Computer Assisted Language Instruction Consortium

CALICO JOURNAL (ONLINE) ISSN 2056–9017

Article

New tools, new designs: A study of a redesigned hybrid Spanish program

Emily E. Scida and Jill N. Jones

Abstract

This study reports on the rehybridization of three beginning-level Spanish courses and the effect of the new redesigned courses on student learning and on self-reported levels of anxiety. The data collected included pretests and posttests of listening comprehension, linguistic knowledge, and foreign language anxiety, as well as qualitative data on student perceptions of the new courses. Results showed that students significantly improved in both listening comprehension and linguistic knowledge and that self-reported levels of anxiety decreased over the semester. In addition, comparison data was collected in the form of final exam grades from the former hybrid SPAN1010 and SPAN1020 courses and from the corresponding redesigned hybrid courses. Results showed that students in the new redesigned SPAN1010 hybrid course performed significantly better than students enrolled in the former SPAN1010 hybrid course. However, for the SPAN1020 course, there were no significant differences in students' final exam grades between the two hybrid formats. Student perceptions of the redesigned hybrid courses were mixed, with positive comments about the effect of the online work on student progress, but frustration at encountering initial technical problems and at the number of hours required to complete online work.

KEYWORDS: BLENDED LEARNING; FLIPPED CLASSES; FOREIGN LANGUAGE ANXIETY; HYBRID COURSES

Affiliation

Department of Spanish, Italian, & Portuguese, University of Virginia, Charlottesville, VA, USA.
email: ees2n@virginia.edu (corresponding author)

CALICO JOURNAL VOL 33.2 2016 174–200

doi : 10.1558/cj.v33i2.26053

Introduction

The landscape of online learning has experienced substantial changes, with advances in technological tools, new approaches to learning and teaching, and innovations in course design and technology integration. These changes have been prompted by the desire to improve student learning (Young, 2008), revise or broaden proposed learning outcomes (Chapelle, 2010), reduce cost to institutions (Clark, 2003; Scida & Saury, 2006; Young, 2008), increase access to learners (Bañados, 2006; Clark, 2003), and provide flexible and convenient options for both students and teachers (Adair-Hauck, Willingham-McLain, & Youngs, 1999; Chenoweth, Ushida, & Murday, 2006; Cubillos, 2007).

Hybrid courses provide the benefits of both online learning and face-to-face instruction (Cubillos, 2007). While the in-class component of hybrid courses offers opportunities for student–teacher interaction, peer interaction, and positive reinforcement and feedback, the online learning component allows for exposure to authentic texts and materials to support skill development and cultural learning, tutorial computer-assisted language learning (CALL) to promote accuracy practice, and delivery of content online to support a flipped classroom. The online learning components can also allow students to focus on basic skill-building and accuracy practice outside of class, and as a result teachers can employ more student-centered approaches (e.g., active and applied learning techniques) during class (Bonk, Wisher, & Lee, 2003). Other potential benefits of online learning environments include increased student motivation, control, and autonomy (Arispe & Blake, 2012; Bonk et al., 2003; Chenoweth et al., 2006), student collaboration, exposure to authentic oral, written, and visual input (Adair-Hauck et al., 1999; Bañados, 2006; Bonk et al., 2003), access to native speakers, authentic communication and interaction through computer-mediated communication (CMC) like chat (Blake, Wilson, Cetto, & Pardo-Ballester, 2008; Poza, 2011; Warschauer & Meskill, 2000), self-directed and self-paced learning (Arispe & Blake, 2012; Bonk et al., 2003), the opportunity to submit work multiple times (Scida & Saury, 2006), and more active student-centered learning (Blake, 2008; Bonk et al., 2003). Although increased motivation is frequently cited as an advantage of online learning, others have suggested that success in hybrid or online environments depends in part on students possessing traits of self-discipline and self-motivation (Chenoweth et al., 2006; Cubillos, 2007) or conscientiousness (Arispe & Blake, 2012). While hybrid learning presents significant advantages, potential drawbacks are decreased interaction between teachers and students, constraints on instructional strategies (Bonk et al., 2003; Chenoweth et al., 2006), and high drop-out rates (Parry, 2011; Stracke, 2007). Solutions to these challenges might include training students on appropriate learning strategies for online environments and training teachers on effective instructional strategies and technology use.

With the emergence of new and improved instructional technologies, hybrid courses initially developed decades ago are undergoing changes in structure and design. While previous research on hybrid learning has presented case studies of hybrid courses or comparison studies of hybrid versus traditional face-to-face courses, few have studied the implementation and effects of the redesign of an existing hybrid program. The present study seeks to add to this body of research by looking at the effects of a redesign of a beginning-level hybrid Spanish course sequence on student learning (listening comprehension, grammar, and vocabulary), on self-reported levels of foreign language (FL) anxiety, and on student perceptions of the course. Our project builds on the initial hybridization of our beginning-level Spanish course sequence from 2003 (see Scida & Saury, 2006) and describes how the careful integration of new technologies and redesign of learning in face-to-face and online domains has resulted in a more student-centered learning environment by "flipping the classroom." In the current hybrid program redesign, we harnessed the rich affordances of tools like VoiceThread, the textbook online platform Connect, and our institution's LMS (Learning Management System) Sakai to engage students in collaborative project-based learning, to deliver content through video grammar tutorials, to expose students to authentic texts and tasks, and to support tutorial CALL. In this study, we present a brief overview of the research on hybrid courses and blended language learning, looking at both comparison and non-comparison studies. Next, we discuss the context of our Spanish language program, the goals behind the rehybridization of our Spanish courses, and the course redesign. Finally, we describe the study undertaken to measure the effect of the redesign, taking into consideration the limitations of the project and future directions for research.

Literature review

Hybrid or blended learning is generally understood to mean a learning context that "combines in-class instruction for part of the week together with independent work the rest of the time that is supported by a combination of dedicated CALL programs, Internet activities, and/or online chatting" (Blake, 2008, p. 107). In some hybrid courses, there is a reduction of face-to-face contact hours, which are substituted with online work; this reduction of contact hours may be prompted by the need or desire to make better use of instructional resources, increase the number of classes, provide more flexible, accessible, and convenient learning options to students, or transform the learning paradigm (Gruba & Hinkelman, 2012, pp. 3–4).

Much of the research on hybrid courses in the context of FL learning has reported positive results for both second language (L2) acquisition and for student factors like motivation and perception of the course. In a meta-analysis

of comparison studies from 1970–2006, Grgurović, Chapelle, & Shelley (2013) found that courses supported by instructional technology were at least as effective as those courses with no technology, and in rigorous research designs the technology-enhanced groups outperformed the traditional groups with a small, but positive and statistically significant effect size. Yet, other studies measuring student achievement in blended learning report mixed results for different components of L2 acquisition. For example, in a comparison study, Adair-Hauck et al. (1999) found no significant difference in listening and speaking assessment between the hybrid and control groups, but students in the hybrid group performed better in the reading, writing, and cultural learning measures. Results of a two-year comparison study (Young, 2008) indicated no significant difference on listening and reading measures between the traditional and hybrid courses, while students in the hybrid group scored higher on speaking proficiency and students in the control group scored higher on the midterm exam. Sagarra & Zapata (2008) looked at the effect of integrating the online version of the workbook in two hybrid Spanish courses over two semesters. Using final exams to measure student learning in grammar, vocabulary, listening, and reading in each course, the researchers found that grammar scores improved, vocabulary and reading scores stayed the same, and listening scores decreased over the two semesters. Bañados (2006), who described the impact of a new hybrid EFL program on student achievement in speaking, listening, vocabulary, integrated skills, reading, grammar, and pronunciation, showed student improvements in all areas but especially in listening, pronunciation, vocabulary, and grammar. These studies report mixed results for different L2 components with most pointing to no benefit for hybrid courses on listening and reading development.

Other research has concluded that hybrid courses are at least as effective as traditional face-to-face language courses, finding no significant difference in learning outcomes. For example, Chenoweth et al. (2006) investigated the effectiveness of four hybrid courses as compared to their traditional face-to-face counterparts over a span of five semesters and found that students in both groups performed comparably on measures of oral and written production, reading and listening comprehension, and grammar and vocabulary knowledge. Cubillos (2007) also showed no significant difference in student performance on oral exams, compositions, reading exams, the final exam, or final grades between hybrid and control groups. Focusing in particular on speaking proficiency in online instructional environments, Blake et al. (2008), who compared results of oral assessments of traditional, hybrid, and distance language learners over a period of two years, showed that students in all three treatments reached comparable levels of speaking proficiency.

A number of studies have pointed to a positive effect on student satisfaction and motivation in hybrid language courses. Cubillos's (2007) students,

for example, preferred the hybrid format over the traditional course, highlighting its convenience, flexibility, and self-directed pace. Similarly, Bañados (2006) and Grgurović (2011) report high levels of student satisfaction with a new hybrid course and positive student perceptions about their experiences. Yet, student perceptions of technology-enhanced courses may be less positive or neutral for a variety of reasons. For example, Sagarra and Zapata's (2008) students recognized that the online workbook enhanced their learning of grammar and vocabulary and somewhat less their skill development, but some disliked the amount of time needed to complete the online work. In their comparison study, Adair-Hauck et al. (1999) looked at student motivation and anxiety and found no significant difference between the hybrid and control groups and no significant change over the semester in either measure.

Looking more closely at affect, there is a significant body of research on FL anxiety, "the feeling of tension and apprehension specifically associated with second language contexts, including speaking, listening, and learning" (MacIntyre & Gardner, 1994, p. 284), in language courses (Horwitz, Horwitz, & Cope, 1986; MacIntyre, 2007; MacIntyre & Gardner, 1989, 1991, 1994; Young, 1991). Some researchers have reported that a FL class can be the most anxiety-provoking course for students (Campbell & Ortiz, 1991; Horwitz et al., 1986; MacIntyre & Gardner, 1991), while others contend that anxiety is one of the best predictors of achievement in FL learning (Gardner, 1985). Effects of FL anxiety on students can include: lowered levels of confidence and self-esteem; avoidance behaviors such as missing class, postponing homework, or postponing taking language courses; less active engagement in class; difficulty in acquisition and recall of vocabulary and grammar; poor test performance in general and in speaking and listening skill development, among other detrimental effects on learning and effect (Onwuegbuzie, Bailey, & Daley, 1999). Research reports mixed findings on FL anxiety in online environments. For example, Poza (2011) looked at the impact of computer voice conferencing on anxiety when speaking and found a reduction in anxiety in the online environment, while Arnold (2007) found no long-term reduction in communication apprehension among students in the face-to-face discussion, asynchronous CMC, or synchronous CMC groups.

In conclusion, findings from prior studies on the impact of hybrid courses on L2 acquisition, student perception and satisfaction, and FL anxiety are mixed. Previous research has focused on the comparison of hybrid courses to their face-to-face counterparts or case studies of new hybrid courses, while little research has looked at the redesign of an existing hybrid language program. The present study attempts to address this lack and to contribute to the body of research on blended learning by looking at the impact of the redesign of an existing beginning-level hybrid Spanish course sequence on student

learning (development of listening comprehension, grammar, and vocabulary), on FL anxiety, and on student perceptions of the course. In particular, this study extends prior research by comparing L2 learning in two different hybrid formats—a former hybrid language program and its new redesigned counterpart. The following research questions guided our study:

1. Do students enrolled in a redesigned hybrid Spanish course experience learning gains (in grammar, vocabulary, and listening comprehension) over one semester?
2. Do students enrolled in a redesigned hybrid Spanish course experience a reduction in levels of FL anxiety over one semester?
3. Are there differences in measures of L2 learning (of grammar and vocabulary) between students in the former hybrid Spanish courses and students in the redesigned hybrid courses?
4. What are students' overall perceptions of and satisfaction with the redesigned hybrid courses?

The study

Course description

Our beginning-level Spanish program (SPAN1010, 1020, and 1060) prepares students to successfully perform linguistic tasks that allow them to communicate in everyday situations (e.g., greeting, narrating, describing, ordering, comparing and contrasting, apologizing), and develops students' listening, speaking, reading, and writing skills at the beginning level.

Background

Prior to 2003, these three courses were offered in the traditional face-to-face format meeting five days a week in the classroom with no online work. In 2003, we adopted a hybrid model for our beginning-level Spanish program to make better use of instructional resources, increase the number of sections to meet an increasing demand for Spanish courses, reduce the student-teacher ratio from 25:1 to 22:1, and improve student learning. The hybrid courses met three days per week supplemented with online practice and quizzes submitted on an LMS called Mallard. The work on Mallard consisted primarily of form-focused practice of grammar, vocabulary, and listening comprehension.

Rehybridizing the program

In our initial 2003 hybrid course pilot study, we stated that "the success of the hybrid model is to assess realistically the areas in which computers can have the most concrete, positive benefit based on the present strengths in its functionality" (Scida & Saury, 2006, p. 527). Since our initial program restructuring in

2003, the functionalities of online technologies and their potential to support learning and teaching have grown tremendously. In the redesign of our hybrid program, we sought to harness the rich functionalities of newer technologies, some of which were not available at the time of the initial restructuring, and to exploit the benefits of both online and in-class environments to best support our course goals

The functionalities of current technologies invite us to reconsider our beliefs about teaching and learning and the roles of teacher and student in education. This is in line with current paradigm shifts—the shift from an instruction paradigm to a learning paradigm (Barr & Tagg, 1995; Wesch, 2008) or from a content-centered approach to a learner-centered approach (Fink, 2003). We saw this hybrid redesign as an opportunity to "flip the classroom," reversing the typical content-delivery and homework components of the course. In our redesigned hybrid program, students viewed grammar presentations outside of class online, which freed up in-class time for more authentic, meaningful, interactive practice. In addition, the online homework served as preparation for applied in-class activities, such as real-life communicative interactions with peers.

The technologies integrated into the new hybrid redesign enhance L2 learning and contribute to the creation of a more learner-centered experience in ways that Mallard did not. For example, the online components of our redesigned hybrid courses allow for cultural learning through video, written and oral texts, content-delivery via video grammar tutorials, more extensive practice of listening, reading, and writing, task-based activities, and student collaboration in project-based learning. The online components of the redesigned hybrid courses include the following, also shown in Table 1:

- Online practice of grammar, vocabulary, pronunciation, listening comprehension, reading comprehension, speaking, and writing, which offered immediate and detailed feedback for the student. The goal was to provide frequent, low-stakes practice to help students prepare for in-class activities.
- Adaptive learning activities (provided in LearnSmart) for mastery of grammar and vocabulary.
- Online video grammar tutorials, which delivered content so that class time could be better used for the practice of Spanish in meaningful, interactive, and authentic communication.
- Online video clips of a scripted newscast (Telepuntos), which promoted listening comprehension and exposed students to both authentic language and authentic cultural topics from the Spanish-speaking world.
- Interactive, sequenced, and task-based cultural activities (Mundo interactivo) tied to the content and topics of the newscast.
- E-textbook and related student and teacher resources.

- VoiceThread, a web-based application that students used to co-create (in pairs) multimedia digital newscasts on cultural topics, which were then uploaded onto our course LMS and viewed by classmates online.
- Sakai, our institution's LMS, where students accessed the syllabus, assignment guidelines, rubrics, and other resources.

Table 1: Comparison of the Two Hybrid Programs

Former hybrid Spanish program		**Redesigned hybrid Spanish program**	
Activity	***Platform***	***Activity***	***Platform***
Grammar presentations	In-class	Grammar presentations	Video grammar tutorials (Connect)
Accuracy practice, grammar, and vocabulary	Form-focused exercises (Mallard)	Accuracy practice, grammar, and vocabulary, pronunciation	Form-focused exercises and adaptive activities (Connect)
Listening comprehension practice	Audio (Mallard)	Practice of four skills	Audio, video, voice recording, written texts (Connect)
		Cultural learning	Video newscasts, task-based activities, written texts (Connect)
		Cultural project	Digital newscasts (VoiceThread)
		Content delivery	e-textbook (Connect) and paper textbook
		Access to course resources	Sakai

Except for VoiceThread and Sakai, all the online work and resources are accessed on McGraw-Hill's Connect platform and accompany the ninth edition of our course textbook *Puntos de partida*. Although we recognize the potential that CMC, social networking, and other tools offer for linguistic development, those were not integrated into this pilot study.

Course and research design

The initial stages of our course redesign project involved a careful search for a beginning-level Spanish textbook with varied, pedagogically sound, and robust online learning components. We selected the new edition (9th) of *Puntos de partida*, because their new online platform (Connect) provides a wide variety of online activities and resources developed for the textbook. For example, *Puntos de partida* and Connect include an online workbook and lab manual, video newscasts, interactive task-based cultural activities, video grammar tutorials, an adaptive learning tool, and an e-book. These tools allow students

to practice a variety of core competencies, such as linguistic knowledge, skill development, and cultural learning. Over many months, the course redesign was informed by input from lecturers, graduate student instructors, our institution's teaching and technology centers, and McGraw-Hill representatives.

The rehybridization pilot involved 5 sections of SPAN1010 taught by two teachers and 13 sections of SPAN1060 taught by seven teachers in Fall 2012. The approximate total enrollment was 320 students. In Spring 2013, we then redesigned SPAN1020. All courses met three days per week in the classroom supplemented by the online work described above.

The hybrid course assessment focused on the evaluation of student gains in listening comprehension, linguistic knowledge, and their self-reported levels of FL anxiety. It was expected that the frequent low-stakes online practices (workbook/lab manual, LearnSmart) and online video grammar tutorials would contribute to improvements in linguistic knowledge, while the listening comprehension practices (workbook/lab manual), online newscasts (Telepuntos), and task-based activities (Mundo interactivo) would result in improved listening comprehension. Additionally, these activities, and specifically the online listening activities, would positively result in lower levels of FL anxiety.

This study assessed students' listening comprehension, linguistic knowledge, and FL anxiety in the redesigned hybrid SPAN1060 pilot course in one semester. Additionally, we compared L2 learning (of grammar and vocabulary) in the redesigned SPAN1010 and SPAN1020 courses with that in the former SPAN1010 and SPAN1020 hybrid courses. Finally, we relied on students' end-of-semester course evaluations to understand their experiences, perceptions, and evaluation of the redesigned hybrid courses.

Methodology

Sample

The data collected[1] for this study to answer research questions 1, 2, and 4 included the 13 sections of Accelerated Elementary Spanish (SPAN1060) taught by seven instructors in the redesigned hybrid format in one semester. The total enrollment was roughly 216 students. Additionally, to answer research questions 3 and 4, the sample includes 39 students who completed SPAN1010 and 1020 in the 2011–2012 academic year (former hybrid format) and 70 students who completed SPAN1010 and 1020 in the 2012–2013 academic year (redesigned hybrid format). The student population for this study was enrolled in a large state university in the southern United States. Students in these courses were generally between 18 and 25 years old with the majority taking the course to fulfill a FL requirement. SPAN1060 enrolled false beginners, students who had taken 1–3 years of Spanish in high school but who scored low on a placement exam. SPAN1010 and 1020 were reserved for true

beginners. All students received training on the use of VoiceThread and Connect and had prior experience using Sakai for other courses.

Data collection

To answer the first research question, we evaluated students' progress in listening comprehension and linguistic knowledge (grammar and vocabulary) using both pretests and posttests. The linguistic knowledge and listening comprehension pretests were online diagnostic tests delivered via a QuestionPro Survey Instrument. The posttests were students' final exams (linguistic knowledge) and an in-class quiz (listening comprehension). These instruments were not identical, but the scores measure the same competencies. Response rates differed for the pretests and posttests of linguistic knowledge, because the pretest was delivered and completed at home online while the posttest was completed during class time. To answer the second question, the Foreign Language Classroom Anxiety Scale (FLCAS) examines students' anxiety related to FL learning with 33 statements evaluating feelings about language learning (Horwitz et al., 1986). Each pretest and posttest was evaluated for duplicate responses, incomplete responses, and students who did not complete the course (and therefore the posttests), and these responses were dropped from the final analysis. Table 2 describes the response rate for each assessment.

Table 2: Pre- and Postassessment Response Rates

	Total complete responses	Response rate	Both pre- & postassessment
Pre-linguistic knowledge	127	58.8	126, 58.3%
Post-linguistic knowledge	215	99.5	
Pre-listening comprehension	198	91.7	173, 80.1%
Post-listening comprehension	191	88.4	
Pre-FLCAS	174	80.6	78, 36.1%
Post-FLCAS	94	43.5	

For the FLCAS responses, the 25 negatively worded questionnaire items were recorded for the analysis. As a result, all the response scales range from 1 to 5, where 1 indicates a low level of anxiety and 5 indicates a high level of anxiety. Additionally, we created a composite score that captured students' overall levels of language anxiety for the pre- and post-FLCAS.

To answer the third research question, we collected grammar and vocabulary scores (i.e., final examinations) for students who completed both SPAN1010 and SPAN1020 within one academic year. For this analysis we had 39 students who completed both Spanish courses in the 2011–2012 academic year and 70 students from the 2012–2013 academic year.

In addition to the L2 learning outcomes, we examined students' end-of-semester course evaluations to answer research question 4. Evaluations were obtained from 11 sections of SPAN1060, 5 sections of SPAN1010 and 5 sections of SPAN1020 for a total of 21 section evaluations. A total of 341 students were enrolled in the 21 course sections and 93% ($n = 318$) of the students completed the end-of-semester evaluations. For the Fall 2012 courses, six evaluation questions were analyzed and four questions were analyzed for the Spring 2013 evaluations. The two additional questions for the Fall 2012 end-of-semester evaluations asked about the use of classroom technology, but these questions were inadvertently omitted from the Spring 2013 evaluations. For the specific questions, see below. The questions analyzed for this study were selected in two phases. We identified the first set of questions based on relevance (e.g., questions on technology, classroom activities) and the second set of questions was identified based on the findings (i.e., emergent themes) from the first set of questions.

Data analysis

To determine the correct means comparison statistical test, the pre- and post-assessments were tested for normality. The skewness statistic and kurtosis statistics for the linguistic knowledge assessment and the FLCAS assessment were within acceptable ranges (< 2.0), which supports the use of a parametric test (see Table 3, Skew and Kurt). However, the listening comprehension post-assessment was not normally distributed, but this can be expected due to the repeated measures data. Based on this evidence, the most appropriate means comparison procedures are paired samples *t*-tests, which are used to compare means when there are two observations per subject for each normally distributed interval variable. The *t*-tests only included respondents who completed both the pre- and post-instrument. Descriptive statistics for these three pre- and post-assessments can be found in Table 3. Finally, for the third research question we conducted independent samples *t*-test on students' final examination scores, which measured the same linguistic abilities each academic year.

To analyze the end-of-semester course evaluations, three open-ended questions and one closed-ended question were analyzed for patterns and emergent themes related to the course technology and potential improvement for the course. These questions include:

1. Comment on how the course structure and activities, including the use of technology, affected your learning. (Only Fall 2012 SPAN1010/1060 sections; $n = 169$)
2. What specific improvements do you suggest for this course? ($n = 274$)
3. What do you consider the most helpful classroom activities? ($n = 341$)

Table 3: Linguistic Knowledge and Listening comprehension Pre-and Postassessment Descriptive Statistics

	n	Min	Max	*M*	*SD*	Var	Skew	Kurt
Linguistic knowledge Pretest	127	18.4	92.1	68.3	12.1	146.4	-0.72	1.38
Linguistic knowledge Posttest	215	43.0	99.0	83.2	9.9	98.0	-0.98	1.16
Listening comprehension Pretest score	198	1	9	5.4	1.5	2.2	0.05	-0.14
Listening comprehension Posttest score	191	0	10	8.2	1.9	3.4	-1.38	2.70
FLCAS Pretest score	165	68	159	107.1	18.1	328.0	0.37	-0.24
FLCAS Posttest score	89	53	161	96.1	22.2	493.2	0.32	-0.17

4. Compared to other courses, this course helped me explore course material in more meaningful ways because of its structure and the technologies used. Response options include: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree (only Fall 2012 SPAN1010/1060 sections).

Based on the thematic analysis for the three open-ended questions, two additional closed-response questions were analyzed, which include the following:

5. The average number of hours per week I spent outside of class preparing for this course was. Response options include: Less than 1, 1–3, 4–6, 7–9, 10 or more
6. My overall evaluation of the course is. Response options include: 4, 3, 2, 1, 0.

For questions 2 and 3, the results were compared to the overall Fall 2012/ Spring 2013 course evaluation results for all 1000- to 2000-level courses in our department.

Findings

Linguistic knowledge and listening comprehension

To address research question 1, respondents' (n = 126) mean scores were 68.38 and 85.25 on the pre- and post-linguistic knowledge tests respectively. This indicates that throughout the semester, respondents significantly improved in their mastery of linguistic knowledge from the beginning to the end of the semester in the new hybrid SPAN1060 course (t = 16.17, p < 0.000, d = 1.44).

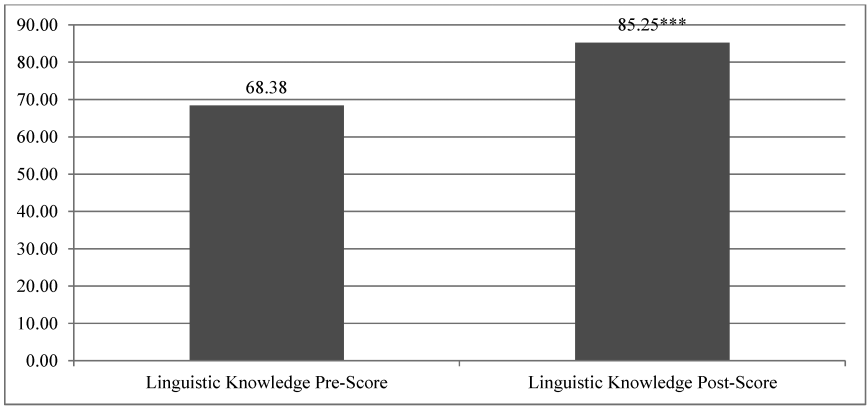

Figure 1: Pre- and post-linguistic knowledge scores: paired samples *t*-test results.

For the pre- and post-listening comprehension test, respondents' (n = 173) mean scores were 5.36 and 8.33, respectively. Again, this shows that respondents significantly improved their listening comprehension skills from the beginning to the end of the semester in SPAN1060 (t = 16.89, p < 0.000, d = 1.28).

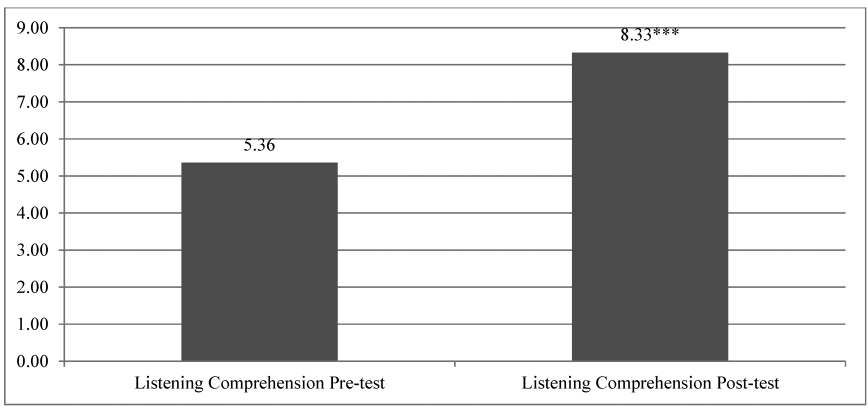

Figure 2: Pre- and post-listening comprehension scores: paired samples *t*-test results.

Foreign language anxiety

Measuring changes in self-reported FL anxiety, pretests and posttests of the FLCAS showed that respondents' (n = 78) mean anxiety scores were 109.7 and 99.0, respectively. Again, a high score corresponds to high levels of anxiety. As such, the results of the paired samples *t*-test indicated that respondents' anxiety score was significantly lower on the post-FLCAS than the pre-FLCAS

($t = 6.07$, $p < 0.000$, $d = 0.72$). This suggests that throughout the course of the semester, students' anxiety level related to learning Spanish decreased in the new SPAN1060 hybrid course.

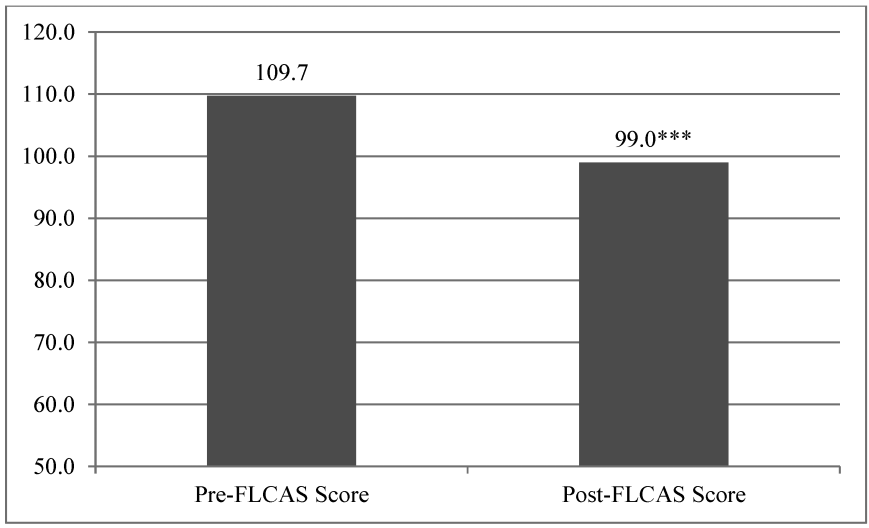

Figure 3: Pre-FLCAS and post-FLCAS anxiety scores: paired samples *t*-test results.

Additionally, respondents' mean anxiety score was lower on the post-FLCAS compared to the pre-FLCAS for 26 out of 33 questionnaire items (indicated by asterisks[2] at the end of each questionnaire item in Figures 5 through 8 of the Appendix). Based on research by Na (2007), the 33 questionnaire items on the FLCAS are more easily interpreted by dividing the questionnaire items into four categories: communication anxiety, fear of negative evaluation, test anxiety, and anxiety in FL classes. The next section reviews the results within these categories.

Communication anxiety

There were eight items included in the communication anxiety category. Across each item there was a significant decrease in students' anxiety levels from pre- to post-FLCAS. The item with the largest difference from pretest to posttest was "I get nervous when I don't understand every word the language teacher says." The items with the least amount of variability from pre- to post- were items 9 and 14 (i.e., "I start to panic when I have to speak without preparation in language class," and "I would not be nervous speaking the foreign language with native speakers").

Fear of negative evaluation

Within the fear of negative evaluation category, there were nine items, including questionnaire items 3, 7, 13, 15, 20, 23, 25, 31, and 33. Overall, seven out of nine items in this category showed significant difference between pre- and post-FLCAS, and the mean scores for each item indicated that students were generally less fearful of negative evaluation. The questionnaire items with no significant differences were items 13 and 25 (i.e., "It embarrasses me to volunteer answers in my language class," and "Language class moves so quickly I worry about getting left behind"). Conversely, item 20, "I can feel my heart pounding when I'm going to be called on in language class," had the highest mean difference from pre- to post-FLCAS, indicating that students felt less anxious when being called upon in class near the end of the semester relative to the beginning of the semester.

Test anxiety

The test anxiety included five items, all of which had mean scores that were lower for the post-FLCAS than the pre-FLCAS, indicating that students experienced less test anxiety at the end of the semester. Furthermore, four items displayed significant differences from pre- to post-FLCAS. The lowest mean difference, and the item that was non-significant, was item 21, "The more I study for language test the more confused I get." With this item in particular, it is important to note that the mean rating was already very low for the pretest, meaning that students generally did not feel very anxious about their study time. Conversely, the item with the highest variability from pre- to post-FLCAS was item 10, "I worry about the consequences of failing my foreign language class," which indicates that students were less anxious about their grades at the end of the semester as compared to the beginning.

Anxiety of Spanish class

Students' anxiety about their Spanish class examined how students felt about their past, current, and future FL classes. This category included 11 items: items 4, 5, 6, 11, 12, 16, 17, 22, 26, 28, and 30. Unlike the other categories and questionnaire items, this category had two items where students felt more anxious about their language course—items 6 and 17 (i.e., "During language class I find myself thinking about things that have nothing to do with the course," and "I often feel like not going to my language class"). These responses indicated that students increasingly thought about things unrelated to their language class and had a decreased desire to attend class. Conversely, students were significantly less anxious about item 4, "It frightens me when I don't understand what the teacher is saying in the foreign language class," which had the largest mean score difference across all the items that had lower ratings from pre- to post-FLCAS. Finally, three items had non-significant findings, which were items 5, 22, and 30, as seen in Figure 8 (see Appendix).

Comparison of the two hybrid course structures

To answer the third question, which looks for any differences in L2 learning among student groups in the former hybrid model and those in the redesigned hybrid courses, we evaluated learning outcomes in students' linguistic knowledge (grammar and vocabulary), by comparing grades on final exams from SPAN1010 and SPAN1020 under the former hybrid format with final exam grades in those courses under the redesigned format. The results of the independent samples *t*-test show that students in the redesigned SPAN1010 hybrid course performed significantly better in their linguistic knowledge scores ($M = 91.9$) than students enrolled in the former hybrid course ($M = 85.3$). However, for the SPAN1020 course, there were no significant differences in development of students' linguistic knowledge for the redesigned hybrid ($M = 88.7$) and former hybrid formats ($M = 88.5$). Therefore, these results suggest that the new hybrid format for SPAN1010 had a desirable effect on student learning gains, whereas the SPAN1020 course simply achieved the same learning gains as the former hybrid format.

Student perceptions

To answer the fourth research question, which seeks to understand student perceptions of and satisfaction with the hybrid courses, we evaluated student comments and responses on end-of-semester course evaluations from the redesigned hybrid courses. When students were asked how the course structure and activities (including the technology) affected their learning, their responses were almost evenly split between positive and negative reflections. Overall, 41% ($n = 70$) of the 169 respondents provided positive responses on open-ended prompts about the hybrid technology. For example, many students commented on how the repetition and everyday practice enhanced their learning of the material:

> Connect allows us to practice the language everyday… I did notice an improvement in my learning. Because I was immersed in Spanish everyday, it was easier for me to retain the information of the course. (SPAN1060 student)

Other students liked the ability to monitor their own learning and progress or felt that basic grammar and vocabulary practices were particularly helpful. Roughly 64% of students agreed (vs. 13% who disagreed) that the technologies helped them explore the course material in more meaningful ways. However, 56% ($n = 95$) of students provided negative responses about the technology platform (Connect), addressing the functionality and technical challenges of the online platform. While students had received training on both Connect and VoiceThread, there were unforeseeable, but not unexpected, technical glitches using these tools for the first time. Many of these students recognized that the technical problems were frustrating, while others suggested that the technical

glitches negatively influenced their learning. Finally, many students were able to recognize both the advantages and disadvantages of the hybrid format:

> I loved the constant immersion. Connect was amazing in helping me practice the language, and the activities in class reinforced what I learned.– The Connect work was necessary as it was an accelerated Spanish course. The extra work was helpful in reinforcing topics covered in class. That said, the Connect program itself is too involving in its completion and the time spent on it did not equate to the work done and experience gained. (SPAN1060 student)

When asked about how to improve the course, many students reiterated their frustrations with the online platform. Out of 274 respondents, 40% suggested that functional improvements should be made to the online platform or that less homework should be assigned, both of which were resolved in the subsequent semester.

Many students expressed frustration over the amount of time they spent outside of class for their SPAN1010/1060 course. To better understand this emergent theme, we analyzed a closed-ended question on the course evaluations. Figure 4 displays the results for the amount of time students spent outside of class in SPAN1010/SPAN1060 and in other 1000–2000 level courses in the department. The results indicate that students spent significantly more time outside of class for their SPAN1010 and SPAN1060 courses. While 55% of students spent seven or more hours in the SPAN1010/1060 courses on work per week that first semester, only 27% of SPAN1020 students spent seven hours or more per week the following semester when we reduced the workload. In the open-ended responses, only one student recognized that he/she must spend more time outside of class to make up for the reduced contact hours in a hybrid course.

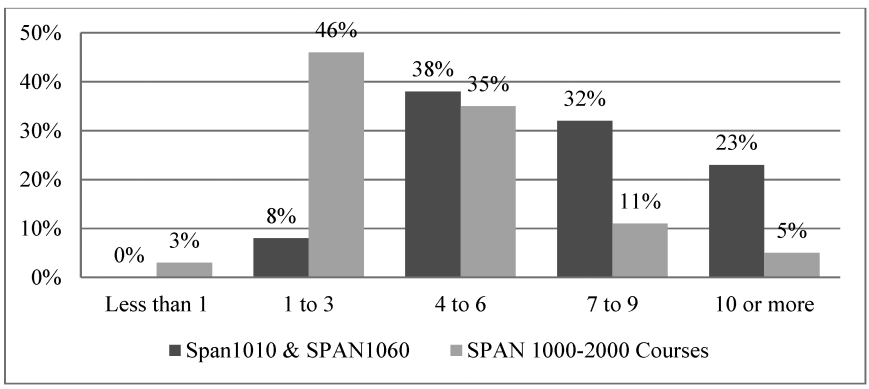

Figure 4: The average number of hours per week I spent outside of class preparing for this course.

Similarly, many students were frustrated with the flipped classroom approach, where students are responsible for learning course material outside of class prior to in-class practice of the material. Yet, when asked about the most helpful classroom activities, 61% of students appreciated activities where they spoke Spanish and applied their knowledge during class. Finally, we analyzed the results from students' overall evaluations of the course. The average rating for SPAN1010/SPAN1060 was lower ($M = 3.26$) than the average rating in other departmental courses ($M = 3.59$) that semester. However, after the online workload was decreased and technological glitches were resolved for SPAN1020 the following semester, the mean rating for the hybrid course ($M = 3.94$) was actually greater than the other departmental courses that semester ($M = 3.63$).

Discussion

In this study, we examine the effectiveness of the design and implementation of a new redesigned hybrid Spanish language program. The results of this study indicate that students in the redesigned hybrid Spanish courses made significant gains in their development of linguistic knowledge and of listening comprehension. These findings are in line with other studies reporting improved student learning in grammar (Bañados, 2006; Sagarra & Zapata, 2008), vocabulary (Bañados, 2006; Scida & Saury, 2006), and listening comprehension (Bañados, 2006) in hybrid courses. It would seem that the delivery of content online and the constant reinforcement of practice online, with multiple attempts and self-pacing, contributed to significant L2 learning. In addition, the robust listening input and comprehension practice available online through audio- and video-based practices impacted students' progress in listening comprehension in a positive way.

In the redesigned hybrid courses, we sought to understand whether the online listening components had any effect on students' self-reported levels of FL anxiety, since prior research has pointed to listening as a significant barrier to L2 learning for some students (Elkhafaifi, 2005; Vogely, 1998). The results of the pre- and post-FLCAS indicate that levels of anxiety among respondents decreased significantly during the course of the semester in the redesigned hybrid course. These findings are congruent with other studies reporting lowered anxiety in online learning environments (Poza, 2011) but contrast with results of a previous study (Adair-Hauck et al., 1999), which found no significant change in anxiety in either the control or hybrid groups over the course of the semester. Looking more closely at questionnaire items, we see that those items that correspond to anxiety in relation to listening had significant decreases in our study. In fact, the questionnaire item with the largest difference (largest decrease in anxiety reported) was "It frightens me

when I don't understand what the teacher is saying in the foreign language class." There were only two items where students reported increased anxiety levels ("During language class I find myself thinking about things that have nothing to do with the course" and "I often feel like not going to my language class"). It is uncertain whether the higher scores on these items are indicative of anxiety or some other factor, such as students' lack of motivation in a required course.[3] Since no other questionnaire items show an increase in student anxiety, the differences in the above two items suggest possible non-anxiety related causes. While these results are encouraging and demonstrate that the redesigned hybrid program did not contribute to increased levels of anxiety, it is difficult to attribute the decreased levels to any single component of the new hybrid course.

With regards to our third question, it is interesting to see that students in the redesigned SPAN1010 hybrid course outperformed those in the former SPAN1010 hybrid course, but the same did not hold when comparing results for the two hybrid formats of SPAN1020. These differing results could be attributed to the more complex material and challenging tasks of the SPAN1020 course as compared to SPAN1010, which align with results of prior research (Sagarra & Zapata, 2008). While students may focus on learning new forms and basic structures in SPAN1010, subsequent courses like SPAN1020 only build on this knowledge by introducing more complex linguistic structures as well as a greater emphasis on skill development. In addition, it is possible that students in the new SPAN1020 hybrid course did not outperform those in the former hybrid course because we had reduced the amount of online homework assigned in SPAN1020 as compared to the redesigned SPAN1010 hybrid course. We made this reduction in work because of student comments on course evaluations that the amount of online homework in the new hybrid SPAN1010 course was overwhelming. Although it may have seemed overwhelming, it appears that the large amount of online work provided students with the constant practice and reinforcement they needed to be successful in the redesigned hybrid SPAN1010 course, as we can infer from their higher scores on learning measures.

Finally, despite positive student perceptions of the new redesigned hybrid courses, some noted dissatisfaction with the flipped classroom model. While students reported that the most helpful in-class activities were those that allowed them to apply their learning in meaningful communication and interaction, many disliked having to learn new material outside of class on their own. These findings are in line with student perceptions of other flipped courses, where researchers and teachers have encountered student resistance to learning content out of class: "the cognitive strain that flipping imposes on students accounts for much of its success—and the resistance it engenders"

(Berrett, 2012). Some students may be accustomed to more traditional approaches to FL instruction where presentation of content (grammar, vocabulary, culture, etc.) occurs in class, with subsequent activities that practice that new content, followed by homework on that content. Students may simply be unfamiliar with flipped course models. For these reasons, we were not surprised to encounter resistance to our course redesign.

Student perceptions about the online components of the redesigned hybrid courses were both positive and negative. These findings align with previous studies (Chenoweth et al., 2006; Sagarra & Zapata, 2008) reporting student satisfaction with the impact that online work had on L2 learning but at the same time student concerns about technical support and the amount of online work. It is not uncommon to see students enroll in an online or hybrid course assuming that the reduction of in-class time translates into a reduction of work as well. We know that the opposite tends to be the case—courses delivered fully or partially online expect a higher level of student self-directed learning and engagement. In our context, such student feedback points to a lack of understanding of the hybrid format and the purpose of the online and face-to-face components of the course toward L2 learning objectives. Nonetheless, we took seriously student remarks about the amount of online work and reduced the amount assigned in subsequent semesters. At the same time, the negative feedback about technical issues is not surprising in a new hybrid course, where glitches with new technologies are still being addressed and student and teacher training still being refined. We found that, after the initial semester of the redesigned hybrid courses, the number of student comments about technical issues significantly decreased. Despite student perceptions of the amount of online work and concerns about technical issues, most students recognized the positive impact that the online work had on their learning, which we see in the analysis of the quantitative data. To address student misconceptions about online learning and flipped classrooms, educators might consider being more transparent with students about the expectations for hybrid or online courses, including the number of hours students will need to spend on online work to be successful in the course, as well as the particular learning objectives of specific assignments and course components.

Conclusion

As other researchers have noted (Hinkelman & Gruba, 2012; Neumeier, 2005), hybrid and online learning must be carefully crafted with various factors in mind: the specific learning goals of the course, complexity of course content and tasks, the instructional context, integration of modes, and the strengths and weaknesses of the technological tools available. Our study suggests the need for ongoing evaluation of hybrid language programs and reconsideration

of blended learning in light of constantly evolving technologies and changing instructional needs and learning paradigms. This is in line with other scholars who note that "blended learning is not only a descriptive category of technology use in education, but also an interventionist strategy of iterative change in integrating face-to-face techniques with computer-based techniques" (Hinkelman & Gruba, 2012, p. 61). As Hinkelman and Gruba (2012) suggest, educators might consider blended learning not just at the course level, but also at the level of learning tasks—what combination of face-to-face and online techniques might best support L2 learning in specific tasks? This area merits further development and research. Our study also sought to understand the effect that online listening comprehension input and practice might have on FL anxiety, and while initial findings were positive, more clearly defined research is clearly needed in this area. The study of affect in online learning environments is underdeveloped, and so future work might investigate whether the same problems that learners encounter in face-to-face environments hold for online learning as well.

Despite the positive results of our study, this study is not exempt of limitations. Because of the nature of the language program, it was not possible to have a control group (former hybrid format) during the pilot year of the new redesigned hybrid courses. For that reason, some of the data collected on the redesigned hybrid courses (measures of listening comprehension and FL anxiety) cannot be compared to the counterpart control groups. Instead, that data was used to understand whether the redesigned courses resulted in positive or negative gains among that group of learners. The comparison data that we did have allowed us to compare student achievement in measures of grammar and vocabulary learning in the former hybrid and redesigned hybrid courses. Future comparison research might consider measures of other factors, including skill development, cultural competence, and student perceptions, to offer a more comprehensive understanding of the effectiveness of different hybrid formats.

Another limitation is that student perceptions of the redesigned hybrid courses could have been affected by the flipped nature of the course and not just the blended learning model. Student comments pointed to a lack of understanding of the flipped classroom model as well as unrealistic expectations about technology-enhanced courses, which could be mitigated in future studies with explicit instruction on expectations and learning objectives. Future studies might also tease out these two components by gathering focused qualitative data through pre- and post-surveys as well as student interviews. In addition, while our findings show that levels of self-reported FL anxiety did decrease over the course of the semester in the redesigned hybrid course, we cannot be certain that factors other than the hybrid redesign were not at play.

Since our study aimed to understand the effect of online listening texts and practice on FL anxiety, other instruments might have been used (e.g., FLCAS) to measure this particular factor. Results of our study indicated that student scores increased on two items of the FLCAS (i.e., "During language class I find myself thinking about things that have nothing to do with the course," and "I often feel like not going to my language class"). Since no other items showed an increase in student anxiety, the differences in the above two items suggest another possible source, perhaps student motivation. Future studies might look at student motivation and, in particular, motivation in online learning environments and tasks to understand more completely the impact of blended learning on student affect and achievement. Finally, as with many studies, this is a single-institution study with a small sample size and therefore the results cannot be generalized to all contexts of beginning-level Spanish courses or all student populations.

Acknowledgments

This project was funded through a University of Virginia Fall 2012 Hybrid Course Challenge Grant. We would like to acknowledge the valuable contributions that the following individuals made during the various stages of this project: Rachelle Phillips, Pam Rini, Margarita Muñoz, Eric Stauffer, Karen Inkelas, the teachers of Elementary Spanish, and the Teaching Resource Center. Finally, we would like to thank the anonymous reviewers for their suggestions and insightful comments.

Notes

1. Due to the nature of the language program, we were unable to offer both control (former hybrid courses) and experiment (new redesigned hybrid courses) during the period of this pilot study. For that reason, we were able to collect comparative data only in the form of final exam grades, from the former hybrid courses in 2011–2012 and the new redesigned courses in 2012–2013. All other data (measures of listening comprehension and FL anxiety) are pretests and posttests from the redesigned hybrid courses only.
2. $^{*}p < 0.05$ $^{**}p < 0.01$ $^{***}p < 0.001$
3. It is possible that student motivation played a factor in responses to these two FLCAS items as well as in their perception of the new redesigned hybrid courses. However, since motivation was not a focus of the present study, we cannot determine whether this is the case.

About the authors

Emily E. Scida is Professor of Spanish and Director of the Spanish and Italian Language Programs, in the Department of Spanish, Italian, and Portuguese at the University of Virginia, where she has worked for 16 years. Her areas of research include teacher education, applied linguistics, contemplative pedagogy, and historical and comparative Romance linguistics. Emily has been the

recipient of a number of grants and awards, including the 2011–2014 Daniels Family NEH Distinguished Teaching Professorship, a Fall 2012 Hybrid Course Challenge Grant, two Learning Technology Incubator Grants, a 2005–2006 Teaching + Technology Initiative Fellowship, and a 2001–2002 University Teaching Fellowship. In 2011, she was inducted into the University Academy of Teaching at UVA.

Jill N. Jones is currently a Ph.D. student in the higher education program at the University of Virginia, Curry School of Education and works at the Center for Advanced Study of Teaching and Learning in Higher Education. Her research interests include effective pedagogical practices, student learning outcomes, and student/faculty professional development.

References

Adair-Hauck, B., Willingham-McLain, L., & Youngs, B. (1999). Evaluating the integration of technology and second language learning. *CALICO Journal, 17*(2), 269–306.

Arispe, K., & Blake, R. J. (2012). Individual factors and successful learning in a hybrid course. *System, 40*(4), 449–465. Retrieved from http://dx.doi.org/10.1016/j.system.2012.10.013

Arnold, N. (2007). Reducing foreign language communication apprehension with computer-mediated communication: A preliminary study. *System, 35*(4), 469–486. Retrieved from http://dx.doi.org/10.1016/j.system.2007.07.002

Bañados, E. (2006). A blended-learning pedagogical model for teaching and learning EFL successfully through an online interactive multimedia environment. *CALICO Journal, 23*(3), 533–550.

Barr, R. B., & Tagg, J. (1995). From teaching to learning—A new paradigm for undergraduate education. *Change*, 13–25.

Berrett, D. (2012, February 19). How "flipping" the classroom can improve the traditional lecture. *Chronicle of Higher Education*. Retrieved from https://chronicle.com/article/How-Flipping-the-Classroom/130857/

Blake, R., Wilson, N., Cetto, M., & Pardo-Ballester, C. (2008). Measuring oral proficiency in distance, face-to-face, and blended classrooms. *Language Learning & Technology, 12*(3), 114–127.

Blake, R. J. (2008). *Brave New Digital Classroom: Technology and Foreign Language Learning*. Washington, DC: Georgetown University Press.

Bonk, C. J., Wisher, R. A., & Lee, J. (2003). Moderating learning centered e-learning: Problems and solutions, benefits and implications. In T. S. Roberts (Ed.), *Online collaborative learning: Theory and practice* (pp. 54–83). Hershey, PA: Information Science Publishing.

Campbell, C. M., & Ortiz, J. A. (1991). Helping students overcome foreign language anxiety: A foreign language anxiety workshop. In E. K. Horwitz & D. J. Young (Eds.), *Language anxiety: From theory and research to classroom implications* (pp. 153–168). Englewood Cliffs, NJ: Prentice-Hall.

Chapelle, C. A. (2010). The spread of ComputerAssisted Language Learning. *Language Teaching, 43*(1), 66–74. Retrieved from http://dx.doi.org/10.1017/S0261444809005850

Chenoweth, N., Ushida, E., & Murday, K. (2006). Student learning in hybrid French and Spanish courses: An overview of language online. *CALICO Journal, 24*(1), 115–145.

Clark, R. E. (2003). Research on web-based learning: A half-full glass. In R. Bruning, C. Horn, & L. Pytlikzillig (Eds.), *Web-based learning: What do we know? Where do we go?* (pp. 1–12). Charlotte, NC: Information Age Publishing.

Cubillos, J. (2007). A comparative study of hybrid versus traditional instruction in foreign languages. *The NECTFL Review 60*, 20–38.

Elkhafaifi, H. (2005). Listening comprehension and anxiety in the Arabic language classroom. *The Modern Language Journal, 89*(2), 206–220. Retrieved from http://dx.doi.org/10.1111/j.1540-4781.2005.00275.x

Fink, L. D. (2003). *Creating significant learning experiences*. San Francisco, CA: Jossey-Bass.

Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London: Edward Arnold.

Grgurović, M. (2011). Blended learning in an ESL class: A case study. *CALICO Journal, 29*(1), 100–117. Retrieved from http://dx.doi.org/10.11139/cj.29.1.100-117

Grgurović, M., Chapelle, C. A., & Shelley, M. (2013). A meta-analysis of effectiveness studies on computer technology-supported language learning. *ReCALL, 25*(2), 165–198. Retrieved from http://dx.doi.org/10.1017/S0958344013000013

Gruba, P., & Hinkelman, D. (2012). *Blending technologies in second language classrooms*. New York: Palgrave Macmillan.

Hinkelman, D., & Gruba, P. (2012). Power within blended language learning programs in Japan. *Language Learning & Technology, 16*(2), 46–64.

Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language and classroom anxiety. *The Modern Language Journal, 70*(2), 125–132. Retrieved from http://dx.doi.org/10.1111/j.1540-4781.1986.tb05256.x

MacIntyre, P. D. (2007). Willingness to communicate in the second language: Understanding the decision to speak as a volitional process. *The Modern Language Journal, 91*(4), 564–576. Retrieved from http://dx.doi.org/10.1111/j.1540-4781.2007.00623.x

MacIntyre, P. D., & Gardner, R. C. (1989). Anxiety and second language learning: Toward a theoretical clarification. *Language Learning, 39*(2), 251–275. Retrieved from http://dx.doi.org/10.1111/j.1467-1770.1989.tb00423.x

MacIntyre, P. D., & Gardner, R. C. (1991). Language anxiety: Its relation to other anxieties and to processing in native and second languages. *Language Learning*, *41*(1), 513–534. Retrieved from http://dx.doi.org/10.1111/j.1467-1770.1991.tb00691.x

MacIntyre, P. D., & Gardner, R. C. (1994). The subtle effects of language anxiety on cognitive processing in the second language. *Language Learning, 44*(2), 283–305. Retrieved from http://dx.doi.org/10.1111/j.1467-1770.1994.tb01103.x

Na, Z. (2007). A study of high school students' English language anxiety. *Asian EFL Journal, 9*(3), 22–34.

Neumeier, P. (2005). A closer look at blended learning—Parameters for designing a blended learning environment for language teaching and learning. *ReCALL 17*(2), 163–178. Retrieved from http://dx.doi.org/10.1017/S0958344005000224

Onwuegbuzie, A. J., Bailey, P., & Daley, C. E. (1999). Factors associated with foreign language anxiety. *Applied Psycholinguistics 20*(2), 217–239. Retrieved from http://dx.doi.org/10.1017/s0142716499002039

Parry, M. (2011, November 6). Foreign-language instruction, digitally speaking. *Chronicle of Higher Education*. Retrieved from http://chronicle.com/article/Foreign-Language-Instruction/129604/

Poza, M. (2011). The effects of asynchronous computer voice conferencing on L2 learners' speaking anxiety. *IALLT, 41*(1), 33–63.

Sagarra, N., & Zapata, G. C. (2008). Blending classroom instruction with online homework: A study of student perceptions of computer assisted L2 learning. *ReCALL, 20*(2), 208–224. Retrieved from http://dx.doi.org/10.1017/s0958344008000621

Scida, E., & Saury, R. (2006). Hybrid courses and their impact on classroom performance: A case study at the University of Virginia. *CALICO Journal, 23*(3), 517–531.

Stracke, E. (2007). A road to understanding: A qualitative study into why learners drop out of a blended language learning (BLL) environment. *ReCALL*, *19*(1): 57–78. Retrieved from http://dx.doi.org/10.1017/S0958344007000511

Vogely, A. J. (1998). Listening comprehension anxiety: Students' reported sources and solutions. *Foreign Language Annals, 31*(1), 67–80. Retrieved from http://dx.doi.org/10.1111/j.1944-9720.1998.tb01333.x

Warschauer, M., & Meskill, C. (2000). Technology and second language teaching and learning. In J. Rosenthal (Ed.), *Handbook of undergraduate second language education*. Mahwah, NJ: Lawrence Erlbaum.

Wesch, M. (2008). Anti-teaching: Confronting the crisis of significance. *Education Canada, 48*(2), 4–7. Retrieved from http://www.cea-ace.ca/media/en/AntiTeaching_Spring08.pdf

Young, D. J. (1991). Creating a low-anxiety classroom environment: What does language anxiety research suggest? *The Modern Language Journal 75*(4), 426–439. Retrieved from http://dx.doi.org/10.1111/j.1540-4781.1991.tb05378.x

Young, D. J. (2008). An empirical investigation of the effects of blended learning on student outcomes in a redesigned intensive Spanish course. *CALICO Journal, 26*(1), 160–181.

Appendix

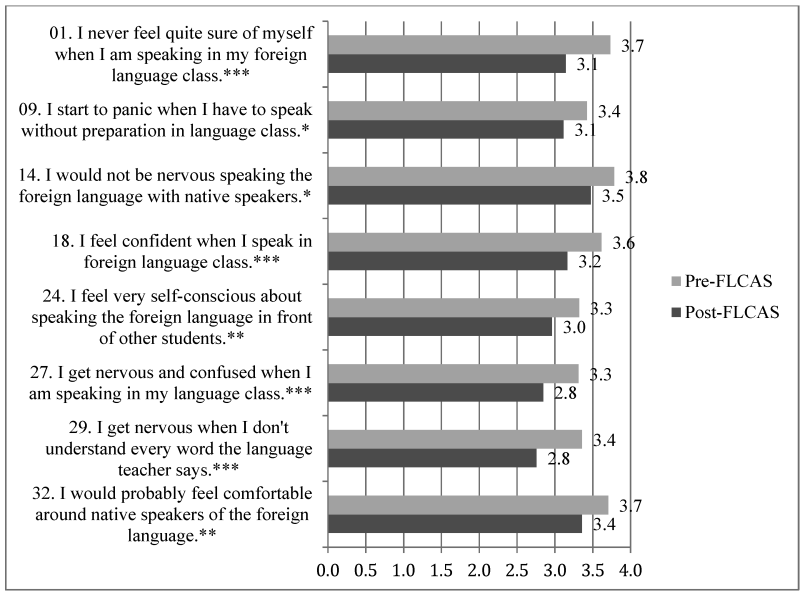

Figure 5: Communication anxiety: paired samples *t*-test results.

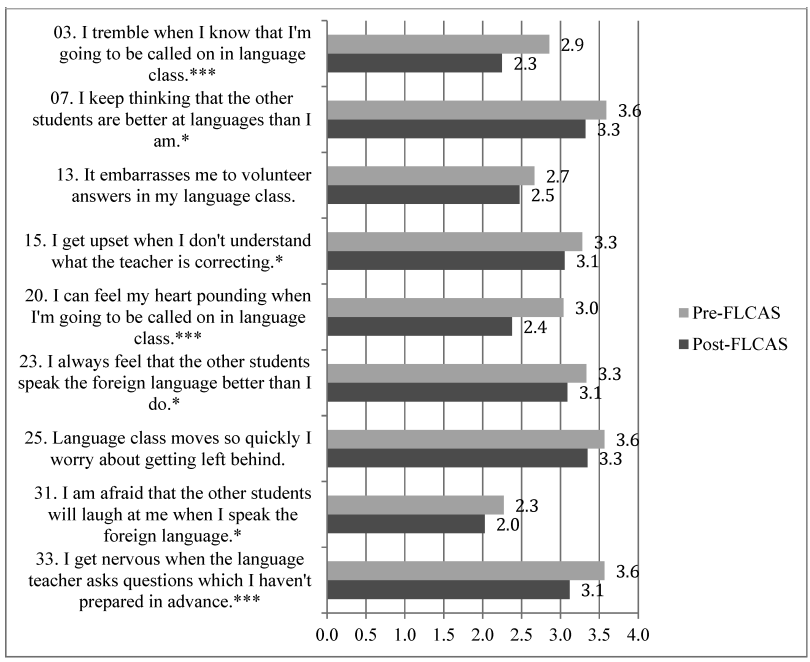

Figure 6: Fear of negative evaluation: paired samples *t*-test results.

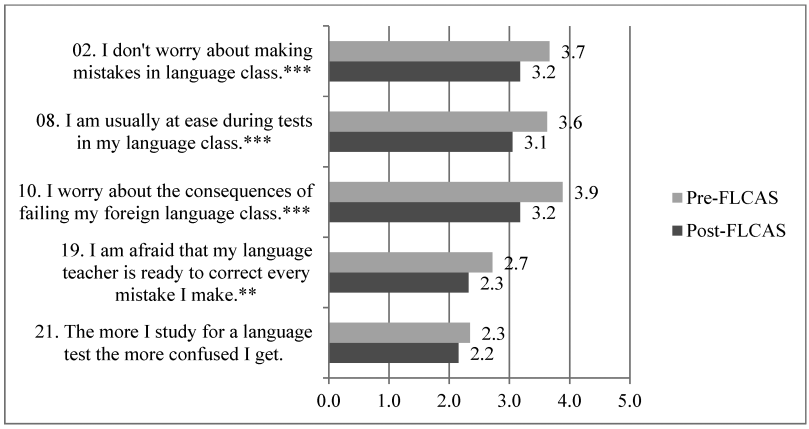

Figure 7: Test anxiety: paired samples *t*-test results.

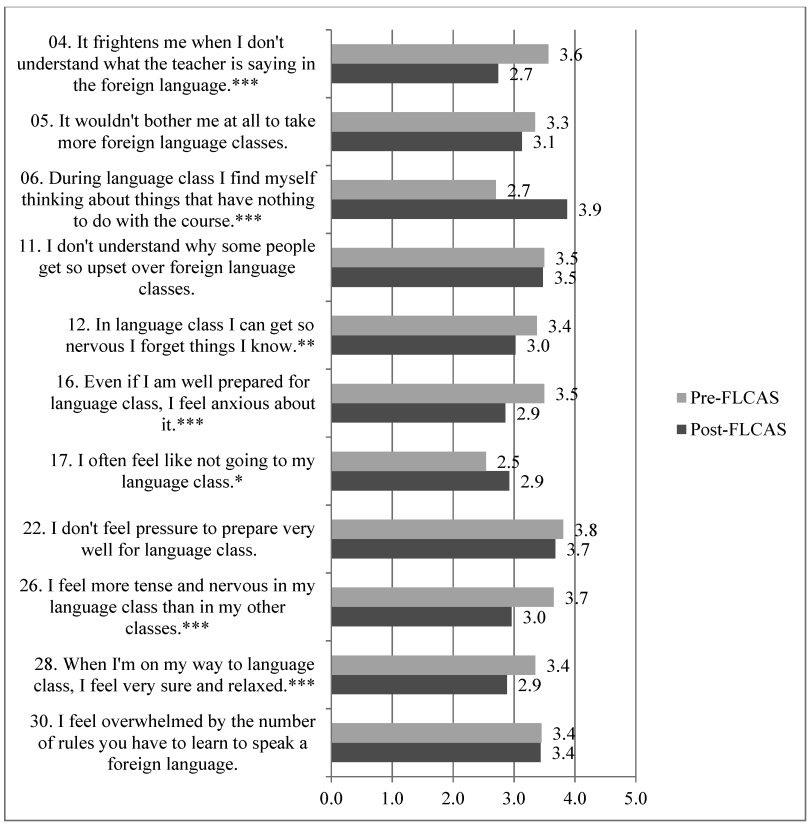

Figure 8: Anxiety of Spanish classes: paired samples *t*-test results.