

BLOGS AND WEBQUESTS IN BLENDED LEARNING

Utilizing Blogs And WebQuests For Learning Authentic Tasks When Building Students'
Spanish Vocabulary Via Blended Learning

by

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Running Head: BLOGS AND WEBQUESTS IN BLENDED LEARNING

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Abstract

The purpose of this research study was to assess the impact of blended learning on student learning performance and motivation when developing their Spanish vocabulary using blogs and WebQuests. The participants were 15 undergraduate students enrolled at a private college located in Wisconsin. The researcher used a mixed-methods design (quantitative and qualitative). For the quantitative component, a t-test was used to analyze data obtained from the pre and post-test learning results of the students. The results of the pre-test were that the control and experimental group were equal in terms of their vocabulary knowledge. The *p-value* was $.87 > 0.05$ and the *means* of the two groups were 5.5 and 5.6. The results of the post-test showed a *p-value* = $.043 < .05$. The null hypothesis was rejected and the research hypothesis was accepted at the .05 level of significance based upon the post-test results. The *p-value* was .043, less than the .05 *significance level* needed. This evidence supports the research hypothesis, which stated that learners, exposed to the blended learning approach, recalled more vocabulary and had better comprehension than the control group, which only received the input in the classroom setting. For the qualitative component, the researcher used the phenomenology type of qualitative research because it allowed for the analysis and description of students' reactions, experiences, and feelings toward the tasks. The results of this phenomenological study presented positive student perceptions in terms of motivation when being exposed to the blended learning instruction.

Key Words:

Blended learning, second language vocabulary acquisition, mixed-methods design.

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Table of Contents

ABSTRACT	i
ACKNOWLEDGMENTS	ii
TABLE OF CONTENTS	iii
I. INTRODUCTION	1
Overview	1
Background of the Study.....	1
Statement of the Problem.....	3
Purpose of the Study	4
Research Questions	4
Hypothesis.....	5
Definition of Terms.....	5
Chapter Summary	8
II. REVIEW OF RELATED LITERATURE	9
Overview	9
Second Language Acquisition	9
Technology Tools to Lead to Second Language Vocabulary Acquisition	20
Development of Authentic Tasks using Media Sources	27
Learners' Motivation when Acquiring a Second Language	32
Chapter Summary	33
III. METHODOLOGY	35
Overview	35
Design	35
The Role of the Researcher	37
Description of Participants and Data Sources	38
Description of Data Collection Methods	42
Procedures	43
Data Analysis	46
Issues of Validity	48
Issues of Subjectivity	49
Chapter Summary	52

IV. FINDINGS	53
Quantitative Component	53
Qualitative Component	53
Chapter Summary	63
V. DISCUSSION, CONCLUSIONS, AND IMPLICATIONS.....	64
Overview	64
Discussion	64
Research Question 1.....	64
Research Question 2.....	65
Conclusions.....	66
Implications.....	66
Chapter Summary	67
WORKS CITED	68
APPENDICES.....	71
Language Questionnaire	71
Technology Questionnaire	74
Vocabulary Pre-test.....	76
Vocabulary Post-test	78
Data Analysis Tables for Pre-test.....	81
Data Analysis Tables for Post-test.....	82
Interview about Experiences with the Blended Learning Instruction.....	83
Field Note N. 1: WebQuest N. 1	84
Field Note N. 2: WebQuest N. 2.....	86

Chapter I

Introduction

Overview

Information and Communication Technologies have had a great impact on education utilizing their various forms of information delivery for learning specific educational content. Blended learning represents an example of this integration of new technologies in education, which have a significant impact on students' learning performance and motivation when studying a second language. The goal of this research study was to explore the viability of a mixed-methods approach to assess the impact of blended learning through blogs and WebQuests.

Background of the Study

Today most of the second language learning settings are in classroom environments such as schools, colleges, or language institutes. This is due to the fact that the opportunities to be enrolled in an immersion program, where the learner becomes part of the language context, are not frequently available, or simply because the people who want to learn another language are already living in their native speaking country. Therefore, which instructional strategies, resources, and environmental issues are the most useful for learning a target language? These strategies have become topics of debate by language researchers and pedagogues such as Krashen and Terrell (1983), Coady (1997), Gabriela Castañeda-Jiménez and Scott Jarvis (2014), Lyster (2004), Plass and Jones (2005), Tetyana Sydorenko (2010).

Some of these authors relate to the idea of direct approaches to teaching a language using “metalinguistic feedback and explicit correction” (p. 26), as argued by Ellis et al., 2001, Lyster and Ranta, 1997 and cited in Loewen (2012). Detractors of this type of negative feedback argue that it can disrupt communicative interaction. Krashen and Terrell (1983) indicate that despite the fact that most language teaching “is directed at learning and not acquisition [...] it is possible to encourage acquisition very effectively” (p. 27) through activities that allow the student to use the language for communicative purposes. This last finding can be studied through the integration of Information and Communication Technologies (ICTs) in learning a second language. Blended learning exemplifies one of the uses of new ICTs in education since it combines face-to-face instruction with students’ autonomous work using media sources.

Blended learning facilitates interactivity through simulated contexts and offers a variety of opportunities for students to learn educative content. It is a “way to incorporate active learning strategies and one of its strengths is that it combines synchronous and asynchronous methodologies” (Glazer, 2011, p. 3). Synchronous is defined as a “form of communication transmission with a direct timing relationship between input and output signals. The transmitter and receiver are in sync and signals are sent at a fixed rate” (Norris, 1999, p. 231). In contrast, asynchronous is a “form of communication with a variable transmission rate without a predictable time relationship to a specified event” (Saigh, 1998, p. 12).

This study focused on vocabulary learning because, according to many language experts, vocabulary enhances the development of other second language communicative skills. In a very early study on the topic, Nation (1994) argues, “Vocabulary is not an end

in itself. A rich vocabulary makes the skills of listening, speaking, reading, and writing easier to perform. Learners' growth in vocabulary must be accompanied by opportunities to become fluent with that vocabulary" (p. 8). Nation's belief suggests that vocabulary is not just an accumulation of isolated words that need to be taught and memorized. Vocabulary means words with a rich cultural meaning that leads to the development of various communicative skills in a target language.

Statement of the Problem

Following Lee and Van Patten's ideas (2003), the purpose of language instruction is to develop communicative environments to lead learners to use the target language as a means of communication (acknowledging that communication is the expression, interpretation, and negotiation of meaning). However, not all language instructors share this philosophy. Currently, it is possible to see language instruction still using methods focused on presenting the learners with plain grammar and isolated vocabulary to develop listening, speaking, reading, and writing skills. This aspect addresses the claim that there is a lack of consciousness among some teachers to animate their students to go beyond their abilities to learn a target language. The students are seen as passive receptors of knowledge, and learning a language is seen as an issue of explicit study of structural features of the language. Some institutions do not recognize the importance of new technologies to provide learners with a simulated environment of the target language in cases where that language is not normally spoken outside the classroom.

Sydorenko (2010) argues the idea of integrating multimedia as a way of achieving second language vocabulary acquisition and cites Plass and Jones (2005) who claim,

“The combination of print, audio, and imagery enhance input by making it more comprehensible” (p. 50). They cite Brinton who reports, “The use of multimedia allows for the provision of authentic input and thus exposure to the target culture, it motivates learners, and it accounts for students’ different learning styles” (p. 50). This means that multimedia environments and technology tools provide the teacher with diverse opportunities to help students perform better in the target language.

Purpose of the Study

The purpose of this study was to:

1. Identify the impact of blended learning on students’ performance and motivation when building their Spanish vocabulary through blogs and WebQuests, compared to a control group not exposed to this approach.
2. Provide authentic materials to students in order to encourage a stimulating real context for the target language in a blended learning environment.

Research Questions

The researcher sought to answer the following research questions:

- 1.) How effective is blended learning for students’ performance when learning Spanish vocabulary through blogs and WebQuests?
- 2.) What is the impact of blended learning on students’ motivation when learning Spanish vocabulary through blogs and WebQuests?

Hypothesis

The null hypothesis (Ho) was that the learners, who were exposed to the blended learning instruction, recalled less vocabulary and consequently had a lower performance on the vocabulary post-test than those who only received vocabulary learning in a normal classroom setting.

The research hypothesis (H1) was that the learners, who were exposed to the blended learning instruction, recalled more vocabulary and consequently had better performance on the vocabulary post-test than those who only received vocabulary learning in a normal classroom setting.

C=control group E=experimental group

$$H_0 = \bar{X}_E \leq \bar{X}_C$$

$$H_1 = \bar{X}_E > \bar{X}_C$$

Definition of Terms

For the purpose of this study:

Acquisition: Kristen and Terrell (1983) contend that acquisition is a subconscious process in which there is an implicit knowledge of the language. They argue that it is possible to encourage acquisition very effectively in the classroom by presenting learners with tasks that allow them to use the target language for real communication purposes (p. 26).

Asynchronous: Is a “form of communication with a variable transmission rate without a predictable time relationship to a specified event” (Saigh, 1998, p.12).

Blended learning: Is a “combination of different training ‘media’ (technologies, activities, and types of events) to create an optimum training program for a specific audience. The term ‘blended’ means that traditional instructor-led training is being supplemented with other electronic formats” (Bersin, 2004, p. 15). Blended learning combines face-to-face instructions by teachers with students’ autonomous work using media sources. It offers a variety of opportunities to approach any educative content since it is a “way to incorporate active learning strategies, and one of the strengths of blended learning is that it combines synchronous and asynchronous methodologies” (Glazer, 2011, p. 3).

Blogs: “As both educational and communicational tools, blogs have the potential for effective second language teacher education with their numerous advantages. Blogs in general are public online spaces for practitioners to publish their work and ideas, and for readers to write their comments and opinions freely” (Taraf & Okan, 2013, p. 282).

Information and Communication Technologies: the United Nations Development Programme (UNDP) defines ICTs as

Basically information-handling tools- a varied set of goods, applications and services that are used to produce, store, process, distribute and exchange information. They include the ‘old’ ICTs of radio, television and telephone, and the ‘new’ ICTs of computers, satellite and wireless technology and the Internet (Nwokefor, 2015, p. 3).

Multimedia: “Is any combination of text, graphic art, sound animation, and video delivered to you by computer or other electronic means. Multimedia excites eyes, ears, fingertips, and, most importantly, the head” (Sethi, 2005, p. 1).

Scaffolding: Is defined as a “process that enables a child or novice to solve a task or achieve a goal that would be beyond his unassisted efforts” (Wood, Bruner, & Ross, 1976, p. 90).

Scaffolding refers to a particular way in which adults help children learn or assume more responsibility for tasks. Experts in child development view scaffolding as an important process through which children acquire new skills and learn about their world. As the metaphor of scaffolding used in building construction suggests, the idea is that before children are able to stand on their own and complete tasks independently, adults (or more competent peers) provide just the right amount and type of support, assistance, or ‘scaffolding’ children need in order to move to the next level or take on more responsibility for completing a particular task by themselves (Salkind, 2005, p. 1102).

Synchronous: Is defined as a “form of communication transmission with a direct timing relationship between input and output signals. The transmitter and receiver are in sync and signals are sent at a fixed rate” (Norris, 1999, p. 231).

Vocabulary: Laufer and I. S. P. Nation (2014) declare that vocabulary consists of a “huge number of words of various degrees of usefulness [...] important words are of two kinds: those that are frequently used in the language being learned and therefore

useful for all purposes, and words that may be infrequently used, but are nevertheless useful for the learner's particular needs, for example, academic reading, or a tour guide” (pp. 163-164).

WebQuest: Is an “inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the Internet” (Dodge, 2001, p. 6). Through WebQuests, language instructors can develop students’ critical thinking about the target language due to the scaffolding process for structuring them.

Chapter Summary

The researcher introduced the topic of using a mixed-methods strategy to assess the impact of blended learning on students’ vocabulary learning performance and their motivational level when building their Spanish vocabulary through blogs and WebQuests. The researcher also presented the context of the topic, the purpose of the study, the statement of the problem, and the definition of terms in this chapter.

Chapter 2

Review of Related Literature

Overview

The purpose of this study was to use a mixed-methods design to assess the impact of blended learning on student performance and motivation when developing their Spanish vocabulary through blogs and WebQuests. This chapter presents a review of the related literature covering the history, definition, and research of second language vocabulary acquisition; language learning through technology; development of authentic tasks using media sources; and learners' motivation when acquiring a second language.

Second Language Acquisition

Krashen and Terrell (1983) developed the idea of encouraging language acquisition in classroom settings through teaching methods that lead the student to use the language for communication purposes. Their theory about the Natural Approach describes this conception and developed five hypotheses related to language acquisition. In *Acquisition-Learning hypothesis*, Krashen and Terrell (1983) focus on two ways adults can develop their competence in second languages. The first way is language acquisition, which refers to “using language for real communication. Language acquisition is the ‘natural way to develop linguistic ability, and is a subconscious process’” (p. 26).

The second way is learning, defined as a conscious process and explicit knowledge of the language. “Learning refers to ‘explicit’ knowledge of rules, being aware of them and being able to talk about them. This kind of knowledge is quite different from language acquisition, which could be termed ‘implicit’” (Krashen &

Terrell 1983, p. 26). In their first hypothesis, Krashen and Terrell explain that adults can still acquire second languages, but it does not imply they can achieve a native-like level. These authors also continue by saying, “Despite our conclusion that language teaching is directed at learning and not acquisition, we think that it is possible to encourage acquisition very effectively in the classroom” (p. 27). The current study takes into account Krashen and Terrell’s perception of second language acquisition. The objective of this study deals with assessing the impact of blended learning on students’ Spanish vocabulary acquisition using media sources as authentic materials.

The Natural Order hypothesis implies that grammatical structures are acquired and not necessarily learned. The learner can acquire certain grammatical structures early and some others later (Krashen & Terrell, 1983, p. 28). These authors also argue that the grammatical order for the acquisition of a second language is not always the same as the acquisition of the first language but can have similarities. (p. 29). This suggests that certain grammatical structures do not necessarily need to be taught because learners can acquire them along the way in an instructional environment in a predictable order.

The *Monitor hypothesis* implies, “Conscious learning has an extremely limited function in adult second language learning: it can be only used as a monitor, or editor” (Krashen & Terrell, 1983, p. 30). This hypothesis describes the influence of second language instruction on a learner’s language acquisition since, if these are based on error correction, this cannot effectively initiate a learner’s production and fluency of the target language. However, a conscious approach for learning the rules and grammatical structures of the target language can be beneficial because it directs the learner to *self-repair* due to the attention on specific aspects of the language.

The *Input hypothesis* states, “We acquire (not learn) language by understanding input that is a little beyond our current level of (acquired) competence” (Krashen and Terrell, 1983, p. 32). This means, if instructors present learners with a comprehensible input associated with the structures that are part of the next stages of the acquisition, learners will progress in the process of language acquisition. Krashen and Terrell (1983) explain this hypothesis formally by saying that a learner can “move from a stage i (where i is the acquirer’s level of competence) to a stage $i + 1$ (where $i+1$ is the stage immediately following i along some natural order) by understanding language containing $i + 1$ ” (p. 33). For example, if the learners “are up to the third person singular morpheme – s in English, they can only acquire this morpheme if they heard or read messages that utilize this structure and understand their meaning” (p. 32). These authors argue that a way of making possible learners’ understanding of a language with structures not yet acquired is by providing them with a context and extra-linguistic information as caretakers do with their children.

Caretakers provide this context for young children by restricting their talk to the ‘here and now’, to what is in the child’s domain at the moment [...] researchers have found that caretakers (mothers, fathers, and others) simplify their speech when they talk to children. This simplification is thought to be helpful for language acquisition: children acquiring second languages who get simplified input are assumed to acquire faster than those who do not (Krashen & Terrell, 1983, p. 34).

This suggests that caretakers’ speech could be used as an instructional strategy for second language acquisition, due to the fact that caretakers make information more

comprehensible and simpler by altering speech, providing extra-linguistic support, and context. Krashen and Terrell also say, “Good second language teachers do this by adding visual aids, by using extra-linguistic context” (p. 32). This aspect relates to the current investigation because the purpose of this researcher was to offer the learners an input that could lead them to the next stages of the acquisition process through blended learning. There was an online input presented through media sources and web-based activities while the classroom instructions provided the learners with input by using PowerPoint presentations, images, and teacher talk in the target language.

The Input Hypothesis claims that the ability to write and speak fluently in the target language emerges after the learner “has built up competence through comprehending input and that listening and reading comprehension were of primary importance” (Krashen & Terrell, 1983, p. 32). This means that listening and reading are the abilities most often developed first, so that the learner can have a certain level of language information through the given input. Consequently, writing and speaking fluently represent part of the learner’s output after being exposed to certain meaningful input. This brings up a phenomenon called *the silent period* that refers to the “time during which acquirers build up competence by active listening, via input” (Krashen & Terrell, 1983, p. 36). Krashen and Terrell cite Hatch who reports on his research of a five-year-old acquirer of English as a second language. This child did not begin to speak English until many months after his arrival in the USA, and “his only early output was memorized sentences [...] which he clearly learned as whole utterances without real understanding of their components” (p. 35).

Output is another component required for a successful second language acquisition. Swain (1995) argues that output “may stimulate learners to move from the semantic, open-ended non-deterministic, strategic processing prevalent in comprehension [...] needed for accurate production [...] it is through production that one is able to receive feedback (either implicit or explicit)” as cited in Gass (2005, p. 227). Thus, output represents a relevant component for this current study because through output, which involves students’ production in the target language, the researcher assessed students’ progress and provided them corresponding feedback. This research takes into account Swain’s belief that input alone is not enough for acquiring a second language. De Bot (1996) cites Swain (1985) who supports this postulate by saying,

Immersion students do not demonstrate native-speaker productive competence, not because their comprehensible input is limited but because their comprehensible output is limited. It is limited in two ways. First, the students are simply not given-especially in the later grades-adequate opportunities to use the target language in the classroom context. Second, they are not being ‘pushed’ in their output (p. 532).

The *Affective Filter Hypothesis* states, “Attitudinal variables relating to success in second language acquisition generally lead to language acquisition but not necessarily to language learning” (Krashen and Terrell, 1983, p. 38). These authors believe that a learner’s motivation and good self-image contribute to better second language acquisition. Later in this chapter, this hypothesis will be further described under the title of *learners’ motivation when acquiring a second language*.

Research investigating the theories of the effects of input and output on second language acquisition have been developed by authors such as Gass and Varonis (1994) and Maren S. Uggem (2012). Gass and Varonis (1994) carried out a research study related to input and interaction. They sought to answer the following research questions: does modified input (input that has been modified by the instructor before the learner sees or hears it), result in better non-native speakers' comprehension and better production? Does interaction yield better non-native speakers' comprehension and better L2 production? Does interaction yield better native speakers' comprehension? The population in this study consisted of 16 native speakers (NS) and 16 non-native speakers of English (NNS). The students were divided into two subgroups: a modified and an unmodified input group. The task had to do with completing:

Two board-games tasks in which each participant had a board depicting an outdoor scene. On one, objects were permanently affixed. The other board had the same objects to the side. The individual with the permanently affixed board had to describe to his or her partner where to place the objects (as cited in Gass, 2005, p. 242).

The groups were differentiated and subdivided based on the type of input provided and interaction. On the first board description task, the English native speakers needed to describe a scene to the non-native speakers. On the second task, the non-native speakers described a different board scene to the native speakers. These groups were later analyzed by their performance in the tasks taking into account comprehension and production (accurate placement of objects) and interaction (NNS-NS/NS-NNS). The results reported were that, "modified input yield better non-native speakers' comprehension than

unmodified input. Interaction yields better non-native speakers' comprehension. Interaction did not yield better native speakers' comprehension. Prior input modification did not yield better L2 production" (Gass, 2005, p. 242).

Maren S. Uggem (2012) replicated Izumi and Bigelow's research (2000) regarding output noticing and second language acquisition. The researcher sought to investigate "second language (L2) learners' processes in output-input-output sequences" (p. 506). There were "thirty ESL learners, enrolled in an ESL academic writing class in Michigan" (p. 516), who were randomly assigned to two experimental groups and a control group. The purpose of this experiment was to assess "whether producing the target language impacts learners' attention to L2 structures in subsequent input" (p. 506). The experimental group was given opportunities "for written output that elicited either the past or the present hypothetical-conditional (more complex vs. less complex structures)" (p. 506). The control group was not required to produce this kind of output although both experimental and control groups were involved in follow-up reading and underlining activities. The subsequent activities for all participants were related to producing an essay and participating in a stimulated recall interview. The results reported that output has an "effect on learners' attentional foci and subsequent input processing" (p. 533). This means that learners' production in the target language provided the researcher with evidence of the learners' cognitive processes of attention and input interpretations. Morphologically, "more complex structures may also be more salient and noticeable to learners, and they do not necessarily result in a cognitive overload" (p. 533). Finally, the study "demonstrated how the concurrent use of multiple measures of noticing can help to

obtain insights into learners' cognitive processes, which, in turn, can inform us about learners' processing and acquisition of a second language" (p. 533).

These authors' research represents an important element for the review of the literature in the current study because they assessed the input and output effect on acquirers of second languages. For the current study, students are exposed to comprehensible input in a classroom setting and online environments, and then are required to process information in which the instructor elicits from the learners specific output.

The current research study focused on vocabulary because it is considered one of the most useful targets to reinforce when learning a second language since it enhances the development of other communication skills. Nation (1994) defines vocabulary as follows,

Vocabulary is not an end in itself. A rich vocabulary makes the skills of listening, speaking, reading, and writing easier to perform. Learners' growth in vocabulary must be accompanied by opportunities to become fluent with that vocabulary. This fluency can be partially achieved through activities that lead to the establishment and enrichment of vocabulary knowledge, but the essential element in developing fluency lies in the opportunity for meaningful use of vocabulary in tasks with a low cognitive load (p. 8).

This means that vocabulary is not just a number of isolated words that need to be taught and memorized, but it is a series of words with rich cultural meanings that can encourage the development of communication skills. Vocabulary directed through contextualized activities that also take into account the student's cognitive level can enrich second

language environments and lead to target language acquisition. Laufer and I. S. P. Nation (2014) state that vocabulary is a number of words of certain degrees, and they emphasize the importance of working on both kinds of words, the frequent and infrequent, since these words will be used in either learner's daily life and immediate needs or in more formal environments such as the academic. These authors define vocabulary as

Huge number of words of various degrees of usefulness [...] important words are of two kinds: those that are frequently used in the language being learned and therefore useful for all purposes, and words that may be infrequently used, but are nevertheless useful for the learner's particular needs, for example, academic reading, or a tour guide (pp.163-64).

Gabriela Castañeda-Jiménez and Scott Jarvis (2014) researched on *lexical diversity in second language Spanish*. Their study consisted of assessing lexical diversity throughout different written productions of Spanish second language learners. The participants were 112 English “native speakers enrolled in some foreign-language Spanish courses at a medium-sized university in the US Midwest” (p. 507). This sample was randomly selected from the previously classified levels by the university (low novice, high novice, low intermediate, high intermediate, and advanced).

The data collection took place in a one-quarter class at the first-year level and there were two written tasks. The first one had to do with writing a narrative description of a segment of *Silent Chaplin film* named *Modern Times* (8 minutes in duration), and the second one was an essay that consisted of discussing the *university's reputation*. The students were given oral and written instructions before doing the tasks, and they were told not to pay attention to any structural style such as format, or grammatical issues. For

data analysis, these authors determined “seven measures of lexical diversity: tokens, types, types-50, evenness-50, dispersion-50, MTLT-MA, SOP-35” (p. 509) for each type of students’ writing compositions.

They used an ANOVA (Analysis of Variance), “Tukey post-hoc tests to identify homogeneous subsets, correlations to test for similarities, and paired-sample t-tests to test for differences” (p. 510). During the analysis of results, they observed that “different types of writing seem to have complementary effects” (p. 510). They also found that narrative writings “seem to enable students to write more in less time, leading to the production of a greater number of words” (p. 511), and learners used to write longer texts. In argumentative essays, learners spent more time, required more thinking, and showed a greater compositional complexity in their use of vocabulary.

Morin (2003) based her study on previous research about language derivational morphology (the addition of a derivational suffix or other affix for forming a new word on the basis of an existing word) as an effective strategy vocabulary-building tool. She conducted an experiment to determine if beginning second language learners of Spanish had better results in learning vocabulary than those who were not exposed to this strategy. She cites Stoller and Grabe (1993) who argued, “Word families, prefixes, and suffixes can help the learner recognize the meaning of words because a root or affix provides clues that facilitate the word meaning process.” (p. 201).

The participants in this experiment were four groups composed of Spanish second language learners from a first and second semester at a college whose native language was English. They were assigned to a control and an experimental group randomly, and the activities took place during a 13-week semester. The tasks carried out with the control

group had to do with building semantic maps, role-plays, picture descriptions, interview, and information gap activities. The experimental groups worked the same activities, but in addition, these learners had small group activities designed to encourage them to pay attention to the shared bases and frequently occurring suffixes used in Spanish.

The data analysis consisted of t-tests for the individual groups in the study, statistical analysis of the pre-test and post-test vocabulary knowledge, Multivariate Analysis of Variance (MANOVA), and a 2X2 ANOVA on receptive knowledge test. The results were that among the first and second semester learners, the control and experimental groups had almost identical pre-test and post-test scores in vocabulary knowledge, with the experimental groups having higher post-test scores. For the receptive knowledge test, the second semester experimental group had higher post-test scores. In terms of first semester learners, the experimental group had higher post-test scores than the first semester control group. The authors' conclusion was that activities based on language derivational morphology contributed to the acquisition of vocabulary for the less proficient and proficient learners of second language Spanish.

These authors' research presents diverse experiments that provide positive results in second language vocabulary acquisition in a classroom context. All the experiments coincide with working vocabulary integrating communicative skills. They also coincide with applying different strategies for learners to acquire vocabulary in the target language. Gabriela Castañeda-Jiménez and Scott Jarvis (2014) reviewed applying different types of writing (narrative and argumentative) to determine the amount of words learners already knew and the amount of new words they were using in each type of

writing. Morin (2003) developed a strategy associated with derivational morphology to teach learners affixes, so that they could recall more words and their meaning.

Technology Tools to Lead to Second Language Vocabulary Acquisition

Information and Communication technologies (ICTs) have played an important role in second language acquisition since recent studies have argued that ICTs encourage interactivity through simulated contexts. ICTs provide major possibilities for different students' learning styles due to their diverse modalities of input representation. The United Nations Development Programme (UNDP) defines this term as

Information-handling tools- a varied set of goods, applications and services that are used to produce, store, process, distribute and exchange information. They include the 'old' ICTs of radio, television and telephone, and the 'new' ICTs of computers, satellite and wireless technology and the Internet (as cited in Nwokeafor, 2015, p. 3).

Blended learning exemplifies one of the uses of ICTs in education since it is a "combination of different training 'media' (technologies, activities, and types of events) to create an optimum training program for a specific audience. The term 'blended' means that traditional instructor-led training is being supplemented with other electronic formats" (Bersin, 2004, p. 15). Blended learning facilitates interactivity through simulated contexts and offers a variety of opportunities to approach any educative content because "it combines synchronous and asynchronous methodologies" (Glazer, 2011, p. 3). Thus, combinations of face-to-face class instruction and the reinforcement of this training through online tasks can lead the scholar to further second language acquisition,

taking into account that acquisition is a subconscious process in which there is an implicit knowledge of the language (Krashen & Terrell, 1983, p. 26).

For purposes of the current study, it is important that the blended learning design combines activities that encourage the learners to use the language for communication purposes, so that they can be moving toward a subconscious process of language acquisition rather than focusing on explicit knowledge of rules and sentence structures of the language. WebQuests and blogs are online tools that contribute to this language acquisition process because of their possibility to develop collaborative work, critical thinking, and interaction. A WebQuest is an “inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the Internet” (Dodge, 2001, p. 6). Through WebQuests, language instructors can develop students’ critical thinking about the target language due to the scaffolding process for structuring them. Scaffolding is defined as a “process that enables a child or novice to solve a task or achieve a goal that would be beyond his unassisted efforts” (Wood, Bruner, & Ross, 1976, p. 90).

According to these authors, a scaffolding process also requires the instructors to control “those elements of the task that are initially beyond the learner's capability, thus permitting him to concentrate upon and complete only those elements that are within his range of competence” (p. 90). Williams (2008) describes the steps needed to provide task-oriented activities in WebQuests. The first of these is introduction, a short paragraph to introduce the activity or lesson to the students; task, a clear description of what exactly the learners are supposed to deliver; resources, typically, websites that the teacher has pre-selected and perhaps worksheets that students need to complete; process, where the

teacher provides scaffolding devices such as checklists, graphic organizers, flowcharts, etc; evaluation, including learning objectives and rubrics; and conclusion, where the teacher wraps up the broad problem and extends the learning to the next unit or other situation.

In terms of blogs, Ducate and Lomicka (2005) indicate “the term blog or Web log is often credited to Jorn Barger in 1997, one of the earliest bloggers. Originally pronounced ‘wee-blog’ this term was later shortened to blog with the emergence of the Web log building tool Blogger” (p. 411). These authors define blog as “an electronic journal kept by a blogger, who regularly updates the journal (known as blogging)” (p. 410). They continue by citing Winner (2003) who reports that blogs function in two primary ways, “serving either as personal diaries or as news journals. They typically contain three items: a title, text, and links [...] and display a hierarchy of text, images, media objects, and data arranged chronologically, that can be viewed in a HTML browser” (as cited in Ducate & Lomicka, 2005, p. 410).

Ducate and Lomicka (2005) categorize blogs as an asynchronous form of communication that can be maintained by a sole individual or by a community promoting interaction between writer and readers. These authors consider that blogs offer different advantages because readers can leave comments; blogs can be easily designed and redesigned using templates, and they are multi-linear since thoughts can be connected with sources of the World Wide Web. Taraf and Okan (2013) also share these perspectives about blogs by arguing that a blog is both an educational and a communicational tool, with numerous advantages where practitioners publish their work and ideas, and readers write their comments and opinions freely (p. 282). In terms of

blogs for foreign language teaching, Ducate and Lomicka (2005) cite Ferding & Trammell (2004) who outline four benefits of students blogging:

- a) Students can become subject matter;
- b) students' interests and ownership in learning is increased;
- c) students become active participants in a community of practice; and
- d) blogging opens the doors for a multitude of diverse perspectives, within and outside of the course (as cited in Ducate & Lomicka, 2005, p. 413).

Ducate and Lomicka (2005) report one of their teaching practices using blogs, in which they integrated two different projects into fourth semester French and second-semester German university-level classes. Students from both the German and French classes posted their entries taking into account their perspectives about other cultures. They constructed (either with their classmates or native speaker partners) new meanings about the French, German, and American cultures. This teaching practice is an example of using blogs for exploring the culture of the second language, which is an essential element when developing a second language curriculum. Ducate and Lomicka's practice of using blogs relates to this current study due to the fact that the web-based activities planned for the students, had the intention of promoting not only Spanish vocabulary acquisition, but also cultural knowledge of the language.

Fellner and Apple (2006) carried out a study about integrating blogs in a CALL (Computer-Assisted Language Learning) program to develop writing fluency and lexical complexity in English. The participants were 21 Japanese senior students who obtained a low score in the Test of English for International Communication examination (TOEIC) and failed to join an abroad program. Their previous instructors, who were also the

researchers in the study, perceived that the students were not interested in learning English either. The researchers designed the CALL program for a period of seven days, five and a half hours each day. The program was developed through a blended approach in which the students worked CALL tasks and traditional classroom tasks. The activities focused on previous data and analyzed students' interests and difficulties in the target language. These authors argue, "The use of students' blogs met the seven criteria for CALL task selection. The blogs provided students with real learning opportunities to improve not only their written English but also their reading in English, as students were asked to read their classmates' blogs and respond to them" (p. 17).

The procedure consisted of sending the students a blog topic, and they were given 20 minutes to respond to it. They were told not to pay attention to grammar or spelling since it was an activity for free writing and to develop fluency in the language. Then the students had to choose two or three classmates' posts to comment on, writing one or two short sentences. The students also worked on other web-based activities such as grammar puzzles, web listening, and videos. The researchers included a Wave Model (a model of language change, in which a new aspect of the language or a new feature is initiated in one place at one time and spreads outwards from that point in progressive stages) to encourage the practice of listening and recycling the blog contents for a later classroom meeting where the students practiced speaking in pair group discussions. The researchers did not focus on accuracy in the writing tasks of the blog because their goal was to use this "as a method of encouraging meaningful interaction among students and so increasing student motivation" (p. 19).

The researchers used a one-way ANOVA for the data analysis. The results of this study were that “a simple word count of the students’ blog entries showed an overall increase in words produced from the beginning of the seven-day program through the end of the program [...] The highest individual student increase was from 31 to 185 words, or almost 600%, while the lowest word count increase was a mere nine words (from 53 to 62).” (p. 20). The researchers concluded, “using blog tasks as part of an intensive English CALL program, they would promote writing fluency by encouraging students to recycle vocabulary and to notice their language use. This recycling and noticing of vocabulary became evident in student blog postings later in the seven-day program” (p. 22). From the results the researchers could also determine that there was a positive experience among the students using blogs. Students’ increase in fluency also improved their self-image in the target language, which was another goal of the study, to increase students’ motivation.

Tosun (2015) developed a study related to the effects of blended learning on English as a Foreign Language (EFL) students’ vocabulary enhancement. The participants were 40 students from two classes enrolled in an intensive English course at Middle East Technical University (METU) prep-school in Turkey. Students ranged in ages from 18 to 20 and they were divided into two groups, an experimental and a control group. The experimental group “studied the target vocabulary items through blended learning strategies while the control group learned the same vocabulary items through traditional way of teaching” (643). Both groups were previously tested to assess students’ existing vocabulary knowledge. After the instruction period, there was a paper-based vocabulary test administered to both groups. The qualitative component was based on

semi-structured interviews to identify students' views on blended learning. The interviews were conducted with 8 students from the experimental group.

The web-based activities utilized were associated with Web 2.0 tools such as Quizlet, spelling city, and snappy words. Students also practiced the target vocabulary items of the units in their textbooks through Quizlet. The teacher created a Quizlet class and tracked the students' progress online. For the classroom sessions, the teacher focused on communicative activities through pair and group work, creating a collaborative atmosphere. For the data analysis, the researcher applied t-tests and classified per themes the students' answers from the interview. The results from the pre-test and post-test did not show any difference in the two groups, "The students who were instructed with blended learning strategies had similar points from the vocabulary part of the exam ($M=5,65$, $SD=2,207$) with those who were taught through face to face teaching ($M=5,25$, $SD=1,970$)" (p. 645). The common comments analyzed from the interview conducted with eight students from the experimental group were that students perceived themselves as lazy, though they considered that the web-based activities to work outside the classroom setting were relevant to practice more of language than only in the classroom. They also mentioned that they usually used the internet for purposes of interaction with friends in social network more than for practicing a second language. "We are lazy, students see the internet as a form of entertainment so we prefer spending time socializing on social media sites rather than studying vocabulary with web-based tools [...] I prefer blended learning instruction because it enables me to practice the vocabulary we learn in the classroom" (p. 645).

Fellner and Apple's (2006) research showed positive results in the use of blended learning for increasing students' second language vocabulary and raising their motivational level. On the other hand, Tosun's (2015) research did not show any differences between the experimental and control group, but it was a relevant study to evaluate the appropriateness of activities in a blended learning instruction and to identify some young people' perceptions about learning a second language through online sources.

Development of Authentic Tasks Using Media Sources

Tatyana Sydorenko (2010) used the idea of integrating multimedia as a way of achieving second language vocabulary acquisition and cited Plass & Jones's (2005) claim, "The combination of print, audio, and imagery enhance input by making it more comprehensible" (p. 50). "The use of multimedia allows for the provision of authentic input and thus exposure to target culture, it motivates learners, and it accounts for students' different learning styles" (p. 50) argued by Brinton (as cited in Sydorenko, 2010.) Sydorenko examined the *effect of visual images, audio and captions on the acquisition of vocabulary and learner attention to input*. The participants were 26 English native speakers enrolled in two sections of second-semester beginning Russian at a midwestern university. These learners were divided randomly into three stimulus conditions: video with audio and captions (VAC) - 8 participants; video with audio (VA) - 9 participants; and video with captions (VC) - 9 participants. The tasks for the groups were related to three video clips of a three-minute-long Russian comedy in which, "VAC saw the videos with audio and captions, the VA group saw the videos with audio, and the

VC group saw the videos with captions, but did not receive audio input” (p. 55). The participants were asked to first watch the video for meaning, and the second time watch it for focusing on the language. After these tasks, the learners had to, “complete comprehension, written and aural recognition, written and aural translation” (p. 55).

For data analysis, the author used descriptive statistics, qualitative analysis, and a mixed-design ANOVA for each dependent variable: the recognition variable and the variable for translation test scores. The results and conclusions were that, for learners with better reading than listening skills, the captions facilitated recognition of written word forms; audio facilitated recognition of aural word forms; more word meanings were learned when videos were shown with audio and captions at the same time than with either audio or captions; participants considered video as the most helpful; and some of them had difficulty attending to all three modalities.

The authors Jan L. Plass, Dorothy M. Chun, Richard E. Mayerb, and Detlev Leutner (2003) conducted an experiment based on how cognitive load affected the way learners with different cognitive abilities processed verbal and visual information. The participants were 152 college students whose native language was English. These students were enrolled in a second-year German course and they were presented an interactive multimedia media version of a German short story in a multimedia lab. The story consisted of 762 words in German, and several of these words were marked by certain symbols, which meant that there were verbal and/or visual annotations of the words. Verbal annotations consisted of a text translation of the word, and the visual annotations were pictures, photographs, or a short video clip illustrating the word.

The students were randomly assigned to four groups. There were three treatment groups, a control group, with 38 students in each group. The control group was instructed to read the story and did not have any words marked in the story. Thus, they did not receive any annotations of the words. The three treatment groups consisted of being exposed to “verbal-only”, “visual-only”, and “verbal and visual” modes. These three groups were instructed to look up all of the marked words in order to continue reading the next pages of the story. Students in the “verbal-only” group saw a dictionary icon that appeared above the text when they dragged the word to the icon. They consequently received a text translation of the word and heard the word spoken by a native German speaker. Students in the “visual-only” group saw either a picture or a video icon that appeared above the text. When they dragged the word to the icon, they received either an image or a video, and they also heard the word spoken by a native German speaker. Students in the “verbal and visual” group saw both a dictionary icon and a picture or video icon, and they also heard the word spoken by a native speaker of German.

The corresponding hypotheses for this experiment were the following:

Low-ability learners will recall fewer translations of German words than high-ability learners when they are required to select and process visual annotations while reading.

The number of propositions learners recall from the text will be lower in treatments where they are required to process visual annotations as compared to treatments with verbal annotations or no annotations (p. 6).

The first day, the investigators administered a questionnaire to establish students’

background and knowledge of the second language. They also conducted a multiple-choice pre-test about German vocabulary in which the learners had to find a synonym and a category for the word given. After the experiment, the students were given seven minutes to complete a German vocabulary post-test, followed by a text comprehension post-test, in which they had to type a summary of the story in English. Afterwards, they were given three minutes for the spatial ability test, and then four minutes for the verbal ability test. Data analysis consisted of SPSS procedure GLM, Analysis of Covariance (ANCOVA), and Aptitude-by-Treatment-Interactions (ATI). The results were,

Recall of word translations was worse for low-verbal and low-spatial ability students than for high-verbal and high-spatial ability students, respectively, when they received visual annotations for vocabulary words, but did not differ when they received verbal annotations. Text comprehension was worst for all learners when they received visual annotations. Results are consistent with a generative theory of multimedia learning and with cognitive load theory, which assumes that multimedia-learning processes are executed of limited working memory (Plass et al., 2003. p. 8).

Plass et al. (2003) concluded that multimodal representations of information can benefit vocabulary learning depending on individual differences. It may also hinder learning for low-ability students when they experience a high cognitive load that requires them to process different types of pictorial, verbal, and audio information. This experiment relates to the present study in terms of using different representations of information through multimedia tools to determine the effect of these strategies on second language

vocabulary acquisition.

Linda C. Jones and Jan L. Plass (2002) developed a study on how the choice of written and pictorial annotations in a listening comprehension activity affected students' comprehension and acquisition of new vocabulary from an aurally presented, authentic historic text. The participants were 171 students enrolled in a second-semester beginning French class at a U.S. university. The students were randomly divided and assigned to one of the four listening text treatments: with no annotations available, with only written annotation available, with only pictorial annotations available, and with both pictorial and written annotation available.

The material presented was an aural reading lasting two minutes and 20 seconds, of an authentic French historic encounter. The students were instructed in each assigned modality of information representations, and they were also tested through multiple-choice pretreatment vocabulary in order to determine previous knowledge of the vocabulary in the experiment. The effect of the four treatments was tested through a multiple-choice posttest and a written recall posttest, both administered immediately at the end of the treatment, and then three weeks after as delayed tests.

For the data analysis, these authors used a Multivariate Analysis of Variance (MANOVA), "computed with the number of correct answers of the immediate vocabulary posttest and on the immediate recall protocol posttest as dependent measures and the presence or absence of pictorial and written annotations as the between-subjects factors." (2002, p. 553). Tukey HSD was conducted to determine the differences in the immediate vocabulary test scores of the four treatments. A MANOVA analysis was used

to analyze the results of the delayed post-test and the delayed recall protocol post-test. These authors' analysis from the results were, "The students remembered word translations and recalled the passage better when they had selected both written and pictorial annotations while listening, rather than one of these types or no annotations. In addition, effect sizes were much larger for pictorial annotations than for written annotations" (2002, p. 546). Jones and Plass cite Howe (1971) to conclude that foreign words associated with visual imagery are learned more easily than those without such comprehension aids.

This authors' experiment relates to the current study because the blended learning was based on WebQuests and blogs that contain videos with and without captions. Sydorenko (2010) used the idea of integrating multimedia as a way of achieving second language vocabulary acquisition, and cites Plass and Jones (2005) who claim, "The combination of print, audio, and imagery enhance input by making it more comprehensible" (p. 50). Brinton continues, "The use of multimedia allows for the provision of authentic input and thus exposure to target culture, it motivates learners, and it accounts for students' different learning styles" (as cited in Sydorenko, 2010, p. 50).

Learners' Motivation when Acquiring a Second Language

Krashen and Terrell (1983) in their *Affective Filter Hypothesis* argue that success in second language acquisition is linked to motivation since students with good self-images in the language perform better. They cite Dulay and Burt who stated, "Performers with optimal attitudes have a lower affective filter" (p. 38). The low filter relates to the idea that the learner is "more 'open' to the input, and that the input strikes 'deeper'" (p.

38). Krashen and Terrell affirm this belief by explaining, “Having the right attitude may do two things for language acquirers: it will encourage them to try to get more input, to interact with speakers of the target language with confidence and also to be more receptive to the input they get” (p. 38). Thus, for purpose of the present study, Krashen and Terrell’s hypothesis about the affective filter was taken into account for developing the activities in the classroom setting and the blended learning instruction. This study not only sought to increase students’ competence in the language, but also intended to increase students’ motivation towards the target language, integrating comprehensible input and output, and developing activities that could balance affective variables.

Chapter Summary

Teaching a second language does not have to do with memorizing isolated vocabulary or learning a large number of grammar rules. It has to do with taking the language as a tool for communication and increased cultural knowledge. This current study takes into account Krashen and Terrell’ perspective (1983) because they consider, “It is possible to encourage acquisition very effectively in classroom context” (p. 27). This suggests that teachers can apply different strategies in order to go beyond the learning and lead the students to acquire a language in a natural manner resembling native language acquisition. The input theory developed by these authors is also relevant for the review of related literature of this current study because reported research has demonstrated that the approach of a comprehensible input directs the students to acquire second languages faster and helps them move to the next stages of the language acquisition process.

Swain's (1995) theory regarding output is also considered in the review of related literature because the students' performance and production in the second language contributes to analyzing students' progress in the language, and consequently provide specific feedback. This chapter also presented definitions and research associated with language learning through technology because, for purposes of this study, it is considered that ICTs allows the development of diverse learning strategies, generates students' motivation, allows the creation of stimulating environments, and facilitates the work of materials that take into account different students' learning styles. The current study applied the blended learning modality (which combines face-to-face instructions and web-based sources) to develop Spanish vocabulary acquisition. It gave authentic tasks through videos, WebQuests, and a blog. Furthermore, the researcher presented essential factors involving learners' motivation when acquiring a second language since her study also sought to investigate the effectiveness of blended learning on students' motivation.

Chapter 3

Methodology

Overview

This study used a mixed-methods approach to assess the impact of blended learning on student performance and motivation when building their Spanish vocabulary using blogs and WebQuests. This study used Cresswell's definitions (2003) about mixed-methods strategy and Merriam's ideas (2009) related to qualitative research in its design. A detailed description of the design; sampling procedures; data collection and analysis; and measures that address validity and reflexivity are presented in this chapter.

Design

To carry out this study, the investigator used a mixed-methods approach. For this kind of methodology, Cresswell and Plano-Clark argued (as cited in Connelly, 2009), "The researchers use both quantitative and qualitative methods data in the same study" (p. 31). Connelly (2009) suggests that the use of a mixed-methods design minimizes the weaknesses of quantitative and qualitative research and strengthens the analysis. According to Cresswell (2003), there are six strategies that can be applied in a mixed-methods design. They are the sequential explanatory, sequential exploratory, sequential transformative, concurrent triangulation, concurrent nested, and concurrent transformative. For this study, the researcher used a sequential explanatory strategy, "characterized by the collection and analysis of quantitative data followed by the collection and analysis of qualitative data" (p. 215).

Quantitative research is described as a “study used when one begins with a theory (or hypothesis) and tests for confirmation or disconfirmation of that hypothesis” (Newman and Benz, 1998, p. 3). In contrast, qualitative analysis, according to Frankel and Devers (2000), is “best characterized as a family of approaches whose goal is understanding the lived experience of persons who share time, space and culture [...] qualitative studies tend to focus on the natural history of events or relationships” (p. 114).

Merriam (2009) explores different types of qualitative research such as basic qualitative research, phenomenology, ethnography, grounded theory, narrative analysis, and critical research. Therefore, this researcher used the phenomenological philosophy which “focuses on the essence or structure of an experience. [...] how complex meanings are built out of simple units of direct experience” (Merriam, 2002, p. 7) to understand and describe the impact of blended learning on students’ motivation when learning Spanish vocabulary through blogs and WebQuests. This is the most appropriate approach because it conveys the analysis and description of human beings’ reactions, experiences, and feelings toward a task. Contrary to this reasoning, quantitative research was used to determine the effectiveness of blended learning on students’ performance. For this quantitative component, the students’ performance was assessed through a vocabulary pre-test and post-test. The results were compared with a control group that did not have a blended learning instruction.

The Role of the Researcher

Quantitative Component:

This researcher was a Target Language Expert (TLE), employed six hours a week to instruct students in Spanish in two undergraduate courses at a private college in Wisconsin. She had direct experience with the participants since they were her students for four months. Thus, she knew their second language abilities and difficulties so that she could offer more opportunities to work with them.

Qualitative Component:

Although the teacher-student relationship with the participants could lead to a subjective analysis, it was necessary to apply validity and reflexivity strategies to minimize prejudices and researcher biases. Merriam (2002) considers that a way of increasing validity and objectivity is when “the researcher temporarily has to put aside, or bracket, personal attitudes or beliefs about the phenomenon” (p. 7).

Merriam (2009) believes that in qualitative research, the researcher is a primary instrument of data collection because he is in charge of collecting and analyzing data. Therefore, the researcher needs to be a critical person who tries to eliminate all biases and prejudices and enhances reliability in the research process. This author also says, “Qualitative researchers are interested in understanding the meaning people have constructed, that is how people make sense of their world and interpret their experiences” (Merriam, 2009, p. 13). In the phenomenological philosophy, researchers are specifically “interested in showing how complex meanings are built out of simple units of direct experience [...] the researcher usually explores his or her own experiences, in part to

examine dimensions of the experience and in part become aware of personal prejudices, viewpoints, and assumptions” (Merriam, 2002, p. 7).

Description of Participants and Data Sources

Quantitative Component

For the quantitative component, the researcher selected one of her two Spanish 101 classes to serve as the experimental group. This sample was composed of 15 students who were exposed to the blended learning instruction. Her second Spanish 101 class was composed of 14 students and served as the control group. The researcher used a *survey* (see Appendix A) to determine the participants’ ages and previous knowledge of Spanish. The results of this survey for the experimental group were as follows: 10 males and 5 females; 12 students were 18 years old and 3 were 19; the 15 participants were originally from the United States, their native language was English, and the language spoken at their home was English as well; 87% of the participants were freshmen and 13% were sophomore; 10% of the population took Spanish for 5 years in their elementary school and 11% took it for one year; 5% took Spanish for one year in their high school, 37% for two years, 11% for three years, 5% for four years, and 21% did not receive any Spanish instruction before college. According to these results, the researcher determined that the majority of the participants had taken basic Spanish either in their elementary or high school. A minority had Spanish during their entire elementary and high school programs.

The subjects were asked to rate their Spanish language skills from 1 to 5 (1: very poor, 2: poor, 3: fair, 4: good; and 5: excellent). The results were: for listening, 33%

selected option 1, 27% option 2, 33% option 3, 7% option 4, and none selected option 5. For speaking, 34% chose option 1, 33% option 2, 20% option 3, 13% option 4, and none selected option 5. For reading, 27% chose option 1, 33% option 2, 27% option 3, 6% option 4, and 7% option 5. For writing, 27% chose option 1, 33% option 2, 40% option 3, and none selected options 4 and 5. For basic vocabulary knowledge, 20% chose option 1, 40% option 2, 27% option 3, 6% option 4, and 7% option 5. From these results, the researcher determined that the majority of the participants evaluated themselves as very poor and poor when rating their Spanish language skills.

The researcher also administered a technology questionnaire to the experimental group (see Appendix B) to find out the participants' knowledge and experience with technology. The results of this questionnaire were as follows: 43% had access to computers at college, 40% at home, 17% at work, 40% had internet access at college, 38% at home, and 22% at work. Regarding the use of the internet, 26% said they used it to search class assignments, 25% to find information in general, 25% to communicate with people, and 24% for entertainment. The frequency with which they used the internet to search class assignments was: 80% always, 7% sometimes, 13% rarely, and 0% never. The frequency with which they used internet to find information in general was 60% always, 40% sometimes, 0% rarely, and 0% never. The frequency of communication was 27% always, 60% sometimes, 13% rarely, and 0% never. The frequency of use for entertainment was 40% always, 46% sometimes, 7% rarely, and 7% never.

Regarding knowledge about technology for educational purposes, 60% said yes and 40% said no to this statement: *I know what a blog is and know how to use it.* 80%

said no and 20% said yes to the statement: *I know what a WebQuest is and know how to use it*. 93% said yes and 7% said no to the statement: *I know what Blended Learning is*. 80% said yes and 20 % said no to *I know diverse technology tools for educational purposes*. 73% said yes and 27% said no to the statement, *I know websites from the Internet that can help me to practice Spanish as a second language*, and the websites mentioned were *wordplay* and *online Spanish dictionary*.

In terms of attitude towards technology for educational purposes, for the statement: *I feel comfortable using a computer and the Internet*, 54% said Strongly Agree, 33% Agree, 13% Neither Disagree nor Agree, 0% Disagree, and 0% Strongly Disagree. For the statement: *I think the Internet is a useful tool for learning languages*, 46% said Strongly Agree, 47% Agree, 7% Neither Disagree nor Agree, 0% Disagree, and 0% Strongly Disagree. For the statement, *I am motivated to use the Internet for expanding my language knowledge outside the classroom context*, 53% were Strongly Agree, 27% Agree, 13% Neither Disagree nor Agree, 7% Disagree, and 0% Strongly Disagree. For the statement, *I would like to use the Internet to work collaboratively with other classmates*, 40% were Strongly Agree, 47% Agree, 17% Neither Disagree nor Agree, 0% Disagree, and 0% Strongly Disagree. For the statement, *I am interested in using multimedia sources for learning and practicing Spanish as a second language*, 40% were Strongly Agree, 40% Agree, 20% Neither Disagree nor Agree, 0% Disagree, and 0% Strongly Disagree.

The results from the technology questionnaire showed a positive student perspective towards the use of technology for educational purposes and learning a second

language. All the students have had previous knowledge managing computers, blogs, and search engines; a majority did not know the term WebQuest; and all the participants had internet access either at college, home, or work. The results of this survey contributed to distinguishing what the students needed to be trained in before the researcher initiated the blended learning approach and determined the possibility of implementation.

There was also a multiple-choice vocabulary *pre-test* (see Appendix C) and *post-test* (see Appendix D) for assessing the research hypothesis and the null hypothesis. The results of these tests will be presented in chapter IV.

Qualitative Component

For developing the qualitative component, *purposeful sampling* was used to “discover, understand, and gain insight” (Merriam, 2009, p.77) from the participants. Sampling was attempted to achieve *maximum variation* due to the fact that the researcher identified and sought out the scholars who would represent “the widest possible range of the characteristics of interest for the study” (Merriam, 2009, p.79). The researcher chose six of the 15 students exposed to the blended learning to be interviewed (See Appendix G for the format of the interview). This selection was based on quantitative results of students’ performance in the post-test (higher scores) as well as the qualitative analysis of students’ artifacts.

Description of Data Collection Methods

Quantitative Component:

For the quantitative component, the researcher used an inferential strategy of a t-test to compare two groups of student performance on a vocabulary pre-test and post-test (Appendix E-F). The vocabulary pre-test (Appendix C) was composed of ten multiple-option questions and had the purpose to assess the students' existing knowledge about the vocabulary to be used with the two groups during the four months. The vocabulary post-test (Appendix D) presented 13 multiple-option questions and included the activity of filling in the gaps to complete a conversation with the words provided.

Qualitative Component:

In phenomenological studies, data was collected using basic qualitative methods such as interviews, observations, or document analysis. However, "the phenomenological interview is the primary method of data collection" (Merriam, 2009, p. 25). Besides, the researcher needs to consciously reflect on personal prejudices, viewpoints, and assumptions. This process of reflection is categorized as *epoche* which Moustakas (as cited in Merriam, 2009) defines this way, "The everyday understanding, judgments, and knowings are set aside, and the phenomena are revisited" (p. 25). Therefore, the researcher analyzed student artifacts, instructor's observations, and interviews.

"Artifacts are 'things' or objects in the environment differentiated from documents that represent some form of communication (eg. official records, newspapers, diaries)" (Merriam, 2009, p. 145). The researcher analyzed the artifacts that were developed during the blended learning experience. Merriam (2009) refers to observation

as a useful research tool “when it is systematic, when it is subject to the checks and balances in producing trustworthy results.” (p. 118). The instruments for collecting observations were field notes (See Appendix H-I), and the researcher was a *participant observer*; she was the instructor, involved in the central activities of the classroom. DeMarrais (as cited in Merriam, 2009) describes interview as a “process in which a researcher and participant engage in a conversation focused on questions related to a research study” (p. 87). The type of interview (See Appendix G) carried out was semi-structured, flexible, and guided by a list of questions and issues to explore. The interview was focused on the online work done by the students and intended to find out their experiences and perceptions. This interview was recorded and transcribed for the data analysis.

Procedures

The students were informed previously about the opportunity for participating in this study, and they agreed to participate. They were not offered any potential benefits, but they were assured of confidentiality and minimal risk experiences. The first month, the students of the experimental group received traditional instruction in the classroom. For the next three months, they were exposed to blended learning. The control group received the same amount of contact with the language, but they were not asked to work on the vocabulary activities using WebQuests or blogs outside the classroom. Instead, the outside classroom work for them was to study the vocabulary through group-work and pre-selected physical-format material provided by the researcher.

Quantitative Component:

For the quantitative analysis, the researcher used a vocabulary pre-test and a post-test to compare the two groups of students. The three months assigned for blended learning were divided into two phases (See <http://spninteractivoenlinea.edublogs.org/>, <http://zunal.com/process.php?w=283586> and <http://zunal.com/webquest.php?w=305296>). In the first phase, the experimental group worked on the blog for two months and subsequently, they worked one month on two WebQuests. The face-to-face interaction for both the control and experimental group, occurred three days a week, an hour and five minutes each, and took place in a classroom of the college. The experimental group developed the web-based activities autonomously outside the classroom context. The participants were instructed previously on how to post comments on the blogs and how to use the WebQuests. They were also given codes for posting on the blogs. The students used their institutional e-mail accounts to work on the blogs. The researcher used Edublogs, which is a blogging platform to create blogs for educational purposes. For creating the WebQuests, the researcher used zunal.com, which is a website that provides aid to create WebQuests. The service for using these two tools: blogs and WebQuests, was a free service for both teachers and students.

For the first phase of blended learning instruction, the experimental group worked with the blog during four activities. All the instructions were presented in the target language (See <http://spninteractivoenlinea.edublogs.org/>). The first activity was about an animated silent short film of five minutes and 30 seconds that dealt with dolls and weather. There were five questions, and one of them required them to comment on a classmate's response to question number two. The second activity was about a video with

audio in Spanish but without captions. The video lasted two minutes and eight seconds, and it was about likes and dislikes. The activity had six questions about the video, one of which required the students to comment on a classmate's response to the fifth question. The third activity was about a video with audio and captions in Spanish. It lasted three minutes and 52 seconds, and dealt with the topic of clothes and shopping. There were eight questions about the video, one of which asked them to choose one of their classmates to describe his or her clothes. The last activity was about a video with English audio and no captions. It dealt with a teenager's routine and lasted two minutes and 49 seconds. There were four questions one of which asked them to compare their routine with another classmate's routine.

For the second phase, the experimental group worked with two Web Quests (See <http://zunal.com/process.php?w=283586> and <http://zunal.com/webquest.php?w=305296>). In the first WebQuest, they were asked to create a conversation with three classmates, had to use Colombian and Mexican slang, and choose three of the topics offered (ropa, clima, comida, rutina diaria, deportes, actividades de tiempo libre, quehaceres domésticos and lugares). The WebQuest integrated the steps required such as introduction, task, process, evaluation, and conclusion. The final task was to present the conversation during the specified face-to-face interactions. For the second WebQuest, the participants had to create a short description in Spanish about the topics: Quinceañera, Mariachis, Marimonda, Vallenato, and Mestizo. They were asked to present the information through images in slides and to choose one of the topics to develop a conversation, a poem, a performance, or a poster. The participants needed to present this activity during the face-to-face interactions. This second WebQuest also followed the required steps for a

WebQuest. These two WebQuests provided instructions in Spanish, and the step of ‘process’ offered the students diverse websites with information and examples in the students’ native language and in the target language.

Qualitative Component:

The researcher relied on the quantitative results; the instructor’s observations of two sessions, where the students presented two tasks based on their group-work with the WebQuests; and student artifacts, analyzed and described in detail. From the 15 participants involved in blended learning, six of them were interviewed for 10 minutes each. This sample was selected based on the previous items. For the interview, there were seven open-ended questions in a semi-structured form about their perceptions and experiences with the blog and the WebQuests.

Data Analysis

Quantitative Component:

For the quantitative analysis, the researcher used an inferential strategy with a t-test to analyze the major differences in the assessed activities done with the experimental and control group. Numeric results were presented in statistical tables (see Appendix E-F). Although the post-test was about the online vocabulary, the control group worked on the same vocabulary in and outside of the classroom without using blogs and WebQuests. The investigator analyzed the following hypothesis:

The null hypothesis (Ho) was that the learners, who were exposed to the blended learning instruction, recalled less vocabulary and consequently had a lower performance

on the vocabulary post-test than those who only received vocabulary learning in a normal classroom setting.

The research hypothesis (H1) was that the learners, who were exposed to the blended learning instruction, recalled more vocabulary and consequently had better performance on the vocabulary post-test than those who only received vocabulary learning in a normal classroom setting.

C=Control group E=Experimental group

$$H_0 = \bar{X}_E \leq \bar{X}_C$$

$$H_1 = \bar{X}_E > \bar{X}_C$$

Qualitative Component:

For the phenomenological analysis, the researcher applied *Horizontalization*, “a process of laying out all the data for examination and treating the data as having equal weight” (Merriam, 2009, p. 26). The researcher described and coded the data from categories she created based on students’ artifacts, classroom observations, and the administered interview. She also used an *imaginative variation*, which refers to viewing and analyzing “data from various perspectives, as if one were walking around a modern sculpture, seeing different things from different angles” (Merriam, 2009, p. 26). This was implemented by taking into consideration issues of validity and reflexivity in the quantitative and the qualitative component.

Issues of Validity

Quantitative and Qualitative Component:

The researcher used a mixed-method design to minimize weaknesses in the study. She also provided a detailed description of the data sources utilized and the conducted procedure. It is important to recognize that everybody, besides being a researcher, is a human being, and that the issues related to objectivity are difficult to achieve in qualitative research since “the researcher is the primary instrument for data collection and analysis [...] Interpretations of reality are accessed directly through their observations and interviews” (Merriam, 2009, p. 214). Thus, in order to deal with ethical dilemmas, Merriam (2009) presents some strategies that contribute to increasing validity and reliability in qualitative research. These strategies are triangulation, member checks, adequate engagement in data collection, researcher’s position, peer review, audit trail, rich and thick descriptions, and maximum variation.

The present study used member check, audit trail, rich and thick descriptions, and maximum variations. Member check consists of “taking data interpretations and tentative interpretations back to the people from whom they were derived and asking if they are plausible” (Merriam, 2009, p. 229). This strategy was used one day after the interview with each of the six students selected from the blended learning instruction group. The researcher recorded and transcribed their answers, developed a summary of interpretations, read it to the students, and asked their approval. The strategy about audit trail has to do with “a detailed account of the methods, procedures, and decision points in carrying out the study” (Merriam, 2009, p. 229). This strategy was used in the study

through making thick descriptions of the mixed-methods utilized. The researcher provided a detailed description of the data sources used and the conducted procedure. The rich and thick description strategy consists of “providing enough description to contextualize the study such that the readers will be able to determine the extent to which their situations match the research context, and, hence, whether the findings can be transferred” (Merriam, 2009, p. 229). This strategy was used throughout the study so that the reader could determine coherence among the reality, the procedure, and the findings. Finally, maximum variation relates to “purposefully seeking variation or diversity in sample selection to allow for a greater range of application of the finding by consumers of the research” (Merriam, 2009, p. 229). For this study, there was a diversity selection of gender, ages, and abilities. The researcher had direct contact with the students. Therefore, the researcher knew how her study could contribute to the students.

Issues of Subjectivity

Quantitative and Qualitative Component:

It is possible to identify that throughout the history of research “subjectivity has and continues to be a much discussed concept in qualitative methodology” (p. 289) argued by Barone, Eisner, Guba, Jansen and Peshkin, Phillis, Roman and Apple (as cited in Merriam, 2002). Subjectivity is characterized by the researcher’s personal interests, biases, prejudices, and beliefs, which make the study unreliable for readers. However, one might think that seeing subjectivity as negative is denying the researcher the role of primary instrument for data collection in qualitative procedures due to the fact that the

researcher is an individual immersed in the phenomenon and whose role is to understand and give interpretations of data.

Merriam (2009) represents one of the authors who proposed strategies to minimize issues of subjectivity and to make the research reliable. Reflexivity is one of the most important strategies because it leads to a critical reflection of the procedures in the study. In the reflexivity process, “The investigators need to explain their biases, dispositions, and assumptions regarding the research to be undertaken” (Merriam, 2009, p. 219). During this study, the issue of subjectivity was minimized through developing a mixed-method research, making descriptions of the role of the researcher, and explaining the strategies used to enhance validity and avoid the researcher’s biases in the study. The investigator was both the instructor and researcher. She presented the purpose for selecting the participants to develop the qualitative component, which was based on the results obtained from the quantitative component and the analysis of the students’ abilities and difficulties in the second language. Merriam’s (2002) arguments about reaching validity were also considered, in which “The researcher temporarily has to put aside, or bracket, personal attitudes or beliefs about the phenomenon” (p. 7). Clear and thick descriptions about methodologies, sources, and purpose of the study were offered.

The researcher also used peer debriefing to enhance credibility. This strategy consists of the following process,

“Researchers meet with one or more impartial colleagues in order to critically review the implementation and evolution of their research methods. The role of the peer debriefer is to facilitate the researcher’s consideration of methodological activities and provide feedback

concerning the accuracy and completeness of the researcher's data collection and data analysis procedures" (Spall, 1998, p. 280).

During the research process, the investigator carried out two peer debriefings. The first one took place in the professor's office. For this peer debriefing, the researcher had some insights about the topic of the study, the purpose of the study, the initial motivations for selecting the topic, the sample for conducting the study, some methodologies, and the researcher's previous knowledge about the topic. The debriefer was a graduate professor of the Quantitative Methods class and the chair of the research committee. The debriefer's purpose was to question the researcher about the above aspects, which were related to the first phase of the researcher's study. It was a 30-minute talk, and the professor provided feedback about strengths and weaknesses that consequently solidified the methodology.

The second peer debriefing was about the second phase of the research, which concerned the development of the research in terms of background, review of related literature, methodologies, findings, and discussions of the study. The debriefer was the professor with whom the researcher had the first peer debriefing. The debriefer carried out an unstructured 30-minute interview in the professor's office. The researcher provided information about the results of the pre-test and post-test and reviewed the items mentioned above. She also shared her experience about the usefulness of field notes for constructing categories and analyzing data. She also mentioned the importance of the surveys and the face-to-face interviews to know the students' background and experiences in the blended learning instruction. She shared her positive feelings about the results obtained in the activities. The debriefer suggested continuing correlating the

theory mentioned in the related literature with the findings and discussion section of the research to warrant coherence.

Chapter Summary

In this chapter, the investigator presented a detailed description of the design, the role of the researcher, the sample, data collection methods and analysis, and the measures that address validity and reflexivity. The study was conducted following a mixed-method design, in which a sequential explanatory strategy was used to describe the quantitative and qualitative data. For the quantitative component, the researcher tested the students' performance based on a vocabulary pre-test and post-test, analyzed through a t-test assuming equal variances. For the qualitative component she followed the phenomenological philosophy to analyze and describe the participants' experiences in the blended learning instruction.

Chapter 4

Findings

Quantitative Component:

The results of the pre-test, analyzed with a t-test, were that the control and experimental group were equal in terms of their vocabulary knowledge. The *p-value* was $.87 < 0.05$ and the *Means* were 5.5 and 5.6. The results of the post-test, analyzed with a t-test, showed a *p-value* $=.043 < .05$. The decision rule was to reject the null hypothesis and accept the research hypothesis at the .05 level of significance, and there was a significant difference between the two groups on the post-test results. The *p-value* was .043, which was less than the .05 *significance level* needed (See appendix E-F for t-test tables). This means that the experimental group, exposed to blended learning, recalled more vocabulary than those who received input only in the classroom setting.

Qualitative Component:

As a result of the data analysis procedure, the researcher identified three core categories: perceived strengths, areas of challenge, and participants' perceptions. Within each of these core categories three themes emerged: First: Students' artifacts, described by taking into account students' outcomes and themed as *strengths/previous knowledge*. Second: Areas of challenge were described as *students' difficulties* in the development of the web-based activities. Third: Participants' perceptions were analyzed as *viewpoint/experiences* (data obtained from the interviews).

Students' Artifacts: Strengths/Previous Knowledge

The experimental group developed six web-based activities outside the classroom. Four of the tasks were guided through a blog, and the other two used WebQuest. The students were previously informed about the code for using the blog so that they could post their comments anonymously in case they did not want to reveal their identities. The six activities were labeled from simple to complex in order to work gradually following a scaffolding process. The results of these activities were as follows:

Blog

The first activity was an animated silent short film of five minutes and 30 seconds about dolls and weather. There were five questions, one of which required the students to comment on a classmate's response to question number two. For this first activity, it was possible to notice that the students followed the instructions regarding the visual aids from the video and used Spanish in their responses. The students used a variety of vocabulary to describe the images in the video. They wrote a 5-line coherent paragraph, which showed a previous search of vocabulary. Missing accents or wrong spelling were their common mistakes. The *comments about a classmate's response* and *opinion about the video* showed their use of phrases in Spanish, communicating agreement and disagreement in a respectful manner. This silent video was selected to balance the activities from less to more complex. It was also implemented because, based on previous research, "Foreign words associated with visual imagery are learned more easily than those without such comprehension aids" as argued by Jones and Plass (2003) when citing Howe (1971). In this animated short film, the participants did not need to listen to the

target language but to watch images, then look for needed vocabulary in the dictionary, and write simple sentences in Spanish to construct short paragraphs.

The second activity was related to a two-minute-and-eight seconds video with audio in Spanish but without captions, and it dealt with likes and dislikes. The activity had six questions about the video, and one of these required the students to comment on a classmate's response to the fifth question. This video was selected because the vocabulary was easy, and students had used it previously during face-to-face interactions. The results were that the majority of the students could report 100% of the video content in Spanish, and all of them were able to comment on other classmates' responses using words of comparison. The common grammatical mistakes were associated with the use of indirect object pronouns in verbs like *Gustar*. The researcher did not focus on grammar, but on the participants' use of vocabulary to construct coherent sentences and be able to report information and comment on a classmate's response.

The third activity related to a three minutes and 52 seconds video with audio and captions in Spanish, and it dealt with the topic of clothes and shopping. There were eight questions, one of which asked them to choose a classmate to describe his or her clothes. This video was selected because previous research showed positive results in the use of multimedia to encourage second language acquisition. "The use of multimedia allows for the provision of authentic input and thus exposure to target culture, it motivates learners, and it accounts for students' different learning styles," Brinton (as cited in Sydorenko, 2010, p. 50) argued. Besides, this activity provided equilibrium among the four activities of the blog, since it was intended to be not too easy and not too difficult. The results were that all the participants accurately answered the questions using the information from the

video and the corresponding vocabulary. The purpose of the questions was for the students to use vocabulary associated with clothes, colors, places, and numbers. There were no significant mistakes in their responses.

The fourth activity concerned a two minutes and 49 seconds video with English audio and no captions, dealing with a teenager's routine. There were four questions, one of which asked students to compare their routine with another classmate's routine. This video was used to give the students an environment in which they needed to work with two languages at the same time: English, the participants' native language, and Spanish, the target language. English was provided as an audio input while Spanish was the language they needed to use to provide their responses. This activity simulated the process of interlanguage that learners of other languages experience, in which they look for a word in their native language with an equivalent meaning to express the same ideas in the target language. The results revealed that all students used the correct vocabulary to report a teenager's routine. They performed very well when comparing their routines with other classmates' routines since they were using the corresponding vocabulary for the topic and specific words that relate to comparison. The only difficulty for them was trying to translate the words for social network and clothes. Most participants translated the first word as *media los sociales* or *medios sociales* though the correct Spanish form is *redes sociales*. They also used the plural English word *clothes* for the Spanish equivalent of *ropa*, so they were writing *ropas*.

WebQuest

For the first WebQuest, the students were asked to create a conversation with three classmates, to use Colombian and Mexican slang, and choose three of the topics offered (ropa, clima, comida, rutina diaria, deportes, actividades de tiempo libre, quehaceres domésticos and lugares). The final task was to present the conversation during specific face-to-face interactions. The students used the slang correctly. They followed the time requirement, and their conversations demonstrated coherence and complexity. They also accompanied their speech with body language. Throughout this activity, it was possible to identify students' strengths in the target language since they used correctly the slang related to the Hispanic countries. They also selected conversational topics, using vocabulary correctly. The common mistakes were, for example, using *bien*: *el pollo es muy bien* instead of *bueno/a* to describe food, or saying *uno momento* instead of *un momento*. The researcher analyzed this final aspect as the process of interlanguage, and as evidence of their cognitive process, where their attention was on meaning and on language as a means of communication.

For the second WebQuest, the participants had to create a short description in Spanish about the topics Quinceañera, Mariachis, Marimonda, Vallenato, and Mestizo. They were asked to present the information through images on slides and to choose a topic to develop a conversation, a poem, a performance, or a poster. The participants needed to present this activity during the face-to-face interactions. This second WebQuest also followed the required steps for a WebQuest. The results were that the students followed the instructions of time and slides. All of them preferred to create a

conversation. Some added songs or videos to their explanations of the vocabulary. The students' content showed understanding and conversation, based on the topic selected.

In general, throughout these six web-based activities, it was possible to analyze the students' strengths in the target language such as the use of specific vocabulary to construct paragraphs, give opinions, describe environments, create conversations, and explain facts. These results also suggest that it is possible to further students' abilities by leading them gradually to perform tasks labeled from simple to complex. Their previous knowledge about the use of ICTs was also useful for them to perform successfully the blog and WebQuests activities. They followed the posted instructions and effectively developed the corresponding activities.

Areas of Challenge-Difficulties

In *Students' Artifacts: Strengths/Previous Knowledge*, the students had positive results in their web-based activities since their artifacts showed their strengths in relation to the target language and the use of ICTs. However, there were some challenges for them with regard to the due dates for submitting the activities and, the oral performance of the WebQuests (see field note appendix I). To complete each web-based activity, they had one week, which the researcher considered the time necessary. From the four blog activities, two students submitted one of them late, and five of them printed their last assignment instead of posting it. The researcher asked them for the reason, and they said they had difficulties posting it because of internet connection problems. These issues are addressed in the category: *participants' perceptions-viewpoints/experiences*.

Regarding the oral WebQuest performance, the researcher noticed that the students achieved successfully most of the WebQuest requirements, such integrating other classmates in the conversation, the time of the presentation, the number of sentences and expressions, and the tenses and topics to be used (See field note appendix H-I). However, their oral performance in the second WebQuest (See field note appendix I) showed they were not ready for the presentation since they had neither memorized their roles nor rehearsed their performance. From this second WebQuest, it was evident that one week was not enough for achieving the whole process successfully. In terms of performance comparison between the first and the second WebQuest, it was noticed that the participants had a better performance in the first one since they were more fluent and they occasionally used their notes to remember their speech.

Participants' Perceptions-Viewpoints/Experiences

The participants' perceptions were analyzed based on the data from a recorded interview conducted with six of the 15 participants exposed to blended learning. In terms of their experience using the blog for working on Spanish vocabulary activities, they reported that the activities were straightforward and easy to understand, "The assignments overall were good, I think, easy to understand." "It's kind of cool that you can read another language." "It was good, it was interesting to watch the videos and see others' responses." Other students expressed the inconvenience for posting the activities on the blog, "It couldn't let me submit it in the blog; it kept on telling me that they already had an answer for that." "It was a little hard to work on the accents, and it didn't allow me to do so right away so I had to do it over and over again until I found the way."

The advantages mentioned for using blogs in general for learning Spanish as a second language were, “It was good to see what others write.” “It is kind of nice for me to see what other people add. If they are kind of certainly struggling with words or parts of the language, this makes me feel better.” “I think it is a different way of learning rather than just having and reading a book.” “It helps a lot. I enjoyed it. I think it is interesting.” “You can have more resources so you can learn better and quickly.” “You can see what other people say, and you can understand a little bit easier.” The disadvantages for using blogs in general were, “I guess we can see other responses, but, when you don’t know what to write, you can copy others so I think that is one of the problems, so you have to think of other responses differently or the same but rewrite it in a different way.” “Sometimes it is hard because the people speak so fast in the videos and they say things that we don’t necessarily know yet, but it is interesting to see the way you have to sit down and learn new vocab from that.” Others said, “I don’t think there is a disadvantage.”

The use of WebQuest for Spanish vocabulary activities was described as helpful and interesting, “I liked that one a lot actually. I thought that one was really helpful. I thought that one was interesting to learn if I go to Mexico or something. I know a list of things that I can use in informal talking.” “I like everything broken down, the task, the information, how you are going to create it, give us links; I don’t think there is a disadvantage.” “You actually think about what you’re looking at learning, and so your attention is probably better.” “It helps a lot; it is not just looking at words, but using the words that can help for a next experience.” “I enjoyed it.” The disadvantages mentioned were, “Little bit difficult because trying to be together to actually do something was

almost impossible, but like actually using it was fine.” “It was difficult although I learned a lot; I liked how it laid out what you have to do and described what you should do.” “The assignments were long but worth it.”

For advantages and disadvantages using WebQuests in general to study Spanish as a second language, the responses were, “With the sketch and everything you had to do in the research, you can go in deep on what you are learning.” “Get us to look at different aspects of the language.” “It is not just the actual vocabulary, but the things behind it.” “I don’t think it has a disadvantage.” “It had advantages because we were able to learn many new things from it.”

Regarding the knowledge they possessed about blended learning, most of them had a general idea, but did not know the technological words to define it. They said, “Directions of working on the language and doing connections...” “I don’t have any knowledge.” “I feel I can learn in different forms and different ways to communicate with people.” “I think it is good how we interact with each other.” “I think people can get stuck if they don’t know much technology.” “It is online; it helped me understand about the Spanish culture and vocabulary.”

They were asked their thoughts on how the integration of web-based activities for working outside the classroom setting could influence their learning on the second language, and they said that it was helpful to have extra practice, and it was good to work at projects as a group. They also expressed that online activities outside the classroom offered them the possibility to find a quieter place to study, “The extra practice how being able to work in a quieter set is good; sometimes it gets loud in the classroom so if I get like a small study group so I could study outside the class and work in groups on my

projects, that is great.” Another participant said that it was nice to have more possibilities to work on the second language almost everyday, since it helped to keep on thinking on the second language, “It just kind of keeps you thinking on the second language which is nice versus like just three days a week.” They expressed that it could help since some people learn better when using other modalities, “I think it could really help because if someone is not really good at listening and learning, maybe it could be easy for them to see the computer screen and being able to translate it so it could really help people. I think it could be really helpful.” Other participants said that it was like working on different material in the second language, “Have different material but we still are reading in the second language and still writing and speaking it.” Others expressed their experiences, “It is definitely different than in the classroom experience; you know you have to do research and take in your own hands the cultural aspects that maybe you wouldn’t do in the classroom.” “Websites are helpful because they can help you when the teacher isn’t there. I think it puts the language into a context. My experience was great because it helped me understand about the Spanish culture and vocabulary.”

The last question inquired about other web-based activities they thought should be added for working on Spanish outside the classroom setting. A participant expressed that the online activities were diverse, “I liked everything that we did. There was a great variety, so I don’t really know if there was anything I would like to add.” Another participant said that it would be useful to have conversation groups online with students who had a higher Spanish level, “Have a conversation about it in Spanish online with other students because we can’t normally do that like in class and also people can’t think that fast and so they think more about the structure of the sentence.” “I don’t know many

of them but integrate a little bit more WebQuests so students can do more research on their own.” “Definitely the blogs help.” “I think what we did was enough.” “I feel like going to different Spanish speaking countries can help for activities outside the classroom. I don’t know maybe more group work and games.”

Chapter Summary

The results and data analysis presented in this chapter indicate that in the pre-test, the control and experimental group were equal in terms of their vocabulary knowledge. The results of the post-test showed a significant difference between these two groups. The experimental group, exposed to blended learning, recalled more vocabulary than the control group, which received input only in the classroom setting. Through the qualitative component, the researcher identified students’ strengths, perceptions and difficulties in the blended learning instruction. The quantitative and qualitative results showed positive students’ performance and motivation in this kind of instruction. The students not only enjoyed developing the tasks, but they also were able to use specific vocabulary of the target language to construct paragraphs, give opinions, describe environments, create conversations, and explain facts.

Chapter 5

Discussion, Conclusions, and Implications

Overview

The purpose of this study was to use a mixed-methods approach to assess the impact of blended learning on student performance and motivation when building their Spanish vocabulary through blogs and WebQuests. This section discusses the findings presented in Chapter IV, and discloses conclusions and implications for further research.

Discussion

Research Question 1: How effective is blended learning for student's performance when learning Spanish vocabulary through blogs and WebQuests?

The researcher employed various activities for students to achieve a successful performance in the target language. The activities were based on the idea of providing them the opportunity to go beyond learning isolated words. The researcher took into account diverse input representations such as videos with authentic material, pre-selected internet links to scaffold student learning development, and blogs and WebQuests for them to complete step-by-step tasks. Accordingly, the participants were working on activities and using the target language for communicative purposes. They created conversations, gave opinions, retold stories, and described facts using specific vocabulary. After this exposure, they were tested with a vocabulary test to assess the impact of blended learning instruction on their performance. The quantitative results supported the research hypothesis, which stated that learners exposed to blended learning

had better comprehension of the vocabulary than those who received only input in the classroom setting.

Research Question 2: What is the impact of blended learning on student motivation when learning Spanish vocabulary through blogs and WebQuests?

The researcher established core categories and themes that allowed an analysis of the students' strengths, difficulties, and perceptions when working on the web-based activities. Their artifacts showed a high level of development in the target language. They used certain vocabulary successfully to compose conversations, write opinions, retell stories, and present and explain facts based on their interpretations of the media sources and instructions provided. In the researcher's interview with the participants, they pointed out their positive experience and the importance of using diverse materials such as videos, sound, and images for learning the second language. Some students experienced a lack of time to complete one of the activities because of poor internet connection, and a minority said that some of the videos were difficult to understand either because people spoke too fast or the students did not necessarily know certain vocabulary. The qualitative component also provided valuable information of students' metacognitive processes. The interviews showed that the participants were capable of analyzing and describing how the blogs and WebQuests had contributed to their concentration on certain topics, their knowledge, and the creation of goals through group work. Thus, the researcher concluded that the blended learning had a positive impact on student motivation.

Conclusions

Based on the results and data analysis, the researcher concluded that blended learning was an effective way of instruction for increasing performance and motivation to learn the target language. In terms of quantitative analysis, the researcher found that the experimental group, exposed to blended learning, recalled more vocabulary, and consequently had better comprehension of the activities than the control group, which received input only in the classroom. In the qualitative analysis, it was evident that the students had a positive experience with blended learning and were even able to describe their progress, which demonstrated their metacognitive analysis of their second language learning. This study also reveals that a mixed-method design contributes to a better understanding and explanation of the results.

Implications

Although there is a great deal of recent research in applying ICTs to improve specific targets of the language, there is limited possibility to draw strong conclusions. Authors such as Plass (2002) found that the multiple representations of information provided by multimedia tools and its web-based methodologies did not always help learning, but could even hinder it in low-ability students who were required to manipulate meaningful pictorial information and connect verbal and non-verbal input. He claimed that this diversity of representation of information through multimedia could be beneficial depending on individual learning styles. On the other hand, the generative theory of multimedia learning also assumes that the latter is used for limited working memory. Moreover, it is important to mention that the experiment was conducted during

a period of four months, which means that there was limited training of the students in this kind of instruction and limited time for them to submit their web-based activities.

This study could be improved by including strategies for vocabulary pronunciation through other web-based activities such as podcast, online conversations with higher-level students using the target language could be included, more participants could be added with an equal number between the experimental and the control group, and give them more time to complete the activities.

Chapter Summary

Chapter V presents the discussion, conclusions, and implications of the present research study. For the discussion section, the researcher provided an analysis for the two formulated research questions and supported this analysis with data obtained from the quantitative and qualitative component. The researcher concluded that students exposed to blended learning had higher performance and motivation in the target language than those in the control group who were exposed to the same amount of instruction but did not work any activity using blogs and WebQuest neither in nor outside the classroom. The implications of the results found were the probable difficulties in some students with a lower ability to manage different modalities of input representation displayed in multimedia environments.

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APPENDICES

Appendix A

Language Questionnaire

This questionnaire is designed to give an insight into your experience with the Spanish language. Please be as accurate as possible when answering the following questions.

General Background

1. Gender

Female Male

2. Age

_____ years old.

3. Country of origin

United States

Other: _____

If *other*, at what age did you come to the United States? _____ years old.

4. Native language:

English Spanish

Other: _____

5. Language spoken at home

English Spanish English and Spanish other

If *other*, which one/s? _____.

Education

6. Graduate level

College

Freshman __ Sophomore __ Junior__ Senior__ Minor in: _____Major in: _____

7. Indicate where you have studied Spanish and the length of study. Check all that apply to you.

<input type="checkbox"/> Elementary school	<input type="checkbox"/> High school	<input type="checkbox"/> College	<input type="checkbox"/> Language Institute
--	--------------------------------------	----------------------------------	---

1 year	1 year	1-2 semesters	1-2 semesters
2 years	2 years	3-4 semesters	3-4 semesters
3 years	3 years	4-5 semesters	4-5 semesters
4 years	4 years	Other: _____	5-6 semesters
5 years	5 years		Other: _____
Other: _____	Other: _____		

8. Rate your Spanish language skills

Listening (1=Very poor 2=Poor 3=Fair 4=Good 5=Excellent)

1 2 3 4 5

Speaking (1=Very poor 2=Poor 3=Fair 4=Good 5=Excellent)

1 2 3 4 5

Reading (1=Very poor 2=Poor 3=Fair 4=Good 5=Excellent)

1 2 3 4 5

Writing (1=Very poor 2=Poor 3=Fair 4=Good 5=Excellent)

1 2 3 4 5

Basic Vocabulary (introduce yourself and others-greetings- numbers 1-99 -colors-simple present verbs- descriptions of physical appearance/personality -weather-likes/dislikes-family members, Hispanic culture). (1=Very poor 2=Poor 3=Fair 4=Good 5=Excellent)

1 2 3 4 5

9. Is there any other aspect of your Spanish language knowledge that you would like to share?

Appendix B

Technology Questionnaire

This questionnaire is designed to give an insight into your experience with the use of technology. Please be as accurate as possible when answering the following questions.

Computer and Internet Access

1. Indicate where do you have computer and Internet access

Computer Access	Yes	No	Internet Access	Yes	No
I have computer access at school/college			I have Internet access at school/college		
I have computer access at work			I have Internet access at work		
I have computer access at home			I have Internet access at home		
Other: _____			Other: _____		

2. Indicate the purpose of using the Internet and the frequency of use

Use of Internet	Yes	No	Frequency			
			Always	Sometimes	Rarely	Never
Search about my classes' assignments						
Find information in general						
Communicate with people						
Entertainment						
Other: _____			Frequency _____			

Knowledge and attitude toward technology for educational purposes

3. Indicate your knowledge about the following statements

Knowledge about technology for educational purposes	YES	NO
I know what a blog is and know how to use it.		
I know what a WebQuest is and know how to use it.		
I know what Blended Learning is.		
I know diverse technology tools for educational purposes. Which ones? _____		
I know websites from the Internet that can help me to practice Spanish as a second language. Which ones? _____		

4. Indicate your attitude toward technology for educational purposes

Attitude toward technology for educational purposes	Strongly Agree	Agree	Neither Disagree nor Agree	Disagree	Strongly Disagree
I feel comfortable using a computer and the Internet.					
I think the Internet is a useful tool for learning languages.					
I am motivated to use the Internet for expanding my language knowledge outside the classroom context.					
I would like to use the Internet to work collaboratively with other classmates.					
I am interested in using multimedia sources for learning and practicing Spanish as a second language.					

5. Is there any other aspect that you would like to share about your skills or attitudes toward technology for educational purposes?

Appendix C

Vocabulary Pre-test

SPN 1001 Gender: _____ Age: _____ Date: _____

General vocabulary

Escoge la opción correcta:

1. ¿Cuál de las siguientes opciones define la palabra: muñeca?

- a. Es una fruta muy deliciosa.
- b. Es un objeto usado para jugar.
- c. Es un tipo de deporte.

2. ¿Cuál de las siguientes opciones define la palabra: Alma?

- a. Es un lugar donde las personas almuerzan.
- b. Es un objeto usado para sentarse.
- c. Es la parte espiritual del ser humano.

3. ¿Cuál de las siguientes opciones define la palabra: Invierno?

- a. Es una estación.
- b. Es una forma de saludo.
- c. Es un número.

4. ¿Cuál de las siguientes opciones define la palabra: Guantes?

- a. Es un miembro de la familia.
- b. Es una descripción física.
- c. Es una prenda para proteger las manos.

5. ¿Cuál de las siguientes opciones define la palabra: Triciclo?

- a. Es una lugar para comprar cosas.
- b. Es un tipo de bicicleta.
- c. Es una actividad de tiempo libre.

Cultural Knowledge:

1. ¿Cuál de las siguientes opciones se asocia a la palabra: Mariachi?

- a. Divertido
- b. Atletismo
- c. Música

2. ¿Cuál de las siguientes opciones se asocia a la palabra: Quinceañera?

- a. Tradición
- b. Trabajo
- c. Estudio

3. ¿Cuál de las siguientes opciones se asocia a la palabra: Mestizo ?

- a. Padre
- b. Camiseta
- c. Raza

4. ¿Cuál de las siguientes opciones se asocia a la palabra: Vallenato?

- a. Música
- b. Comida
- c. Instrumento

5. ¿Cuál de las siguientes opciones se asocia a la palabra: Marimonda?

- a. Símbolo
- b. Deporte
- c. Ropa

Appendix D

Vocabulary Post-test

SPN 1001 Gender: _____ Age: _____ Date: _____

Vocabulario General

Escoge la opción correcta:

1. ¿Cuál de las siguientes opciones define la palabra: muñeca?

- a. Es una fruta muy deliciosa.
- b. Es un objeto usado para jugar.
- c. Es un tipo de deporte.

2. ¿Cuál de las siguientes opciones define la palabra: Alma?

- a. Es un lugar donde las personas almuerzan.
- b. Es un objeto usado para sentarse.
- c. Es la parte espiritual del ser humano.

3. ¿Cuál de las siguientes opciones define la palabra: Invierno?

- a. Es una estación.
- b. Es una forma de saludo.
- c. Es un número.

4. ¿Cuál de las siguientes opciones define la palabra: Guantes?

- a. Es un miembro de la familia.
- b. Es una descripción física.
- c. Es una prenda para proteger las manos.

5. ¿Cuál de las siguientes opciones define la palabra: Triciclo?

- a. Es una lugar para comprar cosas.
- b. Es un tipo de bicicleta.
- c. Es una actividad de tiempo libre.

Vocabulario sobre Cultura:

Escoge la opción correcta:

1. ¿Cuál de las siguientes opciones se asocia a la palabra: Mariachi?

- a. Divertido
- b. Atletismo
- c. Música

2. ¿Cuál de las siguientes opciones se asocia a la palabra: Quinceañera?

- a. Tradición
- b. Trabajo
- c. Estudio

3. ¿Cuál de las siguientes opciones se asocia a la palabra mestizo?

- a. Padre
- b. Camiseta
- c. Raza

4. ¿Cuál de las siguientes opciones se asocia a la palabra: Vallenato?

- a. Música
- b. Comida
- c. Religión

5. ¿Cuál de las siguientes opciones se asocia a la palabra: Marimonda?

- a. Símbolo
- b. Deporte
- c. Instrumento

6. ¿Cuál de las siguientes palabras define la expresión: ¡Qué chido!?

- a. Cool!
- b. No way!
- c. Don't lie!

7. ¿Cuál de las siguientes palabras define la expresión: ¡Rumbear!?

- a. To run
- b. To party
- c. To be ready

8. ¿Cuál de las siguientes palabras define la expresión: ¡Chévere!?

- a. Yummy
- b. Boring
- c. Cool

Vocabulario en Contexto:

Completa la conversación usando el siguiente vocabulario:

- | | |
|--------------------|---------------------|
| a. chévere | g. bien |
| b. cumpleaños | h. centro comercial |
| c. helado | i. roja |
| d. jugo de naranja | j. Quinceañera |

Tatiana: ¡Hola Luisa! ¿cómo estás? ¡qué coincidencia! Tú aquí en el 1. _____ también.

Luisa: Estoy muy 2. _____ gracias. ¡Sí que coincidencia!

Tatiana: ¿Qué quieres comprar?

Luisa: Quiero comprar una 3. _____ para mi abuelita que está de 4. _____ mañana. ¿Me acompañas?

Tatiana: Por supuesto, vamos. ¿De qué color la quieres?

Luisa: La quiero 5. _____. A mi abuela le gusta ese color. Después de comprar lo que necesito podemos ir a comer un 6. _____.

Tatiana: Me parece una 7. _____ idea, aunque yo prefiero ir a tomar 8. _____.

Luisa: jeje, esa es tu bebida favorita, ya lo sé. ¡Oh! hoy es la fiesta 9. _____ de mi prima en el hotel Tequendama ¿quieres ir?

Tatiana: Sí, ¡que 10. _____! Tú sabes que a mí me gusta 11. _____.

Appendix E

Data Analysis Tables for Pre-Test

t-Test: Two-Sample Assuming Equal Variances		
	Vocabulary Pre-test	
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	5.533333333	5.642857143
	3	
Variance	3.69523809	2.554945055
	5	
Observations	15	14
Pooled Variance	3.14620811	
	3	
Hypothesized Mean Difference	0	
df	27	
t Stat	-	
	0.16615961	
	1	
P(T<=t) one- tail	0.43463468	
	4	
t Critical one- tail	1.70328844	
	6	
P(T<=t) two- tail	0.86926936	
	8	
t Critical two- tail	2.05183051	
	6	

Appendix F

Data Analysis Tables for Post-Test

t-Test: Two-Sample Assuming Equal Variances		
Vocabulary Post-test		
	<i>Variable 1</i>	<i>Variable 2</i>
Mean	19.4666666 7	15.28571429
Variance	24.1238095 2	32.52747253
Observations	15	14
Pooled Variance	28.1700176 4	
Hypothesized Mean Difference	0	
df	27	
t Stat	2.11978741 8	
P(T<=t) one-tail	0.02168097 7	
t Critical one-tail	1.70328844 6	
P(T<=t) two-tail	0.04336195 5	
t Critical two-tail	2.05183051 6	

Appendix G

Interview about Experiences with the Blended Learning instruction

1. How would you describe your experience using the blog for working on the Spanish vocabulary activities?
2. What advantages and disadvantages do you think can be found when using blogs in general, for studying Spanish as a second language?
3. How would you describe your experience using the WebQuest for working on the Spanish vocabulary activities?
4. What advantages and disadvantages do you think can be found when using WebQuests in general, for studying Spanish as a second language?
5. What knowledge do you possess about blended learning?
6. How do you think the integration of web-based activities for working outside the classroom setting could influence your learning of Spanish as a second language?
7. What other web-based activities do you think should be integrated for working on Spanish outside the classroom setting?

Appendix H

Field Note N. 1: WebQuest N. 1

Observations	Codes/Categories	Reflection/Comments
<p>It was 10:30 a.m. in DSC 251. The instructor presented the WebQuest using the video Beam and started to read in Spanish each WebQuest step. She said she was reading to make the students remember the daily assignment. Then, she called at random a group to start the presentations.</p>	<p>The event occurs in the college, specifically in the classroom.</p>	<p>Student presentations fulfilled the WebQuest requirements, which were to involve classmates in the conversations, number of sentences and expressions, and to use certain tenses.</p>
<p>The first group used the classroom chairs to create the situation. They followed the time requirement, and their conversations demonstrated coherence and vocabulary complexity. They also accompanied their speech with body language and Colombian and Mexican slang, laughing when using the slang. They read their notes occasionally to remember the sequence of the conversation. Their mistakes were mostly in pronouncing slang such as <i>chévere</i>.</p>	<p>Strengths</p>	<p>They used correctly the slang related to the Hispanic countries. They also selected conversational topics.</p>
<p>The second group performed as well as the first group. Their common mistakes were, for example, using <i>bien</i>: <i>el pollo es muy bien</i> instead of <i>bueno/a</i> to describe food, or <i>uno momento</i> instead of <i>un momento</i>. While laughing, they used some slang with swearword or rude connotations commonly spoken by the young population from Colombia and México such as: <i>cagado</i> and <i>chanda</i>.</p>	<p>Student perceptions</p>	<p>Some of their mistakes can be due to the process of interlanguage and is evidence of their cognitive process: trying to connect their native and second language.</p>
<p>The third group read from their notes</p>	<p>Not prepared for the</p>	

<p>on their computers and notebooks more than the first two groups while sitting down, and showed some interaction and flow during the conversation.</p> <p>The fourth group was not fluent or prepared enough for the conversation since they were reading much from their notes. They enjoyed the expressions in their conversations and commented on how funny the Colombian and Mexican slang were.</p> <p>The fifth group performed liked the first three groups. They memorized the conversation and at the end said the Mexican slang was easier than the Colombian.</p>	<p>oral, lack of fluency.</p> <p>Student perceptions</p> <p>Strengths</p>	
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Appendix I

Field Note N. 2: WebQuest N. 2

Observations	Codes/Categories	Reflection/Comments
<p>It was 10:30 a.m. in DSC 251. The instructor presented the WebQuest using the video Beam and started to read in Spanish each WebQuest step. She said she was reading to make the students remember the daily assignment. Then, she called groups at random to present. One participant offered to present first, so the rest of the group stood up with her. Each had a paper and read almost the whole time. They stood up in front of their slides, which contained two images per topic and a video as an example of the meaning Mariachi. After their presentation, they had a conversation on the topic of Mariachi, but they stood up, reading from their notes. There was no flow, fluency, body language, and interaction among them.</p> <p>However, their written paper achieved the requirements of describing and explaining each topic, and the slides contained only images and no letters. The group finished within the time required.</p> <p>The second group passed in front of the board and performed mostly like the first group. They also had a written paper that achieved the requirements; their slides contained only images. This group presented a conversation after their description of the vocabulary. In the conversation,</p>	<p>The event occurred in a classroom at the college.</p> <p>Difficulties:</p> <p>Not prepared for the oral, lack of fluency.</p> <p>Strengths:</p> <p>Written papers, slides, and time fulfilled the requirements asked in the WebQuest.</p> <p>Not prepared for the oral conversation and there was lack of fluency</p>	<p>Throughout the student presentations, it was possible to notice that they achieved successfully some of the WebQuest requirements, which were to integrate other classmates in the conversation and to have a written paper about the conversation and presentation. However, their oral performance showed they were not ready since they had not memorized their roles nor rehearsed their performance. From this second WebQuest, it was evident that the students needed more time and that one week was not enough for achieving the whole process successfully.</p> <p>Three of the five groups rehearsed more for the presentation and conversation.</p>

<p>they included all the vocabulary that they had presented. The students read from their notes and did not show any conversational features.</p> <p>The third group passed in front of the board and performed mostly as the first group. They also had a written paper that achieved the requirements; their slides contained only images, and they added a video about Quinceañera. This group also presented a conversation after their description of the vocabulary and included all the vocabulary they had presented. The students read from their notes but not constantly and showed conversational features.</p> <p>The fourth group passed in front of the board and performed mostly like the first three groups. They also had a written paper that achieved the requirements; their slides contained only images. This group presented a conversation after their description of the vocabulary and included all the vocabulary they had presented. The students read from their notes and did not show conversational features.</p> <p>The fifth group passed in front of the board and performed mostly like the third group. They had a written paper that achieved the requirements; their slides contained only images and they added a video to exemplify the Marimoda. This group presented a conversation after their description of the vocabulary and included all the vocabulary they had presented. The students did not read much from their notes and showed more conversational features.</p>	<p>Strengths</p> <p>Written papers, slides, and time fulfilled the requirements for the WebQuest.</p> <p>Strengths:</p> <p>Written papers, slides, and time fulfill the requirements for the WebQuest.</p> <p>Difficulties</p> <p>Not prepared for the oral, lack of fluency.</p> <p>Strengths:</p> <p>Written papers, slides, not reading at all, and time fulfilled the requirements asked in the WebQuest.</p>	
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