



L2 Vocabulary Learning and Retention: A Comparison Between Traditional Paper Homework and Online Homework

Lisa Elizabeth Sheehan


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MSc Applied Linguistics for Language Teaching, 2024

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Abstract

This study aimed to compare the effectiveness of various homework methods in second language (L2) vocabulary learning and retention. The study looked at the differences in effectiveness between traditional pencil and paper homework and online homework. The study also aimed to investigate student attitudes towards both of those homework methods. A mixed-methods research design was used. The effectiveness of the homework methods was measured using vocabulary test scores after each intervention phase and involved a quantitative analysis of those assessment scores through a paired samples t-test. Student attitudes and engagement with the homework methods were qualitatively analyzed through student questionnaires. The results showed no statistically significant difference between homework methods, although they did demonstrate an improvement in vocabulary knowledge over time. This suggests a positive trend, but without a 'no homework' comparison group, the vocabulary knowledge improvement cannot be definitively attributed to the homework tasks alone, as classroom reinforcement activities could also have contributed. The qualitative data from the questionnaire showed students preferred paper homework over online homework. The findings from this study suggest that neither mode is superior to the other and that teachers may want to take into account student preferences as their guiding principle when choosing how they assign vocabulary learning tasks for homework.

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Chapter 1: Introduction

1.1 Background to the Study

Vocabulary is a fundamental aspect of communication. Therefore, it is essential to explore the process of vocabulary learning in the context of second language acquisition. In another language, one needs vocabulary knowledge in order to communicate, as well as improve comprehension skills such as reading, writing, speaking, and listening (Nation, 2001).

Similar to how vocabulary learning is a critical aspect of learning another language, homework is a critical component of education. Homework is assigned to help students practice material and extend their knowledge beyond the classroom. There is debate on how much homework to give, what classes should provide homework, and how homework should be delivered (Trautwein & Köller, 2003). With the increasing advancements and prevalence of technology, the options for providing homework have expanded to online methods. In the context of second language learning, homework can help aid in the learning of vocabulary.

With the rise of technology, there are more ways in which homework can be assigned. This leads to questions on the effectiveness of online homework and how that compares to the traditional pencil and paper homework. In addition to the question of effectiveness, it also leads to question what students prefer and if those student preferences and attitudes align with the effectiveness of vocabulary learning and retention in another language.

1.2 Aims of the Study

The primary aim of this study is to compare the effectiveness of two homework methods: paper homework and online homework. The research from this study seeks to answer which homework method is more effective in learning and retaining second language (L2) vocabulary. The study also investigates student attitudes and engagement towards each homework delivery mode. By exploring student attitudes, the study hopes to gain more insight into L2 student homework preferences and the reasons behind those opinions to help guide L2 homework practice.

1.3 Rationale of the Study

This study is important as the information learned from this is vital for L2 instructors. Many L2 instructors are making homework decisions based off a variety of reasons, which may or may not benefit the L2 student. By seeking answers to which homework method is more effective in learning L2 vocabulary, L2 instructors can alter their homework delivery mode, if

needed, as well as have reasoning to back their methods. For research to be meaningful, it must address questions of importance to educators, in this case, L2 teachers. Additionally, it is important to discover L2 students' preferences for various homework methods. If, for example, students despise online homework and it is proven to not be helpful at all in learning L2 vocabulary, then L2 instructors would not need to assign online homework. The answers to the following research questions can only help L2 language classrooms, teachers, and students, in discovering the best practices to learning new vocabulary words.

1.4 Research Questions

This study will address two research questions:

Research Question 1: How does vocabulary learning and retention differ between traditional paper homework delivery and online homework delivery in L2 learners?

Research Question 2: What are student attitudes towards paper homework and online homework?

1.5 Dissertation Outline

This dissertation consists of six chapters, each one addressing a different aspect of the research. The first chapter is the introduction chapter, which outlines the aims and rationale of the study, along with the research questions. The second chapter is the literature review, which reviews existing research on L2 vocabulary learning, technology in vocabulary learning, paper and online homework methods, and student attitudes and engagement. The third chapter is the methods chapter. In the methods chapter, the research design, participants, data collection, and analysis techniques are described. The fourth chapter is the results chapter. In the results chapter, the findings of the study are presented, utilizing information gained from student vocabulary tests after each homework intervention phase and the student attitudes questionnaire. The fifth chapter is the discussions chapter, where the findings are interpreted amongst the context of the literature review. The implications and limitations of the study are also addressed here. The dissertation ends with the sixth chapter, the conclusion chapter, that summarizes the key findings and offers final recommendations and reflections.

Chapter 2: Literature Review

2.1 Introduction

One of the fundamental aspects of second language acquisition is the development and expansion of vocabulary knowledge. The process of learning vocabulary will be explored in this chapter, along with the role technology can play in language learning, as well as evidence about the effects of different approaches to practicing vocabulary. One such way of practicing vocabulary is through homework, and thus homework methods, such as traditional paper and pencil homework and online homework will be explored. With that, student attitudes and engagement towards varying homework types will also be investigated. By taking a closer look at vocabulary acquisition, homework methods, and student attitudes within these contexts, this chapter will explore the topics of learning vocabulary in a second language through both traditional and online homework tasks, and student attitudes and engagement towards these methods.

2.2 Vocabulary Learning

Vocabulary forms the core of language, with words being the foundation of communication. David Wilkins (1972, p. 111) famously said, “While without grammar little can be conveyed, without vocabulary nothing can be conveyed.” With that said, this chapter will define vocabulary and further explore what it means to know a word and how words are acquired in different modalities and pedagogical activities.

2.2.1 Word Classes

If vocabulary is simply words, it is important to break down what a ‘word’ is. Word classes and categories provide a more detailed understanding of vocabulary, as knowing words classes helps to enhance vocabulary comprehension, acquisition, and usage. Word classes are groups of words that have been divided on the basis of shared characteristics (Rijkhoff, 2007). The following is a list of the traditional ten-word classes, along with examples for each word class:

- Verb (*sit, go, read, etc.*)
- Noun (*dog, tree, table, etc.*)
- Adjective (*blue, cheap, nice, etc.*)
- Adverb (*here, today, well, often, etc.*)
- Preposition (*in, on, below, before, after, etc.*)

- Numeral (*one, two, etc.*)
- Article (*the, a/an*)
- Pronoun (*you, they; someone, anyone; who, whose, etc.*)
- Conjunction (*and, or, if, because, etc.*)
- Interjection (*shh, oh no, phew, hey, hmm, etc.*) (Rijkhoff, 2007, p. 709)

From these categories of word classes, words can be further classified into either open classes or closed classes. Open classes of words have lexical meanings and can be referred to as ‘content words.’ These include verbs, nouns, adjectives and adverbs. Closed classes of words have a grammatical function and are often referred to as ‘function words.’ These include articles, pronouns, conjunctions, prepositions, numerals, and interjections (Rijkhoff, 2007). These word classes are the building blocks of language, and help provide a framework for understanding the foundational elements of vocabulary.

2.2.2 Defining Vocabulary

Vocabulary is more than word classes. Vocabulary is deemed the foundation of literacy (Johnson & Johnson, 2018) and is “fundamental to the teaching/learning of any academic discipline” (Kaya, 2023, p. 120). All language skills such as, reading, writing, speaking, and listening, are dependent upon vocabulary (Nation, 1990). Vocabulary building “is one of the most important aspects of learning a second language, and words may therefore be considered as the foundation stones and building blocks of any language” (Kaya and Charkova, 2014, p. 123). According to researchers Rasouli and Jafari, to learn vocabulary is to master the following sets of information:

- *Meaning*: to know the explicit and implicit (if any) meaning of a word
- *Written form*: to know the spelling or dictation of a word
- *Spoken form*: to know the pronunciation of a word
- *Part of speech*: to know if the word is noun, verb, adjective, etc.
- *Frequency*: to know if the word is old-fashioned, common or rare
- *Collocations*: to know the certain words that accompany a word
- *Register*: to know if the word is formal or informal; general or technical
- *Associations*: to know how does a word relate to other words (Rasouli & Jafari, 2016, p. 40)

2.2.3 The Mental Lexicon in L2 Vocabulary Learning

Learning words is a major part of learning a new language and is essential for effective communication. To learn more about effective communication, it is important to understand one of the most widely accepted language production models, Levelt's Speaking Blueprint for the monolingual speaker, which helps to better understand learning words and how they are processed and produced (Kersten, 2010). Levelt's (1989) model is a serial processing model which consists of three stages accessed in this order: the conceptualizer, the formulator, and the articulator. The conceptualizer is where a spoken message starts and where the communicative intention on what is to be conveyed is created. After being conceived, the message moves to the formulator where grammatical and phonological encoding happens. The formulator is linked to the lexicon, which is where words are stored. This connection between the formulator and the lexicon suggests that appropriate words are chosen in this step. The speech plan is formed here and then moves to the articulator where the speech plan transforms to actual speech (Kersten, 2010). In this model, the mental lexicon plays a central role and is the mediator between conceptualization and the phonological and grammatical formulation (Kersten, 2010; Levelt, 1989).

De Bot (1992) adapted Levelt's (1989) model in order to determine lexical processing for an L2 speaker. De Bot (1992) aimed to seek an understanding of a model that could account for code-switching and cross-linguistic influence, while incorporating an unlimited number of languages. It would mirror the fact that many bilinguals are not necessarily equally competent in each of their known languages. De Bot's (1992) conclusion is that in the conceptualizer stage, macroplanning is not language specific when the speaker is formulating their idea. Once the speaker enters the microplanning stage of conceptualization, the speaker creates a pre-verbal message that is language-specific. De Bot (1992) theorizes a single lexicon where lexical items from any language can be stored together and in that bilingual lexicon, a lemma is not necessarily tightly linked to its meaning and syntactic prosperities, allowing for more flexibility when processing language. Similar to Levelt's (1989) model, the pre-verbal message is converted to the speech plan and can produce both patterns and sounds of various languages. De Bot's (1992) modifications of Levelt's (1989) model account for the complexities of multilingual language production, specifically emphasizing the flexibility of multilingual lexicons and

pointing out the stages of conceptualization that are language-specific and those that are not (De Bot, 1992; Kersten, 2010).

2.2.4 Depth of Vocabulary Knowledge

Building off the intricate processes involved in speech production of one's L2, it is important to understand the depth of vocabulary knowledge. Nation (2001) classified knowing a word as knowing its form, meaning, and use. Nation (2001) provides three aspects of knowledge to each category of form, meaning, and use, and then further broke those down into receptive and productive knowledge components. Nation's description of vocabulary knowledge is shown in Table 2.2.4.1.

Table 2.2.4.1 *Description of vocabulary knowledge* (Nation, 2001, p. 27)

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The figure was sourced at Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge, England: Cambridge University Press.

Receptive knowledge, also known as passive knowledge, is what is required to understand words when they are encountered in reading and listening. Productive knowledge, also known as active knowledge, is what is required to use a word in writing and speech (Nation, 2001; Webb, 2013). This description from Nation (2011) on vocabulary depth is the most comprehensive account of depth.

Webb (2013) explains how “measuring strength of one aspect involves assessing only a portion of the construct of depth, [so] researchers should be careful not to generalize from

strength to depth” and that “gaining depth of knowledge involves learning all nine aspects of knowledge” (Webb, 2013, p. 3). Teaching vocabulary with the intent of students learning the depth of vocabulary knowledge requires meaning-focused input and output. For meaning-focused input, the more a word is encountered, the more it contributes to learning the form and meaning of the word as well as help to develop additional aspects of vocabulary knowledge (Pigada & Schmitt, 2006; Webb, 2007). This results in an increase of receptive knowledge. Meaning-focused output can help to move receptive knowledge to productive use (Webb, 2013). In order to allow students to effectively learn vocabulary words, students should be aware of depth of vocabulary knowledge. Language teachers can incorporate activities such as Schmitt and Schmitt’s (1995) vocabulary notebooks or Sökmen’s (1992) concordances approach. The vocabulary notebooks explicitly focus on the various aspects of depth of vocabulary knowledge and concordances are collections of examples of the uses of various vocabulary words (Schmitt & Schmitt, 1995; Sökmen, 1992; Webb, 2013). The awareness of depth of vocabulary can help both teachers and students in the best strategies to learning and using new L2 vocabulary words.

2.2.5 Vocabulary Learning Strategies

Given the importance of vocabulary in language learning, a useful and practical way to support language learners is through vocabulary learning strategies (Kaya, 2023; Thomas, 2020; Webb & Nation, 2017). When utilizing vocabulary learning strategies, students are implementing strategic learning which facilitates the learning process (Dong et al., 2020; Gu, 2018). Two of the more common taxonomies of vocabulary learning strategies that have been widely used in this field of research are by Nation (2013) and Schmitt (1997). Schmitt created a learning strategies taxonomy of 58 items. The 58 items are grouped into either discovery strategies or consolidation strategies. Discovery strategies include determination and social strategies. Determination strategies involve techniques that language learners utilize independently to learn the meaning of new vocabulary words and social strategies involve social interactions with others to learn the meaning of new vocabulary words. Consolidation strategies include social, memory, cognitive, and metacognitive strategies. Social strategies are included in both discovery and consolidation strategies as they help to reinforce vocabulary through social interactions. Memory strategies are techniques to aid in learning new vocabulary words by creating associations to better remember word meanings. Cognitive strategies include learning materials such as taking notes or using

flashcards whereas metacognitive strategies include stages like setting goals, learning planning, and monitoring vocabulary comprehension.

Nation (2013) classifies vocabulary learning strategies in three ways: planning, sources, and processes. The planning phase is where language learners choose what to focus on and when, the sources phase is where learners find information about words, and lastly, the processes phase establishes knowledge. Both taxonomies overlap. For example, the sources stage for Nation (2013) and the discovery phase for Schmitt (1997) both include strategies for initial learning once vocabulary words are selected. Language learners are encouraged to evaluate word meanings by using strategies such as memorization, cognition, and meta-cognition (Barnes & Dickinson, 2017; Dong et al. 2020; Yeldham, 2016).

In summary, in L2 learning, “vocabulary learning is an on-going challenge which demands much time to achieve a mastery level” (Rasouli & Jafari, 2016, p. 42). The four main tasks for learning vocabulary in both L1 and L2 is repetition, focus on both form and meaning, engagement, and interaction (Rasouli & Jafari, 2016). These tasks can be utilized through vocabulary learning strategies when learning an L2 as a part of the SLA process.

2.3 Technology in Vocabulary Learning

In recent years, technology has played an increasingly central role in education (Cloete, 2017). With the rise of technology in education, the opportunities to enhance language learning and increase language learners’ motivation has increased as well. Computer assisted language learning is one of those opportunities that offers engaging and effective resources to learning L2 vocabulary (Godwin-Jones, 2011; Stockwell, 2013).

2.3.1 Computer Assisted Language Learning

Computer assisted language learning (CALL) centers learning techniques through technology use. The opportunities of CALL are limitless, as they can connect language learners to speakers around the world to practice their L2, utilize online dictionaries or translation tools, and engage with countless language and cultural materials and websites (Chapelle, 2005). CALL allows for incidental vocabulary learning opportunities as well as deliberate vocabulary learning opportunities. Technology-assisted intentional vocabulary learning helps learners deliberately learn new L2 words through hyper gloss (hyper gloss tools provide instant translations and definitions, for example, when reading a text to help with comprehension), e-dictionaries, or translation services. Technology-assisted incidental vocabulary learning helps learners acquire

new L2 words implicitly through game-based L2 learning programs, computer-mediated communications, or L2 stories (Yu & Trainin, 2022).

Numerous studies have shown the effectiveness that technology can play in L2 vocabulary learning. Yu and Trainin (2022) conducted a meta-analysis to examine technology-assisted L2 vocabulary learning by investigating 34 quantitative studies with over 2,511 participants yielding 49 separate effect sizes. The researchers included vocabulary learning technologies that used computer-assisted and mobile device-assisted instruction programs, audio, video, e-books, electronic dictionaries, and/or the web. The inclusion criteria included the studies to be written or published between 2006 and 2017, had to have measured the participants' performance on the L2 vocabulary assessment, and needed to have used experimental or quasi-experimental design where it employed pre and/or post-tests comparisons between technology-assisted vocabulary learning groups and traditional vocabulary learning groups. The researchers found that L2 vocabulary learning assisted by technology was more effective than L2 vocabulary instruction without technology and that learners benefitted more from incidental technology instruction than intentional technology instruction. One of the studies the researchers explored noted that technology provides L2 learners with authentic input and communicative opportunities, as well as individualized and multimodal learning environments, which in turn creates enriched opportunities for incidental vocabulary learning in one's L2 (Ma, 2017). The researchers also looked at ages when conducting their meta-analysis and found that technology-assisted L2 vocabulary learning was more effective for college students compared to K-12 students, as indicated by a larger effect size. They note possible explanations for this result to be due to potentially higher motivation and self-regulation levels across age groups and that older students are more likely to have higher linguistic proficiency in both their L1 and L2 and are able to benefit more from CALL. Lastly, the researchers found that on average, mobile device-assisted L2 vocabulary learning was more effective than computer-assisted L2 vocabulary learning. It is important to note that the studies looked at by the researchers were between 2006 and 2017. Given the increasing prevalence in mobile devices, the effectiveness is more likely to be even greater now for mobile device-assisted learning for L2 vocabulary (Yu & Trainin, 2022).

Taking a closer look at a more recent study involving technology, that was not included in Yu and Trainin's (2022) meta-analysis, is a study on the effect of mobile-assisted Common European Framework for Reference for Languages (CEFR) English Vocabulary Profile word

lists on the L2 vocabulary knowledge of students. This study took place at a university in Pakistan with 60 student participants. Participants were divided into either the experimental group or the control group, with 30 students in each group. The experimental group treatment consisted of mobile-assisted vocabulary input for ten weeks learning chosen words from the word list. The researchers utilized the Vocabulary Size Test (Nation & Belgar, 2007) as both the pre and post-test to measure the impact of the given word lists. After comparing the results from the independent t-test on the experimental group and control group, the researchers found that the difference in the mean scores and the mean difference between the experimental and control groups were significant. These findings indicated that mobile-assisted vocabulary input did significantly improve the mean score of the participants in the experimental group, demonstrating the impact of the gain of vocabulary knowledge (Yusoff et al., 2022).

These studies indicate the possible effectiveness of added use of technology as instruction in the L2 classroom.

2.4 Homework: Paper vs. Online

Integrating the understandings on L2 vocabulary learning with the advancements of technology on L2 vocabulary learning extends to examining the role of homework and L2 practice outside of the classroom. Homework can be defined as tasks assigned by teachers to students outside of the classroom (Trautwein & Köller, 2003). Homework provides teachers “the opportunity to extend the time of learning outside school hours and students the occasion to review, practice, and consolidate what they have learned in class (i.e. instructional purposes), as well as to monitor students’ learning and difficulties” (Magalhães et al., 2020, p. 2). There have been many studies conducted on various aspects of homework, including some research that looked at homework in science, technology, engineering, and mathematics (STEM) classes and the modes of delivery in which homework was given in those classes. Including these STEM-based studies provides a broader context for better understanding the effectiveness and efficacy of different homework delivery types and shows that the comparison between homework methods is relevant in educational settings outside language classrooms. This creates a foundation that will be progressively narrowed down to more specific studies on homework modes in L2 studies.

Grodner and Rupp (2013) conducted an experiment where they split participants into either a homework-required group or a homework not-required group. The study consisted of

423 university students enrolled in a microeconomics course. Students in the homework group completed work that consisted of 20 to 25 multiple choice questions that were selected from the test bank and completed 14 homework assignments over the span of the one semester course. All students, in both the homework group and the no homework group, took 4 tests throughout the semester, and the researchers then investigated the impact of the homework assignments on the exam scores. What they found was that homework plays an important role in student learning and that students in the homework-required group tended to perform better with higher retention rates and test scores (Grodner & Rupp, 2013).

If homework has been shown to be linked to student achievement, it is then important to dive deeper and look at various homework delivery modes, such as traditional paper homework or online homework assignments. In fact, it has been stated that “students’ motivation towards homework is affected by the way they perceive their ability to learn through homework” (Magalhães et al., 2020, p. 2). Research on the effectiveness of online homework has received varied results, however, “most studies conclude that online homework is as effective as traditional paper-and-pencil homework or is in fact an improvement over the traditional techniques” (Burch & Kuo, 2010, p. 54). Previous studies have found that students that have been assigned online based homework showed improvement in their learning, overall grades, and an increase in their attitudes towards homework, resulting in students completing more homework outside of the classroom (see Mendicino et al., 2009; Zerr, 2007).

In a study conducted by Burch and Kuo (2010), the researchers took data from a College Algebra class where students either completed traditional paper homework or online homework. With the traditional paper homework, students had only one opportunity to complete the given assignments which were graded for both completion and correctness, and later returned with comments. With the online homework, students were allotted three attempts at the same problems and if the student needed more attempts, the computer would generate a similar problem to the given question. In addition to the extra problems if needed, students also had the option to select which score went in their gradebook, so this allowed students to save only their best scores. Therefore, many students could earn perfect scores on their problems for all online homework assignments. The researchers found that online homework students performed better on exams and received higher scores than traditional paper homework students. This is due to the repetition as well as additional problems students could use to practice with online homework.

Additionally, online homework students received feedback in the form of correct or incorrect answers immediately after completing their assignment. This allowed them to then go back and retry problems until they got them right. (Burch & Kuo, 2010).

In a systematic literature review on research conducted to compare traditional and online homework, researchers explored the results of 31 original research and peer-reviewed studies (Magalhães et al., 2020). The results showed that half of the studies showed no differences in student performance based on delivery mode of homework. In nine of the studies, student performance was greater with online homework format. In only one of the studies was student performance greater with traditional homework format. The remaining six studies showed mixed results. The researchers emphasize how online homework significantly benefits the instructors, by time saved preparing and checking homework and the data it provides on the student's performance. For students, a huge benefit is the immediate individualized feedback and opportunities to practice questions readily available, leading many students to have more positive outlooks towards online homework (Magalhães et al., 2020). Based on the findings from the extensive literature search, "there is a consensus that online homework contributes more to students' performance and favors more students' engagement than traditional homework" and that "it is unanimous among participants and authors of this sample of studies that online homework engages students to perform the tasks" (Magalhães et al., 2020, p. 14).

2.5 Homework in the L2 Classroom: Paper vs. Online

While the above studies compared traditional homework to online homework, they looked at homework through STEM classes. It is important then to compare the formats of homework in language classes. A component to practicing and learning vocabulary in a language classroom is through assigned homework. There are studies that have shown how vocabulary homework significantly increases the vocabulary of language learners (Hirschel & Fritz 2013; Wu, 2015). Due to the benefits that homework can have on vocabulary learning in a second language, there is a question as to whether there is a difference in the chosen homework delivery system, such as paper-and-pencil based homework (PPBH) or web-based homework (WBH).

One such study that looked at the difference in vocabulary homework delivery system was conducted by Mustafa et al. (2019). This study looked specifically at reading comprehension achievement and whether there was a significant difference in the mode of homework delivery. The researchers split student participants into one of the three following groups: control group

(no homework), experimental group 1 (PPBH), and experimental group 2 (WBH). The participants were between 23 and 24 years old and studied English as a second language for 6.5 years. Three classes of senior students at a university in Indonesia were randomly chosen with a cluster random sampling technique where each group consisted of between 21 to 23 students. All groups, both experimental groups and the control group, still received classroom face-to-face interaction, with only the two experimental groups instructed to complete vocabulary homework outside the classroom. The web-based vocabulary homework consisted of exercises related to the provided vocabulary of 10 words for each lesson, with a total of 400 words throughout the course. Each homework assignment exercise included between 11 to 13 items where students completed questions in the form of multiple choice, matching, completion, or drag and drop. The paper-based vocabulary homework consisted of the same vocabulary words and exercises and were collected each day with feedback given one day after submitting their work. All participants were given a pre-test and a post-test that comprised of reading comprehension passages with 50 questions. The results showed improvements for all groups, with both experimental groups showing more improvements compared to the control group and experimental group 2 showing the most improvement. Overall, the research results showed “a significant difference in achievement between students who were assigned homework, regardless of the mode of delivery, and those who were not, even though both received similar classroom vocabulary instruction” (Mustafa et al., 2019, p. 35). The implications of this study show the importance of vocabulary homework and suggests that the immediate feedback students received from WBH may be why those students performed best out of all 3 groups.

Another study that investigated the short- and long-term effectiveness of vocabulary learning approaches was performed by Hirschel and Fritz (2013). The researchers grouped the participants in one of the following three groups: CALL treatment group, vocabulary notebook treatment group, and the control group. The CALL group consisted of 52 students who were required to use an online vocabulary program and were assigned to use it to study 3 to 4 times per week for a minimum of 30 sessions. The vocabulary notebook treatment group consisted of 26 students who were required to complete a vocabulary notebook entry for targeted words. In order to make the CALL group and vocabulary notebook group parallel, the vocabulary notebook group had no class time to work on their notebooks and it had to be completed at home, which was the same instruction given to the CALL group. The control group consisted of

62 students who were not required to complete any additional homework at home. The participants were English L2 learners from a university in Japan and who all previously studied English for at least six years. Over the five-month period from the pre-test to the final delayed post-tests, the researchers saw gains in all three groups, with the students in the CALL group achieving 36% gains, the students in the vocabulary notebook group achieving gains of 24%, and the control group with a gain of 9%. This study found similar results to the Mustafa et al. (2019) study, with the treatment group that used web-based learning methods showing the greatest results for learning vocabulary, with traditional paper-and-pencil methods close behind, and the control groups, without any given homework, with the least gain but still having improved knowledge from classroom instruction and interaction.

2.6 Student Attitudes and Engagement

After examining the process and effectiveness of L2 vocabulary learning and comparing homework methods, it is essential to then consider another important factor: student attitudes and engagement towards homework and various homework types. It is critical to recognize that “the significance of tasks in shaping learners’ interest and enthusiasm coincides with practicing classroom teachers’ perceptions that the quality of the activities used in language classes and the way these activities are presented and administered make an enormous difference in students’ attitudes toward learning” (Dörnyei, 2003, p. 14). This idea lends itself from classroom activities to homework assignments in these same classrooms. The way homework is presented and administered can affect students’ attitudes towards learning and practicing their L2.

In a study by Chang et al. (2014), the researchers investigated the relationships of student attitudes towards homework and the time spent on homework to their L2 course outcome. There were 2,342 student participants taking an L2 university course that spans over 163 different classes. All adult student participants were asked to respond to a survey at the beginning of their course, to share information such as their proficiency level, education, their level of motivation to learn their L2, and their language learning aptitude. During the course, the assigned homework was mandatory and the completion was monitored, as it was reviewed in class and graded by the teacher. At the end of the course, students completed another survey about their homework, that included questions regarding the relevance of the homework, usefulness of the feedback provided, fairness of homework grading, and reported time spent on homework. The researchers found positive relationships with course outcomes and noted that “students’ attitudes toward

homework are formed at least somewhat independently from their performance in a course” and their “results suggest that positive attitudes toward homework have a positive effect on [foreign language] course outcomes” (Chang et al., 2014, p. 12).

These findings are relevant to this study and show the importance of student attitudes and engagement towards homework types, as those that complete the homework with positive attitudes are more likely to have a positive effect on their course outcome, and therefore, on L2 vocabulary learning.

2.7 Student Motivation and Enjoyment

Understanding student attitudes and engagement towards homework methods and tasks emphasizes the importance of comprehending what motivates students and how that impacts L2 learning. Motivation is often linked to a person’s success or failure, whether that be in learning or in life with long-term goals (Guilloteaux & Dörnyei, 2008). In fact, it has been said that “motivation provides the primary impetus to initiate second or foreign language (L2) learning and later the driving force to sustain the long and often tedious learning process” and that “appropriate curricula and good teaching are not enough on their own to ensure student achievement – students also need to have a modicum of motivation” (Guilloteaux & Dörnyei, 2008, p. 55-56). Noting the importance of motivation on student learning, a need for a framework for motivational strategies emerged. Motivational strategies refer to “(a) instructional interventions applied by the teacher to elicit and stimulate student motivation and (b) self-regulating strategies that are used purposefully by individual students to manage the level of their own motivation” (Guilloteaux & Dörnyei, 2008, p. 57). This understanding of motivational strategies emphasizes the role that both language teachers and language students play in L2 learning.

In an effort to understand language learners’ motivation, one of the pioneering studies conducted by Dörnyei and Csizér (1998) explored motivational strategies through an empirical study that resulted in the researchers compiling and creating a concise set of ten motivational macrostrategies, which is known as the ‘Ten commandments for motivating language learners’. The participants consisted of 200 L2 teachers in Hungary, 47 male teachers and 151 female teachers and 2 with no gender data. The 200 L2 teachers taught in varying contexts, ranging from elementary schools to university classes. Two questionnaires were used as the data collection instrument to gain insight into the following two aspects: the level of importance each participant

gave specific motivation strategies and the frequency of how often they used those motivational strategies. The two questionnaires included the same set of 51 motivational strategies and the participants were asked to rate the strategies on a seven-point scale based on the respondent's past experience. The seven-point scale focused on perceived importance, with 1 representing 'not important' and 7 representing 'very important' and frequency of its use, with 1 representing 'hardly ever' and 7 representing 'very often'. Participants were given only one of the two questionnaires, as the researchers believed the two types of rating may influence the other. For example, if a teacher rated a strategy as very important, they may be more reluctant to admit that and mark it as hardly ever used in their classroom. Therefore, 116 participants completed the 'importance' questionnaire and 84 participants completed the 'frequency' questionnaire. The data was analyzed by a number of statistical analyses, with the 51 motivational strategy items grouped into clusters and a reliability analysis verified the internal consistency of the scales. Any item that reduced the internal consistency was omitted from the scales and treated as a single-item variable and both the importance and frequency items were compared using standardized scores. With this information, the ten commandments for motivating language learners was created and is shown in Table 2.7.1 below.

Table 2.7.1 *Ten commandments for motivating language learners* (Dörnyei & Csizér, 1998, p. 215)

The figure originally presented here cannot be made freely available via ORA because of copyright.
The figure was sourced at Dörnyei, Z., & Csizér, K. (1998). Ten commandments for motivating language learners: Results of an empirical study. *Language teaching research*, 2(3), 203-229.

The conclusions drawn from this study, such as the ten macrostrategies for motivating language learners, are applicable to all L2 classroom settings and have been integrated into this research study. The homework tasks were presented properly, with the goal to increase students'

confidence, autonomy, and goal-oriented mindsets. Research question 2, which focuses on student attitudes towards homework methods, connects to personalizing the learning process for students by learning which methods they prefer and why.

2.8 Aims of Study

This literature review began by exploring vocabulary learning, continued with relevant research on learning vocabulary, the use of technology, and comparisons of paper and pencil and computer mediated homework to provide the context for the objectives of this research study. This study aims to combine the understanding of the above topics to explore the connection between student L2 vocabulary learning and modes of homework. It is a complex process to learn another language and with the process of learning another language are the challenges and struggles that come with it. All language learners must acquire vocabulary in their L2 to successfully learn a language. Learning vocabulary demands focus on the meaning and forms of new words, as well as engagement and interaction with those words. One way language teachers can help learners practice and ultimately master vocabulary is through homework. Homework tasks can be provided either online or in paper format, and depending on the format, may affect the students' attitudes and engagement with the material. Therefore, this study will conduct research on L2 vocabulary learning through the two modes of homework delivery to determine if there is a difference in vocabulary learning and retention in online homework and traditional paper homework and determine student attitudes towards both methods within this context.

Chapter 3: Methods

3.1 Introduction

This chapter outlines the research methods used to explore the relative effects of traditional pen and paper homework compared to online homework on the learning and retention of L2 vocabulary. This chapter details the aims and objectives of the research, the research questions, the research approach, data collection instruments, participants and setting, research procedure, and ethical considerations of the study.

3.2 Aims and Objectives of the Research

The study aimed to better understand the role that different homework methods might play in the learning of L2 vocabulary, specifically if there is a difference in vocabulary retention when homework is completed online versus on when homework is completed on paper. Additionally, the study aimed to seek the attitudes students had towards each homework method and how that might affect L2 vocabulary retention. The objective of the study was to answer the following research questions:

Research Question 1: How does vocabulary learning and retention differ between traditional paper homework delivery and online homework delivery in L2 learners?

Research Question 2: What are student attitudes towards paper homework and online homework?

3.3 Research Design

To address Research Question 1, the investigation adopted a randomized AB/BA crossover design to collect quantitative data to objectively measure vocabulary retention through vocabulary assessments after completing homework using both homework methods.

Randomized AB/BA crossover designs (Senn 2002) allow researchers to have two sets of outcomes for each participant. Participants are randomly allocated to receive one of the interventions, either intervention A or intervention B, that are being compared for a set time period after which outcomes are assessed. After this time period, groups crossover to receive the comparison intervention. That is, the group that received intervention A crosses over to receive intervention B and vice versa. In this study, intervention A is the paper homework group and intervention B is the online homework group. Both interventions took place over a three-week period, where each week students learned eight new vocabulary words. The vocabulary words were selected from a school provided list of sight words in Spanish. Then, after the three-week

time period, the participants ‘cross over’ and receive the other intervention where outcomes are once again assessed. This means that half of the participants receive their interventions in the order AB whereas the other half of participants receive their interventions in the order BA. Therefore, each participant provides two sets of outcomes. In this study, the outcomes are the vocabulary test scores after completing the different homework formats in each phase.

Additionally, to address Research Question 2, the investigation surveyed all participants to collect qualitative data to measure student attitudes towards each homework type. The questionnaire asked participants how they perceived both homework types in terms of effectiveness, ease of completion, enjoyment, and time management with their overall preference and perceived difficulties of vocabulary retention with each homework mode.

3.4 Data Collection Instruments

A mixed-methods approach of utilizing both quantitative and qualitative data collection was implemented to investigate the impact of paper homework and online homework on L2 vocabulary retention as well as student attitudes towards those methods. The following quantitative and qualitative data collection instruments were used in this study:

3.4.1. Vocabulary tests: Vocabulary tests were administered to all participants at the end of each intervention period. The tests consisted of 24 vocabulary items using questions from the given homework assignments. Homework assignments were the same for each intervention group, the only difference was the mode in which the homework was provided. The list of vocabulary words is included in Appendix A. The two vocabulary assessments are in Appendix B and Appendix C.

3.4.2. Questionnaire: All participants completed a comprehensive questionnaire survey at the end of both intervention periods. The survey included multiple choice questions and open-ended questions to allow participants to share their attitudes, perceptions, and preferences regarding vocabulary learning through the use of either paper or online homework. The questionnaire is provided in Appendix D.

3.4.3. Homework assignments: All homework from both intervention groups were collected and analyzed each week. Completion rates and accuracy were recorded to help provide context to the results of the vocabulary tests. All homework assignments, both paper and online, consisted of matching, fill in the blank, and translating from English to Spanish. The only difference between the homework assignments were the mode in

which they were given. All homework assignments from both intervention modes are included in Appendix E and Appendix F.

These data collection methods were employed to best provide a complete view of how paper and online homework methods might influence L2 vocabulary learning and retention and what students' attitudes are towards both homework formats.

3.5 Participants and Setting

This study consisted of middle school students who are learning Spanish as their L2 in a private middle school in [REDACTED]. All student participants were in sixth grade, ages 11-12 years, taking their first yearlong Spanish class. All student participants attend the same school, which is split into two separate buildings by gender. The participants were selected based on their availability and willingness to participate, using a convenience sample of students. The sample size consisted of 49 students (25 girls and 24 boys). The participants were stratified by classes and then randomly allocated to their intervention groups.

The allocation was completed in an unbiased manner through use of a third party, who was familiar with the research project but did not have knowledge of the participants. The third party was provided four sets of Unique Identifying Numbers (UINs) of the students, one for each of the four Spanish classes. The allocator entered the UINs, one class set at a time, into a random sequence generator on random.org (Random.org, 1998-2024). The website created a list of UINs presented in true random order. The numbers in the top half of the list were allocated to participate in intervention group A, or paper homework, for the first three weeks of the study. The numbers in the bottom half of the list were allocated to participate in intervention group B, or online homework, for the first three weeks of the study. This process was repeated for each class, resulting in 25 students in one intervention group and 24 students in the other intervention group. Due to the nature of the groups, the participants and the educator were not blinded after the assignments to the intervention groups. The content and difficulty of the traditional paper homework and the online homework were the same to ensure that if there are any differences in the results, that they could be attributed to the homework format.

3.6 Research Procedure

Students were first introduced to the research study through an information session during their language class, after obtaining permission from the head of schools, and procuring approval from the University of Oxford Research Ethics committee (CUREC). Students and

parents were sent informational sheets to review before completing consent forms. Out of 52 students, 49 students and their parents/guardians consented to participating in the study. Then, the participating students were randomly allocated to interventions, as noted above. Their group information was shared with them so they were aware of which homework group they would start with.

3.6.1 Intervention Phases

The intervention phases lasted three weeks each. Each week the students in all classes were taught eight new vocabulary words. All classes learned the eight words in the same order. Then, the students allocated to intervention A were asked to complete their weekly homework in the traditional pencil and paper method whereas the students allocated to intervention B were asked to complete their weekly homework in the online method. Both groups received their homework at the start of the week on Monday and had until the end of the week on Friday to complete it. The students in intervention A received the worksheet in class and the students in intervention B received the link to the online homework via the school website. The homework questions were identical. The only variation being the method in which it was delivered. Both the paper and online homework had eight matching questions, eight fill in the blank questions, and eight translations. The three sections allowed the students to practice the same eight words in a repeated manner using different question types. The students in intervention A received their homework scores the following week on Monday, whereas the students in intervention B received their homework scores immediately following completion, as the online homework was formatted to grade them right away.

3.6.2 Homework Tasks

The homework tasks on both homework methods were identical and designed to use various types of questions to reinforce the weekly eight words. The homework provided opportunities to practice the eight words in matching, fill in the blank, and translation questions. This allowed for repeated practice of the words to enhance retention and understanding of the L2 vocabulary words.

The first part of the homework tasks in both methods were the matching questions. There were two columns, one to the left and one to the right. The left column consisted of the eight target vocabulary words in Spanish and the right column consisted of the corresponding words in English in a random order. The instructions asked students to match the Spanish word with the

correct English translation. Students have completed numerous activities similar to this matching activity throughout the school year. Some students asked if they could either draw a line to connect the answers or write the corresponding letter of the question instead. Both answering techniques were allowed and accepted. Due to the format of Microsoft Forms, students in intervention group B selected the corresponding answers from a multiple-choice format, rather than draw lines or write letters, to show their understanding of the vocabulary words.

The second part of the homework tasks in both homework methods were fill in the blank questions. In this section, students had to write in, out of the eight target vocabulary words, the word that best fit the sentence. Each sentence was missing a word, which was represented by a blank line. The instructions asked students to fill in the blank with the correct Spanish vocabulary words. Again, students have completed many activities similar to this fill in the blank task and had no clarification questions. The format of Microsoft Forms allowed this to be the exact same as the paper version, with the only difference being students typed in the vocabulary word instead of writing in the vocabulary word.

The third and final part of the homework tasks in both homework methods were translation questions. In this section, students needed to translate the eight target vocabulary words. The instructions asked students to translate the listed words to Spanish, since they were written in English. Students were also asked to focus on the spelling of each word in Spanish, ensuring they spelled it correctly and used accents marks when needed. The format of Microsoft Forms allowed this to be the exact same as the paper version homework, with the only difference being students typed in the vocabulary word translation instead of writing in the vocabulary word translation.

Homework tasks from both intervention methods are included in Appendix E and Appendix F.

3.6.3 Vocabulary Assessments

At the end of the three-week research phase, students took the vocabulary assessment comprising of the 24 words they learned in that phase to assess retention. The format of the vocabulary assessment followed the format of the homework assignments. However, since the vocabulary assessments covered all 24 words from the three-week phase, each vocabulary word was used once. The assessment consisted of eight matching, eight fill in the blank, and eight translation questions, and were a randomized compilation of all the words learned during that

phase. All students completed the assessment on paper, to maintain ecological validity, as that mirrors the typical format that is used in their language classroom assessments.

3.6.4 Repetition of Procedures for Crossover

Following the vocabulary assessment, students then began the second phase, where they crossed over to the other intervention group. Thus, if a student did paper homework the first three weeks, they moved to the online homework group for the following three weeks, and vice versa. Again, the three-week period was followed by a vocabulary assessment of those new 24 words, with the same format of eight matching, eight fill in the blank, and eight translation questions. That allowed for two sets of outcomes for each participant. Throughout the intervention periods, homework completion and submission were monitored so they could be addressed if needed.

3.7 Data Analysis

Quantitative data from the vocabulary assessment tests at the end of each intervention phase is analyzed through paired samples t-test. The paired samples t-test was used to compare the test scores of the vocabulary assessments of the same students in each phase of the study to compare their scores after completing either the paper or online homework. This statistical test determined if there is a statistically significant difference in the learning and retention of vocabulary between the two homework methods. Additionally, the means and standard deviations of the vocabulary assessment scores were calculated for both homework methods to provide an understanding of the variability and tendency of the data from the scores.

Qualitative data from the questionnaire responses at the end of the study were analyzed by question, to provide an overview and detailed understanding of student attitudes and perceptions to the two homework methods. The responses from the participants remain anonymous.

3.8 Ethical Considerations

A research study proposal was submitted to and approved by CUREC. All supporting documents related to the ethics proposal, including the acceptance letter, approval from the participating school, information sheet for parents/guardians, opt-out form provided to parents, information sheet for students, and the assent form provided for students, are listed in Appendices G, H, I, J, K, L, M. The approved procedure AP25 allows for gatekeeper approval

from the head of schools, and opt-out connect from parents/guardians, and students involved were asked to give their assent.

Students and parents/guardians were informed of the aims, objectives, and the uses of the data before commencing the study. This was explained to the students both orally in class and via the information sheet for students. Students had a week to consider their participation in the study and were informed of their right to not participate and the ability to withdraw at any time without any consequence should they wish to do so. Parents/guardians also had the same timeline of a week to consider participation and understood their child did not have to participate if they did not want to and could withdraw at any time if desired for any reason without any consequence. Students and families were given the contact information of the researcher to reach out to at any point during the study should they have questions or wish to withdraw without penalty. All participants identities were anonymized to protect their data and all data was securely stored with password protection with two-step verification and accessed from a password protected laptop. Participants were advised at the end of data collection that they had a week left to withdraw, should they choose to do so, before all data was anonymized at the end of the study.

As the researcher, I am employed by the school in which I undertook the research. The research was conducted in line with school policy and it was made clear that participation in the study is voluntary for students. The findings from the research have been shared with the school.

The potential benefits of this research study include informing teaching practices and curriculum to optimize language learning outcomes for future language students. Additionally, participation in the study offers students the opportunity to contribute to meaningful research that is aimed to improve second language educational practices. The study was designed to be in line with the students' typical educational activities in school and to minimize any potential risks to student participants and the involved tasks of completing both paper and online homework along with taking the vocabulary assessments.

Chapter 4: Results

4.1 Introduction

This chapter will present the findings from the study investigating the impact of homework methods on L2 vocabulary learning. The results will be organized by the two research questions, involving both quantitative and qualitative analyses.

4.2 Research Question 1

Research Question 1: How does vocabulary learning and retention differ between traditional paper homework delivery and online homework delivery in L2 learners?

To assess the impact on L2 vocabulary learning between traditional paper homework and online homework, a paired samples t-test was conducted. The paired samples t-test was used to compare the test scores of the vocabulary assessments of the same students in each phase of the study to evaluate their performance after completing either the paper or online homework assignments.

All analyses were conducted using IBM SPSS Statistics version 29.0.2.0 on a MacBook Air 2022 running macOS Ventura 13.6.7.

4.3 Data Analysis of Paired Samples T-Test Results

4.3.1 Descriptive Statistics

Descriptive statistics allow the researcher to understand overall trends in the study, as it provides a snapshot of the students' performance on the test scores after completing both phases of the study. The mean test score for students after completing the paper homework phase was 11.31 (SD 6.039), out of a total of 24 points. The mean test score for students after completing the online homework phase was 10.63 (SD 5.480), out of the same total of 24 points. This suggests that, on average, students performed better on the vocabulary tests after completing the paper homework intervention compared to the online homework intervention. The standard deviation values suggest that the students' scores after completing the paper homework intervention were more spread out around the mean compared to the scores after completing the online homework intervention. This indicates more variability in the paper homework scores.

This study was comprised of a total of 49 students. All students completed both intervention phases, allowing the comparison between test scores after completing paper homework and online homework between the same group of students, thereby eliminating any inter-group variability.

These descriptive statistics are summarized in Table 4.3.1.1.

Table 4.3.1.1 Descriptive Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Paper	11.31	49	6.039	0.863
Online	10.63	49	5.480	0.783

4.3.2 Paired Samples T-Test

This paired samples t-test compared test scores after each intervention phase. The results showed a mean difference on the vocabulary test score of 0.673. This indicates that, on average, students tended to score slightly higher on the vocabulary tests following the paper homework intervention phase. However, this is a relatively small difference.

The mean difference of 0.673 is not statistically significant, as indicated by the p-value of 0.354. That means there is a 35.4% chance that the observed difference between the two test scores could be due to random chance rather than a true difference between both homework types, well above the 5% chance that is considered standard to assert a ‘real’ difference.

Furthermore, the 95% confidence interval for the mean difference ranges from -0.773 to 2.120. This interval range is the range of values in which there is 95% confidence of the true mean difference. If the true mean difference is 0, then that would imply no difference between the two homework types. This range is wide and includes 0, which further supports the conclusion that there is no significant difference in the vocabulary test scores between both homework methods. This would imply that the homework method does not significantly impact the students’ vocabulary test scores.

The paired samples t-test is summarized in Table 4.3.3.1

Table 4.3.2.1 Paired Samples Test

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	Significance	
				Lower	Upper		One-Sided p	Two-Sided p
Paper - Online	0.673	5.035	0.719	-0.773	2.120	0.936	0.177	0.354

4.3.3 Effect Size

The effect size is measured by Cohen’s d which indicates the standardized difference between the two means, regardless of sample size. The results show that Cohen’s d value is 0.134, which is considered a small effect size. This suggests that the difference in the students’ vocabulary test scores after the paper and online homework phases is small.

The effect size is also measured by Hedges' correction, which is a variation of Cohen's d that corrects for biases that may occur with small sample sizes and is typically more accurate for smaller sample sizes. The Hedges' correction value is 0.132, which is very similar to Cohen's d value. These results being so similar indicates that the small sample size has a minimal impact on the overall measurement of effect size.

The confidence interval, as explained above, provides a range of values in which the researcher can be 95% confident that the effect size lies in that range. The confidence intervals for both Cohen's d and Hedges' correction include 0, which further indicates that the effect size is not statistically significant and that the observed difference may be due to chance.

The paired samples effect sizes is summarized in Table 4.3.3.1

Table 4.3.3.1 Paired Samples Effect Sizes

		Standardizer ^a	Point Estimate	95% Confidence Interval	
				Lower	Upper
Paper - Online	Cohen's d	5.035	0.134	-0.148	0.414
	Hedges' correction	5.115	0.132	-0.146	0.408

a. The denominator used in estimating the effect sizes.

Cohen's d uses the sample standard deviation of the mean difference.

Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

4.4 Summary of Findings for Research Question 1

The vocabulary learning and retention of L2 learners was measured by a vocabulary assessment after an intervention phase of paper homework delivery and an intervention phase of online homework delivery. The test scores for each homework delivery mode were then compared with a paired samples t-test. The results showed that the average test scores after each homework method were slightly higher after the paper homework intervention phase. The mean difference from the paired samples t-test is not statistically significant and the confidence interval suggests no significant difference between both homework delivery modes. The effect size is small which also indicates the difference is not significant. In summary, these results suggest that the type of homework mode does not significantly affect vocabulary learning and retention as measured by vocabulary test scores and that any observed differences are small and most likely due to chance.

4.5 Research Question 2

Research Question 2: What are student attitudes towards paper homework and online homework?

To assess student attitudes towards paper homework and online homework and the role that plays in L2 vocabulary learning, all participating students were asked to complete a questionnaire.

4.6 Questionnaire Design

The questionnaire used to gather the data on student attitudes towards paper homework and online homework and how it influences L2 vocabulary retention was comprised of 15 questions. The questionnaire had six multiple choice questions, where students could indicate their preference for either paper homework, online homework, or leave the question blank if they had no preference. Following each of the six multiple choice questions, there was an optional write-in space provided for students to elaborate on their choice to the multiple-choice question, allowing for the collection of qualitative responses to complement the quantitative data. Students also had two additional write-in questions, asking them to describe any challenges they faced with either paper or online homework. Lastly, the students were provided a concluding open-ended question where they could share any additional comments regarding their overall homework experience. The structure of this questionnaire allowed for the collection of both quantitative and qualitative data on homework preferences and the reasons behind those preferences. Data was collected via the questionnaire from 48 of the participants. The discrepancy in the number of participants is due to one of the students not completing the questionnaire. The questionnaire is provided in Appendix D.

4.7 Data Analysis of Student Preferences for Homework Methods

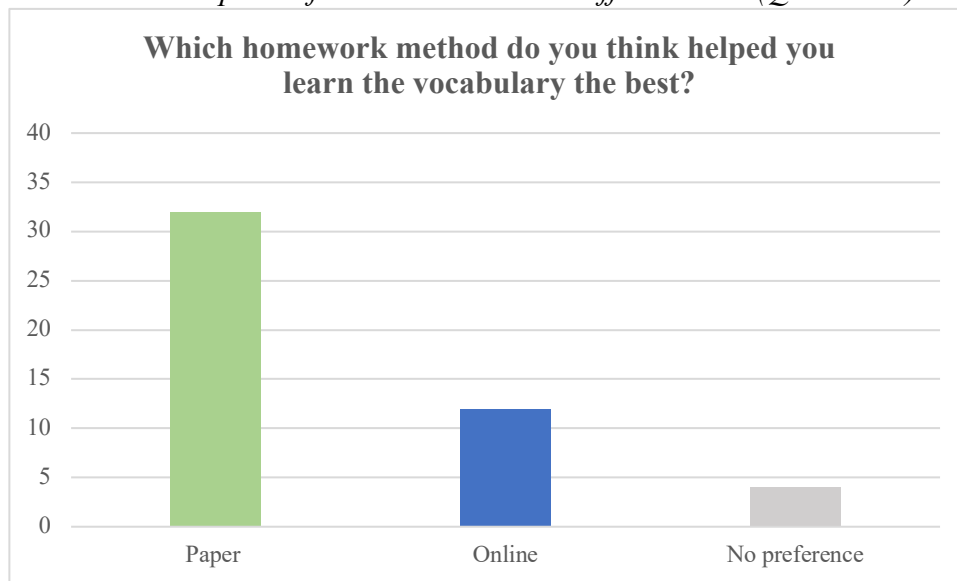
4.7.1 Student Perception of Homework Method Effectiveness

The questionnaire showed distinct preferences among the students for paper and online vocabulary learning homework. The responses for the question, “Which homework method do you think helped you learn the vocabulary the best?” are shown in Table 4.7.1.1

The questionnaire data shows that most students preferred paper homework in their perceptions of what homework method helped them learn vocabulary the best overall. 32 students (67%) believe that paper homework helps them learn vocabulary the best, 12 students

(25%) believe that online homework helps them learn vocabulary the best, and four students (8%) had no preference.

Table 4.7.1.1 *Student Perception of Homework Method Effectiveness (Question 1)*



4.7.2 Reasons for Student Perceptions of Homework Method Effectiveness

Most students who preferred the paper homework explained that they believed the process of writing out the words helped them to remember the vocabulary the best. For example, one student said, “I think that paper homework helped me learn the vocabulary better than online because I was physically writing out the words.” Many students had similar explanations to this one about how physically writing out the words made them feel like they learned them better.

Students who preferred the online homework explained that they believed the timeliness of the immediate feedback helped them learn the vocabulary words. One student explained, “I got my score and the answer back as soon as I completed it so I felt like it was easier to remember the correct answer than the paper one I got back 2 days later.”

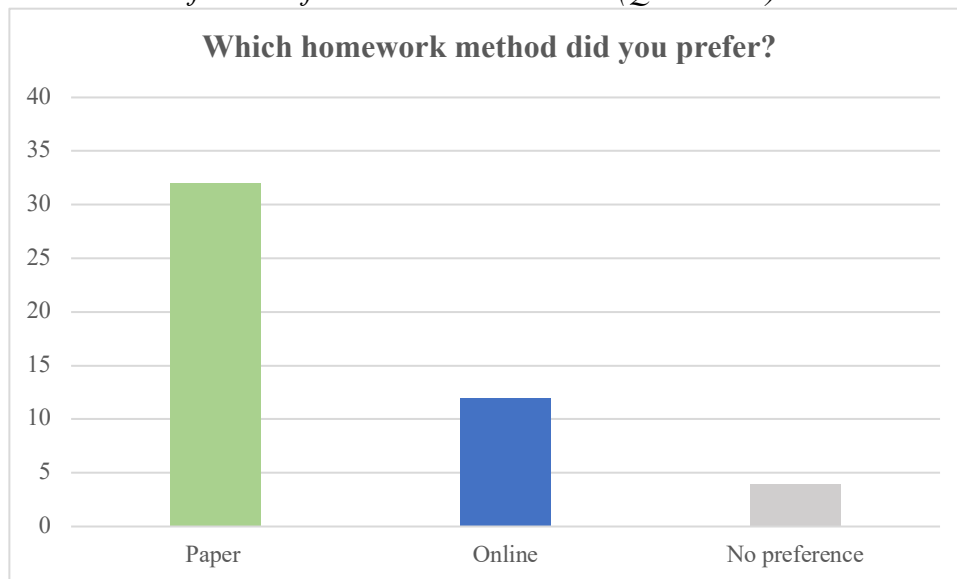
The students who selected no preference did not provide reasons as to why they had no preference between the homework modes.

4.7.3 Student Preferences for Homework Methods

The students also displayed a distinct difference in their overall preference of homework methods. The responses for the question, “Which homework method do you prefer?” are shown in Table 4.7.3.1.

The questionnaire data shows that most students preferred paper homework over online homework overall. 32 students (67%) prefer paper homework, 12 students (25%) prefer online homework, and four students (8%) had no preference. While these percentages align with the percentages for student perceptions of homework method effectiveness, 16% of students provided a different response when comparing their overall homework method preference to their perceived effectiveness of homework methods.

Table 4.7.3.1 *Student Preferences for Homework Methods (Question 3)*



4.7.4 Reasons for Student Preferences of Homework Methods

The reasons provided by students for their homework method preference were similar, whether they chose paper or online. Many students mentioned the method they chose to be “easier” for different reasons. One student who preferred paper homework said, “paper homework is easier for me to figure out and it is easier for me to focus on the assignment.” Another student who preferred paper homework explained, “Paper was just more convenient to do and I didn’t have to go and try to find the accents on the keyboard.” Another student said, “I preferred the paper homework because when I do online homework, I don’t like having to log into my laptop, access the school website, and then answer the online pages. The paper homework only required my binder and pencil, and I didn’t have to use the internet.”

One student who preferred online homework said, “I preferred online homework to paper homework because I didn’t have to bring my binder home.” Another student who preferred online homework also explained the ease of having homework online and said, “If I forget my

Spanish binder I can still do it because it is on the computer. If I miss a day of school and there was homework, I can do it from wherever I am.”

Whether the students preferred paper or online homework, both groups of students provided reasons as to why they thought their preferred method was “easier” and more “convenient” to complete.

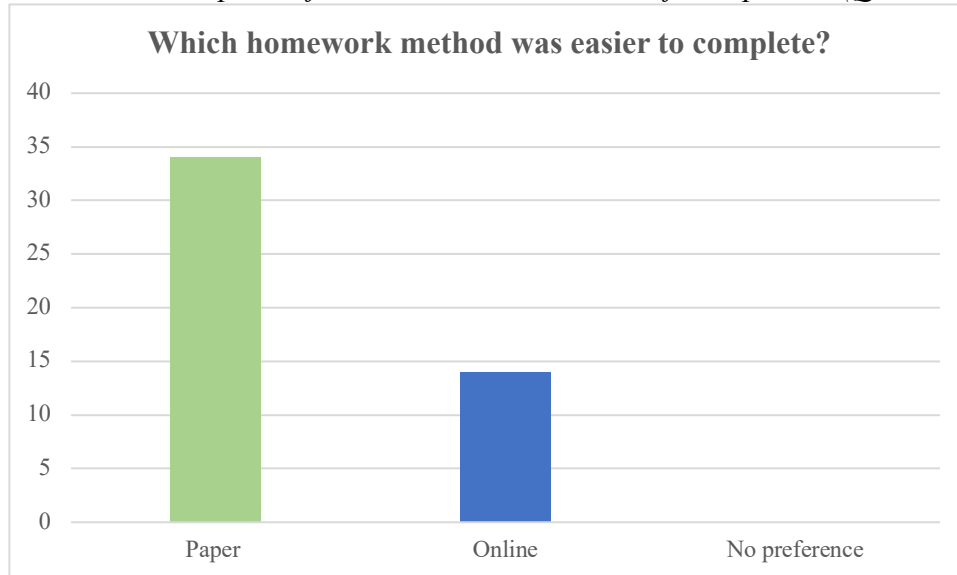
The students who selected no preference did not provide reasons as to why they had no preference between the homework modes.

4.7.5 Student Perception of Homework Method Ease of Completion

Most students selected paper homework as an easier homework method to complete. The responses for the question, “Which homework method was easier to complete?” are shown in Table 4.7.5.1.

The questionnaire data shows that most students believe that paper homework was easier to complete overall. 34 students (71%) selected paper homework as being easier to complete and 14 students (29%) selected online homework as being easier to complete. No student selected no preference for this question.

Table 4.7.5.1 *Student Perception of Homework Method Ease of Completion (Question 5)*



4.7.6 Reasons for Student Perception of Homework Method Ease of Completion

Students who preferred the paper homework noted it was easier to complete because it was easier to spell out words in Spanish, especially due to accent marks, and also how you could see the whole page at once, versus online when you have to scroll from question to question. One

student said paper homework was easier to complete “because it was all on one sheet and I didn’t have to make sure to finish all of the questions because I could see all the questions at once.” Another student explained how it was easier because, “I could go back and change my answers faster on paper than online.” Additionally, another student said, “Paper homework was quicker and easier because I didn’t have to click a text box every time I wanted to answer. Also, it was easier to put the accent marks on paper.”

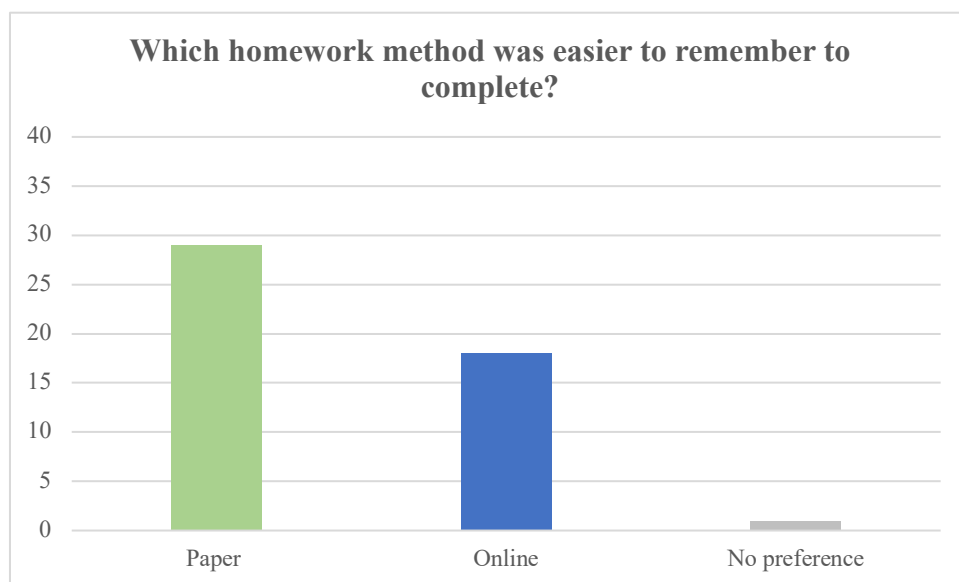
Students who said the online homework was easier to complete typically mentioned how it was faster to complete online. They also noted that it was easier to complete because it was easier to remember. One student said, “With online homework, I could always access it through our school’s website and didn’t have to worry about forgetting it at home.” Another explained how online homework “is generally easier because it is less time consuming and typing is easier than writing.”

4.7.7 Student Perception of Homework Method Ease of Remembering to Complete

It was more evenly split between homework methods when students were asked about the ease of remembering to complete their homework. The responses for the question, “Which homework method was easier to remember to complete” are shown in Table 4.7.7.1.

The questionnaire data shows that most students believe that paper homework was easier to remember to complete overall. 29 students (60%) selected paper homework as being easier to complete and 18 students (38%) selected online homework as being easier to complete. One student (2%) selected no preference for this question.

Table 4.7.7.1 *Student Perception of Homework Method Ease of Remembering to Complete (Question 7)*



4.7.8 Reasons for Student Perception of Homework Method Ease of Remembering to Complete

Although it was more evenly split, most students said that they believe paper homework was easier to remember to complete. Many noted that they already had a routine of checking their binders for paper homework, so it made it easier to remember. For example, one student explained, “Paper was easier to remember because I could just bring my folder home and see the homework in the front. Online I have to remember to open my computer to see the assignment.”

Conversely, the students who selected online homework as being the easiest to remember, noted how they bring their school laptops home every day as well and often have online homework in other classes too. One student said, “It’s easier for me to remember to bring my laptop home since I have homework from other classes on my laptop.”

The student who selected no preference noted that it was difficult to remember either since both homework methods had to be completed at home, and many other classes often allowed them to complete their homework in class.

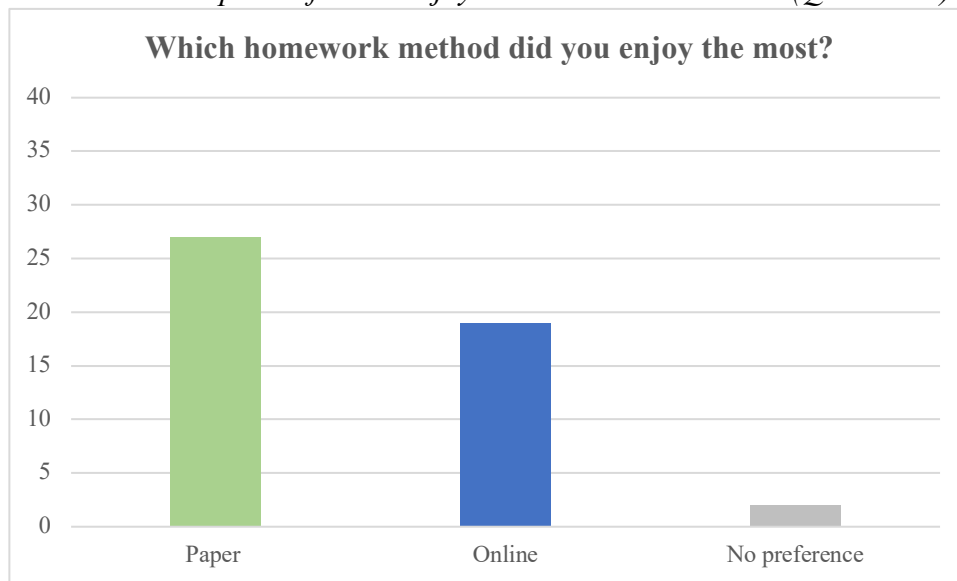
4.7.9 Student Perception of Most Enjoyable Homework Method

Once again, most students noted paper homework as being the most enjoyable homework method. The responses for the question, “Which homework method did you enjoy the most?” are shown in Table 4.7.9.1.

The questionnaire data shows that most students believe that paper homework was easier to remember to complete overall. 27 students (56%) selected paper homework as being easier to

complete and 19 students (40%) selected online homework as being easier to complete. Two students (4%) selected no preference for this question.

Table 4.7.9.1 *Student Perception of Most Enjoyable Homework Method (Question 9)*



4.7.10 Reasons for Student Perception of Most Enjoyable Homework Method

Students who selected paper homework as the most enjoyable said it was due to it being faster to complete. There were many student responses stating it was faster and easier, therefore more enjoyable, since they got to finish their homework faster.

Students who selected online homework as the most enjoyable had similar responses. One student summarized it well by saying, “None of the homework was really ‘enjoyable’ but relatively I think the online homework was easier, because I could get through it more quickly than the paper homework, and it was more easily accessible.”

The students who selected no preference stated that homework is not enjoyable, in either homework delivery type.

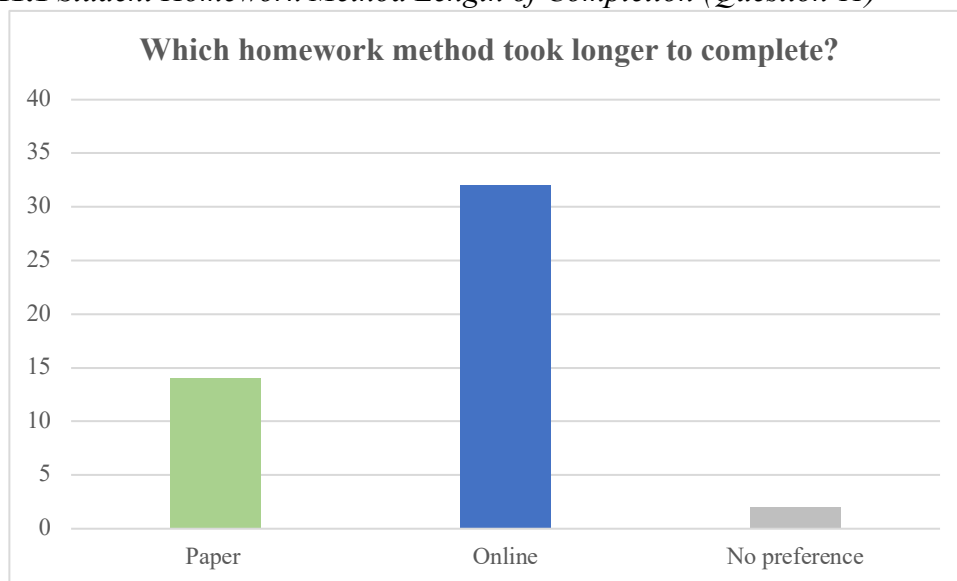
4.7.11 Student Homework Method Length of Completion

With this question, a majority of students noted that online homework tended to take longer to complete than paper homework. The responses for the question, “Which homework method took longer to complete?” are shown in Table 4.7.11.1.

The questionnaire data shows that most students believe that online homework took longer to complete overall. 32 students (67%) selected online homework as taking longer to

complete and 14 students (29%) selected paper homework as taking longer to complete. Two students (4%) selected no preference for this question.

Table 4.7.11.1 *Student Homework Method Length of Completion (Question 11)*



4.7.12 Reasons for Student Homework Method Length of Completion

The majority of responses for students who selected online homework to take longer included the difficulty of typing in accent marks for correct spelling. Students also mentioned if the internet was slow, it would take longer to complete.

Students who selected paper homework as the longer homework method to complete almost all shared how they type faster than they write, therefore concluding that paper homework takes longer.

The students who selected no preference said that both homework methods take about the same amount of time to complete.

4.7.13 Challenges with Each Homework Method

Students were asked at the end of the questionnaires the following two questions: “What (if any) difficulties did you encounter with the paper homework?” and “What (if any) difficulties did you encounter with the online homework?”

Many students either wrote in “none” or left this question blank. Students who answered it said if they had any issues, it was forgetting the paper homework at school or forgetting their school laptop at school so they could not complete their online homework.

4.7.14 Additional Comments and Suggestions

The last question of the questionnaire asked students, “Is there anything else you would like me to know about these two types of homework?”

Again, many students wrote either “no” or left this question blank. A few students responded saying they enjoyed both kinds of homework and would like a mix of both throughout the school year.

4.8 Summary of Findings for Research Question 2

The results from the questionnaire indicate that majority of students find paper homework to help them learn vocabulary the best, easier to complete, easier to remember to complete, more enjoyable, and not as time consuming as online homework. However, a number of students still very much enjoyed online homework and thought the opposite, that online homework helped them remember vocabulary the best, was easier to complete and to remember to complete, and less time consuming. It can be noted that both homework methods have their challenges, such as students losing their paper copy or leaving it at school or technical difficulties and distractions when utilizing the computer. A hybrid approach to homework that includes both paper and online homework may best address student preferences to homework. As the quantitative data from the vocabulary test scores show, both homework methods helped students to improve their vocabulary. Therefore, allowing students the option to complete homework on paper or online could help address the diverse learning needs and preferences of language students.

Chapter 5: Discussion

5.1 Introduction

In this chapter, the context and aims of the research study are reviewed, followed by a summary of the literature review. The chapter will then summarize and discuss the general findings of the study, including implications of the findings. Additionally, the limitations of the study that should be considered when interpreting the results and addressed in any future research and replication are presented.

5.2 Revisiting the Context and Aims of the Research

Vocabulary learning plays an important role within second language acquisition. Vocabulary is essential to communication, and as Wilkins (1972, p.111) stated, “without grammar little can be conveyed, without vocabulary nothing can be conveyed.” The importance of learning vocabulary in one’s L2 is crucial and is a part of every L2 classroom. L2 teachers employ a variety of strategies to allow their students to practice their vocabulary both inside and outside of the classroom, with one of the most common practices being the use of homework. With the increasing prevalence and integration of technology in the classroom, L2 teachers have more options and opportunities to provide online homework, either in place of or in addition to traditional pencil and paper homework. Therefore, it has become increasingly important to investigate the effectiveness of homework method types between the traditional pencil and paper method compared to the online method in L2 vocabulary learning.

The primary aim of this study was to determine if there was a difference in the effectiveness of traditional pencil and paper homework and online homework in facilitating L2 vocabulary learning and retention. This was addressed through a randomized-crossover design and a paired samples t-test that compared vocabulary test scores of the same students after they completed each homework method intervention. The primary aim was addressed by exploring Research Question 1: How does vocabulary learning and retention differ between traditional paper homework delivery and online homework delivery in L2 learners?

Another aim of the study was to examine student attitudes towards both homework methods: paper homework and online homework. This was measured through a questionnaire given to student participants at the end of the research study. By focusing on student attitudes and engagement with each homework method, language teachers are able to plan homework accordingly as to what could best increase motivation and promote positive attitudes towards

learning. The goal of the aims of this study is to contribute to a broader understanding of the role of homework methods and their effectiveness in L2 vocabulary learning and provide more insight into student preferences towards those methods. This aim was addressed by exploring Research Question 2: What are student attitudes towards paper homework and online homework?

Understanding the context provided by the literature review is important for noting the aims of the study and how they were addressed. In summarizing the literature review, the topics of L2 vocabulary learning, technology in L2 vocabulary learning, both homework method types of the traditional pencil and paper homework and online homework, as well as student attitudes and engagement are discussed. Those topics were the main focus points that were covered in the literature review, a summary of which follows.

5.2.1 Summary of L2 Vocabulary Learning and Technology in L2 Vocabulary Learning

The literature review started with a broad, comprehensive overview of vocabulary knowledge and defining what it means to know vocabulary in one's L2. It continued to narrow down into specific subsections of vocabulary learning such as word classes, the L2 mental lexicon, depth of vocabulary knowledge, vocabulary learning strategies, and the use of technology in vocabulary learning. In context of this study, students were taught eight new items of vocabulary every week during their intervention phases. As a recap, each intervention phase lasted three weeks, resulting in 24 words on the vocabulary test they took after completing only all paper homework or only all online homework for that phase.

Rasouli and Jafari (2016) specified that learning vocabulary is to learn its meaning, written form, spoken form, parts of speech, frequency, collocations, register, and associations. In this study, when teaching the students the new vocabulary words, the instruction focused on providing the meaning of the new vocabulary words and students were asked to write them in their notebooks. This emphasized the written form aspect and students heard the pronunciation of the word when learning its meaning and spelling in class from their language instructor. After that, instruction included the part of speech, word class, frequency, and register. Also, the word was always used in a sentence, which allowed for students to get more context on the word and see how it relates to other words and learn of any collocations. This helped set the basis of learning each new word in class before students were then asked to practice at home through one of the two homework groups in that intervention phase. Vocabulary instruction in the classroom

also incorporated vocabulary learning strategies, as students were encouraged to reinforce their vocabulary through determination and consolidation strategies, such as taking notes or creating associations to better remember word meanings (Schmitt, 1997).

By knowing these aspects of a word, students are fully taught the vocabulary words through its form, meaning, and use (Nation, 2001). The homework allowed for the demonstration of both receptive and productive knowledge of a word. For example, in the matching section of the homework, students utilized receptive knowledge, which allowed them to understand the words encountered in reading and connecting the English with the Spanish. With the translation section, on the other hand, students utilized productive knowledge, which allowed them to write the Spanish word next to the English word (Nation, 2001; Webb, 2013).

The studies on the effectiveness of technology use in the language learning classroom showed the impact technology can have on L2 students. The study conducted by Yusoff et al. (2022) showed that students who participated in the technology assisted vocabulary instruction scored higher on vocabulary tests than students who did not. In the case of this study, the CALL aspect was on homework, not on vocabulary instruction, although the use of technology did demonstrate a positive trend in helping students learn L2 vocabulary overall.

5.2.2 Summary of Paper Homework vs. Online Homework

In this study, the homework was the means by which students practiced their new L2 vocabulary words. In looking back at the studies highlighted in the literature review, Grodner and Rupp (2013) found paper homework to be more effective in test scores, but also noted that homework in general helped with student learning. In contrast, in Burch and Kuo's (2010) study, they found online homework to be more effective in test scores. In a systematic literature review comparing both homework methods, half of the studies found no difference in results between the types of homework (Magalhães et al., 2020). Additionally, when looking specifically at L2 classrooms, Mustafa et al. (2019) and Hirschel and Fritz (2013) both found online homework to show greater results in test scores, however, both did note the importance of vocabulary homework in general. The findings from these studies align with this study to demonstrate an overall positive trend in homework as a tool to improve L2 vocabulary learning and retention. However, it is important to note that without a 'no homework' control group, students could have improved their vocabulary in other ways than just the homework, such as classroom reinforcement activities. When it comes to paper homework or online homework specifically, the

findings from this study were not statistically significant to prove one is better than the other. This supports the studies that found various results, highlighting that the most important aspect is the practice of target vocabulary itself, with the specific method of vocabulary practice being secondary in importance.

Some of the mentioned studies also included a control group, where students did not complete homework and the researchers compared the scores of the paper homework and online homework groups with the results of those that did not complete any homework. Mustafa et al. (2019) found that homework itself improved students' achievement scores, regardless of the delivery mode, in comparison to those that did not complete homework. In that study, the researchers noted that students in all groups received similar classroom instruction. The study implicated the importance of reinforcement in the classroom in learning L2 vocabulary, and that additional practice and support outside the classroom in the form of either paper or online homework, helps to further improve student vocabulary learning. Hirschel and Fritz (2013) also had a control group in their study that investigated the short- and long-term effectiveness of vocabulary learning approaches. Their student participants were split into a paper group utilizing vocabulary notebooks to learn new words, an online CALL group, and a control group that had no vocabulary homework assigned to them. This study demonstrated similar findings to that of Mustafa et al.'s (2019) study. It showed that both homework groups scored higher than the control group but all groups did improve over time, showing the importance of vocabulary reinforcements in the classroom.

5.2.3 Summary of Student Attitudes and Motivation

Student attitudes were measured to gauge their interest and preferences towards each homework method. In the literature review, it was noted in a study conducted by Chang et al. (2014) that students who have a positive attitude toward homework tend to have higher performance in their course. This showcases the importance of knowing what homework method a classroom of L2 learners prefers, as it can lead to increased performance in their class and ultimately in their L2 vocabulary learning. According to Magalhães et al. (2020, p. 2), "students' motivation towards homework is affected by the way they perceive their ability to learn through homework." Consequently, knowing and acknowledging student perception and attitudes towards their homework can boost their motivation and allow them to learn more effectively from their homework assignments.

The connection from the findings of this study about student preferences can be linked to research on student motivation and enjoyment. Guilloteaux & Dörnyei (2008) stated how motivation is often linked to student success or failure and that motivation is the driving force to not only begin learning an L2, but to continue learning that language over time. Additionally, it was noted how “appropriate curricula and good teaching are not enough on their own to ensure student achievement – students also need to have a modicum of motivation” (Guilloteaux & Dörnyei, 2008, p. 55-56). This connects to this study as the student questionnaire allowed for student voices to be heard and understood. Students were asked about their homework preferences and were allowed a platform to expand on their reasoning as to why they preferred one method over the other, or why they had no preference at all. This empowers students with their own driving force for continued motivation that is independent of the language educators’ teaching methods, curricula, or use of the ten commandments for motivating language learners (Dörnyei & Csizér, 1998).

5.3 Summary of Findings

5.3.1 Findings for Research Question 1

Research Question 1: How does vocabulary learning and retention differ between traditional paper homework delivery and online homework delivery in L2 learners? Students completed two intervention phases: one intervention phase included completing only paper homework to review new L2 vocabulary words for three weeks and the other intervention phase included completing only online homework to review new L2 vocabulary words for three weeks. At the end of each three-week intervention phase, students took a vocabulary assessment and the test scores from those assessments were compared using a paired samples t-test. Then, after the three-week phase and vocabulary assessment, students switched groups and those that only completed the traditional pencil and paper homework assignments began completing only online homework assignments for the next three weeks and vice versa. After the second three-week phase, students took another vocabulary assessment where the test scores from those assessments were also compiled into the paired samples t-test. The results showed that the average vocabulary assessment scores were slightly higher for students after completing the paper homework intervention phase. However, the mean difference between the paper homework test scores and the online homework test scores are not statistically significant and the confidence interval suggests that there is no significant difference between the two homework

methods. This demonstrates a positive trend to show that homework methods help students to learn L2 vocabulary, but neither one was shown to be statistically significantly better than the other.

5.3.2 Findings for Research Question 2

Research Question 2: What are student attitudes towards paper homework and online homework?

Students were asked to complete a questionnaire regarding their attitudes towards paper homework and online homework. The questionnaire was comprised of six multiple choice questions where students had the option to select from the three following choices: paper homework, online homework, or left the question blank to indicate no preference. After each multiple-choice question, there was an additional question that allowed students to write-in their reasonings for why they chose their answer. Students were also asked at the end of the questionnaire to state any challenges they encountered with the paper homework method as well as the online homework method, and then include any information they wanted their teacher to know about the homework process. The results from the questionnaire showed that most students preferred paper homework overall to online homework. They stated that paper homework helped them learn the vocabulary the best, was easier to complete, and remember to complete, more enjoyable, and less time consuming than online homework. However, with that said, many students still enjoyed online homework and enjoyed the benefits of it, such as not having to carry around or remember to bring home the paper homework.

5.4 Implications of the Research Study Findings

Based on the findings from this study, there is no statistically significant difference between paper and online homework and both methods show a positive trend towards effectiveness for L2 vocabulary learning, nevertheless, several implications arise from this study.

5.4.1 Educational Practices in the Classroom

One of the implications from the findings of this study is the flexibility in homework assignments. With this study showing that both homework delivery modes can be effective ways to learn L2 vocabulary, with neither homework method showing a statistically significant advantage over the other method, L2 instructors can utilize both homework modes to help students learn their new vocabulary words. Additionally, this allows for more customized learning approaches, as instructors can allow students to choose between paper or online

homework to practice their vocabulary. This choice in homework options could greatly improve student motivation and interest and has been shown that both paper and online homework provide opportunities to learn L2 vocabulary. L2 instructors can also spend more time on creating high-quality homework assignments, without worrying about which homework delivery mode to use, as both will help students learn.

5.4.2 Future Research

Building on the findings of this study, future research of this kind could explore other variables and additional contexts that were not investigated in this current study to further understand the impact and effectiveness of homework methods on L2 vocabulary learning. For example, future studies could benefit from conducting long-term research to gain insight into the effectiveness of homework methods over a longer period of time. The current study's intervention phases were three weeks each. With more time to collect data, the deeper the potential insights into the sustained effectiveness of paper homework and online homework. In addition to investigating long-term effects, conducting a similar study with a larger sample size would allow for better statistical precision across a larger group of students with various backgrounds. This study was limited to fewer than 50 participating students, all with similar backgrounds. It could be helpful to see if the results stayed consistent with a more diverse population. A replication of the study, or a similar study, could benefit to adding in a control group, or a no homework group. That could provide valuable insight into L2 vocabulary learning through both paper and online homework and how that compares to students who do not complete any homework. This would provide a better understanding of not only homework and various homework methods, but also of the importance of reinforcement activities in the classroom. Other variables that could be explored in future research include the role of feedback in the two homework methods as well as various vocabulary homework tasks, varying from the ones given for this study.

5.5. Limitations of the Research Study

In addition to potential ways in which the study could be altered for future research, it is important to note limitations of the current study. As aforementioned, this study was a short-term study, with each homework intervention phase lasting three weeks. This short-term study might not fully capture the long-term effects of the two homework delivery methods and their relationship with L2 learning and retention over time. It also had a limited sample size, with a

total of 49 participants. A larger sample size would allow for better statistical precision. It was also largely homogenous, as students were around the same age, came from the same background, and were of similar proficiency level. Conducting this study with a larger sample size and a more diverse population could gain more insights into homework methods on L2 vocabulary learning and retention.

Various external factors, such as student motivation, their home environment, parental involvement, or access to technology could all impact the results from this study. It is also important to note that the student questionnaire at the end of the study to gauge their attitudes towards the homework methods was self-reported data. Therefore, the questions are subject to biases and only reflect a snap-shot of their attitude at that time. Another questionnaire at a later date could be useful to see if their attitudes and engagement remained consistent over time.

Chapter 6: Conclusion

6.1 Conclusion

The purpose of this study was to explore the effectiveness of paper homework and online homework on L2 vocabulary learning and retention and explore student attitudes towards each homework delivery mode. The study found that while most students preferred paper homework to online homework and scored slightly higher during the paper homework intervention phase, that difference in scores was not statistically significant. It is plausible, then, that both homework methods proved to be effective in learning and practicing L2 vocabulary words. However, without a ‘no homework’ control group to compare, it could easily be attributed to classroom reinforcement activities as well, among other factors. As noted in the student questionnaire, students have varying preferences on which homework method they prefer and reasons to support their preferences. Allowing students the choice on homework methods could improve motivation and engagement with homework, leading to further increasing their L2 vocabulary knowledge. Further research in this field of study is necessary to continue building upon previous knowledge and learning more about L2 learners and vocabulary acquisition through homework. Future research should note the limitations of this study and aim to gain insights on homework methods and student preferences with a larger sample size and more diverse student population. In conclusion, this study highlights the importance of considering student preferences in the L2 classroom. By integrating both homework delivery methods, L2 teachers can better accommodate students’ preferred learning styles to enhance L2 vocabulary learning. Continued research in this field of study is crucial to learning more about and meeting the needs of an evolving L2 student population.

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Appendices

Appendix A: List of Vocabulary Words

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Appendix A: List of Vocabulary Words

Dormir (to sleep)

Hay (there is/there are)

Afuera (out/outside)

Aquí (here)

Cantar (to sing)

Divertido (fun)

Juntos (together)

Ver (to see/to watch)

Volar (to fly)

Próximo (next)

Sólo (only)

Parar (to stop)

Encontrar (to find)

Segundo (second)

Elegir (to choose)

Manera (way)

Llevar (to take/to wear)

Dar (to give)

Tercero (third)

Lavar (to wash)

Luego (later/then)

Gente (people)

Vivir (to live)

Empezar (to start)

Último (last)

Querer (to want)

Lleno (full)

Palabra (word)

Guardar (to keep/to put away)

Saber (to know)

Para (to/for/in order to)
Traer (to bring)
Esto (this)
Lastimar (to hurt)
Ahora (now)
Venir (to come)
Caer (to fall)
Entonces (then/so)
Por (for/by/through/because of)
Mostrar (to show)
Sonreír (to smile)
Eso (that)
Hogar (home)
Allí (there)
Reír (to laugh)
Pensamiento (thought)
Ambos (both)
Agradecer (to thank/to express gratitude)

Appendix B: Vocabulary Assessment Intervention Phase 1

Spanish 6 Research Study Assessment (Weeks 1-3)

Matching: Match the Spanish word with the correct English translation:

- | | |
|------------|-----------------------|
| 1. Sólo | A. here |
| 2. Parar | B. only |
| 3. Dar | C. there is/there are |
| 4. Empezar | D. to wash |
| 5. Hay | E. to sleep |
| 6. Dormir | F. to give |
| 7. Lavar | G. to stop |
| 8. Aquí | H. to start |

Fill in the blank: Fill in the blank with the correct Spanish vocabulary word.

1. El perro está _____.
2. Yo quiero _____ mis botas rojas mañana.
3. Me gusta _____ música de Taylor Swift.
4. ¡A Sofía y a Sergio les gusta pasar tiempo _____!
5. Me gusta _____ en Michigan.
6. ¡La clase de español es muy _____!
7. Tengo que _____ opción 1 o opción 2.
8. Mi papá tiene que _____ a Nueva York mañana.

Translate: Translate to Spanish. Make sure to spell the vocab word correctly in Spanish!

1. Later, then =
2. Way =
3. To find =
4. Second =
5. Next =
6. To see/to watch =
7. People =
8. Third =

Appendix C: Vocabulary Assessment Intervention Phase 2

Spanish 6 Research Study Assessment (Weeks 4-6)

Matching: Match the Spanish word with the correct English translation:

- | | |
|----------------|----------------------------------|
| 1. Lastimar | A. to/for/in order to |
| 2. Pensamiento | B. to fall |
| 3. Hogar | C. to thank/to express gratitude |
| 4. Caer | D. then |
| 5. Para | E. home |
| 6. Esto | F. thought |
| 7. Agradecer | G. this |
| 8. Entonces | H. to hurt |

Fill in the blank: Fill in the blank with the correct Spanish vocabulary word.

1. ¡Me gusta _____! ¡Ja ja ja!
2. A mi amiga le gusta _____ fotos de su gato.
3. Me gusta el libro “Harry Potter” _____ J.K. Rowling.
4. Me gusta la clase de inglés y arte. _____ clases son muy interesantes.
5. ¿Qué significa la _____ “mariposa” en inglés?
6. ¡La comida es deliciosa! Yo estoy _____.
7. _____ es muy difícil.
8. Tengo que _____ mi cuaderno de práctica a la clase de español.

Translate: Translate to Spanish. Make sure to spell the vocab word correctly in Spanish!

1. To smile =
2. Now =
3. To want =
4. Last =
5. To come =
6. To keep/to put away =
7. To know =
8. There =

Appendix D: Student Questionnaire

Research Study Questionnaire

You have been invited to do this questionnaire because you participated in the paper homework and online homework research study. This questionnaire should take about 10 minutes.

Your answers will be seen only by the researcher who is working with you at your school. I will not tell anyone your name or your individual answers.

Please answer as many questions as you can. You do not have to answer any question that you do not want to answer.

You can ask me for help you if you would like to.

1. Which homework method do you think helped you learn the vocabulary the best?

Paper

Online

2. Why do you think the method you selected helped you the most?

Enter your answer

3. Which homework method did you prefer?

Paper

Online

4. Why did you prefer the method you selected over the other?

Enter your answer

5. Which homework method was easier to complete?

- Paper
- Online

6. What do you think made the method you selected easier to complete?

Enter your answer

7. Which homework method was easier to remember to complete?

- Paper
- Online

8. Why do you think the method you selected was easier to remember to do for homework?

Enter your answer

9. Which homework method did you enjoy the most?

- Paper
- Online

10. What made the method you selected more enjoyable than the other?

Enter your answer

11. Which homework method took longer to complete?

Paper

Online

12. Why do you think the method you selected took longer to complete?

Enter your answer

13. What (if any) difficulties did you encounter with the paper homework?

Enter your answer

14. What (if any) difficulties did you encounter with the online homework?

Enter your answer

15. Is there anything else you would like me to know about these two types of homework?

Enter your answer

Appendix E: Homework Assignments (Paper Format)

Spanish 6 Research Study Paper Homework 1

Matching: Match the Spanish word with the correct English translation:

- | | |
|--------------|-----------------------|
| 1. Cantar | A. there is/there are |
| 2. Juntos | B. to see/to watch |
| 3. Hay | C. to sleep |
| 4. Ver | D. fun |
| 5. Aquí | E. to sing |
| 6. Dormir | F. here |
| 7. Afuera | G. out/outside |
| 8. Divertido | H. together |

Fill in the blank: Fill in the blank with the correct Spanish vocabulary word.

1. Me gusta _____ música de Taylor Swift.
2. ¡La clase de español es muy _____!
3. _____ mucha tarea hoy en la clase de matemáticas.
4. Me gusta _____ la televisión.
5. El perro está _____.
6. ¡A Sofía y a Sergio les gusta pasar tiempo _____!
7. Me gusta _____ mucho los sábados y domingos.
8. Yo soy de _____.

Translate: Translate to Spanish. Make sure to spell the vocab word correctly in Spanish!

1. To sing =
2. There is/there are =
3. Together =
4. Here =
5. To sleep =
6. Fun =
7. Out/outside =
8. To see/to watch =

Spanish 6 Research Study Paper Homework 2

Matching: Match the Spanish word with the correct English translation:

- | | |
|--------------|--------------|
| 1. Parar | A. to stop |
| 2. Manera | B. second |
| 3. Sólo | C. way |
| 4. Elegir | D. to find |
| 5. Próximo | E. next |
| 6. Segundo | F. to fly |
| 7. Volar | G. to choose |
| 8. Encontrar | H. only |

Fill in the blank: Fill in the blank with the correct Spanish vocabulary word.

1. Hay muchas _____ de estudiar para un examen.
2. ¿Dónde está mi tarea? Tengo que _____ mi tarea.
3. Tengo que _____ opción 1 o opción 2.
4. _____ me gustan los perros.
5. Tú no eres el primero, tú eres el _____.
6. Tenemos que _____ en Walmart para comprar comida.
7. Mi papá tiene que _____ a Nueva York mañana.
8. La _____ prueba será el viernes.

Translate: Translate to Spanish. Make sure to spell the vocab word correctly in Spanish!

1. Only =
2. Way =
3. To find =
4. Next =
5. To stop =
6. To choose =
7. To fly =
8. Second =

Spanish 6 Research Study Paper Homework 3

Matching: Match the Spanish word with the correct English translation:

- | | |
|------------|--------------------|
| 1. Lavar | A. third |
| 2. Luego | B. to start |
| 3. Gente | C. to live |
| 4. Empezar | D. people |
| 5. Vivir | E. to wash |
| 6. Tercero | F. later, then |
| 7. Dar | G. to take/to wear |
| 8. Llevar | H. to give |

Fill in the blank: Fill in the blank with the correct Spanish vocabulary word.

1. Yo quiero _____ mis botas rojas mañana.
2. A la profesora le gusta _____ mucha tarea.
3. Esta es la _____ pregunta.
4. La _____ es muy simpática.
5. Yo necesito _____ los platos.
6. Primero, yo tengo la clase de ciencias. _____, yo tengo la clase de español.
7. Me gusta _____ en Michigan.
8. Yo tengo que _____ mi tarea antes de practicar deportes.

Translate: Translate to Spanish. Make sure to spell the vocab word correctly in Spanish!

1. Later, then =
2. To start =
3. To live =
4. To take/to wear =
5. People =
6. Third =
7. To give =
8. To wash =

Spanish 6 Research Study Paper Homework 4

Matching: Match the Spanish word with the correct English translation:

- | | |
|------------|------------------------|
| 1. Para | A. to bring |
| 2. Querer | B. to keep/to put away |
| 3. Palabra | C. last |
| 4. Guardar | D. full |
| 5. Último | E. to know |
| 6. Saber | F. to/for/in order to |
| 7. Lleno | G. word |
| 8. Traer | H. to want |

Fill in the blank: Fill in the blank with the correct Spanish vocabulary word.

1. Esta es _____ mi mamá.
2. ¿Qué significa la _____ “mariposa” en inglés?
3. _____ un mejor amigo es normal.
4. Tengo que _____ mi cuaderno de práctica a la clase de español.
5. Yo no quiero _____ mi nota en la clase de matemáticas.
6. ¡La comida es deliciosa! Yo estoy _____.
7. Yo tengo que _____ los secretos de mis amigos.
8. Esta es la _____ pregunta.

Translate: Translate to Spanish. Make sure to spell the vocab word correctly in Spanish!

1. Word =
2. To keep/to put away =
3. To bring =
4. Full =
5. To/for/in order to =
6. To want =
7. To know =
8. Last =

Spanish 6 Research Study Paper Homework 5

Matching: Match the Spanish word with the correct English translation:

- | | |
|-------------|------------------------------|
| 1. Por | A. then |
| 2. Entonces | B. now |
| 3. Mostrar | C. to show |
| 4. Ahora | D. this |
| 5. Lastimar | E. to hurt |
| 6. Caer | F. for/by/through/because of |
| 7. Esto | G. to fall |
| 8. Venir | H. to come |

Fill in the blank: Fill in the blank with the correct Spanish vocabulary word.

1. _____ libro es muy interesante.
2. Yo saco malas notas. _____ yo tengo que estudiar mucho más.
3. Yo tengo que _____ a la escuela a las 8 de la mañana.
4. No me gusta _____ por las escaleras.
5. Es muy tarde. _____, tenemos que dormir.
6. No quiero _____ a nadie.
7. Me gusta el libro "Harry Potter" _____ J.K. Rowling.
8. A mi amiga le gusta _____ fotos de su gato.

Translate: Translate to Spanish. Make sure to spell the vocab word correctly in Spanish!

1. To show =
2. Then =
3. To fall =
4. This =
5. Now =
6. To hurt =
7. To come =
8. For/by/through/because of =

Spanish 6 Research Study Paper Homework 6

Matching: Match the Spanish word with the correct English translation:

- | | |
|----------------|----------------------------------|
| 1. Agradecer | A. both |
| 2. Allí | B. to thank/to express gratitude |
| 3. Pensamiento | C. that |
| 4. Eso | D. to laugh |
| 5. Sonreír | E. home |
| 6. Reír | F. there |
| 7. Hogar | G. thought |
| 8. Ambos | H. to smile |

Fill in the blank: Fill in the blank with the correct Spanish vocabulary word.

1. Yo tengo muchos _____ de mi gato.
2. Yo quiero _____ a mis padres.
3. _____ es muy difícil.
4. Me gusta la clase de inglés y arte. _____ clases son muy interesantes.
5. ¡Me gusta _____! ¡Ja ja ja!
6. También, me gusta _____ J
7. Mi _____ es en Michigan, con mi familia.
8. Los libros están _____, cerca de los cuadernos.

Translate: Translate to Spanish. Make sure to spell the vocab word correctly in Spanish!

1. Both =
2. That =
3. To smile =
4. Home =
5. Thought =
6. To laugh =
7. There =
8. To thank/to express gratitude =

Appendix F: Homework Assignments (Online Format)

Spanish 6 Research Study Online Homework 1

Hi, Lisa. When you submit this form, the owner will see your name and email address.

* Required

Matching


Match the Spanish word with the correct English translation:

1. Cantar (1 Point) *


- there is/there are
- to see/to watch
- to sleep
- fun
- to sing
- here
- out/outside
- together

2. Juntos (1 Point) *

- there is/there are
- to see/to watch
- to sleep
- fun
- to sing
- here
- out/outside
- together

3. Hay (1 Point) * 

- there is/there are
- to see/to watch
- to sleep
- fun
- to sing
- here
- out/outside
- together

4. Ver (1 Point) * 

- there is/there are
- to see/to watch
- to sleep
- fun
- to sing
- here
- out/outside
- together

5. Aquí (1 Point) * 


- there is/there are
- to see/to watch
- to sleep
- fun
- to sing
- here
- out/outside
- together

6. Dormir (1 Point) * 

- there is/there are
- to see/to watch
- to sleep
- fun
- to sing
- here
- out/outside
- together

7. Afuera (1 Point) * 

- there is/there are
- to see/to watch
- to sleep
- fun
- to sing
- here
- out/outside
- together

8. Divertido (1 Point) * 

- there is/there are
- to see/to watch
- to sleep
- fun
- to sing
- here
- out/outside
- together

Fill in the blank



Fill in the blank with the correct Spanish vocabulary word.
á é í ó ú ñ

9. Me gusta _____ música de Taylor Swift. (1 Point) *

Enter your answer

10. ¡La clase de español es muy _____! (1 Point) *

Enter your answer

11. _____ mucha tarea hoy en la clase de matemáticas. (1 Point) *


Enter your answer

12. Me gusta _____ la televisión. (1 Point) *


Enter your answer

13. El perro está _____. (1 Point) * 


Enter your answer

14. ¡A Sofía y a Sergio les gusta pasar tiempo _____! (1 Point) * 

Enter your answer

15. Me gusta _____ mucho los sábados y domingos. (1 Point) * 

Enter your answer

16. Yo soy de _____. (1 Point) * 

Enter your answer

Translate



Translate to Spanish. Make sure to spell the vocabulary word correctly in Spanish!

á é í ó ú ñ

17. To sing = (1 Point) *

Enter your answer

18. There is/there are = (1 Point) *

Enter your answer

19. Together = (1 Point) *

Enter your answer

20. Here = (1 Point) *

Enter your answer

21. To sleep = (1 Point) *

Enter your answer

22. Fun = (1 Point) *

Enter your answer

23. Out/outside = (1 Point) *

Enter your answer

24. To see/to watch = (1 Point) *

Enter your answer

Spanish 6 Research Study Online Homework 2

Hi, Lisa. When you submit this form, the owner will see your name and email address.

* Required

Matching

Match the Spanish word with the correct English translation:

1. Parar (1 Point) * 

- to stop
- second
- way
- to find
- next
- to fly
- to choose
- only

2. Manera (1 Point) * 

- to stop
- second
- way
- to find
- next
- to fly
- to choose
- only

3. Sólo (1 Point) * 


- to stop
- second
- way
- to find
- next
- to fly
- to choose
- only

4. Elegir (1 Point) * 

- to stop
- second
- way
- to find
- next
- to fly
- to choose
- only

5. Próximo (1 Point) * 

- to stop
- second
- way
- to find
- next
- to fly
- to choose
- only

6. Segundo (1 Point) * 

- to stop
- second
- way
- to find
- next
- to fly
- to choose
- only

7. Volar (1 Point) * 

- to stop
- second
- way
- to find
- next
- to fly
- to choose
- only

8. Encontrar (1 Point) * 

- to stop
- second
- way
- to find
- next
- to fly
- to choose
- only

Fill in the blank



Fill in the blank with the correct Spanish vocabulary word.
á é í ó ú ñ

9. Hay muchas _____ de estudiar para un examen.
(1 Point) *

Enter your answer

10. ¿Dónde está mi tarea? Tengo que _____ mi tarea. (1 Point) *

Enter your answer

11. Tengo que _____ opción 1 o opción 2.
(1 Point) *

Enter your answer

12. _____ me gustan los perros.
(1 Point) *

Enter your answer

13. Tú no eres el primero, tú eres el _____.
(1 Point) *

Enter your answer

14. Tenemos que _____ en Walmart para comprar comida.
(1 Point) *

Enter your answer

15. Mi papá tiene que _____ a Nueva York mañana.
(1 Point) *

Enter your answer

16. La _____ pruebita será el viernes.
(1 Point) *

Enter your answer

Translate




Translate to Spanish. Make sure to spell the vocabulary word correctly in Spanish!
á é í ó ú ñ

17. Only = (1 Point) * 


Enter your answer

18. Way = (1 Point) * 


Enter your answer

19. To find = (1 Point) * 


Enter your answer

20. Next = (1 Point) * 


Enter your answer

21. To stop = (1 Point) * 


Enter your answer

22. To choose = (1 Point) * 

Enter your answer

23. To fly = (1 Point) * 

Enter your answer

24. Second = (1 Point) * 

Enter your answer

Spanish 6 Research Study Online Homework 3

Hi, Lisa. When you submit this form, the owner will see your name and email address.

* Required

Matching

Match the Spanish word with the correct English translation:

1. Lavar (1 Point) * 

- third
- to start
- to live
- people
- to wash
- later, then
- to take/to wear
- to give

2. Luego (1 Point) * 

- third
- to start
- to live
- people
- to wash
- later, then
- to take/to wear
- to give

3. Gente (1 Point) * 

- third
- to start
- to live
- people
- to wash
- later, then
- to take/to wear
- to give

4. Empezar (1 Point) * 


- third
- to start
- to live
- people
- to wash
- later, then
- to take/to wear
- to give

5. Vivir (1 Point) * 

- third
- to start
- to live
- people
- to wash
- later, then
- to take/to wear
- to give

6. Tercero (1 Point) * 

- third
- to start
- to live
- people
- to wash
- later, then
- to take/to wear
- to give

7. Dar (1 Point) * 

- third
- to start
- to live
- people
- to wash
- later, then
- to take/to wear
- to give

8. Llevar (1 Point) * 

- third
- to start
- to live
- people
- to wash
- later, then
- to take/to wear
- to give

Fill in the blank



Fill in the blank with the correct Spanish vocabulary word.
á é í ó ú ñ

9. Yo quiero _____ mis botas rojas mañana.
(1 Point) *

Enter your answer

10. A la profesora le gusta _____ mucha tarea.
(1 Point) *

Enter your answer

11. Esta es la _____ pregunta.
(1 Point) *

Enter your answer

12. La _____ es muy simpática
(1 Point) *

Enter your answer

13. Yo necesito _____ los platos.

(1 Point) *

Enter your answer

14. Primero, yo tengo la clase de ciencias. _____, yo tengo la clase de español.

(1 Point) *

Enter your answer

15. Me gusta _____ en Michigan.

(1 Point) *

Enter your answer

16. Yo tengo que _____ mi tarea antes de practicar deportes.

(1 Point) *

Enter your answer


Translate




Translate to Spanish. Make sure to spell the vocabulary word correctly in Spanish!
á é í ó ú ñ

17. Later, then = (1 Point) * 


Enter your answer

18. To start = (1 Point) * 

Enter your answer

19. To live = (1 Point) * 

Enter your answer

20. To take/to wear = (1 Point) * 

Enter your answer

21. People = (1 Point) *

Enter your answer

22. Third = (1 Point) *

Enter your answer

23. To give = (1 Point) *

Enter your answer

24. To wash = (1 Point) *

Enter your answer

Spanish 6 Research Study Online Homework 4

Hi, Lisa. When you submit this form, the owner will see your name and email address.


* Required

Matching

Match the Spanish word with the correct English translation:

1. Para (1 Point) * 


- to bring
- to keep/to put away
- last
- full
- to know
- to/for/in order to
- word
- to want

2. Querer (1 Point) * 

- to bring
- to keep/to put away
- last
- full
- to know
- to/for/in order to
- word
- to want

3. Palabra (1 Point) * 

- to bring
- to keep/to put away
- last
- full
- to know
- to/for/in order to
- word
- to want

4. Guardar (1 Point) * 

- to bring
- to keep/to put away
- last
- full
- to know
- to/for/in order to
- word
- to want

5. Último (1 Point) * 

- to bring
- to keep/to put away
- last
- full
- to know
- to/for/in order to
- word
- to want

6. Saber (1 Point) * 

- to bring
- to keep/to put away
- last
- full
- to know
- to/for/in order to
- word
- to want

7. Lleno (1 Point) * 

- to bring
- to keep/to put away
- last
- full
- to know
- to/for/in order to
- word
- to want

8. Traer (1 Point) * 

- to bring
- to keep/to put away
- last
- full
- to know
- to/for/in order to
- word
- to want

Fill in the blank



Fill in the blank with the correct Spanish vocabulary word.
á é í ó ú ñ

9. Esta es _____ mi mamá.
(1 Point) *

Enter your answer

10. ¿Qué significa la _____ "mariposa" en inglés?
(1 Point) *

Enter your answer

11. _____ un mejor amigo es normal.
(1 Point) *

Enter your answer

12. Tengo que _____ mi cuaderno de práctica a la clase de español.
(1 Point) *

Enter your answer

13. Yo no quiero _____ mi nota en la clase de matemáticas.

(1 Point) *

Enter your answer

14. ¡La comida es deliciosa! Yo estoy _____.

(1 Point) *

Enter your answer

15. Yo tengo que _____ los secretos de mis amigos.

(1 Point) *

Enter your answer

16. Esta es la _____ pregunta.

(1 Point) *

Enter your answer

Translate



Translate to Spanish. Make sure to spell the vocabulary word correctly in Spanish!
á é í ó ú ñ

17. Word = (1 Point) *

Enter your answer

18. To keep/to put away = (1 Point) *

Enter your answer

19. To bring = (1 Point) *

Enter your answer

20. Full = (1 Point) *

Enter your answer

21. To/for/in order to = (1 Point) *

Enter your answer

22. To want = (1 Point) *

Enter your answer

23. To know = (1 Point) *

Enter your answer

24. Last = (1 Point) *

Enter your answer

Spanish 6 Research Study Online Homework 5

Hi, Lisa. When you submit this form, the owner will see your name and email address.

* Required

Matching

Match the Spanish word with the correct English translation:

1. Por (1 Point) * 

- then
- now
- to show
- this
- to hurt
- for/by/through/because of
- to fall
- to come

2. Entonces (1 Point) * 

- then
- now
- to show
- this
- to hurt
- for/by/through/because of
- to fall
- to come

3. Mostrar (1 Point) * 

- then
- now
- to show
- this
- to hurt
- for/by/through/because of
- to fall
- to come

4. Ahora (1 Point) * 

- then
- now
- to show
- this
- to hurt
- for/by/through/because of
- to fall
- to come

5. Lastimar (1 Point) * 

- then
- now
- to show
- this
- to hurt
- for/by/through/because of
- to fall
- to come

6. Caer (1 Point) * 

- then
- now
- to show
- this
- to hurt
- for/by/through/because of
- to fall
- to come

7. Esto (1 Point) * 

- then
- now
- to show
- this
- to hurt
- for/by/through/because of
- to fall
- to come

8. Venir (1 Point) * 

- then
- now
- to show
- this
- to hurt
- for/by/through/because of
- to fall
- to come

Fill in the blank



Fill in the blank with the correct Spanish vocabulary word.
á é í ó ú ñ

9. _____ libro es muy interesante.

(1 Point) *

Enter your answer

10. Yo saco malas notas. _____ yo tengo que estudiar mucho más.

(1 Point) *

Enter your answer

11. Yo tengo que _____ a la escuela a las 8 de la mañana.

(1 Point) *

Enter your answer

12. No me gusta _____ por las escaleras.

(1 Point) *

Enter your answer

13. Es muy tarde. _____, tenemos que dormir.

(1 Point) *

Enter your answer

14. No quiero _____ a nadie.

(1 Point) *

Enter your answer

15. Me gusta el libro "Harry Potter" _____ J.K. Rowling.

(1 Point) *

Enter your answer

16. A mi amiga le gusta _____ fotos de su gato.


(1 Point) *

Enter your answer

Translate



Translate to Spanish. Make sure to spell the vocabulary word correctly in Spanish!
á é í ó ú ñ

17. To show = (1 Point) * 


Enter your answer

18. Then = (1 Point) * 

Enter your answer

19. To fall = (1 Point) * 

Enter your answer

20. This = (1 Point) * 

Enter your answer

21. Now = (1 Point) *

Enter your answer

22. To hurt = (1 Point) *

Enter your answer

23. To come = (1 Point) *

Enter your answer

24. For/by/through/because of = (1 Point) *

Enter your answer


Spanish 6 Research Study Online Homework 6

Hi, Lisa. When you submit this form, the owner will see your name and email address.


* Required

Matching

Match the Spanish word with the correct English translation:

1. Agradecer (1 Point) * 


- both
- to thank/to express gratitude
- that
- to laugh
- home
- there
- thought
- to smile

2. Allí (1 Point) * 


- both
- to thank/to express gratitude
- that
- to laugh
- home
- there
- thought
- to smile

3. Pensamiento (1 Point) * 


- both
- to thank/to express gratitude
- that
- to laugh
- home
- there
- thought
- to smile

4. Eso (1 Point) * 

- both
- to thank/to express gratitude
- that
- to laugh
- home
- there
- thought
- to smile

5. Sonreír (1 Point) * 

- both
- to thank/to express gratitude
- that
- to laugh
- home
- there
- thought
- to smile

6. Reír (1 Point) * 

- both
- to thank/to express gratitude
- that
- to laugh
- home
- there
- thought
- to smile

7. Hogar (1 Point) * 

- both
- to thank/to express gratitude
- that
- to laugh
- home
- there
- thought
- to smile

8. Ambos (1 Point) * 

- both
- to thank/to express gratitude
- that
- to laugh
- home
- there
- thought
- to smile

Fill in the blank



Fill in the blank with the correct Spanish vocabulary word.
á é í ó ú ñ

9. Yo tengo muchos _____ de mi gato.

(1 Point) *

Enter your answer

10. Yo quiero _____ a mis padres.

(1 Point) *

Enter your answer

11. _____ es muy difícil.

(1 Point) *

Enter your answer

12. Me gusta la clase de inglés y arte. _____ clases son muy interesantes

(1 Point) *

Enter your answer

13. ¡Me gusta _____! ¡Ja ja ja!
(1 Point) *

Enter your answer

14. También, me gusta _____ :)
(1 Point) *

Enter your answer

15. Mi _____ es en Michigan, con mi familia.
(1 Point) *

Enter your answer

16. Los libros están _____, cerca de los cuadernos.
(1 Point) *

Enter your answer


Translate




Translate to Spanish. Make sure to spell the vocabulary word correctly in Spanish!
á é í ó ú ñ

17. Both = (1 Point) * 

Enter your answer

18. That = (1 Point) * 


Enter your answer

19. To smile = (1 Point) * 


Enter your answer

20. Home = (1 Point) * 

Enter your answer

21. Thought = (1 Point) * 


Enter your answer

22. To laugh = (1 Point) * 

Enter your answer

23. There = (1 Point) * 

Enter your answer

24. To thank/to express gratitude = (1 Point) * 

Enter your answer

Appendix G: CUREC Ethics Proposal

Central University Research Ethics Committee (CUREC)

CUREC 1A Application form for research projects in the social sciences and humanities with less complex ethical issues



The University of Oxford places a high value on the knowledge, expertise, and integrity of its members and their ability to conduct research to high standards of scholarship and ethics. The research ethics review process has been established to ensure that research involving human participants is conducted in a way that respects the dignity, rights, and welfare of participants, and minimises risk to participants, researchers, third parties, and to the University itself. It is assumed that all members of the University will take their responsibilities and obligations seriously, and will ensure that their research involving human participants is conducted according to established principles and good practice in their field and in accordance, where appropriate, with legal requirements.

Before completing this form, please refer to the [guidance](#) and [flowchart](#) on the Research Support website. Only type-written forms will be accepted. Completed application forms should be emailed, along with relevant supporting documents, to your [Departmental Research Ethics Committee \(DREC\)](#) or to ethics@socsci.ox.ac.uk from your ox.ac.uk email address.

Please contact your [DREC](#) or the [SSH IDREC](#) if you have any questions about completing this form or the review process.

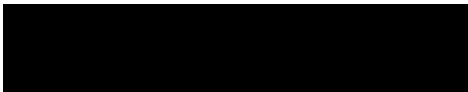
SECTION A: Filter for CUREC 2 application		
This section determines whether the application for ethics review should be made using this form (CUREC 1A) or the CUREC 2 form (for research with more complex ethical issues).		
Please indicate with an 'X'.	Yes	No
1. Does the research involve the deception of participants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Are the research participants vulnerable in the context of the research, or classed as people whose ability to give free and informed consent is in question ? For example, <ul style="list-style-type: none"> Participants aged 16 or under (also answer question A5); Participants aged 16 – 18 who can neither be considered competent youths nor recruited under Approved Procedure 25 adults at risk; Note the University's Safeguarding Guidance and Code of Practice and its implications for researchers involving young people or adults at risk.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. By taking part in the research, will participants be at risk of criminal prosecution or significant harm?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Does your research raise issues relevant to the Counter-Terrorism and Security Act (the Prevent Duty), which seeks to prevent people from being drawn into terrorism? Best Practice Guidance 07 on the Prevent Duty provides further guidance.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If you answered 'No' to all the questions above, go to Section B. If you answered 'Yes' to any question above, continue to question 5 below.		
5. Is your project covered by a CUREC Approved Procedure ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, list the CUREC Approved Procedure(s) you will follow	AP25	
If you have answered 'No' to all questions 1-4, go on to Section B . If you answered 'Yes' to ANY of questions 1-4, and answered 'No' to question 5, stop completing this form and do not submit it for		

ethical review. You will instead need to submit a [CUREC 2 application form](#). If you answered 'Yes' to any of questions 1-4, and your project is covered by an Approved Procedure, **go on to Section B**. If more than one Approved Procedure applies, contact the SSH IDREC or your DREC for advice on whether a CUREC 2 form should be submitted instead.

SECTION B: Researchers		
1. Name of Principal Investigator or student's supervisor	Hamish Chalmers	
2. Department or Institute	Department of Education	
3. University of Oxford email address	hamish.chalmers@education.ox.ac.uk	
Copy and paste the following six rows as necessary to complete for each additional researcher who will be involved in this study, including student(s) and those external to the University.		
4. Name of researcher or student	Lisa Sheehan	
5. Department or Institute	Department of Education	
6. University of Oxford email address	lisa.sheehan@st-annes.ox.ac.uk	
7. Role in research	Student researcher	
8. Degree programme, if student research	MSc Applied Linguistics for Language Teaching	
The whole research team		
9. Have the researchers undertaken research ethics and integrity training?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
10. Please provide details of any research ethics and integrity training undertaken, including the dates of the training. Alternatively state relevant research experience.	-Enrolled in and participated in MSc Applied Linguistics for Language Teaching Research Methods module (Jan-Apr 2023) -Completed Research Integrity Online Training (Jan 2024 for Sheehan and Feb 2022 for Chalmers) -Discussions with supervisor (ongoing)	
11. State any conflicts of interest and explain how these will be addressed.	I am employed by the schools in which I am undertaking the research. The research will be conducted in line with school policy and it will be made clear that participation in the study is voluntary for students. The findings from the research will be shared with the schools.	

SECTION C: The research project	
1. Title of the research project	
L2 Vocabulary Learning and Retention: A Comparison Between Traditional Paper Homework and Online Homework	
2. Anticipated start date of the aspect of the research project involving human	Research will start once ethics approval is obtained

participants and/ or personal data (dd/mm/yy).	
3. Anticipated research end date (dd/mm/yy).	31/05/24
4. Provide a brief lay summary of the aims and objectives of the research. This should cover the questions it will answer and any potential benefits. (max 300 words)	
I will be comparing the effectiveness of vocabulary learning and retention between traditional paper homework versus online homework among middle school L2 Spanish students. I will also be exploring student attitudes between each mode. This study aims to examine those questions to provide insights into the most effective homework modes to enhancing L2 vocabulary learning in language classrooms. The potential benefits include informing teaching practices and curriculum to optimize language learning outcomes for future language students. Additionally, participation in the study offers students the opportunity to contribute to meaningful research that is aimed to improve second language educational practices.	
5. Please indicate the methods to be used (indicate with an 'X'):	
Analysis of existing records	<input type="checkbox"/>
Snowball sampling (recruiting through contacts of existing participants)	<input type="checkbox"/>
Use of casual or local workers e.g. interpreters (refer to guidance in BPG 01: Researcher safety)	<input type="checkbox"/>
Participant observation	<input type="checkbox"/>
Covert observation	<input type="checkbox"/>
Observation of specific organisational practices	<input type="checkbox"/>
Participant completes questionnaire in hard copy	<input type="checkbox"/>
Participant completes online questionnaire or other online task (refer to guidance in BPG 06: Internet-mediated research)	<input checked="" type="checkbox"/>
Using social media to recruit or interact with participants (refer to guidance in BPG 06: Internet-mediated research)	<input type="checkbox"/>
Participant performs paper and pencil task	<input checked="" type="checkbox"/>
Participant performs verbal or aural task (e.g. for linguistic study)	<input type="checkbox"/>
Focus group	<input type="checkbox"/>
Interview (refer to guidance in BPG 10: Conducting research interviews)	<input type="checkbox"/>
Audio recording of participant (you will generally need specific consent from participants for this)	<input type="checkbox"/>
Video recording of participant (you will generally need specific consent from participants for this)	<input type="checkbox"/>
Photography of participant (you will generally need specific consent from participants for this)	<input type="checkbox"/>
Others (please specify below)	<input type="checkbox"/>

6. Provide a brief summary of the research design and methods. What will research participants be asked to do? (max 300 words) Please also submit a copy of the questions participants will be asked, if applicable, or some information about the sorts of topics that will be covered.		
The research design is a comparative analysis of two homework delivery modes: online homework and traditional paper homework. This comparative analysis will take place in the context of L2 vocabulary learning among middle school students. Participants will be randomly allocated to either the traditional paper or online homework group for phase 1 and then switch groups for phase 2, so all participants will partake in each homework delivery mode. The assigned homework tasks align with their classroom curriculum. Data will be collected through bespoke vocabulary tests. The participants will also complete questionnaires to assess their attitudes towards homework delivery modes. The questions will ask students which homework delivery mode they prefer, how comfortable they felt completing homework in each type of mode, their perception of which one is more effective to learning.		
7. List the location(s) where the research will be conducted, including any other countries.		
8. Clarify which parts of the research will be conducted in-person and which will take place remotely, e.g. online .	Vocabulary assessments and student questionnaires will be conducted in-person Homework will be conducted remotely – both online and paper	
9. If your research involves fieldwork or travel and your department requires a travel risk assessment, will you have completed and returned a risk assessment form beforehand? Please indicate with an 'X'. (This must be approved by your department before you travel. If you are travelling overseas, you are advised to take out University travel insurance .) Refer to guidance available from your Department, the Safety Office , the Social Sciences Division , and the Humanities Division , and on travel for University business .	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not required in this instance	<input checked="" type="checkbox"/>
10. In the case of international or collaborative research, explain how you will address any ethical issues specific to the local context. Please provide details of the local review, approval or permission obtained or required. Refer to the BPG 16: Social science research conducted outside the UK and the Code of Conduct for Ethical Fieldwork . If there will be no local review, explain why not. Please mention any stakeholder or community engagement that has been/ will be undertaken in relation to the research. Please also address any physical or psychological risks for Oxford researchers and local fieldworkers in Section G .		
N/A		
11. Name of departmental/ peer reviewer (if applicable)	N/A	

12. External organisation funding the research and grant reference (if applicable)	N/A
13. Please refer to the CUREC Best Practice Guidance and list any that have been used to develop your research.	N/A

SECTION D: Recruitment of research participants	
1. Number of participants	Approximately 53
2. How was the number of participants decided?	The number of participants is determined by the total number of students in my classes with all students participating. There will be approximately 26 students in one intervention group and 27 in the other
3. Age range of participants	11-12 years old (6 th grade students)
4. Inclusion criteria	6 th Grade students at [REDACTED] who are in my class
5. Exclusion criteria	All students in the classes are eligible
6. Indicate with an 'X' all intended recruitment methods Please submit copies of the recruitment material that will be used, e.g. advertisement text, introductory email text.	Poster advert <input type="checkbox"/>
	Flyer <input type="checkbox"/>
	Email circulation <input type="checkbox"/>
	Social media (e.g. Twitter, Facebook) <input type="checkbox"/>
	Website <input type="checkbox"/>
	In-person approach <input checked="" type="checkbox"/>
	Snowball sampling <input type="checkbox"/>
	Recruitment sites (e.g. Mechanical Turk) <input type="checkbox"/>
	Existing contacts or volunteer database <input type="checkbox"/>
	Other (please specify): Sent via email to Microsoft Form link <input checked="" type="checkbox"/>
7. How will potential participants be identified and approached?	Students will be approached in-person during class
8. Will informed consent be obtained from the research participants or their parents/guardians? If not, please explain why not.	The approved procedure AP25 allows for gatekeeper approval from the head of schools, and opt-out consent from parents/guardians. Students involved with be asked to give their assent.

<p>9. For each activity or group of participants, explain how informed consent will be obtained from the participants themselves and/ or their parents/ guardians, if applicable. How will their consent be recorded?</p> <p>Please submit copies of all participant-facing materials for review. E.g.:</p> <ul style="list-style-type: none"> • Recruitment material (e.g. emails, posters) • Information for participants to read (or hear) before they agree to take part (e.g. written information or, if applicable, an outline oral information script). • A document to record informed consent. <p>Further guidance and templates.</p>	<p>All participants will be given information about the research in class where they will have the opportunity to ask questions. A student information sheet will be provided and students will be asked to complete an online assent form. Parents will be provided parent/guardian information sheet with an online opt-out consent form. They will also be given my contact details so they have the opportunity to ask any questions. No data will be held by the researchers from opt-outs, these will be held by the school only.</p>
<p>10. Provide details of any payments and incentives and the rationale for providing these. Further guidance in Best Practice Guidance: 05 Payments and incentives in research.</p>	<p>None</p>
<p>11. Describe how participants</p> <ul style="list-style-type: none"> • may withdraw from the study • may withdraw any personal information they have provided from the study <p>State any limits to withdrawal, for example once the data has been anonymised or at some other specified stage prior to publication. Make sure participants are aware of any withdrawal limits.</p>	<p>Participants may withdraw at any time during the data collection process by telling me in person in class, or emailing me stating they would like to withdraw. This will no longer be possible once data has been anonymized for analysis. Data will be anonymized at the end of the study. Participants will be advised at the end of data collection when they have a week left to withdraw, should they choose to do so.</p>

SECTION E: Research data

All information provided by participants is considered research data for the purpose of this form. Any research data from which participants can be identified is known as [personal data](#); any personal data which is sensitive is considered [special category data](#). Management of personal data, either directly or via a third party, must comply with the requirements of the UK General Data Protection Regulation (UK GDPR) and the Data Protection Act 2018, as set out in the [University's Guidance on Data Protection and Research](#).

In answering the questions below, please also consider the points raised in the [Data Protection Checklist](#) and [Data Protection Screening Assessment](#) and whether, for higher-risk data processing, a separate [Data Protection Impact Assessment](#) may also be required for the research. Advice on research data management and security is available from [Research Data Oxford](#) and your local IT department. Advice on data protection is available from the [Information Compliance team](#).

For guidance on conducting internet-mediated research, refer to CUREC's Best Practice Guidance 06: Internet-mediated research .				
1. What data will be collected? (Indicate with an 'X')				
Screening documents	<input type="checkbox"/>	Task results (e.g. questionnaires, diaries)	<input checked="" type="checkbox"/>	
Consent records (e.g., written consent forms, audio-recorded consent, assent forms)	<input checked="" type="checkbox"/>	IP addresses (refer to Best Practice Guidance 09: Data collection, protection and management for guidance)	<input type="checkbox"/>	
Contact details for the purpose of this research only	<input type="checkbox"/>	Field notes	<input checked="" type="checkbox"/>	
Contact details for future use (guidance)	<input type="checkbox"/>	Photographs	<input type="checkbox"/>	
Opt-out forms	<input checked="" type="checkbox"/>	Information about the health of the participant (including mental health)	<input type="checkbox"/>	
Audio recordings	<input type="checkbox"/>	Previously collected (secondary) data	<input type="checkbox"/>	
Video recordings	<input type="checkbox"/>	Data already in the public domain. Specify the source of the data:	<input type="checkbox"/>	
Transcript of audio/ video recordings	<input type="checkbox"/>	Other, please specify:	<input type="checkbox"/>	
2. During the course of the research, where will each type of research data be stored?	Consent forms, assent forms, online homework and paper homework data, vocabulary assessment data, student attitude data, any field notes, and the linkage file (student names to numbers) will be saved to Microsoft OneDrive. This is password protected with 2-step verification and accessed from a password protected laptop. Opt-out forms will be stored by the school only.			
3. Who will have access to the research data during the project?	Myself and my supervisor, Hamish Chalmers. Data will be anonymized before it is shared with him.			
4. Please complete this section if your research involves the use of secondary (i.e. previously collected) data.	Please indicated with an 'X'.		Yes	No
	Are data access agreements in place for access to and use of this secondary data? (If so, please attach these.)		<input type="checkbox"/>	<input type="checkbox"/>
	Did the individuals agree that their data could be used for this purpose?		<input type="checkbox"/>	<input type="checkbox"/>
	Could anyone (including members of the research team) link the data back to an individual or individuals? If this is a possibility, please explain how the associated ethical issues will be addressed:		<input type="checkbox"/>	<input type="checkbox"/>

5. How do you intend to share the research data at the end of the project?	Depositing in a specialist data centre or archive	<input type="checkbox"/>	
	Submitting to a journal to support a publication	<input type="checkbox"/>	
	Depositing in an institutional repository	<input type="checkbox"/>	
	Dissemination via a project or institutional website	<input type="checkbox"/>	
	No plans to share the data	<input checked="" type="checkbox"/>	
	Other (please specify):	<input type="checkbox"/>	
6. How do you intend to report and disseminate the results of the research? (Indicate with an 'X')	Thesis publication	<input type="checkbox"/>	
	Publication in a peer reviewed journal	<input type="checkbox"/>	
	Publicly available report	<input type="checkbox"/>	
	Conference presentation	<input type="checkbox"/>	
	Publication on a website	<input type="checkbox"/>	
	Pre-registration	<input type="checkbox"/>	
	Report to a research funder	<input type="checkbox"/>	
	Providing participants with a lay summary of the results	<input checked="" type="checkbox"/>	
	Submission for academic assessment	<input checked="" type="checkbox"/>	
	Other (please specify):	<input type="checkbox"/>	
7. Explain what will happen to the data at the end of the research project. This question must be answered for each type of data, including completed consent forms.			
Research data will be safely stored for 3 years following the end of the research project. All data will be stored securely on Microsoft OneDrive and it will be stored by my supervisor on University OneDrive, as I will not be a student at the university in 3 years. Data will not be available for reuse. After the 3 years, data will be destroyed using a file shredding app (fileshredder.org). Paper copies will be shredded using a paper shredder.			

SECTION F: Protection of research participants and their personal data		
1. How identifiable will the participants be from the research outputs ? (Indicate with an 'X')	Directly identifiable from the information included	<input type="checkbox"/>
	Pseudonymised / indirectly identifiable	<input type="checkbox"/>
	Not identifiable – data is anonymous	<input checked="" type="checkbox"/>
	Other, please specify:	<input type="checkbox"/>
2. To what extent will the data be de-identified ? How identifiable will any individuals be from the research data?	Participants will be given a number rather than a name in files and the linking document will be kept separately. Once the linking is no longer required it will be destroyed using fileshredder.org.	

Describe any measures you will take towards assuring confidentiality , potential risks to confidentiality.	
3. How will you ensure that third parties (e.g., interpreters and transcribers) are aware of and adhere to the measures described in this form?	N/A

SECTION G: Risks and benefits of the research

1. Will the research involve topics that could be considered [sensitive](#)? If so:
 - a. Please provide more detail or supporting information (such as the interview questions) to show the range of questions;
 - b. Explain what steps will be taken to reduce risk of distress;
 - c. Consider seeking advice from within your Department or from the ethics committee including whether the application might benefit from additional ethics review (e.g., via a CUREC 2 application).

Research topics are not sensitive

2. Describe any additional burden or risks to the participants or others, including the potential for any indirect negative consequences. Explain the steps you will take to address these.

None

3. Describe any physical or psychological risks to the researcher(s) (including local fieldworkers or research assistants) and the steps you will take to address these.

None

4. Describe any benefits of the research, both to participants and to others. Outline the processes put in place to enable equitable research (see [BPG 16 Social science research conducted outside the UK](#) for further guidance).

The research may benefit participants and others as it may enhance our understanding of homework practices in second language classrooms and identify effective strategies for vocabulary learning. The findings from this study have the potential to inform teaching practices and improve outcomes for language students.
5. Comment on the societal impact.
See above.
6. Give details of any other ethical issues or relevant information.
N/A

SECTION H: Professional guidelines		
Please indicate with an 'X' at least one set of professional guidelines you will follow.		
Research specialism/ methodology	Association and guidance	
Anthropology	Association of Social Anthropologists of the UK	<input type="checkbox"/>
Computer Science	ACM Code of Ethics and Professional Conduct	<input type="checkbox"/>
Criminology	British Society of Criminology Statement of Ethics	<input type="checkbox"/>
Education	British Educational Research Association Ethical Guidelines for Educational Research	<input checked="" type="checkbox"/>
Geography	American Association of Geographers Statement on Professional Ethics	<input type="checkbox"/>
History	Oral History Society of the UK Ethical Guidelines	<input type="checkbox"/>
Internet-mediated research	Association of Internet Researchers Ethical Guidelines British Psychological Society: Ethics Guidelines for internet-mediated research Association for Computing Machinery Code of Ethics and Professional Conduct	<input type="checkbox"/>
Management	Academy of Management Code of Ethics	<input type="checkbox"/>
Political Science	American Political Science Association (APSA) Guide to Professional Ethics in Political Science	<input type="checkbox"/>
Politics	Political Studies Association. Guidelines for Good Professional Conduct	<input type="checkbox"/>
Psychology	British Psychological Society Code of Ethics and Conduct	<input type="checkbox"/>
Social research	Social Research Association: Ethical Guidelines	<input type="checkbox"/>
Socio-legal studies	Socio-Legal Studies Association: Statement of Principles of Ethical Research Practice	<input type="checkbox"/>
Sociology	The British Sociological Association: Statement of Ethical Practice	<input type="checkbox"/>

Visual research	ESRC National Centre for Research Methods Review Paper: Visual Ethics: Ethical Issues in Visual Research	<input type="checkbox"/>
Other professional guidelines		<input type="checkbox"/>

SECTION I: Endorsements and signatures

Please ensure this form is endorsed by the [Principal Investigator](#) (or student's supervisor), the Head of Department (or nominee) and, if student research, by the student themselves.


The SSH IDREC Secretariat accepts either option below. If you have a [DREC](#), check which signature option it prefers.

- **Option 1: direct email endorsements**
Each of the signatories should submit an email from a University of Oxford email address, indicating their acceptance of the responsibilities listed below.
- **Option 2: signatures**
Please scan the signed form and email it to us as a PDF. Pasted images of signatures cannot be accepted.

Endorsement by the Principal Investigator/ student supervisor and student, if applicable

I/ we the researchers understand my/ our responsibilities as Principal Investigator (and student, if applicable) as outlined in the guidance on the CUREC website. I/ we declare that the answers above accurately describe the research as presently designed, and that the ethics committee will be informed of any changes to the project which affect the answers to this form.

I/ we will inform the relevant IDREC if the Principal Investigator changes.

Name of Principal Investigator	Hamish Chalmers
Principal Investigator's signature	
Date	
Name of student (if applicable)	Lisa Sheehan
Student's signature	
Date	3/13/24

Departmental endorsement – from the Head of Department or nominee (Another senior member of the department may sign where the head of department is the Principal Investigator, or where the Head of Department has appointed a nominee. Example nominees include Deputy Head of Department, Director of Research, or Director of Graduate/ Undergraduate Studies.)

On the basis of the information available to me, I confirm that:

- I am aware of the research proposed and have read this application;
- To the best of my knowledge, the proposed design and scientific methodology do not raise ethical concerns;
- I support this research in principle, subject to ethical and other necessary reviews.

Signature	
Name	
Role	
Date	

Appendix H: CUREC Acceptance Letter

**SOCIAL SCIENCES & HUMANITIES
INTERDIVISIONAL RESEARCH ETHICS COMMITTEE
DEPARTMENTAL RESEARCH ETHICS COMMITTEE**

Department of Education
15 Norham Gardens, Oxford OX2 6PY
student.curec@education.ox.ac.uk; staff.curec@education.ox.ac.uk



Lisa Sheehan
Department of Education, Social Sciences Division
University of Oxford

14 March 2024

Dear Lisa,

Research ethics approval

Research title: L2 vocabulary learning and retention: A comparison between traditional paper homework and online homework

Research ethics reference: EDUC_C1A_24_098

The above application has been considered on behalf of the Education Departmental Research Ethics Committee (DREC) in accordance with the University's procedures for ethical approval of all research involving human participants.

I am pleased to confirm that, on the basis of the information provided to the DREC, ethics approval has now been granted for this study.

Please note the following:

Personal data: It is the responsibility of the PI to ensure that all personal data collected during the project is managed in accordance with the University's [guidance and legal requirements](#).

In-person activities: Any data collection involving in-person interactions with participants must have an up-to-date fieldwork risk assessment in place; further guidance is available from the Safety Office's [website](#).

Amendments: Please notify the committee if you intend to make any amendments to the information in your ethics application as submitted at date of this approval, as all changes must receive ethical approval prior to implementation. The amendment form is available on the [SSH IDREC webpage](#).

We welcome feedback on your experience of the ethical review process and suggestions for improvement. Please email any comments to staff.curec@education.ox.ac.uk / student.curec@education.ox.ac.uk or ethics@socsci.ox.ac.uk.

Yours sincerely,
Julia Badger
DREC member

cc: Hamish Chalmers, Irina Lepadatu

Appendix I: Approval from Participating School

Re: Request for Permission to Conduct Research

To: Lisa Sheehan

Flagged

INTERNAL: This email has been received from an internal email address.

Approved!

Get [Outlook for iOS](#)

From: Lisa Sheehan
Sent: Wednesday, February 14, 2024 10:38:58 PM
To:
Subject: Request for Permission to Conduct Research

INTERNAL: This email has been received from an internal email address.

Dear

I am writing to seek permission to conduct a research study with my Spanish 6 classes at the for my dissertation research as part of my MSc in Applied Linguistics at the University of Oxford, supervised by Dr. Hamish Chalmers.

The purpose of the study is to investigate the effectiveness of different modes of homework delivery on second language vocabulary learning amount students. Specifically, I will compare traditional paper homework with online homework in facilitating vocabulary acquisition and retention. Additionally, I aim to explore student attitudes towards both homework delivery modes. The research is scheduled to take place in the Spring of 2024, and I will integrate the assigned homework modes into the existing curriculum, without fundamentally changing the content.

By participating in the research, would contribute to a study aimed at enhancing our understanding of homework practices in second language classrooms and identifying effective strategies for vocabulary learning. The findings from this study have the potential to inform teaching practices and improve outcomes for language students.

I want to assure you that the University of Oxford has strict procedures on conducting ethical research in place, aligned with the British Educational Research Association guidelines. Prior to commencing the research, I will obtain informed consent from all students and parents/guardians, and students and parents/guardians will have the opportunity to decline participation at any stage of the study. Moreover, all collected data will be anonymized and kept strictly confidential, with access limited to myself and my supervisor. I have attached provisional copies of the information sheets that will be provided to parents/guardians and students for your review.
[Information sheet for parents and students 2.docx](#)

I kindly request your permission to proceed with conducting research at . Please feel free to contact me if you require any further information or clarification regarding the research proposal. Thank you very much for considering this request, and I look forward to hearing from you soon.

Sincerely,
Lisa Sheehan

Reply Forward

Appendix J: Information Sheet for Parents/Guardians

Hamish Chalmers
hamish.chalmers@education.ox.ac.uk
Lisa Sheehan, MSc student
lisa.sheehan@education.ox.ac.uk



INFORMATION SHEET FOR PARENTS / GUARDIANS

Ethics Approval Reference: EDUC_C1A_24_098

L2 Vocabulary Learning and Retention: A Comparison Between Traditional Paper Homework and Online Homework

Dear Parents & Guardians,

I would like to inform you about an upcoming research study that your child may participate in at the [REDACTED] in their Spanish 6 class. The study aims to investigate the effectiveness of different modes of homework delivery on second language vocabulary learning. I will be conducting the study as part of my dissertation research for my MSc in Applied Linguistics at the University of Oxford, and under the supervision of Dr. Hamish Chalmers.

In partnership with researchers at the University of Oxford, [REDACTED] has agreed to take part in this research study. I am inviting all 6th grade Spanish students at both the [REDACTED] [REDACTED] to partake in this study. I hope you will want your child to participate in this research study, but before you decide, it is important you understand why the research is being done and what it will involve.

What is the purpose of the study?

The primary objective of this study is to compare the impact of traditional paper homework with online homework on second language vocabulary acquisition and retention. Additionally, I will explore student attitudes towards both homework delivery modes.

Does my child have to be involved?

No, your child does not have to be involved and you can ask questions before deciding whether to allow your child to be involved. If you do agree to their involvement, you may withdraw your child at any time, without giving a reason, and without any effect on their education, by advising me of this decision. Parents will be advised when data collection is finished, and they have one week remaining to withdraw their child, should they wish to do so.

What will my child be asked to do?

Your child will continue to experience Spanish class as usual. For the given vocabulary, students will be asked to complete either the online homework or the paper homework, depending on which group they are randomly assigned to. The online and paper homework are the same questions with the same content, with the only difference being the mode in which students are completing their work. There will be two phases of the study, each lasting 3 weeks. The phases indicate which homework group your child is in. For example, if they are in the online homework group for phase 1, they will be placed in the traditional paper homework group for

phase 2. I will remind students, as well as their parents/guardians, what group they are assigned to for each phase. At the end of each phase, there will be an assessment to collect data on vocabulary acquisition and retention. Data will be collected weekly through homework assignments and at the end of the study, students will complete a questionnaire to evaluate learning outcomes and attitudes towards homework delivery modes.

What are the advantages and disadvantages of taking part?

There are no direct advantages or disadvantages for your child taking part in this study. It is hoped that the Spanish class will be enjoyable and useful for all students, and that this research may help guide teaching in future years.

What happens to the data provided?

Any information your child provides during the study is the research data. No personal data about your child will be stored beyond the duration of the study. I will record your child's name for administration purposes while conducting the study. I will not use your child's name in any other way or for any other purpose, including in writing up the study. I will also record their age and gender. This will be used to provide a general description of the people who participated in the study. Online homework and paper homework data will be saved to a password protected with 2-step verification laptop. Opt-out forms will be retained by the school for the duration of the research, and for as long as the school determines appropriate after research activities have concluded at the school. I will ensure all other data collected in the research has identifying information removed as soon as possible after collection. Only myself and my supervisor, Dr. Hamish Chalmers, will have access to the data during the project, and data will be anonymized before it is shared with him.

The University of Oxford is the data controller with respect to your personal data, and as such will determine how your child's personal data is used in the research.

The University will process your child's personal data for the purpose of the research outlined above. Research is a task that we perform in the public interest.

Further information about your rights with respect to your personal data is available from <https://compliance.web.ox.ac.uk/individual-rights>.

Will the research be published?

The University of Oxford is committed to the dissemination of its research for the benefit of society and, in support of this commitment, has established an online archive of research materials. This archive includes digital copies of student theses successfully submitted as part of a University of Oxford postgraduate degree program. On successful submission of my thesis, it may be deposited both in print and online in the University archives where it will be publicly available to facilitate its use in future research.

Who has reviewed this study?

This research study has been reviewed by and received ethics clearance through the University of Oxford's Central University Research Ethics Committee, EDUC_C1A_24_098.

Who do I contact if I have a concern about the research?

If you have a concern about any aspect of this research, please contact Lisa Sheehan (lisa.sheehan@education.ox.ac.uk) or Dr. Hamish Chalmers (hamish.chalmers@education.ox.ac.uk), and we will do our best to answer your question. We will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with. If you remain unhappy or wish to make a formal complaint, please contact the Chair of the Research of Ethics Committee at the University of Oxford who will seek to resolve the matter as soon as possible:

Chair, **Social Sciences & Humanities Interdivisional Research Ethics Committee**; Email: ethics@socsci.ox.ac.uk; Address: Research Services, University of Oxford, Boundary Brook House, Churchill Drive, Headington, Oxford OX3 7GB

What should I do next?

Please complete this Microsoft Form if you **DO NOT** want your child to take part in the study: <https://forms.office.com/r/ADUYUwmUeH>



If you are happy for your child to take part, no action is required. Please remember that you may withdraw your child at any time, without affecting their education and without giving a reason, by notifying the researcher.

I understand that you may have questions or concerns regarding your child's participation in this research study. Please feel free to contact me at any time if you would like further information or clarification.

Thank you for your attention to this matter. Your support and cooperation are greatly appreciated.

Sincerely,
Lisa Sheehan

Appendix K: Opt-out Form for Parents



Spanish 6 Research Study Opt-Out Form

L2 Vocabulary Learning and Retention: A Comparison Between Traditional Paper Homework and Online Homework


If you DO NOT want your child to be included in the above named research study, please fill out the form below.


If you are happy for your child to be included in the research study, NO FURTHER ACTION is required.


If we do not receive an opt-out form from you by this date, your child may be included in this study, as described in the accompanying information sheet.

Note: The information from this opt-out form will be stored with the school only.

* Required

1. Your name: * 

2. Your child's name: * 

3. Do you wish your child to take part in the research study, as described in the information sheet? * 

No

Submit

Appendix L: Information Sheet for Students

Hamish Chalmers
hamish.chalmers@education.ox.ac.uk
Lisa Sheehan, MSc student
lisa.sheehan@education.ox.ac.uk



INFORMATION SHEET FOR STUDENTS Ethics Approval Reference: EDUC_C1A_24_098

L2 Vocabulary Learning and Retention: A Comparison Between Traditional Paper Homework and Online Homework

Dear Students,

We are inviting you to join in a research study! My name is Lisa Sheehan and I teach 6th Grade Spanish here at [REDACTED]. I am also a student at the University of Oxford, where I am doing research to look at which homework method works best for learning new Spanish vocabulary: traditional paper homework or online homework. I will be looking at how well you learn and remember new vocabulary words in each type of homework and how you feel about each homework mode.

Before you decide if you would like to join in, it's important to understand what the research is about, why we are doing it, and what it would involve for you. Please read and think about this information sheet carefully. I have also written to your parents/guardians to tell them about this research and think about whether you should be included. Please talk to your family, friends, or the researchers about it if you want. If anything is not clear or you have more questions, you can ask your parent/guardian to call me and we can discuss it together.

Why are we doing this research?

You all complete homework in your world language class. We are doing this research to see if you learn vocabulary better if your homework is online, on paper, or if there is no difference at all! I am also interested in finding out which homework method you prefer as students.

Why have I been invited to take part?

I am asking all students in 6th Grade Spanish class to take part.

Do I have to take part?

No, it is up to you. I will ask you to sign a form to say that you agree to take part. You are free to stop taking part at any time during the research without giving a reason by telling me or your parent/guardian and having them let me know. You do not have to say why and this will not affect your education. If you decide to stop, no one will be upset with you. You will be told when the study is ending and you will have a week from that date to withdraw, should you wish to do so. Please either email me or tell me in person.

What will happen if I take part in the research?

The research will take place over six weeks and has two phases. In one phase, you will be randomly assigned either the online homework group or the paper homework group. Whatever group you are in for phase 1, you will swap for phase 2. That way, all students will complete three weeks of online homework and three weeks of traditional paper homework. At the end of each phase, you will take a vocabulary assessment to see how much you learned. At the end of the study, you will complete a questionnaire about which homework delivery method you prefer and why.

Are there any advantages or disadvantages in taking part?

There are no particular advantages or disadvantages in taking part, but I hope that you will enjoy learning new vocabulary and practicing the new words in the various homework formats. The homework and assessments will have no impact on your overall grade in Spanish class.

What happens to the results of the research?

The results are kept strictly confidential, and only the people doing the research, or helping with the research, can see the data. I will replace your names with numbers for the data so only a number will be used to identify you. All information and results are kept in a secure, password protected with 2-step verification laptop. No one will know that you have taken part unless you tell them yourself. I will use the information to write my dissertation, and if I want to use the information for anything else, I will ask your permission. All research data and records will be stored for 3 years after publication or public release of the work of the research. Third parties may be given access to research data for monitoring and/or audit of the research, or for data storage purposes.

Data Protection

The University of Oxford is the data controller with respect to your personal data, and as such will determine how your personal data is used in the research.

The University will process your personal data for the purpose of the research outlined above. Research is a task that we perform in the public interest.

Further information about your rights with respect to your personal data is available from <https://compliance.web.ox.ac.uk/individual-rights>.

What if I do not want to take part in the research anymore?

Tell your parents/guardians and the people carrying out the research that you do not want to take part. You do not have to give a reason and no one will be upset with you. It is your choice.

Who has reviewed this study?

This research study has been reviewed by and received ethics clearance through the University of Oxford's Central University Research Ethics Committee, EDUC_C1A_24_098.

What if there is a problem or something goes wrong?

Please tell us if you are worried about any part of this research, by contacting the researcher. You may also talk to your teacher/parent/guardian who will let the researcher know. If you are still unhappy or wish to make a complaint, either you or your teacher/parent/guardian can contact the chair of the Research Ethics Committee at the University of Oxford:

Chair, **Social Sciences & Humanities Interdivisional Research Ethics Committee**; Email: ethics@socsci.ox.ac.uk; Address: Research Services, University of Oxford, Boundary Brook House, Churchill Drive, Headington, Oxford OX3 7GB

What do I do now?

Please complete the assent form to indicate that you would like to be a part of this study.

<https://forms.office.com/r/0ZWD9jYr9A>

If you have any questions, let me know. I am looking forward to this research study!

Sincerely,
Ms. Sheehan

Appendix M: Assent Form for Students

Spanish 6 Research Study Assent Form

L2 Vocabulary Learning and Retention: A Comparison Between Traditional Paper Homework and Online Homework

Please read the statements below and click "yes" if you agree with it and "no" if you do not agree with it.

Note: If you opt-out, the information from this form will be stored with the school only.

Hi, Lisa. When you submit this form, the owner will see your name and email address.

* Required

1. Has somebody explained this project to you? *

Yes

No

2. Do you understand what this project is about? *

Yes

No

3. Have you asked all the questions you want? *

Yes

No

4. Have you had your questions answered in a way you understand? *

Yes

No

5. Do you understand it is ok to stop taking part at any time? *

Yes

No

6. Are you happy to take part? *

Yes

No

7. If you answered any of the above answers with "no" or you DO NOT want to take part, please write your name below:

Enter your answer

Submit