's class had the least amount of student interactions (581), his students had more opportunities for extended output, as they could talk longer during each interaction. In general, the interactions in David's class lasted on average 10.4 seconds, followed by Pedro, with 7.9 seconds, and Clara with 6.7 seconds.

Moreover, Clara's students received the most input from the instructor with 03:12:05 (63.53%), followed by David with 02:33:17 (56.34%), and Pedro with 02:05:56 (46.64%). The amount of teacher talk in Clara's class (63.53%) is almost twice as long as the total percentage of

student talk (32.44%). Pedro, one of the novice instructors, shows the most equal distribution between teacher talk and student talk with 46.64% and 46.24% respectively.

Table 5 also shows how the two most inexperienced instructors relied more heavily on providing outside sources, identified as *other input* in the table. David provided the most input through videos or audios, representing up to 6.54% of the total time, followed by Pedro with 5.37%, and Clara with 2.75%.

Total	Instructor	Students	Other Input	Organization	Interactions	Total time
David	02:33:17 (56.34%)	01:40:15 (36.27%)	00:16:09 (6.54%)	00:02:09 (0.82%)	581	04:31:50
Clara	03:12:05 (63.53%)	01:37:59 (32.44%)	00:08:23 (2.75%)	00:03:53 (1.28%)	872	05:02:20
Pedro	02:05:56 (46.64%)	02:07:15/127 (46.24%)	00:15:44 (5.37%)	00:04:39 (1.74%)	966	04:33:34

Table 5. Total in-class time discourse distribution

Table 6 includes the total of tokens and types used by each instructor in the L1 and L2. There is a substantial difference between the three instructors, as David used 12,950 tokens and Clara used a total of 20,695 tokens, which represents more than double the tokens used by Pedro (8,616). Regarding the L2 used in each class, percentage wise, Pedro's 6675 (77.47%) of the total tokens were Spanish words. While Pedro's use of Spanish was proportionally the highest of all instructors, the fact that Clara generally spoke more than anyone else meant that she still exposed her students to a higher number of tokens in Spanish than any of the other instructors. Concretely, even though she used Spanish only 59% of the time, she still used as much as 12,205 tokens in total, as opposed to Pedro, who spoke Spanish more often (77.47%) but only exposed his students to 6,675 Spanish tokens. David's speech displayed the lowest percentage of tokens spoken in Spanish (54.45%) however the total number of tokens he used amounted to 7,051, which is greater than Pedro's 6,675.

Pedro also used the least amount of L1 in his class, with only 1,941 tokens, followed by David with 5,898, and Clara with 8,490. Although the number of tokens used by each instructor seems so different, the types are much more similar, Pedro used the least types 525, followed by David with 642, and Clara with 985. Therefore, all of them seem to have repeated English words pertaining to the same family many times.

Additionally, the number of types in Spanish used by David and Clara are even smaller than those used in English, which suggests that the instructors repeated words from the same family many times. Pedro used more types in Spanish than in English, although the number of types he used is smaller than those used by David and Clara. In general, by obtaining the token and type ratio, it is clear that the instructors used the same English words to communicate with students David offered 9.2 repetitions, Clara offered 8.6, and Pedro offered 3.7. Moreover, the number of repetitions is higher in Spanish. Clara offered the most repetitions with 16.6, followed by Pedro with 11.7, and David with 11.6.

	David		Clara		Pedro	
	Tokens	Types	Tokens	Types	Tokens	Types
Spanish	7051 (54.45%)	610 (48.72%)	12205 (59%)	735 (42.73%)	6675 (77.47%)	570 (52.1%)
English	5898 (45.54%)	642 (51.28%)	8490 (41%)	985 (57.27%)	1941 (22.53%)	525 (47.9%)
Eng. reps		9.2		8.6		3.7
Span. reps.		11.6		16.6		11.7
Total	12950	1252	20695	1720	8616	1095

Table 6. Total L1 used by teachers.

3.6.2 Input and Output by Topic

Table 7 shows the distribution of time devoted to each type of classroom activity (i.e., input, output, etc.) per instructor when teaching physical descriptions on the day the topic was first introduced in class. As it can be observed, the total recorded time is very similar across instructors as all were around 50 minutes long. As for the number of interactions, Pedro's class

presented the highest instances of interaction with 201, followed by David with 186, and Clara with 162.

Other input and organization seem to go hand in hand. For example, when outside sources are included, generally the time spent organizing the class goes up. Concretely, this happens due to the fact that including extra materials requires extra organization time to be able to present them to the class. For instance, Clara used a substantial number of outside sources for this particular class 5:21 (10.55%) of the total class time, consequently, the time she spent organizing the class was also the highest with 2:09 (4.24%) of total class time. On the other hand, David and Pedro did not present any outside sources for this specific class, and their organization time was lower than that of Clara.

Furthermore, Pedro's class was the most balanced between teacher and student talk for this theme, with 47.53% and 50.29% respectively, followed by Clara with 53.65% and 31.56%, and David with 61.45% and 38.03%.

Physical desc.	Instructor	Students	Other Input	Organization	Interactions	Total mins.
David	31:19 (61.45%)	19:23 (38.03%)	0	:16 (0.52%)	186	50:58
Clara	27:12 (53.65%)	16:00 (31.56%)	5:21 (10.55%)	2:09 (4.24%)	162	50:42
Pedro	23:24 (47.35%)	24:51 (50.29%)	0	1:10 (2.36%)	201	49:25

Table 7. Time distribution by instructor for physical descriptions.

Table 8 shows several differences among all instructors when explaining the differences between *ser* and *estar*. For instance, David recorded only 45:30 minutes as he started recording almost 5 minutes late. Perhaps the substantial difference in the number of student's interactions in David's class is due to the incomplete class recorded in addition to the 3:30 minutes video he used for this class. Evidently, students in this class were offered less opportunities for interactions as they spoke for only 27.4% of the class session, in comparison with the 63.81% of the time devoted to teacher talk. Clara's class shows the most interactions with 194, although her

students only spoke for 16:13 minutes, or 32.61% of the overall class time, which indicates that these interactions were numerous but also very brief. Extract 3 shows an example the interactions in Clara's class:

Extract 3:
    [00:08:22] soy... Tú,
    [00:08:25] [respuesta de los estudiantes]

    [00:08:28] eres... okay, él,

    [00:08:29] [respuesta de los estudiantes]

    [00:08:31] él es... nosotros,

    [00:08:34] [respuesta de los estudiantes]

These results also show that Clara offered the most input to her students with 32:44 (65.48% of class time), followed by David with 29:02 (63.81%), and Pedro with 21:43 (45.27%). Finally, Pedro's results parallel the pattern observed in Table 6 with the most balanced time distribution between student talk (25:24, or 52.95% of class time) and teacher talk (21:43, and 45.27% of class time).

Ser y estar	Instructor	Students	Other Input	Organization	Interactions	Total mins.
David	29:02 (63.81%)	12:28 (27.4%)	3:30 (7.7%)	:30 (1.1%)	76	45:30
Clara	32:44 (65.48%)	16:13 (32.61%)	0	:57 (1.91%)	194	49:54
Pedro	21:43 (45.27%)	25:24 (52.95%)	0	:51 (1.77%)	159	47:58

Table 8. Time distribution by instructor for ser and estar.

Table 9 shows the time distribution by instructor in the classes where the near future was explained. Once again, the total minutes recorded for this class is very similar among the instructors. Pedro used two outside sources for input which made up 21.47% of total class time. Interestingly, for this class, Pedro's students talked much less than in the classes analyzed above, with only 27.9% of total class time dedicated to students' oral expression. Another interesting result is that the number of interactions in Pedro's class increased when compared to Table 8 above, amounting to a total of 186. This large number of interactions is followed by those in

Clara's class (85), and finally in David's (70). These numbers indicate that the interactions in

Pedro's class were very brief, unlike the more limited but longer ones in David's class. Extract 4

and 5 illustrate an example of the interactions from Pedro's and David's class:

Extract 4:
      Pedro: [00:26:10] perfecto, voy a ser
           [00:26:13] estudiante habla

           [00:26:14] ¿qué significa ser?

           [00:26:16] estudiante habla

           [00:26:17] to be, voy a ser. soy ingeniero, voy a ser ingeniero…

Extract 5:
      David: [00:15:55] -Lake Tahoe, muy bien…

           [00:16:20] -Estudiante habla

           [00:16:24] -Salmon okay salmón, ¿alguien más?

           [00:16:28]-Estudiante habla

           [00:16:32]-Tamales muy bien…

In these examples, Pedro's students talk for one second, whereas David's talk for four

seconds, which makes the difference between saying one word or one phrase. Furthermore, the

type of dialog between Pedro and his students, and David and his students is completely

different. For instance, Pedro's dialogue includes a question for students to translate the verb *ser*,

which is more guided and purely form-focused. Alternatively, David's example shows an

interaction where students provide more personal information, as they feel free to share that they

will travel to Lake Tahoe and eat salmon and tamales. These more open-ended questions in

David's class thus allowed students to use more varied vocabulary and to produce the target

grammar constructions in more creative and meaningful interactions.

Finally, in general the table shows that the three instructors spent very little time

organizing this particular class compared to Table 7 above, this only represents the total time of

class organization instructors did in silence, as at times, the instructors were multitasking as the

set up for the next activity.

Ir a+inf	Instructor	Students	Other Input	Organization	Interactions	Total mins.
David	26:00 (52.17%)	23:50 (47.83%)	0	0	70	49:50
Clara	31:37 (61.71%)	16:25 (32.04%)	3:02 (5.92%)	:10 (0.91%)	85	51:14
Pedro	24:16 (49.54%)	13:40 (27.9%)	10:31 (21.47%)	:32 (1.08%)	186	48:59

Table 9. Time distribution by instructor for near future.

Table 10 shows the time distribution for the classes where the verb *gustar [to like]* was introduced. As it can be noted, the total amount of time recorded between instructors varies for this specific class as David's audio recorder ran out of battery and stopped recording after 37:36 minutes. The other two instructors' class time is similar. Clara's class displays the lowest number of interactions, however her students talked for 45.35% of the total class time. Her class had opportunities to work in group and to share with the whole class. Below Extract 6 illustrate that students worked in groups for almost 5 minutes and then they discussed their work with the class, thus having more opportunities to practice the target language. Clara's class also shows the most even distribution of time between teacher talk (53.74% of class time), and student talk (45.35%) in this lesson.

Extract 6:

[00:18:27] [Group work]

[00:23:20] Bien, chicos…

[00:23:31] [Student answers]

[00:23:35] Es más pequeño que…

[00:23:43] [Student answers]

[00:23:48] Okay, eres más alto que…

David's class offered the most input to students through large amounts of teacher talk (67.38%) and outside sources (9.26%), but less opportunities for student output were provided (21.59%). In contrast, Pedro offered the most opportunities for students to produce output, spending 61.2% of total class time letting students talk either in group activities or addressing the class as a whole.

Gustar	Instructor	Students	Other Input	Organization	Interactions	Total mins.
David	25:20 (67.38%)	8:07 (21.59%)	3:29 (9.26%)	:40 (1.77%)	102	37:36
Clara	26:41 (53.74%)	22:31 (45.35%)	0	:27 (0.9%)	63	49:39
Pedro	17:40 (35.09%)	30:49 (61.2%)	1:52 (3.71%)	0	141	50:21

Table 10. Time distribution by instructor for the verb gustar.

Table 11 shows the time distribution for classes where students learn how to tell time. For this class, David included two outside sources found on YouTube to give additional input to students: one audio and one video which together added up to 22.43% of total class time. However, he utilized these sources to have students work in groups, which added a total of 8 minutes of group work. Furthermore, after each group work session, students had to share their work with the class, which added opportunities for output, Extract 7 illustrates an example of such interactions:

Extract 7:
> [00:10:47] Muy bien…
> [00:10:56] Estudiante lee
> [00:11:02] Muy bien…
> [00:11:05] Estudiante lee
> [00:11:10] Okay, después me ducho…

The example above shows that student's interactions lasted over 5 seconds, which is enough time to produce a complete sentence. The group work totaled 8 minutes and the fact that interactions lasted longer than one second each explains the low number of total interactions in David's class (86).

Alternatively, Pedro's class reached 154 interactions, and student output made up 41.57% of the class. Clara's class had the highest percentage of teacher talk (76.59%), but interestingly her class also presented the highest number of total interactions (170). These results suggest that these interactions were not as long as those in David's class but still repeatedly ensured that students were active and engaged with the material.

Las horas	Instructor	Students	Other Input	Organization	Interactions	Total mins.
David	21:25 (45.04%)	14:53 (31.3%)	9:10 (22.43%)	:35 (1.23%)	86	46:03
Clara	37:44 (76.59%)	11:32 (23.41%)	0	0	170	49:16
Pedro	22:54 (48.28%)	19:43 (41.57%)	3:21 (7.06%)	1:28 (3.09%)	154	47:26

Table 11. Time distribution by instructor for las horas.

Finally, Table 12 shows the distribution of time in the classes where irregular verbs in the

present tense were presented. This class is the only one in which none of the instructors included

outside sources in their classes, hence, the organization's total time was minimal for every

instructor. David offered the most opportunities for students' output with 21:34 (51.49%),

followed by Clara with 15:18 (29.66%), and Pedro with 12:48 (43.51%).

In general, this topic shows the most uneven total amount of time recorded by the instructors,

Clara had the longest class with 51:35 minutes, followed by David with 41:53, and Pedro with

29:25. According to the transcriptions, David and Pedro decided to end class a little earlier than

the assigned end time.

The number of interactions in this class also differs a lot from instructor to instructor. For

instance, David's class had the highest amount of student output, however it also shows the

lowest number of interactions 61. Clara's class, on the other hand, shows the highest number of

student interactions 198, more than triple than those offered in David's class. Finally, Pedro's

class displays 125 interactions, or more than double than those offered by David, with the least

amount of student output with 12:48 minutes of the total class time.

Irreg. V.	Instructor	Students	Other Input	Organization	Interactions	Total mins.
David	20:11 (48.19%)	21:34 (51.49%)	0	:08 (0.32%)	61	41:53
Clara	36:07 (70.02%)	15:18 (29.66%)	0	:10 (0.32%)	198	51:35
Pedro	15:59 (54.33%)	12:48 (43.51%)	0	:38 (2.15%)	125	29:25

Table 12. Time distribution by instructor for irregular verbs.

While this first part of the chapter provided an overview of the general class dynamics in

each of the instructors' courses when teaching the analyzed topics, the next sections will

specifically focus on the input provided during class, the words that were included and the

number of times those were repeated. Concretely, the aim of this second part is to investigate if

the words used by the instructors are amongst the 3,000 most frequent in Spanish, and if those

that are in that category are repeated enough times to expect students to realistically learn their

meaning incidentally through exposure to teacher talk. Every table in the following two sections

includes four repetition groups: 1, 2-5, 6-9, and 10+, as well as four groups for word frequency.

The first group includes the first 3K most frequent words in Davies' *Corpus del Español*, the

second group includes the 3-9K most frequent words, the third group includes the 9-20K most

frequent words, and the fourth group contains the 20k+ most frequent words.

3.6.3 Word Frequency and Repetitions

Table 13 shows the distribution of word frequency and repetitions of all words spoken in

Spanish by the instructors for all the six classes analyzed. Overall, Clara used the most words

that are among the first 3K most frequent words in Spanish (1003). David and Pedro both display

lower numbers of words in the first 3K category, with 775 and 772 words respectively.

Furthermore, Pedro uses the highest number of words in the first 3K band which are repeated

only once (205), followed by Clara with 179, and David with 158. Clara's results show the

lowest percentage for words in the first 3k band that are repeated 10+ times (47.05%), she is also

the teacher who used the highest number of different words in that category (1003). These

numbers can be explained by Clara's propensity to talk a lot and to repeat all words, in any

frequency category, quite often. Consequently, while she presents the highest number of words

in the 3K category that are repeated 10+ times, she also repeated many of the low frequency

words from the 20K+ band 10+ times (347). All instructors displayed a high number of words

repeated 2-5 times and 10+ times, Clara used 628 and 731 respectively, David used 505 and 481,

and Pedro used 490 and 384. David and Pedro, the least experienced instructors, utilized more words repeated 2-5 times than 10+ times, thus tending to not repeat words as often as the more experienced instructor.

Finally, Clara does not seem to particularly discriminate or prioritize very frequent words over less frequent ones, but as she repeats all of them very often, she ends up providing more opportunities for incidental vocabulary learning to happen overall, hence the lower percentage seen on Clara's 10+ repetitions within the first 3K. For instance, the 344 words in the first 3K repeated 10+ times make up 47.47%, but Pedro's 199 words in the same band make up 51.83%.

Freq. band	Rep	David	# of words	Clara	# of words	Pedro	# of words
P. nouns		6.85%	23	2.92%	9	2.6%	9
1-3K		47.03%	158	58.11%	179	59.24%	205
3-9K	1	13.99%	47	14.93%	46	15.32%	53
9-20K		9.24%	31	4.21%	13	4.63%	16
20+K		22.92%	77	19.81%	61	18.21%	63
Total		100.03%	336	99.98%	308	100%	346
P. nouns		1.98%	10	1.59%	10	1.22%	6
1-3K		53.67%	271	55.09%	346	57.76%	283
3-9K	2-5	13.86%	70	16.09%	101	14.27%	70
9-20K		3.37%	17	6.21%	39	4.08%	20
20+K		27.13%	137	21.02%	132	22.65%	111
Total		100.01%	505	100%	628	99.98%	490
P. nouns		2.96%	6	1.1%	3	0.65%	1
1-3K		46.31%	94	49.27%	134	55.19%	85
3-9K	6-9	10.83%	22	17.65%	48	11.69%	18
9-20K		4.44%	9	5.89%	16	0%	0
20+K		35.47%	72	26.1%	71	32.47%	50
Total		100.01%	203	100.01%	272	100%	154
P. nouns		0.83%	4	1.09%	8	0.78%	3
1-3K		52.38%	252	47.05%	344	51.83%	199
3-9K	10+	2.71%	13	3.41%	25	4.16%	16
9-20K		0.21%	1	0.95%	7	0.78%	3
20+K		43.87%	211	47.47%	347	42.45%	163
Total		100%	481	99.97%	731	100%	384
Total 3K		52.29%	775	52.54%	1003	56.97%	772
Total 3k+		47.71%	707	47.46%	906	43.03%	583

[1]Total/quarter		100.00%	[2]1525	100.00%	1939	100.00%	1374

Table 13. General word frequency and repetitions by instructor.

3.6.4 Word Frequency and Repetitions by Topic

Table 14 shows the word frequency and repetitions by instructor for the classes devoted to teaching physical descriptions. The least experienced instructors used a much higher number of words with only one repetition. Concretely, the words used by David's in this category amounted to 184 in total, and Pedro's to 198, more than double than those used only once by Clara (82). A similar trend is observed with words repeated 2-5 times, where David and Pedro used much more words with only 2-5 repetitions than Clara, with 214, 204, and 127 respectively. On the other hand, there is a notable decrease of words that are repeated 6-9 times and 10 or more times for all instructors. For the 10+ repetitions group, David used an overall higher number of words than Clara, although this is due to the high number of words in very low frequency bands (above 3K) that David repeated 10+ times (37). Alternatively, Clara and Pedro used 24 words with these characteristics.

Freq. band	Rep	David	# of words	Clara	# of words	Pedro	# of words
P. nouns		8.7%	16	0%	0	1.52%	3
1-3K		42.93%	79	78.05%	64	58.59%	116
3-9K	1	13.59%	25	9.76%	8	15.66%	31
9-20K		6.52%	12	0%	0	3.54%	7
20+K		28.26%	52	12.2%	10	20.71%	41
Total		100%	184	100.01%	82	100.02%	198
P. nouns		1.87%	4	1.57%	2	0.49%	1
1-3K		57.94%	124	59.05%	75	63.72%	130
3-9K	2-5	7.46%	16	11.01%	14	8.82%	18
9-20K		5.13%	11	6.3%	8	7.35%	15
20+K		27.57%	59	22.05%	28	19.61%	40
Total		99.97%	214	99.98%	127	99.99%	204
P. nouns		0%	0	0%	0	2.22%	1
1-3K		60%	30	47.17%	25	55.55%	25
3-9K	6-9	8%	4	18.87%	10	6.66%	3
9-20K		6%	3	5.66%	3	0%	0

[1]This total includes the proper nouns from every repetition band in Tables 13 to 19, and Tables 32- 40.

20+K		26%	13	28.3%	15	35.56%	16
Total		100%	50	100%	53	99.99%	45
P. nouns		0%	0	1.14%	1	0%	0
1-3K		61.39%	62	69.32%	61	65.33%	49
3-9K	10+	1.98%	2	2.27%	2	2.67%	2
9-20K		0%	0	0%	0	0%	0
20+K		36.63%	37	27.27%	24	32%	24
Total		100%	101	100%	88	100%	75
Total 3K		55.77%	295	64.84%	225	61.90%	320
Total 3K+		44.23%	234	35.16%	122	38.10%	197
Total/class		100%	549	100%	350	100%	522

Table 14. Word frequency and repetitions for physical descriptions.

Table 15 shows the results for frequency and repetitions for the verbs *ser* and *estar*. This class shows one of the most even numbers across all instructors. Although Clara still used the highest number of words overall 454, followed by Pedro with 438, and David with 402. The different repetition band groups also show very similar numbers, and as usual, the groups with 1 and 2-5 repetitions have the highest number of words, except for Clara as her results display the highest number of words with 1 and 10+ repetitions. Again, Clara, as the most experienced instructor, offered more repetitions to students giving them a better opportunity to learn these words by exposure. Concretely, many of these words are among the 3K most frequent words, which are the words that should be prioritized in the first year of language learning.

Freq. band	Rep	David	# of words	Clara	# of words	Pedro	# of words
P. nouns		0%	0	0.83%	1	0.82%	1
1-3K		68.42%	78	76.66%	92	66.4%	81
3-9K	1	8.77%	10	3.34%	4	8.2%	10
9-20K		5.25%	6	4.17%	5	1.64%	2
20+K		17.54%	20	15%	18	22.95%	28
Total		99.98%	114	100%	120	100.01%	122
P. nouns		0%	0	0.68%	1	1.21%	2
1-3K		69.39%	102	55.78%	82	63.64%	105
3-9K	2-5	8.16%	12	8.16%	12	9.7%	16
9-20K		2.72%	4	2.72%	4	3.63%	6
20+K		19.73%	29	32.65%	48	21.82%	36
Total		100%	147	99.99%	147	100%	165
P. nouns		0%	0	0%	0	0%	0
1-3K		58.97%	23	58.7%	27	75.51%	37
3-9K	6-9	5.13%	2	8.7%	4	4.08%	2

9-20K		5.13%	2	0%	0	0%	0
20+K		30.77%	12	32.61%	15	20.41%	10
Total		100%	39	100.01%	46	100%	49
P. nouns	10+	0%	0	2.13%	3	0.98%	1
1-3K		60.78%	62	57.44%	81	52.94%	54
3-9K		4.9%	5	3.55%	5	3.92%	4
9-20K		0.98%	1	1.42%	2	0%	0
20+K		33.33%	34	35.46%	50	42.16%	43
Total		99.99%	102	100%	141	100%	102
Total 3K		65.92%	265	62.81%	282	63.82%	277
Total 3K+		34.19%	137	37.19%	167	36.36.18%	157
Total/class		100%	402	100%	454	100%	438

Table 15. Word frequency and repetitions for the verbs to be.

Table 16 shows the results for word frequency and repetition for the classes where the near future was taught. For this particular class, the total words used by Clara in general are more similar to those used by David and Pedro, 564, 465, 488 respectively. The groups with words with 1 and 2-5 repetitions seem to be very alike across instructors, although the numbers show that Clara utilized the highest number of words repeated 10+ times, and 6-9 times, about double the amount utilized by the less experienced instructors.

Freq. band	Rep	David	# of words	Clara	# of words	Pedro	# of words
P. nouns		0.68%	1	1.9%	3	0.68%	1
1-3K		62.84%	93	70.88%	112	65.07%	95
3-9K	1	7.43%	11	7.6%	12	6.16%	9
9-20K		2.03%	3	1.26%	2	3.42%	5
20+K		27.03%	40	18.35%	29	24.66%	36
Total		100.01%	148	99.99%	158	99.99%	146
P. nouns		3.17%	6	0%	0	0.98%	2
1-3K		54.5%	103	56.7%	110	63.24%	129
3-9K	2-5	12.69%	24	14.95%	29	10.29%	21
9-20K		1.06%	2	3.61%	7	0.98%	2
20+K		28.57%	54	24.74%	48	24.51%	50
Total		99.99%	189	100%	194	100%	204
P. nouns		0%	0	0%	0	2.22%	1
1-3K		75.68%	28	52.33%	45	60%	27
3-9K	6-9	0%	0	0%	0	6.66%	3
9-20K		5.41%	2	2.33%	2	0%	0
20+K		18.92%	7	45.35%	39	31.11%	14
Total		100.01%	37	100.01%	86	99.99%	45
P. nouns		3.3%	3	1.59%	2	2.15%	2
1-3K		63.74%	58	68.26%	86	70.97%	66

	10+	1.1%	1	0%	0	0%	0
9-20K		0%	0	0%	0	0%	0
20+K		31.87%	29	30.16%	38	26.88%	25
Total		100.01%	91	100.01%	126	100%	93
Total 3K		61.98%	282	63.15%	353	65.77%	317
Total 3K+		38.02%	173	36.86%	206	34.23%	165
Total/class		100%	465	100%	564	100%	488

Table 16. Word frequency and repetitions for the near future.

Table 17 shows the results for frequency and repetitions for the classes where the verb *gustar* was introduced for the first time. First, Clara spoke much more than the other two instructors in this class as she used over 200 words more than David, and more than 300 words than Pedro, 740, 519, 416 respectively. Although Clara repeated many of those words only once (196), or 2-5 times (295), the more frequent words she used were repeated more often than the lower frequent ones. For the 1-3K band, Clara utilized 465 words, about 150 more words than David's 301, and a little less than 200 more words in that category than Pedro's 288. Furthermore, Clara used 153 words which are repeated 10+ times, and 87 of those words are among the first 3K. The percentages might suggest that Clara used the lowest number of words with 10 repetitions in the first 3K band, as Pedro's results display the highest percentage for that category with 69.45%, followed by David with 63.11%, and Clara with 56.87%. However, it is important to notice that while Clara used the highest number of 3K words with 10+ repetitions, she also presented the highest number of 20K+ words repeated 10+, indicating that she simply repeated all words (regardless of frequency) more often than the other instructors.

Freq. band	Rep	David	# of words	Clara	# of words	Pedro	# of words
P. nouns		6.62%	9	0.51%	1	1.25%	2
1-3K		57.36%	78	67.35%	132	75.63%	121
3-9K	1	11.03%	15	9.69%	19	4.39%	7
9-20K		5.15%	7	1.53%	3	1.89%	3
20+K		19.85%	27	20.92%	41	16.88%	27
Total		100.01%	136	100%	196	100.04%	160
P. nouns		2.74%	6	0%	0	0.66%	1
1-3K		55.71%	122	65.76%	194	63.81%	97
3-9K	2-5	8.67%	19	11.86%	35	9.22%	14

Freq. band	Rep	David	# of words	Clara	# of words	Pedro	# of words
9-20K		1.37%	3	3.4%	10	0%	0
20+K		31.51%	69	18.98%	56	26.32%	40
Total		100%	219	100%	295	100.01%	152
P. nouns	6-9	0%	0	2.08%	2	0%	0
1-3K		59.01%	36	54.17%	52	62.5%	20
3-9K		3.28%	2	5.2%	5	0%	0
9-20K		1.64%	1	2.08%	2	0%	0
20+K		36.07%	22	36.46%	35	37.5%	12
Total		100%	61	99.99%	96	100%	32
P. nouns	10+	0%	0	1.31%	2	0%	0
1-3K		63.11%	65	56.87%	87	69.45%	50
3-9K		0%	0	3.93%	6	0%	0
9-20K		0%	0	2.62%	4	0%	0
20+K		36.89%	38	35.29%	54	30.56%	22
Total		100%	103	100.02%	153	100.01%	72
Total 3K		59.72%	301	63.27%	465	69.73%	288
Total 3K+		40.28%	203	36.73%	270	30.27%	125
Total/class		100%	519	100%	740	100%	416

Table 17. Word frequency and repetition for the verb to like.

Table 18 shows the results for frequency and repetitions for the classes where students learned how to tell time. Overall, the total number of words used by the less experienced instructors is relatively similar: David's results show a total of 481words, and Pedro's total shows 466 words. Furthermore, the distribution of these words among highly frequent and infrequent words is also very similar for both instructors: David used 312 words in the first 3K and 165 in the 3K+ frequency bands, and Pedro used 320 and 141 in each respective category. Alternatively, Clara's results show a total of 678 words, about 200 more words than the other instructors. As a consequence, Clara displays 428 words in the 3K band, about 100 more words than David and Pedro, and 241 words in the 3K+ bands, also about 100 words more than the less experienced instructors. Furthermore, the total words used by every instructor with 1 and 2-5 repetitions is quite similar, in contrast with the words showing 6-9 and 10+ repetitions, in which Clara used about double the number of words than David and Pedro.

Freq. band	Rep	David	# of words	Clara	# of words	Pedro	# of words
P. nouns		2.6%	4	1.19%	2	3.13%	5
1-3K		70.13%	108	70.24%	118	65.01%	104

3-9K	1	11.69%	18	11.9%	20	9.38%	15
9-20K		1.3%	2	2.98%	5	5%	8
20+K		14.29%	22	13.69%	23	17.5%	28
Total		100.01%	154	100%	168	100.02%	160
P. nouns	2-5	0%	0	2.59%	6	0%	0
1-3K		68.08%	128	56.04%	130	72.93%	124
3-9K		6.38%	12	14.21%	33	7.06%	12
9-20K		0%	0	2.58%	6	0%	0
20+K		25.53%	48	24.57%	57	20%	34
Total		99.99%	188	99.99%	232	99.99%	170
P. nouns	6-9	0%	0	0%	0	0%	0
1-3K		56%	28	59.48%	69	79.07%	34
3-9K		4%	2	18.95%	22	2.33%	1
9-20K		0%	0	6.03%	7	0%	0
20+K		40%	20	15.52%	18	18.6%	8
Total		100%	50	99.98%	116	100%	43
P. nouns	10+	0%	0	0.62%	1	0%	0
1-3K		53.93%	48	68.52%	111	62.36%	58
3-9K		2.25%	2	1.85%	3	0%	0
9-20K		0%	0	0%	0	0%	0
20+K		43.82%	39	29.01%	47	37.63%	35
Total		100%	89	100%	162	99.99%	93
Total 3K		65.41%	312	63.98%	428	69.41%	320
Total 3K+		34.59%	165	36.02%	241	30.41%	141
Total/class		100%	481	100%	678	100%	466

Table 18. Word frequency and repetitions for telling time.

Table 19 shows the results for word frequency and repetitions for classes focused on the teaching of irregular verbs in the present. The total number of words used by each instructor for this class differs from instructor to instructor. For example, Clara, with 10+ years of experience, used almost twice (745) the number of words used by Pedro (360), and over 300 more words than those used by David (417). It is true that Clara used the highest number of words from low frequency bands (332), compared to David and Pedro (128 and138 respectively), but she also used the highest number of words from the first 3K band (405). In general, David and Pedro display a higher number of words with 1 or 2-5 repetitions than they do with 6-9, and 10+. Clara is an exception in this regard, since she uses the highest number of words in the 10+ repetitions group (324), of which 139 (42.9%) pertain to the first 3K most frequent words. Overall, Clara

used a large number of words, although many of those words were repeated only once or twice and belonged to very low frequency bands.

Freq. band	Rep	David	# of words	Clara	# of words	Pedro	# of words
P. nouns		0%	0	2.63%	4	0.94%	1
1-3K		72.8%	83	69.74%	106	63.21%	67
3-9K	1	6.14%	7	4.61%	7	15.11%	16
9-20K		2.63%	3	2.64%	4	0%	0
20+K		18.42%	21	20.39%	31	20.75%	22
Total		99.99%	114	100.01%	152	100.01%	106
P. nouns		0%	0	0%	0	0%	0
1-3K		77.85%	130	65.58%	120	64.12%	84
3-9K	2-5	2.4%	4	6.55%	12	9.16%	12
9-20K		1.2%	2	3.82%	7	0%	0
20+K		18.56%	31	24.04%	44	26.72%	35
Total		100.01%	167	99.99%	183	100%	131
P. nouns		0%	0	3.49%	3	0%	0
1-3K		49.15%	29	46.52%	40	41.07%	23
3-9K	6-9	0%	0	2.33%	2	3.57%	2
9-20K		0%	0	0%	0	0%	0
20+K		50.85%	30	47.67%	41	55.36%	31
Total		100%	59	100.01%	86	100%	56
P. nouns		1.3%	1	0.31%	1	0%	0
1-3K		59.74%	46	42.9%	139	70.15%	47
3-9K	10+	0%	0	0.31%	1	2.99%	2
9-20K		0%	0	0%	0	0%	0
20+K		38.96%	30	56.48%	183	26.87%	18
Total		100%	77	100%	324	100.01%	67
Total 3K		69.23%	288	54.95%	405	61.56%	221
Total 3K+		39.77%	128	45.05%	332	38.44%	138
Total/class		100%	417	100%	745	100%	360

Table 19. Word frequency and repetition for irregular verbs.

3.7 Conclusion

The analysis of this corpus showed that there is a remarkable difference between the way instructors conduct their classes, even when they utilize very similar materials, and the same textbook or PowerPoints. Therefore, the experience of students is significantly different as the class is not only about dictating a specific material, but the beliefs and formation of the teachers

all play an important role in how they teach (**Marcos Miguel, 2015; Sanchez-Gutierrez, et al. 2022**) as we will discuss next.

3.7.1 Class Time Distribution

Overall, Clara talked the most in class, but she also encouraged active students' participation. While the interactions in question were short, they allowed students to maintain high levels of engagement because they could be asked a question at any time. Pedro's students had more chances to engage in the production of output, as his class was the most balanced between teacher and student talk. He also included a notable number of external materials in his class. This not only resulted in less relevant students' participation but also made him spend more time on classroom organization. When introducing those videos or audios, necessarily, time needed to be spent explaining what students have to do while watching the videos. In general student interactions in David's class were less numerous but lengthier and more relevant. That is, students' interactions could be considered meaningful as David allowed for longer and more elaborate responses, which permitted students to practice the target language in more creative ways.

3.7.2 Word Frequency and Repetitions

Out of the three instructors who participated in this study, Clara offered the most input. This input includes words from all frequency bands, which clearly suggests that Clara does not treat high frequent and low frequent words differently. Although this approach does not exclusively favor highly frequent vocabulary, it gives students plenty of opportunities for incidental vocabulary learning regardless of word frequency, as the students are exposed to a great amount of input. On the contrary, Pedro's input is very limited as well as the number of repetitions which offered less opportunities for incidental vocabulary learning. David provided a

more limited input than that offered by Clara, but more generous than that offered by Pedro. Although, similarly to Pedro, David offered less repetitions of words in general, and often he repeated words 2-5 times.

The classes where *ser* and *estar* and the near future were taught, mostly focus on specific grammatical structures and its rules and exceptions to these rules, which might explain why overall the word usage and distribution across instructors is very similar. However, the number of interactions does vary to some extent, for example, the class where *ser* and *estar* is taught shows that Clara's class got the highest number of interactions (194), followed by Pedro (159) and David (76). For the class where the near future is taught the highest number of interactions are offered by Pedro (186), followed by Clara (85), and David (70), as it is displayed, Clara's class dynamic changes considerably from one class to another. The classes in which *las horas*, *verbos irregulare*s, and *verbo gustar* are taught, are also mostly centered around grammatical rules although, unlike the two classes mentioned before, Clara displays a significantly higher number of words.

The class where physical descriptions were taught is the only class in which the focus is mostly on vocabulary. This is the only class in which the overall number of words utilized by Clara is lower than those utilized by the other instructors. Clara included an outside source of 5:21 minutes which might explain her lower word count. The findings on this chapter will be discussed on Chapter 5.

Chapter 4: Study 2: Longitudinal

The data analyzed on Chapter 3 gives a deep understanding of the instructor practices when it comes to vocabulary use and treatment and classroom management. Although even when we have the valuable data from the comparison study, this chapter offers in depth detail on how the vocabulary use and treatment and classroom management practices of one professor evolve over time when teaching the same course several times. With this said, I am expecting to see (1) an increase in the number of high frequent words used from the first time to the third time, (2) a decrease in the number of low frequent words, (3) more repetitions of high frequent words, (4) less repetitions of low frequent words, and (5) more opportunities for students to practice the language.

The aim of this study is to get a better understanding of how the input and teaching practices of a novice instructor can affect incidental vocabulary learning, and how these practices evolve over time. Results obtained from this research will hopefully provide in depth understanding into how to better train and connect instructors to vocabulary research to avoid the current disconnect between the scientific literature on the subject and what instructors actually do in their classrooms.

To my knowledge, only a handful of studies have looked at teacher talk as a source of relevant input for vocabulary learning (Horst, 2010; Jin & Webb 2020; Plonsky, Loewen, 2013). However, no study to date has specifically addressed the evolution of the vocabulary practices and classroom management of an instructor through a full year teaching the same class. In this study I focus on the vocabulary use and treatment and classroom management practices of an inexperienced instructor teaching a beginner Spanish class three consecutive times during his

first-year teaching at UC Davis. The following questions will be the ones driving the research efforts in this dissertation chapter: (1) How do vocabulary treatment and word selection practices change over time as an instructor gains more teaching experience? (2) how many times are words in each frequency band repeated every quarter?, and (3) How frequent are the words that are repeated the most in each class or quarter? In order to answer the above question, the classroom talk of this instructor was analyzed with a focus on the following themes: (1) Opportunities for instructor input, student output and classroom interactions, and (2) Lexical frequency and word repetition in the input.

Finally, the results from this study may shed light on the current literature as it compares the word frequency and repetition of not one but three consecutive quarters of the same instructor teaching the same class. In addition, this study looks at the teacher's classroom management, which will allow for a better understanding of how the instructor evolves over time in his classroom practices, and where his priorities lay in regard to input and output, based on his teaching philosophy and experience gain.

4.1 Participant

A novice instructor participated in this study, while teaching Spanish 1 (the first course of the beginner series) for a full year (three consecutive quarters) at UC Davis at the time he recorded his classes. The school year is divided into three quarters. The syllabus and textbook used every quarter were identical. Table 20 illustrates the characteristics of the participant of this study. The pseudonym of David was used to refer to the participant with an effort to protect his identity and privacy.

	David
Native language & variation	Spanish/ North of Spain

Role in the department	TA
Highest level of education	M.A. in Spanish Applied Linguistics
Years of Spanish teaching experience at the university level	0
Experienced teaching the recorded course	None

Table 20. Characteristics of the instructor.

The instructor is from Spain and is a native speaker of Spanish. David had no previous Spanish language teaching experience at the time he started recording his classes. It was his first experience teaching a language course at the university level; however, he had previous experience teaching kindergarten and primary school children. Before the beginning of the Fall quarter, David attended a day-long orientation to introduce new teachers to the concept of teaching Spanish at the beginner level. Furthermore, during Fall, David took a mandatory seminar for new instructors. The seminar consisted of second language teaching methodologies, class observations amongst instructors and the professor of the course, and topics of translanguaging and plurilingualism. Finally, the professor dictating the course is Clara, one of the participants in Study 1.

4.2 Corpus of the Audio Recordings

To gather the recordings used in this study, one inexperienced instructor with no previous teaching experience audio-recorded himself teaching Spanish 1 during his first three quarters teaching at UC Davis, in 2018-2019. A mini-Sony recorder was used in all three quarters. The recordings were transferred periodically to a computer to be transcribed.

A typical beginner language course in a quarter system consists of 50 days of instruction and 50 minutes per day, however not all lessons were recorded due to several reasons. For example, during exam days or composition days the class was not recorded because the

instructor was not giving a lesson. Other times the instructor failed to bring the audio recorder to class, or the batteries died before class. For the purpose of this study, all the recordings gathered from each quarter were analyzed and specific topics were identified and selected. The selected topics had to be present in the recordings of the three quarters. For instance, if a specific topic appeared in the Fall and Winter, but not for Spring, that topic was not selected to be analyzed. The main aim of this analysis is to follow the development of an inexperienced instructor teaching the same class three times, therefore, the recordings selected had to include the same new topic all three quarters, as a way to track the instructor's progress.

There were many topics that appeared in the recordings, but if it was not clear that a topic was being introduced as new, and the same new topic was not recorded for all three quarters, the recording was discarded. To select the topics, all recordings from Fall, Winter, and Spring were listened to and the new and revised topics were identified. Then, all new topics which appeared in all quarters were selected, resulting in 8 different topics listed on Table 21. These topics consisted of one lesson, specifically the lesson in which the main topic was first introduced to the class. Finally, since 8 topics met the criteria explained above, 24 recordings were selected, 8 from each quarter, to be transcribed and analyzed.

Fall		Winter		Spring	
New topic/s	Revised topic/s	New topic/s	Revised topic/s	New topic/s	Revised topic/s
Artículos	*Información personal, pronunciación*	*Artículos*	*Pronunciación*	*Artículos*	*Ser, tener, llamarse*
Ser y estar	*Características físicas*	*Ser y estar*	*Características / personalidad*	*Ser y estar*	*Género y número*
Partes del cuerpo	*Ser y estar*	*Partes del cuerpo*	*posesivos*	*Partes del cuerpo*	

Verbo gustar	Verbos regulares	Verbo gustar	Verbos regulares	Verbo gustar	Verbos regulares
Futuro con ir + a + inf.		Futuro con ir + a + inf.		Futuro con ir + a + inf.	
Verbos reflexivos		Verbos reflexivos	La hora	Verbos reflexivos	La hora
Presente progresivo		Presente progresivo	Vocabulario	Presente progresivo	Verbos regulares
Verbos irregulares	Verbo gustar	Verbos irregulares		Verbos irregulares	Rutina diaria

Table 21. List of topics by quarter.

4.3 Transcriptions

For details on how the transcriptions were done and the issues encountered, see section 3.4 above.

4.4 Methodology of the analysis

For details on the methodology used to analyze the timestamp data for this study, see section 3.5 since the same steps were taken as in Study 1.

4.5 Results

The next section includes the overall results on how time is spent in each of the quarters. It also explores the overall amount of Spanish and English spoken in each class.

4.5.1 Input and Output General Overview

Table 22 shows the distribution of time in David's class throughout the three quarters the audio recorded his lessons. Overall, he recorded more or less the same amount of time every quarter with only about 14 minutes difference for the entire corpus. Fall quarter shows the highest amount of time recorded (06:14:09), followed by Winter (06:13:32), and Spring (06:00:53). It is important to note that not all 8 classes each term were audio recorded from

beginning to end. Two things happened, (1) some days the recording did not start from the beginning for an unknown reason, and (2) other times the class session ended earlier than the assigned ending time.

Instructor input (i.e., The time the instructor spent speaking/providing input to students) surpassed 50% of the total time every quarter, however there is not a progression as the second quarter analyzed shows the least amount of time for the instructor's input. The *student output* time (the time students spent producing the target language either by working in groups, in pairs or in whole class discussions) is very consistent each quarter as well. Winter quarter shows the highest amount of student output with 02:15:14 (36.24%), followed by Fall quarter with 02:12:39 (34.92%), and Spring quarter with 02:07:10 (35.34%).

Winter quarter shows the highest amount of time spent on *organization* (the time the instructor spent setting up assignments or organizing any activity, for a full description of what these categories include please see section 3.5.1 above) 00:15:14 (4.13%). On the other hand, Spring quarter shows the highest amount of student *interactions* with 827, followed by Winter quarter with 714, and Fall quarter with 707.

Finally, Winter quarter shows the highest amount of time in the *other input* category 00:22:16 (5.31%), which means that during this quarter the instructor provided the most input from outside sources like videos or audios.

Total	Instructor	Students	Other Input	Organization	Interactions	Total mins.
Fall	03:42:38 (59.75%)	02:12:39 (34.92%)	00:15:25 (4.36%)	00:03:27 (1.0%)	707	06:14:09
Winter	03:20:48 (54.32%)	02:15:14 (36.24%)	00:22:16 (5.31%)	00:15:14 (4.13%)	714	06:13:32

Spring	03:39:48 (60.65%)	02:07:10 (35.34%)	00:09:56 (2.81%)	00:03:59 (1.2%)	827	06:00:53

Table 22. Time distribution per quarter.

Table 23 shows the total number of tokens and types used in both Spanish and English by David every quarter. The total number of tokens does not show a continuous progression as he uses the least number of tokens during the Winter quarter (16293), followed by the Spring (17770), and Fall quarter (18627). On the other hand, the use of tokens in English does show a continuous decline as Fall quarter shows the highest number of tokens (8645), followed by Winter quarter (7962), and Spring quarter (6742). Percentage wise, the numbers show a similar pattern seen above on Table 22, where Winter quarter is the outlier, although in this case the graph would appear more as an upside-down U shape.

Finally, a general decrease can be observed in the use of tokens in English from Fall to Spring which means that the instructor spoke more words in Spanish than in English during Spring compared to Fall.

	Fall		Winter		Spring	
	Tokens	Types	Tokens	Types	Tokens	Types
Spanish	9982 (53.6%)	749 (47.5%)	8331 (51.13%)	655 (48.27%)	11028 (62.1%)	709 (52.1%)
English	8645 (46.41%)	828 (52.5%)	7962 (48.87%)	702 (51.73%)	6742 (37.9%)	653 (47.9%)
Total	18627	1577	16293	1357	17770	1362

Table 23. Total Spanish and English spoken by quarter.

4.5.2 Class Time Distribution by Topic

Table 24 shows the time distribution by quarter for the class in which definite and indefinite articles were presented. After reviewing all transcriptions, it was clear that the lesson plans were very similar all quarters. For example, for Winter and Spring quarters, the instructor showed a clip of the same video in which the uses of 'there is' and 'there are' are explained. Although for Fall quarter he did not show this video, he stated that he was not going to show it

because there was no time for it, instead the instructor decided to show a music video 30 seconds before dismissing the students. The number of interactions stayed fairly consistent throughout the year with 105 interactions during the Fall, 110 in Winter, and 108 in Spring. On the contrary, the percentage of time students talked decreased every quarter for this particular topic, 42.62% for Fall, 34.21% for Winter, and 32.77% for Spring. Consequently, the percentage of teacher talk increased every quarter, 56.36% for Fall, 62.79% for Winter, and 64.6% for Spring.

Articles	Instructor	Students	Other Input	Organization	Interactions	Total mins.
Fall	27:33 (56.36%)	20:50 (42.62%)	:30 (1.02%)	0	105	48:53
Winter	31:25 (62.79%)	17:07 (34.21%)	1:06 (2.2%)	:24 (0.8%)	110	50:02
Spring	29:34 (64.6%)	15:00 (32.77%)	1:02 (2.26%)	:10 (0.36%)	108	45:46

Table 24. Time distribution for articles by quarter.

Table 25 shows the time distribution per quarter for the classes devoted to teaching *ser* and *estar*. A clear increase of time for student talk can be seen here: Fall quarter with 12:28 minutes, Winter with 14:36, and Spring with 15:21. Similarly, the number of interactions also increased from quarter to quarter, Fall with 76, Winter with 78, and Spring with 95. During the Fall quarter, the instructor showed a video in class about slang in Spain which made up (7.7%) of total class time, however he decided not to show this video or any outside sources for this particular class during Winter and Spring quarters. One possibility for this change could be that the video was mostly to entertain students, and even though the video offered cultural knowledge, it did not offer grammatical or the type of knowledge that is often prioritized in elementary Spanish courses, especially for this particular class.

Teacher talk does not decrease over the quarters, Winter quarter shows the lowest percentage 59.59%, followed by Fall with 63.81%, and Spring with 67.98%. Winter quarter also shows a relevant percentage 8.11% in the organization category; however, the class had a visitor who gave an announcement that had nothing to do with the Spanish class. Perhaps, the time the visitor spent talking on this particular day took away from the instructor's teacher talk.

Ser & estar	Instructor	Students	Other Input	Organization	Interactions	Total mins.
Fall	29:02 (63.81%)	12:28 (27.4%)	3:30 (7.7%)	:30 (1.1%)	76	45:30
Winter	26:56 (59.59%)	14:36 (32.3%)	0	3:40 (8.11%)	78	45:12
Spring	32:57 (67.98%)	15:21 (31.67%)	0	:10 (0.34%)	95	48:28

Table 25. Time distribution for verbs to be by quarter.

Table 26 shows the time distribution for the classes in which the body parts were introduced. The lesson plan for this class was different every quarter. First, the Spring quarter recording is 5 minutes shorter than Fall and Winter. The outside sources changed every quarter and only one of the outside sources was used to practice the target vocabulary. For instance, during the Fall quarter, the instructor played a song which students listened to for only 20 seconds before being dismissed. During the Winter quarter students listened to a song and filled on the blanks with the target vocabulary missing on the handout. The song was quite long, representing 8.1% of total class time. Finally, there was a video during the Spring quarter, however the aim of it was to review previously learned material not related to the body parts vocabulary.

Winter quarter also shows a significant percentage of time utilized for class organization (3.42%), thus, if both *other input* and *organization* are added, it would make 7:24 (11.43%) of total class time. Perhaps, the instructor decided not to include this source during the Spring for lack of time. The number of interactions observed decreased every quarter, which suggests that as the instructor gained more teaching experience, students had the opportunity for longer interactions. Student talk and teacher talk does not show a clear pattern, however, during the winter the distribution between the two was more balanced and students got to talk for 46.6% of total class time. Fall and Spring quarter were more teacher centered as the instructor talked for 59.77% during the Fall, and 60.95% during the Spring.

A close analysis of the transcription and time stamp for this topic revealed that during the Spring quarter the instructor dedicated less than 3 minutes to introduce and practice the body parts. This finding is important as it suggests that vocabulary at this learning stage is not as relevant to instructors as grammar teaching. Based on the transcript, the instructor spent a total of 3 minutes teaching the body parts vocabulary because he ran out of time. A deep analysis of the Spring recordings revealed that the instructor did not offer extra practice for the body parts vocabulary the next day or the day after that. On the other hand, he ran out of time several times when he was introducing highly grammatical points, but he always finished the lesson the next day. These findings clearly show that this instructor tended to prioritize grammar over vocabulary as to him spending 3 minutes teaching the body parts vocabulary was acceptable, however he would have never done this for a highly grammatical subject like the verb to be. For instance, Table 21 above shows that the instructor reviewed 10 grammatical topics on the days he introduced new topics, however he only reviewed 3 vocabulary topics which shows that grammatical topics had priority over vocabulary ones.

Body parts	Instructor	Students	Other Input	Organization	Interactions	Total mins.
Fall	30:51 (59.77%)	20:26 (39.59%)	:20 (0.65%)	0	131	51:37
Winter	20:52 (41.93%)	23:10 (46.6%)	5:42 (8.1%)	1:42 (3.42%)	124	51:26
Spring	28:15 (60.95%)	15:48 (34.1%)	2:18 (4.96%)	0	106	46:21

Table 26. Time distribution for body parts by quarter.

Table 27 shows the time distribution by quarter for the classes in which the possessives

and family members vocabulary was introduced. The total minutes for every class is very

similar. The Fall quarter is 3 minutes longer than the other two quarters with 43:47 minutes,

followed by Winter with 40:57 minutes and Spring with 40:24 minutes. Although the instructor

spent time organizing the class all three quarters, none of the classes included outside sources.

During the Fall students spent about 11 seconds getting in groups and starting an activity. During

the Winter quarter two types of organization categories were evident: passing exams back and

passing handouts to use for an activity in class. Finally, Spring quarter shows three different

types of organization categories: passing handouts, students getting in groups, and passing

compositions back to students. The number of interactions was consistent throughout the year;

Winter quarter shows the least number of interactions with 79, followed by Spring with 84, and

Fall with 92.

Finally, the amount of input received, and output produced by students did not stay consistent

throughout the quarters, as the Winter quarter shows the highest percentage of teacher talk

(66.02%), and lowest percentage for student output (27.84%). Spring quarter shows a more even

distribution of input and output with 51.44% of teacher talk, and 42.29% of student talk. These

results might suggest that the instructor is finding a balance between input and output when teaching this particular topic as he gains more teaching experience.

Possessives	Instructor	Students	Other Input	Organization	Interactions	Total mins.
Fall	25:16 (57.71%)	18:20 (41.87%)	0	:11 (0.42%)	92	43:47
Winter	27:02 (66.02%)	11:24 (27.84%)	0	2:31 (6.15%)	79	40:57
Spring	20:47 (51.44%)	17:05 (42.29%)	0	2:32 (6.27%)	84	40:24

Table 27. Time distribution for possessives by quarter.

Table 28 shows the results by quarter for the classes devoted to teaching the verb *gustar*. The first noticeable detail is the difference between the total time each class was recorded for. Fall quarter is 37:36 minutes long, Winter quarter is 46:55 long, and Spring quarter is 42:25 long. By reviewing each of the transcriptions, it was evident that during the Fall, the audio recorder stopped recording after 37:36 minutes of class, while for Winter and Spring quarters the classes had already begun when the instructor started recording them.

The number of interactions does not follow an increase/decrease pattern. Instead, Winter quarter shows the lowest number of student interactions, a total of 70, although it also shows the most balanced input/output distribution as the instructor talked for 50.94% of class time and students talked for 41.14% of class time. Fall quarter shows the most uneven class time distribution as the instructor talk makes up 67.38% of class time, and student talk makes up 21.59%. Clearly the data does not show a clear evolution for this specific subject, instead, there is an anomaly during Winter which goes back to normal during Spring.

Finally, the same outside source was shown in class every quarter. It was a video that made the link between activities and the verb *gustar*. By revising each of the transcriptions, it was clear that the video engaged students in the subject matter and took away some of the normal stress students experience when learning the verb *gustar*, which might be the reason the instructor decided to utilize the same video every quarter.

Gustar	Instructor	Students	Other Input	Organization	Interactions	Total mins.
Fall	25:20 (67.38%)	8:07 (21.59%)	3:29 (9.26%)	:40 (1.77%)	102	37:36
Winter	23:54 (50.94%)	19:18 (41.14%)	3:30 (7.5%)	:13 (0.46%)	70	46:55
Spring	23:34 (55.6%)	14:26 (34.03%)	3:28 (8.17%)	:57 (2.24%)	113	42:25

Table 28. Time distribution for the verb to like by quarter.

Table 29 shows the time distribution for the classes devoted to teaching reflexive verbs. The total time for each of the classes is very similar, the class for Fall quarter is 46:50 minutes long, about 1.5 to 2 minutes shorter than the other two quarters. This table shows clear patterns in two categories: student output, and student interactions. It is evident that the amount of student output increased every quarter. During Fall quarter, students talked for 9:44 minutes or 20.78% of total class time, followed by Winter quarter with 13:43 or 28.03%, and Spring quarter with 18:13 minutes or 37.46%. Similarly, the number of interactions increased every quarter. Fall quarter shows a total of 75 interactions, followed by Winter quarter with 84, and Spring quarter with 133.

Fall and Winter quarter include outside sources. During Fall students listened to an audio and watched a video specifically to practice reflexive verbs, these two outside sources made up

16.23% of total class time. For Winter quarter the instructor included a different video but also with the purpose of practicing reflexive verbs. The video was played several times and it made up 18.1% of total class time. Both Fall and Winter quarter show a significant percentage of time devoted to organization, (4.48% and 9.7% respectively). On the contrary, for Spring quarter the instructor did not include any outside sources. Consequently, the instructor did not spend any time organizing the class, which might explain the increase in the percentage of student output. Clearly, the presentation of outside sources is closely linked to the time spent organizing the class.

Furthermore, by reviewing the transcriptions it was evident that students struggled to understand the speech in the video used during Winter quarter, see Extract 8:

Extract 8:
[00:23:08] Okay, muy bien. Un minuto para escribir okay and I will put it again. ¿Es fácil o difícil?
[00:23:21] Estudiantes hablan
[00:23:23] difícil, habla rápido ¿verdad?
[00:23:25] Estudiantes hablan
[00:23:27] You have to get used to somebody talking in Spanish. And I talk very fast. More than this guy. Okay vamos a escucharlo, vamos a escucharlo otra vez.

These findings suggest that the instructor might have dropped the outside sources because the activities did not go as planned.

Reflexives	Instructor	Students	Other Input	Organization	Interactions	Total mins.
Fall	27:24 (58.51%)	9:44 (20.78%)	7:36 (16.23%)	2:06 (4.48%)	75	46:50
Winter	21:39 (44.24%)	13:43 (28.03%)	8:50 (18.1%)	4:44 (9.7%)	84	48:56

Spring	30:25 (62.54%)	18:13 (37.46%)	0	0	133	48:38

Table 29. Time distribution for reflexive verbs by quarter.

Table 30 shows the time distribution for the classes in which the present progressive was introduced. The total time of each class is very different, for instance for Winter quarter only 42:55 minutes were recorded, followed by Spring quarter with 44:28 minutes and Fall quarter with 50:06 minutes. There is no clear reason why the Winter and Spring classes are shorter than the assigned time, but it seems that the instructor covered all the material he had prepared and decided to dismiss the class earlier.

The number of interactions for each quarter are lower than usual, especially for the Fall quarter with only 56, followed by Spring quarter with 77 and Winter quarter with 80. Furthermore, all quarters show a very consistent percentage for student output, Fall quarter showing the lowest percentage (37.72%), however, Fall also shows the highest amount of time in minutes (18:54). The category for teacher talk did not change significantly throughout the year. Fall quarter shows the highest percentage and time with (62.28%) and 31:12 minutes, followed by Spring quarter with (59.82%) and 26:36 minutes, and Winter quarter with (57.24%) 24:34 minutes.

There were no outside sources included in any of the classes, although for Fall quarter the instructor spent time passing out handouts which made up 2.14% of total class time.

P. prog.	Instructor	Students	Other Input	Organization	Interactions	Total mins.
Fall	31:12 (62.28%)	18:54 (37.72%)	0	0	56	50:06
Winter	24:34 (57.24%)	17:26 (40.62%)	0	:55 (2.14%)	80	42:55

Spring	26:36 (59.82%)	17:52 (40.18%)	0	0	77	44:28

Table 30. Time distribution for present progressive by quarter.

Finally, table 31 shows the time distribution for the classes devoted to teaching the near future (i.e., ir a + infinitive). The total time of the recordings varies in length. Both Winter and Spring quarters are missing the beginning of the class since, perhaps, the instructor forgot to start the audio recorder when the class started, however, as soon as he remembered, he turned the recorder on. Fall quarter was recorded from beginning to end, Winter quarter is missing about 3 minutes, and Spring quarter is missing over 5 minutes. Despite the difference in the time each class was recorded for, the number of interactions increased every quarter. Fall quarter shows the lowest number of interactions with 70, followed by Winter with 89, and Spring with 111. Another interesting finding is that as the number of interactions increased, the total time and percentage for student talk decreased, Fall quarters show the highest with 47.83% and 23:50 minutes, followed by Winter quarter with 39.24% and 18:30 minutes, and Spring with 30.23% and 13.25 minutes.

During Fall quarter the instructor did not include any outside sources, and it is also the quarter with the most balanced student/teacher talk ratio with 47.83% and 52.17%. Winter quarter and spring quarter include the same outside source, although Winter quarter has a higher percentage under the organization category as this quarter included a group activity and it took 51 seconds for students to get in groups.

Ir a + inf	Instructor	Students	Other Input	Organization	Interactions	Total mins.
Fall	26:00 (52.17%)	23:50 (47.83%)	0	0	70	49:50

Winter	24:26 (51.82%)	18:30 (39.24%)	3:08 (6.65%)	1:05 (2.3%)	89	47:09
Spring	27:40 (62.34%)	13:25 (30.23%)	3:08 (7.06%)	:10 (0.38%)	111	44:23

Table 31. Time distribution for the near future by quarter.

While this first part of the chapter provided an overview of the class dynamics in each of the quarters analyzed, the next sections will specifically focus on the input provided during class, the words that were included and number of times those were repeated. Concretely, the aim of this second part is to investigate if the words used by the instructor are amongst the 3,000 most frequent in Spanish, and if those that are in that category are repeated enough times to expect that students could realistically learn their meaning incidentally through exposure to teacher talk. Every table in the following two sections includes four repetition groups: 1, 2-5, 6-9, and 10+, as well as four groups for word frequency. The first group includes the first 3K most frequent words in Davies' *Corpus del Español*, the second group includes the 3-9K most frequent words, the third group includes the 9-20K most frequent words, and the fourth group contains the 20k+ most frequent words.

4.5.3 Word Frequency and Repetitions Overview

Table 32 shows the results for word frequency and repetitions for the entire corpus of class recordings created for Study 2. One noticeable trend is the shift of words that are repeated the most. For instance, during Fall quarter, which was the first quarter the instructor taught Spanish at the university level, the instructor used the most words, however most of them were repeated only 1 or 2-5 times. On the other hand, during the Spring quarter, the instructor used fewer words, but repeated those words more times, as table 32 shows the groups with 6-9 and 10+ repetitions show the highest number of words.

Overall, Fall quarter display the highest number of words with 1839, followed by Spring quarter with 1825, and Winter quarter with 1644 words. The words for Fall and Spring quarters are very similar even in the distribution of frequency ranks. For instance, Fall quarter displays 928 words in the first 3K frequency bands, and 845 in the 3K+ frequency bands, and Spring quarter shows 912 words in the first 3K, and 852 words in the 3K+. Winter quarter shows the lowest number of words overall, with approximately 200 fewer words than the other two quarters. The first 3K frequency bands include 812 words, and the 3K+ frequency bands include 805 words.

Even when a similar number of words was used during the Fall and the Spring, these words were treated differently. The first quarter, the instructor seemed to recycle much less, providing a low number of repetitions, while during the last quarter the numbers show a shift in word treatment as more words were repeated 6-9 or 10+ times.

Freq. Band	# of Rep.	Fall	# of words	Winter	# of words	Spring	# of words
P. nouns		6.97%	26	3.36%	10	7.49%	25
1-3K		49.06%	183	48.32%	144	50.3%	168
3-9K	1	16.89%	63	23.14%	69	20.37%	68
9-20K		5.63%	21	5.71%	17	5.4%	18
20K+		21.45%	80	19.46%	58	16.47%	55
Total		100.00%	373	99.99%	298	100.03%	334
P. nouns		3.4%	24	1.52%	9	3.97%	23
1-3K		49.65%	350	49.15%	292	52.85%	306
3-9K	2-5	15.88%	112	14.65%	87	15.9%	92
9-20K		4.68%	33	7.42%	44	4.33%	25
20K+		26.38%	186	27.27%	162	22.97%	133
Total		100%	705	100.01%	594	100.02%	579
P. nouns		2.55%	5	0.85%	2	2.89%	7
1-3K		50.5%	99	49.15%	116	48.76%	118
3-9K	6-9	12.24%	24	9.74%	23	10.75%	26
9-20K		6.12%	12	5.5%	13	6.2%	15
20K+		28.57%	56	34.75%	82	31.4%	76
Total		99.98%	196	99.99%	236	100%	242
P. nouns		1.95%	11	1.16%	6	0.9%	6
1-3K		52.38%	296	50.38%	260	47.76%	320
3-9K	10+	4.77%	27	5.62%	29	6.42%	43
9-20K		0.36%	2	0.78%	4	0.9%	6
20K+		40.53%	229	42.05%	217	44.03%	295

Total		99.99%	565	99.99%	516	100.01%	670
Total 3K		50.46%	928	49.39%	812	49.97%	912
Total 3K+		45.95%	845	48.97%	805	46.68%	852
Total/quarter		100.00%	*1839	100.00%	*1644	100.00%	*1825

Table 32. General word frequency and repetitions by quarter.

4.5.4 Word Frequency and Repetitions by Topic

Table 33 shows the results for word frequency and repetitions for the classes devoted to teaching definite and indefinite articles. Overall, there is a small reduction in the number of words used during Winter quarter. During the Spring quarter the total number of words used amongst the first 3K frequency bands with 1 and 10+ repetitions is higher than the other two quarters. Fall quarter shows the highest number of words in the first 3K frequency bands and the lowest in the 3K+ (279 and 164 respectively). Winter quarter and Spring quarter are very similar in the total number of words used amongst the first 3K frequency bands (265 and 266 respectively), although Spring quarter displays a higher number of words pertaining to the 3K+ frequency bands with 199, and Winter quarter with 173. As mentioned above, the total number of words used during Spring (467) is higher than that of Fall quarter (451). Consequently, Fall quarter includes more words in the first 3K, Spring quarter displays more words in the 10+ repetition group with 114, followed by Fall with 71, and Winter with 68 words.

Freq. band	# of Rep.	Fall	# of words	Winter	# of words	Spring	# of words
P. nouns		3.85%	6	0%	0	0%	0
1-3K		60.9%	95	66.38%	77	64.39%	103
3-9K	1	16.02%	25	14.65%	17	10.63%	17
9-20K		1.28%	2	3.45%	4	8.13%	13
20+K		17.95%	28	15.52%	18	16.88%	27
Total		100%	156	100%	116	100.03%	160
P. nouns		1.2%	2	1.01%	2	1.36%	2
1-3K		68.07%	113	59.6%	118	57.14%	84
3-9K	2-5	9.03%	15	8.09%	16	6.8%	10
9-20K		0%	0	3.54%	7	2.72%	4
20+K		21.69%	36	27.78%	55	31.97%	47
Total		99.99%	166	100.02%	198	99.99%	147
P. nouns		0%	0	0%	0	0%	0
1-3K		50%	29	44.83%	26	58.7%	27
3-9K	6-9	20.69%	12	17.25%	10	17.39%	8

Freq. band	# of Rep.						
9-20K		5.17%	3	3.45%	2	0%	0
20+K		24.14%	14	34.48%	20	23.91%	11
Total		100%	58	100.01%	58	100%	46
P. nouns	10+	0%	0	0%	0	0%	0
1-3K		59.16%	42	64.7%	44	45.61%	52
3-9K		4.23%	3	7.35%	5	5.26%	6
9-20K		0%	0	0%	0	0%	0
20+K		36.62%	26	27.94%	19	49.12%	56
Total		100.01%	71	99.99%	68	99.99%	114
Total 3K		61.86%	279	60.23%	265	56.96%	266
Total 3K+		36.36%	164	39.32%	173	42.61%	199
Total/quarter		100.00%	*451	100.00%	*440	100.00%	*467

Table 33. Word frequency and repetitions for definite and indefinite articles.

Table 34 shows the frequency and repetitions for the verbs *ser* and *estar*. This table shows a clear progression in the overall number of words used by the instructor every quarter. Spring quarter shows the highest number of words with 466, followed by Winter quarter with 423, and Fall with 402. Although, more words also mean more words in low frequency bands, Spring quarter shows the highest number of words in the 3K+ category with 183, followed by Winter quarter with 160, and Fall with 187 words. Furthermore, Spring quarter includes the highest number of words in the categories displaying 2-5, 6-9, and 10+ repetitions. Winter quarter displays the highest number of words in the 1 repetition category with 126, followed by Fall with 114, and Spring with 86 words.

Freq. band	# of Rep.	Fall	# of words	Winter	# of words	Spring	# of words
P. nouns		0%	0	3.17%	4	1.16%	1
1-3K		68.42%	78	60.31%	76	56.98%	49
3-9K	1	8.77%	10	12.69%	16	8.14%	7
9-20K		5.25%	6	2.38%	3	2.33%	2
20+K		17.54%	20	21.43%	27	31.4%	27
Total		99.98%	114	99.98%	126	100.01%	86
P. nouns		0%	0	1.75%	3	0.95%	2
1-3K		69.39%	102	60.23%	103	59.24%	125
3-9K	2-5	8.16%	12	9.35%	16	11.85%	25
9-20K		2.72%	4	9.94%	17	6.64%	14
20+K		19.73%	29	18.71%	32	21.33%	45
Total		100%	147	99.98%	171	100.01%	211
P. nouns		0%	0	0%	0	0%	0
1-3K		58.97%	23	54.16%	26	57.82%	37

Freq. band	# of Rep.	Fall	# of words	Winter	# of words	Spring	# of words
3-9K	6-9	5.13%	2	10.41%	5	15.64%	10
9-20K		5.13%	2	12.51%	6	0%	0
20+K		30.77%	12	22.92%	11	26.56%	17
Total		100%	39	100%	48	100.02%	64
P. nouns	10+	0%	0	0%	0	0%	0
1-3K		60.78%	62	65.39%	51	65.72%	69
3-9K		4.9%	5	5.12%	4	5.71%	6
9-20K		0.98%	1	0%	0	0%	0
20+K		33.33%	34	29.49%	23	28.57%	30
Total		99.99%	102	100%	78	100%	105
Total 3K		65.92%	265	60.76%	256	60.09%	280
Total 3K+		34.08%	137	37.83%	160	39.27%	183
Total/quarter		100.00%	*402	100.24%	*423	100.00%	*466

Table 34. Frequency and repetitions for the verbs to be.

Table 35 shows the frequency and repetitions for the classes devoted to teaching the body parts. These results show a U shape as the total number of words drop during Winter quarter, but they go back up during Spring quarter. Concretely, Fall quarter displays a total of 551 words, Winter displays 416, and Spring quarter displays 574 words. Clearly, from the beginning to the end, it is evident that there is a small increase in the total number of words used by the instructor. Furthermore, Spring quarter shows the highest number of words within the first 3K and 3K+ frequency bands with 6-9 and 10+ repetitions, which shows that, at least for this particular lesson, as the instructor gained teaching experience, he tended to repeat the same words more times regardless of frequency. The same trend seen on Study 1 by the most experienced instructor.

Freq. band	# of Rep.	Fall	# of words	Winter	# of words	Spring	# of words
P. nouns		7.78%	14	0.76%	1	2.14%	4
1-3K	1	64.44%	116	63.63%	84	67.37%	126
3-9K		10%	18	12.13%	16	8.55%	16
9-20K		0%	0	3.04%	4	3.74%	7
20+K		17.78%	32	20.45%	27	18.18%	34
Total		100%	180	100.01%	132	99.98%	187
P. nouns		3.43%	8	0.65%	1	0%	0
1-3K	2-5	59.66%	139	54.83%	85	59.41%	120
3-9K		6.87%	16	14.21%	22	17.34%	35
9-20K		5.16%	12	2.58%	4	2.48%	5
20+K		24.89%	58	27.74%	43	20.79%	42
Total		100.01%	233	100.01%	155	100.02%	202

Freq. band	# of Rep.	Fall	# of words	Winter	# of words	Spring	# of words
P. nouns		3.77%	2	1.85%	1	0%	0
1-3K		52.83%	28	64.81%	35	56.52%	39
3-9K	6-9	1.89%	1	0%	0	4.35%	3
9-20K		0%	0	0%	0	1.45%	1
20+K		41.51%	22	33.33%	18	37.68%	26
Total		100%	53	99.99%	54	100%	69
P. nouns		0%	0	0%	0	0%	0
1-3K		64.71%	55	70.67%	53	56.04%	65
3-9K	10+	2.35%	2	0%	0	3.45%	4
9-20K		0%	0	0%	0	0.86%	1
20+K		32.94%	28	29.33%	22	39.66%	46
Total		100%	85	100%	75	100.01%	116
Total 3K		61.34%	338	61.78%	257	60.98%	350
Total 3K+		34.30%	189	37.50%	156	38.33%	220
Total/quarter		100.00%	*551	100.00%	*416	100.00%	*574

Table 35. Frequency and repetitions for body parts.

Table 36 shows the results for the classes devoted to teaching the vocabulary for family members and the possessive adjectives. This table displays another U shape result as the overall number of words are very similar during Fall and Spring quarters, but they drop during Winter quarter (431, 445, and 380 respectively). Concretely it is different from the previous table as Fall quarter exhibits the highest number of words in the categories with 10+ repetitions and 1 repetition. Spring quarter shows the highest number of words in the categories with 2-5 and 6-9 repetitions. Furthermore, Spring quarter displays the overall highest number of words, as well as the highest number of words within the first 3K frequency bands category (281). Winter quarter shows the lowest number of words in the 3K+ frequency bands category, although this is evident as this quarter displays the overall lowest number of words.

Freq. band	# of Rep.	Fall	# of words	Winter	# of words	Spring	# of words
P. nouns		3.87%	6	0%	0	6.09%	7
1-3K		61.29%	95	59.83%	67	73.92%	85
3-9K	1	8.39%	13	8.05%	9	6.09%	7
9-20K		3.23%	5	3.58%	4	3.48%	4
20+K		23.23%	36	28.57%	32	10.43%	12
Total		100.01%	155	100.03%	112	100.01%	115
P. nouns		1.48%	2	0%	0	3.33%	6
1-3K		60.75%	82	61.23%	90	62.78%	113
3-9K	2-5	6.66%	9	7.48%	11	7.22%	13

Freq. band	# of Rep	Fall	# of words	Winter	# of words	Spring	# of words
9-20K		2.22%	3	2.72%	4	1.67%	3
20+K		28.89%	39	28.57%	42	25%	45
Total		100%	135	100%	147	100%	180
P. nouns	6-9	0%	0	0%	0	7.27%	4
1-3K		66.67%	26	67.39%	31	58.18%	32
3-9K		2.56%	1	0%	0	7.27%	4
9-20K		0%	0	0%	0	5.46%	3
20+K		30.77%	12	32.61%	15	21.82%	12
Total		100%	39	100%	46	100%	55
P. nouns	10+	0%	0	0%	0	0%	0
1-3K		60.78%	62	70.67%	53	53.68%	51
3-9K		0.98%	1	1.33%	1	3.16%	3
9-20K		0%	0	0%	0	0%	0
20+K		38.24%	39	28%	21	43.16%	41
Total		100%	102	100%	75	100%	95
Total 3K		61.48%	265	63.42%	241	63.15%	281
Total 3K+		36.66%	158	36.58%	139	33.03%	147
Total/quarter		100.00%	*431	100.00%	*380	100.00%	*445

Table 36. Frequency and repetitions for family members/possessives.

Table 37 shows the results for the classes devoted to teaching the verb *gustar*. Overall, the total words used each quarter is notably different. During Fall quarter a total of 519 words were used in this particular class, during Winter quarter 362 words were used, and 464 words were used during the Spring term. The results are once again showing a U shape result in which the Winter quarter shows a decrease in the total number of words used by the instructor. However, the overall percentages show a clear increase in words from the first 3K bands every quarter (58%, 61.6%, 67.89% respectively). Likewise, an important decrease in the percentage of words from low frequency bands is noticeable (39.11%, 36.19%, 29.96% respectively). These numbers indicate that proportionally, as the year progresses, the instructor tends to use more frequent words and reduce the number of less frequent words regardless of the number of words used each quarter.

Freq. band	# of Rep	Fall	# of words	Winter	# of words	Spring	# of words
P. nouns		6.62%	9	3.7%	4	1.69%	2
1-3K		57.36%	78	68.52%	74	76.27%	90
3-9K	1	11.03%	15	12.96%	14	8.46%	10
9-20K		5.15%	7	0%	0	0%	0
20+K		19.85%	27	14.81%	16	13.56%	16

Freq. band	# of Rep.	Fall	# of words	Winter	# of words	Spring	# of words
Total		100.01%	136	99.99%	108	99.98%	118
P. nouns		2.74%	6	2.33%	3	3.66%	6
1-3K		55.71%	122	63.57%	82	69.52%	114
3-9K	2-5	8.67%	19	5.44%	7	3.66%	6
9-20K		1.37%%	3	0%	0	0%	0
20+K		31.51%	69	28.68%	37	23.17%	38
Total		100%	219	100.02%	129	100.01%	164
P. nouns		0%	0	0%	0	2.5%	2
1-3K		59.01%	36	48.33%	29	62.5%	50
3-9K	6-9	3.28%	2	3.33%	2	6.25%	5
9-20K		1.64%	1	0%	0	0%	0
20+K		36.07%	22	48.33%	29	28.75%	23
Total		100%	61	99.99%	60	100%	80
P. nouns		0%	0	1.54%	1	0%	0
1-3K		63.11%	65	58.46%	38	59.8%	61
3-9K	10+	0%	0	3.08%	2	3.92%	4
9-20K		0%	0	0%	0	0%	0
20+K		36.89%	38	36.92%	24	36.27%	37
Total		100%	103	100%	65	99.99%	102
Total 3K		58.00%	301	61.60%	223	67.89%	315
Total 3K+		39.11%	203	36.19%	131	29.96%	139
Total/quarter		100.00%	*519	100.00%	*362	100.00%	*464

Table 37. Frequency and repetitions for the verb gustar.

Table 38 shows the results for the classes in which reflexive verbs were treated. The same U shape pattern is observed here. The total number of words during Winter quarter shows a decrease compared to Fall and Spring quarters (372, 550, 457 respectively). As it is noticeable, during Winter quarter the instructor used about 200 words less than during Fall and about 100 words less than in the Spring quarter.

Alternatively, while the instructor used a greater number of words during the Fall quarter, there were more words with 10+ repetitions during Winter and Spring quarters (98, 157 respectively). Once again, the numbers show that even though the total number of words used do not show a progression by quarter, there is a clear improvement in the way the instructor treats the words as he ended up offering more repetitions of more significant words by the end of the year.

Freq. band	# of Rep.	Fall	# of words	Winter	# of words	Spring	# of words
P. nouns		1.64%	2	3.92%	4	9.43%	10

1-3K	1	69.67%	85	58.83%	60	51.88%	55
3-9K		10.66%	13	11.76%	12	14.15%	15
9-20K		2.46%	3	0%	0	1.89%	2
20+K		15.57%	19	25.49%	26	22.64%	24
Total		100%	122	100%	102	99.99%	106
P. nouns	2-5	3.38%	9	0.79%	1	2.03%	3
1-3K		65.41%	174	53.98%	68	58.11%	86
3-9K		9.4%	25	14.29%	18	6.08%	9
9-20K		3.38%	9	5.55%	7	4.05%	6
20+K		18.42%	49	25.4%	32	29.73%	44
Total		99.99%	266	100.01%	126	100%	148
P. nouns	6-9	0%	0	4.35%	2	4.35%	2
1-3K		76.47%	52	52.17%	24	63.05%	29
3-9K		4.41%	3	4.35%	2	0%	0
9-20K		1.47%	1	0%	0	6.52%	3
20+K		17.65%	12	39.13%	18	26.09%	12
Total		100%	68	100%	46	100.01%	46
P. nouns	10+	0%	0	0%	0	0%	0
1-3K		68.08%	64	58.16%	57	53.51%	84
3-9K		2.13%	2	6.12%	6	6.37%	10
9-20K		0%	0	2.04%	2	1.27%	2
20+K		29.79%	28	33.67%	33	38.85%	61
Total		100%	94	99.99%	98	100%	157
Total 3K		68.18%	375	56.18%	209	55.58%	254
Total 3K+		29.82%	164	41.94%	156	41.14%	188
Total/quarter		100.00%	*550	100.00%	*372	100.00%	*457

Table 38. Frequency and repetitions for reflexive verbs.

Table 39 illustrates the results for frequency and repetitions for the classes devoted to teaching the present progressive. The overall number of words used by the instructor for each of the classes is very similar, however a small increment each quarter is noticeable (463, 480, 484 respectively). This table also illustrates an increase in the overall number of repetitions. For instance, during the Spring quarter, the group of words with 6-9 and 10+ repetitions show a noticeable increase (47, 65, 70 and 67, 68, 93) respectively. During Fall quarter, the number of words repeated only once is higher and it decreased slowly throughout the year (156, 144, 140 respectively).

Freq. band	# of Rep	Fall	# of words	Winter	# of words	Spring	# of words
P. nouns		7.05%	11	0%	0	1.43%	2
1-3K		58.33%	91	54.17%	78	58.57%	82
3-9K	1	7.04%	11	13.89%	20	10.72%	15

9-20K		1.94%	3	6.95%	10	5.71%	8
20+K		25.64%	40	25%	36	23.57%	33
Total		100%	156	100.01%	144	100%	140
P. nouns		4.66%	9	0.99%	2	0.55%	1
1-3K		50.26%	97	54.95%	112	56.35%	102
3-9K	2-5	8.82%	17	4.96%	10	9.38%	17
9-20K		4.15%	8	3.47%	7	3.85%	7
20+K		32.12%	62	35.64%	72	29.83%	54
Total		100.01%	193	100.01%	203	99.96%	181
P. nouns		4.26%	2	1.54%	1	0%	0
1-3K		53.2%	25	60%	39	70.01%	49
3-9K	6-9	0%	0	0%	0	0%	0
9-20K		0%	0	3.08%	2	0%	0
20+K		42.55%	20	35.38%	23	30%	21
Total		100.01%	47	100%	65	100.01%	70
P. nouns		1.49%	1	0%	0	0%	0
1-3K		70.15%	47	64.7%	44	62.36%	58
3-9K	10+	2.99%	2	0%	0	0%	0
9-20K		0%	0	0%	0	0%	0
20+K		25.37%	17	35.29%	24	37.63%	35
Total		100%	67	99.99%	68	99.99%	93
Total 3K		56.16%	260	56.88%	273	60.12%	291
Total 3K+		38.88%	180	42.50%	204	39.26%	190
Total/quarter		100.00%	*463	100.00%	*480	100.00%	*484

Table 39. Frequency and repetitions for present progressive.

Table 40 shows the results for the classes devoted to teaching the near future. The results show a U shape as Winter quarter shows a decrease in the total number of words used by the instructor. However, during Winter quarter 405 words were used, Fall quarter included 465, and Spring quarter showed a total of 482 words. The results show a consistency from the beginning to the end of the school year as a slight increase can be seen from Fall to Spring quarter (465, 482 respectively). The results also show that the instructor used more words from low frequency bands and offered less repetitions during the Fall quarter. For example, during Fall 40 words were used pertaining to the 20K+ frequency bands with only one repetition, in contrast only 23 words with these characteristics were used during Spring quarter. Also, during Fall quarter 54 words were used from the 20K+ frequency group with 2-5 repetitions and only 29 words with these characteristics were used during Spring quarter. Alternatively, Spring quarter shows the

highest number of words pertaining to the first 3K most frequent words with 6-9 and 10+

repetitions 51 and 63 respectively, compared to Fall quarter with 28 and 58.

Freq. band	# of Rep.	Fall	# of words	Winter	# of words	Spring	# of words
P. nouns	1	0.68%	1	1.85%	2	4.35%	6
1-3K		62.84%	93	75.01%	81	70.29%	97
3-9K		7.43%	11	8.33%	9	8.7%	12
9-20K		2.03%	3	1.85%	2	0%	0
20+K		27.03%	40	12.96%	14	16.67%	23
Total		100.01%	148	100%	108	100.01%	138
P. nouns	2-5	3.17%	6	0%	0	6.79%	11
1-3K		54.5%	103	64.09%	116	64.19%	104
3-9K		12.69%	24	11.04%	20	11.12%	18
9-20K		1.06%	2	3.3%	6	0%	0
20+K		28.57%	54	21.55%	39	17.9%	29
Total		99.99%	189	99.98%	181	100%	162
P. nouns	6-9	0%	0	0%	0	2.56%	2
1-3K		75.68%	28	73.17%	30	65.38%	51
3-9K		0%	0	12.2%	5	5.12%	4
9-20K		5.41%	2	0%	0	2.56%	2
20+K		18.92%	7	14.63%	6	24.36%	19
Total		100.01%	37	100%	41	99.98%	78
P. nouns	10+	3.3%	3	1.33%	1	0.96%	1
1-3K		63.74%	58	66.67%	50	60.58%	63
3-9K		1.1%	1	2.67%	2	3.85%	4
9-20K		0%	0	0%	0	0%	0
20+K		31.87%	29	29.33%	22	34.62%	36
Total		100.01%	91	100%	75	100.01%	104
Total 3K		60.65%	282	68.40%	277	65.35%	315
Total 3K+		37.20%	173	30.86%	125	30.50%	147
Total/quarter		100.00%	*465	100.00%	*405	100.00%	*482

Table 40. Frequency and repetitions for the near future.

4.6 Conclusion

4.6.1 Class Time Distribution

Throughout the year, the number of interactions increased; however, the instructor's

input and the student's output remained almost the same. These results show that the students'

interactions became more numerous and briefer. Interestingly, when an outside source was

introduced the student's output is generally reduced, in contrast, this phenomenon does not

happen with the instructor's input.

In general, the instructor's input shows a U shape result as Winter quarter shows a decrease in the instructor input compared to Fall and Spring quarter, in other words, there is not a linear evolution. Indeed, the results show a random progression which does not seem to correlate with the instructor's experience gain.

The time reduction seen on the instructor's input during Winter quarter is clearly utilized for class organization. These changes are due to two main factors. First, during Winter quarter the instructor welcomed a class visitor that spent over 3 minutes talking to the class. Second, the instructor tried new and more elaborate activities for some of the classes which took more time to explain as well as time for students to get in groups. Results show that the instructor updated some of the materials used every quarter during classes based on the outcome. For example, when he spent a lot of time explaining the activities related to a particular topic or audiovisual material during Winter quarter, he did not include these activities in the Spring.

4.6.2 Word Frequency and Repetitions

Overall, the word frequency and repetitions show a U shape result as Fall and Spring quarters display a higher number of words than Winter quarter. Moreover, even though a continuous progression is not evident, there is a clear evolution in the repetition of words from the beginning of the year to the end. For instance, Fall quarter shows the highest number of words in general, and the highest number of words with 1 and 2-5 repetitions, but Spring shows the highest number of words with 6-9 and 10+ repetitions. Another finding is that the instructor had the tendency to repeat the same words more times at the end of the year, this explains why he used less words during Spring quarter than during Fall quarter. Clearly, by the end of the year, the instructor prioritized repetitions over word quantity.

Chapter 5: Discussion

This chapter will summarize the most significant findings of Study 1 and Study 2 and revisit the main research questions taking into account the data presented in Chapters 3 and 4. The first part of this chapter will address the main findings for the comparative study (Study 1) from Chapter 3. The second part will address the findings for the longitudinal study (Study 2) found in Chapter 4.

This dissertation aimed to answer four main questions, the first two pertaining to the comparative study discussed in Chapter 3: (1) *How do classroom time management practices vary across classrooms, depending on the instructor's level of experience?* (2) *To what extent do teachers with different levels of experience vary their vocabulary use and repetitions of high frequency words when teaching the same contents?* The data from Chapter 3 shows that the most experienced instructor used many more words compared to the less experienced instructors, although the instructor was not very selective about the type of words she used as she used high frequency words and low frequency words equally. The amount of vocabulary used by the two least experienced instructors varied widely as one of them had the tendency to prioritize student output and the other prioritized teacher input.

The last two questions pertain to the longitudinal study discussed in Chapter 4: (3) *How do classroom time management practices change over time as an instructor gains more teaching experience?* (4) *To what extent does the vocabulary use, and repetitions of high frequency words change over time when teaching the same contents?* The data from Chapter 4 suggests that as the instructor gained more experience, his vocabulary practices evolved. For instance, his word selection and treatment changed as he utilized more frequent words and repeated them more

times as he gained experience. This is an important finding as it is evident that the instructor became aware of the importance of word selection and repetition for student learning success.

Overall, this dissertation aimed to further understand the distribution of classroom time and lexical uses of instructors with different levels of teaching experience by studying teacher talk and classroom time distribution through classroom recordings. As it was discussed before, there is a limited number of studies that analyze teacher talk, and those studies present some limitations, for instance, Plonsky and Loewen (2013) conducted observations of the classes they recorded which can potentially alter the environment of the class. Jin and Webb (2020) used recordings, which lacks one of the main components of language learning which is the social component. Horst (2010) analyzed the teacher talk of only one instructor teaching an advanced course. First, the instructors recorded their own classes to avoid as much as possible the presence of an observer altering the normal classroom environment. Second, the study included various classroom recordings from different topics to allow for a more realistic analysis of teachers' talk across different days and themes and to avoid extraneous factors such as the differences in content influencing the class environment and language use. Third, three different instructors with diverse teaching experiences participated in the study which allowed for two types of analysis, (1) a comparative study which enabled me to analyze the practices of instructors according to their experience level, and (2) a longitudinal study which enabled me to study how the vocabulary practices of an inexperienced instructor evolved over time.

The findings of this dissertation will serve to advance our understanding of how teachers deal with lexical selection and use as the data collected shed light on specific classroom practices and vocabulary usage and treatment. Additionally, the data collected for this dissertation has the potential to help language departments and language program coordinators address the flaws

instructors present and prepare future language instructors to better meet the needs of language students when it comes to vocabulary learning and teaching.

5.1 Comparative Study (Study 1: Chapter 3)

5.1.1 Teacher Talk and Student Output in the Classroom

Section 5.1.2 through sections 5.2 will summarize the key findings of the comparative study in relation to the main research questions presented in Chapter 3, (1) *How do classroom time management practices vary across classrooms, depending on the characteristics of the instructor? (2) To what extent do teachers vary their vocabulary use and repetitions of high frequency words when teaching the same contents?* The aforementioned sections summarize both the qualitative and quantitative findings in dialogue with previous literature.

Section 5.1.2 summarizes the findings concerning the input provided by the instructor and the outside sources chosen by the instructor. The next section, 5.1.3 summarizes the use of L1 and L2 in the classroom. Section 5.1.4 summarizes students' opportunities to produce output and interactions. Finally, section 5.2 summarizes the findings regarding word selection, frequency, and treatment.

5.1.2 Input Provided by Teacher Talk and Outside Sources

The most experienced instructor provided the most input by teacher talk with 63.53% of the total class time devoted to providing teacher input, adding up to 20,695 tokens in total. The novice instructor provided 56.34% of the total class time to teacher talk, for a total of 12,950 tokens. Finally, the instructor with one year of experience spent 46.64% of class time providing input by teacher talk, amounting to a total of only 8,616 tokens. This finding suggests that different factors, other than experience, can affect the amount of input offered by teacher talk. Such factors could be (1) the instructors' beliefs as some may be more inclined to different

hypotheses or theories based on their teacher training and previous language learning experience; (2) the instructors' personality, as instructors with a more extroverted personality may tend to talk more, and/or (3) the instructor preparedness, i.e., the instructors who were more prepared, in terms of having a more detailed lesson plan, had the tendency of speaking more in class.

Furthermore, solely basing the input to the number of words instructors spoke in class does not specify if there was a clear explicit focus on teaching vocabulary. Promoting incidental vocabulary learning is not an easy task since, for students to be able to learn new vocabulary, they need to encounter mostly known vocabulary, with only few new words that are still manageable for the level of proficiency of the students (Krashen, 1985), and are repeated frequently enough (Pellicer Sanchez & Schmitt 2010; Sánchez-Gutierrez, et al., 2019; Webb 2007). Concretely, the acquisition of incidental vocabulary is very limited as low frequent words are not repeated enough times to be learned (Cobb, 2007; Horst 2010). For instance, the most experienced instructor, Clara, repeated 731 words 10+ times, followed by the novice instructor, David, with 481 words, and Pedro with 384 words from all frequency bands repeated 10+ times. The difference between vocabulary treatment amongst the instructors is important, specially taken into account that researchers promote ten or more repetitions for long term retention (Pellicer Sanchez & Schmitt, 2010; Sánchez-Gutierrez, et al., 2019; Webb 2007).

The analysis of input through the use of outside sources indicated that instructors with less experience rely more heavily on outside sources than those with more experience. The novice instructor used the highest number of outside sources with 6.54% of total class time compared to the instructor with the most experience with 2.75%. It is usually considered a good practice to include audios and videos as input, however this depends on the type of outside sources used. For instance, the most experienced instructor included supplemental materials like

videos or audios in class to offer students more opportunities to practice the target lesson or

vocabulary (a video that allows students to hear the target vocabulary in context). Alternatively,

the less experienced instructors used outside sources for two main reasons, (1) to provide

students with extra practice (same as the most experienced instructor), but also (2) to introduce a

new topic (a video which explains the grammatical rules of the target structure). This second

point could be interpreted as a lack of confidence on behalf of the instructors on their abilities to

provide a proper explanation for the target structure. Introducing a new grammatical structure

through a video taken from YouTube or other platforms is not advisable as (1) it disrupts the

class as the instructor needs to take time to show the video instead of just having a small

transition to begin explaining it himself, and (2) the instructor loses control over his own class,

especially because no two classes are alike, therefore, instructors should not expect that one

video will work for all classes.

The fact that the transcriptions specified the timestamp of every change of turn, the time

the instructor spent showing outside sources, and the time the instructor spent providing

instructions and actively organizing classroom activities provides a unique perspective of how

different pedagogical choices impact the amount of time devoted to classroom and activities

organizing. Indeed Donzelli (2007) and Horst (2010) consider the specific situation of the lexical

input, however, other articles only study the corpus collected with audio/video recording, but to

my knowledge no one has provided an in-depth analysis of how instructors organize and how

much time they spend taking care of "housekeeping" issues in their classes while also conducting

a quantitative analysis of lexical frequency and repetition.

Based on the analysis of the time devoted to classroom organization, it seems that two

factors influence how much organizational talk is needed: (1) the number of outside sources

used, and (2) the number of group activities that required the creation of specific groups (e.g., all number 1s work together, all number 2s work together, etc.) Indeed, classes where more outside sources were used required more organization time whereas classes with less outside sources did not require as much. It is important to remember that occasionally the instructors multitasked during the organization time, for example, they were looking for a video at the same time as they were explaining to students how to complete the activity, or what to expect from the outside source (video or audio) presented. Also, when students were directed to work with a partner or their neighbor, not much organization time was needed, while organization time increased significantly when students needed to move around to find peers to start working in groups. For instance, David's students rarely worked in groups, and even though his class displays the highest percentage of outside sources, his organization percentage was the lowest with .82% (02:09) of total class time. Clara, who used the least number of outside sources devoted 1.28% (03:53) to this category, although Clara's class displays the highest amount of group work. Finally, Pedro used a notable number of outside sources, and his students spent an important amount of time working in groups, therefore, his organization percentage was the highest with 1.74% (04:39). It is considered a good practice to allow students to work in groups to provide time for brain breaks, or to activate them after a lesson, but it is important to keep in mind that getting students in groups it is time consuming, and strategies to get students in groups faster might be necessary to give as much time as possible for students to produce output. For instance, some instructors assign groups that will work together for a week or a month or even the entire semester. This strategy helps save time while also allowing students to interact with each other and take advantage of the opportunities to produce output and practice what they have learned.

Finally, all instructors provided more than 50% of input either by teacher talk or outside sources. Pedro, the instructor with one year of experience, provided 52.01% of input, followed by David, the novice instructor with 62.88%, and Clara with 66.28%. It is important to remember that both David, and Pedro were trained by Clara through a graduate course that new instructors are required to take before or while teaching for the first time in the department. While one would expect that the teaching practices of David and Pedro were similar to those of Clara, it is evident Pedro's are not, while David's teaching practices mirror Clara's to a greater extent. One possible explanation for this phenomenon is that David (1) was still taking the graduate seminar when he started recording his classes, which made him follow Clara's models of teaching a little more closely, and (2) he was completely new to the department and did not feel comfortable yet making too many changes to the already pre-made lessons he used to teach. As Guerrettaz and Johnston (2013) stated, less experienced instructors tend to follow the textbook (in this case the pre-made PowerPoint lessons) than experienced instructors. Another possibility for the difference in teaching practices these instructors exhibit in this study is the fact that instructors also tend to rely on what they experienced as language learners themselves (Sánchez-Gutiérrez, et al., 2022). From the transcriptions it is noticeable that David, the novice instructor who at the same time was taking the teaching seminar with Clara tended to follow Clara's teaching style much closely. For instance, David never used the textbook to organize his class, instead he used Clara's pre-made PowerPoint lessons to conduct class. On the other hand, Pedro used the textbook almost exclusively to conduct class activities.

Tables 41 and 42 illustrate the activities from the textbook utilized by each instructor. Pedro utilized the textbook much more frequently, followed by Clara which barely utilized the textbook, and David who in the classes analyzed for this study never utilized the textbook but

instead utilized the PowerPoints created by Clara. Based on this analysis, all instructors fall in

the same category explained by Marcos Miguel (2015). Instructors are curriculum transmitters

and developers again this was expected due to the nature of multi-section courses which nature is

to follow a single syllabus. Indeed, some instructors rely more heavily than others on the given

materials, for instance Pedro utilized 11 activities from the textbook most of them for in class

work and a couple for homework which he corrected in class with his students. David used the

PowerPoints more heavily and never used the textbook, however he adapted many of the

PowerPoints and added his own activities. Gueretas and Johnson (2013) concluded that

textbooks served the purpose of textbook organizers. In this case, materials provided

(PowerPoints, and the textbook) served as content organizers for less experienced instructors.

Pedro	Page number	Activity	Place of the activity
Desc. Fís.	49	5	In class
Desc. Fís.	49	6	Homework
Ser y estar	140	10	In class
Ir a + inf	96 & 107	1 & 17	In class
Gustar	46	1 & 2	In class
Gustar	136	1 & 2	Homework
Las horas	89	7	In class
V. irregular	144	13	In class
Total		11	

Table 41. Textbook activities utilized by Pedro.

Clara	Page number	Activity	Place of the activity
Desc. Fís.			
Ser y estar			
Ir a+inf	97	3 & 4	In class
Gustar	46	1 & 2	In class
Las horas			
V. irregular			
Total		4	

Table 42. Textbook activities utilized by Clara.

5.1.3 Use of L1 and L2 in the Classroom

Unlike other studies in which the aim was to investigate the specific uses of the L1 (Kraemer 2006; De la Campa & Nassaji 2009), this study focused on the overall use of the L1 and the L2. The aim of this study was to analyze the amount of input given in class in the target language vs. the L1.

Overall, all instructors used an important amount of L1 in their classes, which shows that the instructors understand that the L1 could be used as a tool for L2 acquisition, as well as a way to connect with students and create a more positive learning environment (Hall & Cook 2012; Nation 2003). Interestingly, the instructor with the most experience was not the one who least used the L1 of the students, she spoke English 41% of the total tokens analyzed, relatively close to the amount of English used by the novice teacher, David, with 45.54% of tokens used in the L1. Pedro was clearly the outlier, as he only used English 22.53% of the total tokens. These findings suggest that the amount of L1 use in the classroom does not necessarily depend on the level of experience instructors have. This conclusion correlates with De la Campa and Nassaji (2009) who concluded that both the experienced and novice instructors used the same amount of L1 in the classroom. Again, the fact that David was still enrolled in the teacher training seminar with Clara at the time of the recordings may explain why he was mimicking her own practices when it comes to the use of the L1. Indeed, some time of the seminar is spent on reflecting upon translanguaging as a pedagogical tool and on how to best use the L1 to maximize student learning. Finally, each teacher's "pedagogical style" clearly influenced how much English was used. Indeed, Pedro tended to spend most of the class time asking students to complete exercises and many interactions were centered around the completion of said exercises, while both Clara and David spent a lot of class time talking to students, providing explanations, and giving them

feedback. This latter approach required a lot more episodes where clarifications were needed, which were often given in English.

5.1.4 Students' Output and Interactions

Every classroom analyzed for this study designated at least 30% of total class time to student output. Pedro, the instructor with the lowest percentage of input displays the highest percentage of student output with 46.24% (2hs 7m) of total class time, followed by David, the novice instructor, with 36.27% (1h 40m), and Clara, the most experienced instructor, and the instructor with the highest percentage of teacher talk or input, with 32.44% (1h 38m). Evidently, as the input provided by teacher talk decreases, the student output increases. However, the number of student interactions are not as predictable as the input/output ratio. For instance, Pedro's class had the highest percentage of student output and interactions (966). Alternatively, Clara's class presented the lowest percentage of student output, but the number of interactions were very high (872). Finally, David's class displays the lowest number of student interactions (581), but his class does not display the lowest percentage of student output. As a result, the amount of student output is not always a good indicator of how interactive a class is.

According to Mackey and Goo (2007), students with more student engagement in the classroom experience greater benefits, including higher percentages of long-term knowledge retention, than those that do not. Based on the authors findings, the present study would indicate that Pedro's students have benefited much more from the class than those in the other classes. However, in this study the level of complexity of each interaction was not studied which also might have an effect on how effective long and more meaningful interactions might be compared to short and numerous interactions. From the transcriptions, for instance, it is clear that Pedro's interactions with students were often relative to the completion of an exercise or focus on forms,

while Clara's interactions were more focused on real questions about students interests or personal lives. It would thus be interesting to use this corpus in the future to look further into the specific types of interactions that were at play and future studies could also look into the impact of those various interactional styles on student learning.

Extract 9 was extracted from the class where the verb "to like" was introduced. The example shows how Pedro's interaction with his students was more direct, in which students are providing the answers to a specific activity most likely from the textbook. Extract 10 shows the interactions between Clara and her students. As it can be appreciated, Clara allowed for more open responses by conducting a more communicative oriented class where students had the opportunity to answer questions related to them, as well as exposing them to a richer input from the instructor. On the other hand, Pedro's class was focusing more on forms.

Extract 9:
> [00:19:23] Muy bien. [nombre de un estudiante], ¿qué les gusta a tus amigos?
>
> [00:19:29] [estudiante responde]
>
> [00:19:31] Les...
>
> [00:19:31] [estudiante responde]
>
> [00:19:37] Muy bien. [nombre de un estudiante].
>
> [00:19:38] [estudiante responde]
>
> [00:19:44] Perfecto. [nombre de un estudiante].
>
> [00:19:46] [estudiante responde]

Extract 10:
> [00:33:41] Pintar. ¿Vale? Entonces, pintar murales puede ser una actividad. ¿A quién a quién le gusta en la clase pintar murales? ¿Alguien? ¿Pinta en la clase? Anyone draws (.) in the class? No one? (.) Desde luego. Okay. Entonces, ¿nadie en la clase pinta? No pintáis murales tampoco? Okay. Vamos a ver. Música. ¿Qué se hace con la música? (.) ¿Se?
>
> [00:34:17] [estudiante responde]

[00:34:17] Escuchar. ¿Vale? Escuchar música. Muy bien. Escuchar música. Entonces, vamos a ver, en la clase, en la clase, ¿a quién le gusta escuchar música? ¿A quién aquí le gusta escuchar música? [nombre de un estudiante], ¿qué tipo de música te gusta escuchar?

[00:34:40] [estudiante responde]

[00:34:46] Te gusta escuchar pop, okay. ¿A quién más en la clase le gusta escuchar pop? (.) A mí también, está bien, ¿no? Escuchar pop. Muy bien. Entonces, podemos. En la clase hay gente a la que le gusta, qué le gusta escuchar música. Deportes. Con los deportes. ¿Qué acciones hacemos con los deportes?

[00:35:10] [estudiantes responden]

5.2 Word Frequency and Treatment in Teacher Talk

The results of word frequency and treatment revealed an important similarity between the two least experienced instructors, for instance, both of them used about the same number of words within the first 3,000 most frequent words. David, the novice instructor, utilized 775 words with these characteristics and Pedro utilized 772, only 3 words less than David. Alternatively, Clara, the most experienced instructor utilized 1,003 words within the first 3,000 most frequent words in the Spanish language. Clearly, Clara utilized many more frequent words than the other two instructors, although she also utilized many more infrequent words as well. In addition, Clara repeated a greater number of frequent and infrequent words 10+ times (731), followed by David with 481words, and Pedro with 384 words with these characteristics. Even though Clara tends to use frequent and infrequent words indiscriminately, the results reveal that she tends to repeat words much more than the other two instructors. For instance, Clara used the lowest number of words (308) with only 1 repetition, followed by David with 336 and Pedro with 346 words with these characteristics. According to López Bastidas and Sánchez-Gutiérrez (2020) all chapters should not be treated equally as verbs are easier to select based on frequency scales, however food vocabulary is not as simple as frequency is not enough to offer sufficient

vocabulary for students to communicate. The present study does not take this into account as it is very difficult to measure frequency if no other measuring tools have been created to assess the utility of the vocabulary taught in second language classes. However, it is still important to take into account that based on the recommendations of the researchers, words should be encountered enough times for students to be able to learn them (Pellicer Sanchez & Schmitt, 2010; Sánchez-Gutierrez, et al., 2019; Webb 2007). Based on these recommendations, the instructor who provided students with the most words repeated the most times is Clara, and she did this by speaking for long periods of times like in monologues.

Extract 11 illustrates how Clara speaks for long periods of time and uses the target vocabulary in different contexts. Extract 12 shows one of Pedro's longest talk periods found in all the transcriptions, and the aim of it was to give directions to students.

Extract 11:

[00:35:04] Verdes. Tienes los ojos verdes. Okay, muy bien. ¿Quién tiene los ojos marrones en la clase? los ojos marrones, si muy bien. Okay, perfecto. Entonces todo bien con esto. Ahora, vamos a ver cuando les pregunto por la mañana, qué tal estás. Dices, estoy bien por ejemplo. Bien? también puedes decir estoy contento o ella está contenta, vale? o él está contento si, ¿Qué es contento?

[00:35:38] [estudiante responde]

[00:35:39] Happy! Okay, ¿está contenta o está contento, bien? También, en algunos casos estamos enfadados ¿no? Entonces él está enfadado. Y ella cómo está?

Extract 12:

[00:38:54] Muy bien, vamos a abrir el libro en la página ciento treinta y nueve. Y vamos a leer antes la página ciento treinta y ocho, y después la página ciento treinta y nueve. Leer páginas ciento treinta y ocho y ciento treinta y nueve. si

[00:39:45] [estudiantes leen]

[00:42:26] Muy bien.

[00:42:27] [estudiantes leen]

[00:42:54] ¡Muy bien! ¿Cómo están?

[00:42:57] [estudiante responde]

In a previous study by López Bastidas and Sánchez-Gutiérrez (2016), 14 elementary textbooks were analyzed to assess word frequency and treatment, the results of this study revealed that only 142 words met the criteria of (1) high frequent vocabulary (Davies 2005; Nation 2006; Schmitt & Schmitt 2014), and (2) 10+ repetitions (Pellicer Sanchez & Schmitt 2010; Sánchez-Gutierrez, et al., 2019; Webb 2007). These textbooks were scanned as a whole and still did not meet the most basic criteria of including the most important words in the Spanish language and recycling these words to promote incidental learning. Similarly, López Bastidas and Sánchez-Gutiérrez (2020) concluded that the vocabulary included in all the chapters analyzed in their study failed to include highly frequent vocabulary and the vocabulary included was not recycled enough to promote long term knowledge. Clearly there is a mismatch between the literature recommendations for students to learn the first 3000 most frequent words (Schmitt & Schmitt, 2014) within the first two years of language acquisition, the vocabulary that is included in the textbooks, and what students are indeed learning (Blake, 2020; Robles-García, 2020).

Given this situation with the textbooks, incidental learning of high-frequency words from reading and completing textbook exercises is not probable unless exposure to said words is enhanced otherwise. The current study, which only analyzed six days of classes for each instructor, already shows how teacher talk may complement textbook input through increased repetition of high frequency words. Indeed, Clara used 344 words that were among the first 3,000 in Spanish and that were repeated 10+ times, David used 252, and Pedro 199 with the aforementioned characteristics. Concretely, as stated before, Pedro tends to follow the textbook very close, which his reduced usage of frequent words repeated 10+ times, proves that textbooks

include a high number of infrequent words (Davies & Face, 2006; Godev, 2009; López Bastidas & Sánchez Gutiérrez 2020; Sánchez Gutiérrez, Marcos Miguel & Olsen, 2019), and the reduced number of frequent words are not well treated (López Bastidas & Sánchez Gutiérrez 2020; Webb, 2007). Unlike Clara and David which tend to stay away from the textbook.

5.3 Longitudinal Study (Study 2: Chapter 4)

5.3.1 Teacher Talk and Student Output in the Classroom

Sections 5.3.1 through sections 5.4.3 will summarize the key findings of the study in relation to the main research question presented in chapter 4, (1) *How do classroom time management practices change over time as an instructor gains more teaching experience? (2) To what extent does the vocabulary use, and repetitions of high frequency words change over time when teaching the same contents?*

5.3.2 Input Provided by Teacher Talk and Outside Sources

The results regarding input do not show a clear progression instead, they show an anomaly in which Spring quarter and Fall quarter are very similar and Winter quarter is the outlier by either displaying a greater or smaller amount of time of input provided by the teacher (60.65%, 59.75%, and 54.32%, respectively). This phenomenon was described in previous chapters as a U shape result. It is true that from the beginning of the year to the end, the input provided by the instructor dropped by 6.33%.

The input through the use of outside sources also shows a U shape result, although in this case Winter quarter shows the highest percentage with 5.31% of total class time, followed by Fall quarter with 4.36%, and Spring quarter with 2.81%. Two general findings emerged from these results, (1) the instructor experimented with different types and lengths of outside sources, and (2) as the instructor gained experience, the number of outside sources decreased, and the

quality of these increased. As the instructor gained more experience, he was more selective with the outside sources he used in class, for example the outside sources used to explain grammar were noticeably reduced in the last quarter, while the outside sources used to provide input increased by the end of the year. These results confirm the finding from Study 1, where the most experienced instructor was the only one who used outside sources for input but not for grammatical explanations.

5.3.3 Use of L1 and L2 in the Classroom

Unlike other studies in which the aim was to investigate the specific uses of the L1 (De la Campa & Nassaji 2009; Kraemer 2006), this study focused on the overall use of the L1 and the L2. The aim of this study was to analyze the overall amount of input given in class in the target language compared to the amount of L1.

The results of this study show a decrease in the amount of L1 tokens used by the instructor as he gained experience. For instance, during Fall quarter the instructor used 8,645 tokens in the L1, which reduced to 7,962 in Winter, and 6,742 tokens in Spring. The decrease in the number of tokens used in the L1 is noticeable, which suggests that the instructor paid more attention to his usage of the L1 with time. These findings align with Kraemer (2006) who states that teachers with more experience use less English than those with limited experience and limited training. Au contraire, these findings do not align with the results from Study 1, which show that the most experienced instructor used the L1 more than one of the less experienced instructors. In the end, the beliefs of the instructors play an important role. For instance, Clara in her seminar for graduate students who are teaching or will teach Spanish in the department, includes topics related to translanguaging and plurilingualism, which clearly shows her stand on using the L1 in L2 classrooms. Concretely, David who took Clara's seminar, seems to follow

Clara's teaching style more closely at the beginning of the year, when he was taking the seminar and teaching at the same time, as he employed the L1 much more, but his teaching style evolves as the year progresses, and his use of the L1 decreases. In conclusion, David finds and employs his own teaching style which aligns with his experience as a teacher and student.

5.3.4 Students' Output and Interactions

The percentage of student output stayed relatively the same throughout the academic year. Fall quarter displays the lowest percentage of student output with 34.92% of total class time, followed by Spring quarter with 35.34%, and Winter quarter with 36.24%. Nevertheless, the number of student interactions does not correlate with the quantity of student output. For example, Spring quarter displays the highest number of student interactions but not the highest percentage of student output. These results correlate with those from the Comparative Study, which show that the total output students get in a class is not a good indicator to assess how interactive a class is. These results suggest that (1) at the beginning of the academic year the class was less engaging, but the interactions were longer, and (2) as the instructor gained experience, he was able to engage the class with more numerous but brief interactions. A possible explanation for these results could be a difference in class dynamic, for example the instructor shared that during Fall and Winter quarters, he taught at 8:00 in the morning and during Spring quarter his class started at a later time. This might have had an impact on the participation of students. Also, it is impossible to acknowledge the fact that each class has its own personality according to the type of students in it, and even if the course covers the same content, and the instructor uses the same PowerPoint lessons, the dynamic of the class can vary depending on the attitude of the class as a whole.

5.4 Word Frequency and Treatment in Teacher Talk

As it was stated above, the level of experience of an instructor seems to be a good indicator of their practices for vocabulary selection and treatment. The findings for word frequency and treatment indicate that the teaching practices of the instructor regarding vocabulary evolved over time. The overall number of words utilized by the instructor technically stayed the same, but the distribution of these words changed from the first until the last quarter. For instance, during the Fall quarter the instructor used 565 words with 10+ repetitions of which 296 words were within the first 3,000 most frequent words in Spanish. During the Spring quarter, the number of words with these characteristics increased to 320.

Throughout the three quarters, the instructor used a total of 876 words pertaining to the 3,000 most frequent words which were repeated 10 or more times, and an increase of words with these characteristics is evident during the Spring quarter. Certainly, the total number of words with 10+ repetitions is much higher with 1,751 words pertaining to high and low frequency bands. The instructor also used 495 words pertaining to the most frequent 3,000 words which were repeated only once, moreover, 183 of those words were used during the Fall quarter, and a decrease is noticeable during Spring quarter with 144 words pertaining to the first 3k frequency bands repeated only once.

The findings of this study suggest that as the instructor gained experience, the number of words he used within the 1-3k frequency bands with only one repetition decreased from 183 words in the Fall to 168 in the Spring. Additionally, the number of words within the 1-3k frequency bands repeated 10+ or more increased from 296 during to 320. These findings suggest that the novice instructor learns to use word selection and treatment as a teaching tool as he gains experience and confidence throughout the year he participated in this study.

Chapter 6: Conclusions

6.0 Conclusion

The overall findings of this study suggest that experience is a good indicator for vocabulary selection and treatment, as the instructor with the most experience used more frequent words and repeated them more times than the less experienced instructors. These findings were confirmed in the longitudinal study as the novice instructor increased his use of highly frequent vocabulary as well as the number of repetitions. Moreover, experience is not a good indicator for input amount, for instance, the comparative study shows that the novice and the most experienced instructors used a higher amount of vocabulary compared to the instructor with one year of experience. Additionally, the results of this study in comparison to textbook vocabulary coverage (Davies & Face, 2006; Lopez Bastidas & Sánchez-Gutierrez, 2020; Marcos Miguel, et al., 2019) revealed that teacher talk has the potential to address the flaws of the textbooks by offering more repetitions of relevant vocabulary and by exposing students to more relevant vocabulary not included in the textbooks.

6.1 Pedagogical Implications

Given the findings from this study, to ensure students' acquisition of important vocabulary, new words should be taught in a more explicit way through meaning-focused input and devoting class time for this (Marcos Miguel, 2022; Nation 2001). However, realistically speaking, class time is very limited, and instructors can only do so much to help students learn the required vocabulary. Hence, instructors ought to provide students with the tools they need regarding vocabulary learning, such as high frequency or important vocabulary lists to be learned at home (Martini 2012).

Moreover, teacher training and education play an important role in teacher development and clear and updated resources should be provided for teachers. For instance, teachers should know that it is not a good practice to show videos to introduce grammatical structures in class, they should rather be assigned as homework.

6.2 Limitations

This study exhibits some limitations. The first limitation is regarding the *class recordings*, as it was noted in previous chapters, some class recordings were incomplete which might have altered the percentages of each identified category and the vocabulary usage. Additionally, it was impossible to eliminate the incomplete classes as Pedro's number of classes recorded was very limited, which limited the number of recordings that met all the standards we were looking for in the recordings (for details see sections 3.3 and 4.2 for details). Finally, the already mentioned issue also limited the topics we were able to include in the study, and the classes that focused mainly on vocabulary topics were eliminated to a greater extent.

Another limitation of the study is that *the pool of instructors* who participated in the study was very limited. There were only three instructors, two with little to no experience, and one with extensive experience. There was no room for a comparison between instructors with the same level of experience which limited the analysis to rule out instructors' different characteristics and beliefs. Finally, another limitation was the ability to transcribe the *student output* due to IRB regulations. Having the output produced by students would have allowed for a more accurate analysis of the student interactions which can also be a good suggestion for future research.

6.3 Suggestions for Future Research

Classroom materials. It is true that this study focused solely on the analysis of vocabulary acquisition through teacher talk, although a full analysis of all the materials used in class (textbooks, online platform, PowerPoints, and outside sources/input) may allow for a more accurate assessment of incidental vocabulary learning, as students interact with those materials and encounter many words that the instructor may not repeat during class.

Student assessment. The number of repetitions of a word can be a good indicator to assess incidental vocabulary learning (Pellicer Sanchez & Schmitt 2010; Sánchez-Gutierrez, et al., 2019; Webb 2007), although repetitions are not always viable as students can hear a word hundreds of times and still not be able to retain it (Plonsky & Loewen 2013). Adding the student assessment factor can allow for a more accurate analysis of the words students were able to retain.

Year assessment. Finally, the aim of this study was to analyze the teacher talk of the first course of the beginner series. However, future research might analyze a complete year of classes to find if the instructor's vocabulary practices promote long term acquisition of the 3,000 most important words in the Spanish language.

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