Comparing a large- and small-scale online language course: An examination of teacher and learner perceptions

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A B S T R A C T
This study explored how class size affects the quality of online language teaching and learning. Administrators and departments often make decisions about class size based on fiscal and budgetary constraints rather than on best practices in blended and/or online learning. The present study compared the experiences of instructors and students in two second semester online Spanish language courses. There were 125 students enrolled in the large-scale class and 25 students enrolled in the small-scale class. Each class had one instructor and no teaching assistants. Two instruments were used to collect data, a Teacher Questionnaire and an anonymous Student Questionnaire. The results indicate that a large class size negatively impacts students’ satisfaction with their online language learning experience. Further, in the large-scale course, the quality and quantity of student–student and student–instructor interaction was limited and instructor expertise was underutilized since the large class size affected the instructor’s ability to create an environment conducive to learning.

1. Introduction

The impetus for the present study came about while one of the authors was conducting another research study with online language learners. While realizing that investigation, she noticed dramatic disparities between the large-scale (cap of 125) and small-scale language courses (cap of 25). Both courses were offered at the same institution; the large-scale course was offered at the main campus where enrollment is approximately 39,000 undergraduate, graduate, and non-degree seeking students. The small-scale course was offered at a satellite campus located one hour south of the main campus, where enrollment is approximately 2000 undergraduate, graduate, and non-degree seeking students. Both courses were offered through the World Languages department, and the administrators in place on both campuses were free to make decisions about course caps for online enrollments independent of one another. At the main campus, where the large-scale course was offered, the revenue brought in from lower division Spanish language courses with high enrollment helps to offset the costs of offering upper division literature courses that attract few students. At the satellite campus, where the small-scale course was offered, only introductory-level Spanish and French classes are offered. Further, the leadership at the satellite campus claims that the 15:1 student/teacher ratio (on average) enables students to receive personalized attention from faculty. Given the great discrepancy in online language course enrollment caps between the two campuses, the present research study was undertaken to explore how class-size and teacher workload affect the quality of online language teaching and learning.

2. Background

Each year, more than 5.6 million college students in the United States take at least one class online, and the annual growth rate for online enrollments is 21%; conversely, the overall growth rate for the higher education student population is only 2% per year (Allen & Seaman, 2010). The demand for online and blended/hybrid courses is increasing as many universities are shifting to Web-based delivery of instruction in response to increasing financial pressure. Three quarters of institutions report that the demand for online courses and programs has risen due to the economic downturn (Allen & Seaman, 2010). Perhaps owed to this rapid expansion of online language offerings, the American Council on the Teaching of Foreign Languages’ (ACTFL) most recent position statement on class size (2010) recommended that language courses offered either in a traditional classroom or at a distance should be capped at 15 students, which is in alignment with the National Education Association and the ADFL (2009) recommendations for maximum class size. ACTFL’s (2010) position statement on class size also states that additional support must be provided to teachers where larger class sizes exist in order to maintain pedagogical efficacy. Likewise, the National Council of State Supervisors for Languages (2002) recommends that online foreign language classes are limited to no more than 20 students.
Despite these recommendations, many colleges and universities are basing their decisions about class size upon research literature conducted in distinct areas of academic inquiry into distributed and online learning.

3. Review of the literature

The role of class size in learning milieus and its potential effects on docents and pupils alike have long been a source of intrigue for researchers, pedagogues, and school administrators (Glass & Smith, 1979; Morgan, 2000; Williams, Cook, Quinn, & Jensen, 1985). Numerous studies have been conducted examining the relationship between class size and a variety of variables; namely, student performance, efficacy of instruction, student perceptions of teaching quality, and student satisfaction with their courses. In like manner, the research conducted to date has explored multiple teaching contexts, including early elementary education, secondary education, community college classes, presential university courses, asynchronous learning networks, and online courses offered by four-year institutions of higher education. Despite such a wealth of research, results have been mixed (Morgan), and many important contexts, such as university-level online language courses, remain enigmatically unexplored.

3.1. Class size in higher education

The results of research examining the effects of instruction on university-level classes offer no clear indication of what role this variable really plays in developing student perceptions, attitudes, and achievement in courses of varying sizes. Williams et al. (1985) reviewed the literature on class size and student achievement. Looking specifically at Glass and Smith’s (1979) exhaustive meta-analysis, they noted that few of the studies conducted to that point had dealt specifically with tertiary-level courses. Moreover, few of the studies reviewed in the meta-analysis included classes with more than 40 students enrolled. Because of this, Williams et al. indicated that the results of class-size research conducted up to the time of their article’s publication may have been of dubious value for understanding the impact of class size on student performance in college-level courses. They set out, therefore, to quantitatively examine secondary data obtained from the testing center of a large university.

The test scores archived in the testing center covered multiple academic disciplines, course sections, and course sizes, and class sizes ranged from 13 to 1006 students. Specifically, 24 distinct courses, spanning 305 class sections, provided the data analyzed in Williams et al. (1985). The researchers computed a standardized score based on the mean and standard deviation of exam scores from all students who took the same form of an exam at the testing center. They used multiple regression analysis to examine the relationship between class size and standardized exam scores. Their analysis did not reveal any significant relationship between the two variables; and based on their results, the researchers asserted that increasing class size from 30 or 40 up to several hundred would not affect student achievement at the tertiary level. Williams et al. concluded that “class size may be much less important an influence on student achievement than some educators have thought” (p. 315). However, the researchers did not examine the characteristics of the testing center exams, which were from lower-level courses and may have only tested recall rather than higher order thinking skills. Thus, the findings of Williams et al. may not be applicable to upper-level college courses and to courses that require problem-solving and critical thinking skills.

Some studies (Fernández, Mateo, & Muñiz, 1998; McConnell & Sosin, 1984; Wachtel, 1998) offer a portrait of student and instructor attitudes and perceptions of large classes. McConnell and Sosin (1984), for example, found that student attitudes toward large classes were significantly negative. In an empirical study based on the survey responses of 961 students enrolled in business and economics courses at a large Midwestern University, McConnell and Sosin explored student perceptions of instructor performance and student satisfaction levels in large classes. The class sizes included in their study ranged from 140 to 239 students. The student participants “reported a lack of instructor–student interaction and indicated problems with motivation, incentive, and attention” (McConnell & Sosin, 1984, p. 190). These findings may be particularly relevant for courses that require a high level of student–teacher interaction.

Fernández et al. (1998) used regression analysis to explore the relationship between teaching quality (as indicated by student evaluations of their instructors) and class size. Data were collected from 2915 classes of varying sizes. The researchers found a weak, yet statistically significant negative relationship between the two variables. However, they indicated that the relationship did not appear to be a linear one, and the linearity or non-linearity of any relationship identified in research studies examining this phenomenon is likely due to the range of classes (variability) included in the study. Thus, it may be stated that the research on the relationships between class size in higher education and student performance, class size and student satisfaction, and class size and perceived teacher efficacy is inconclusive. As a consequence, class-size research in higher education lacks the definitive answers that academic program administrators, educators, and some legislators have long sought. In the absence of concrete answers from research that has taken a macro-level look at university education, it makes sense to peer into this phenomenon at a discipline-specific level.

3.1.1. The effects of class size on online and distance learning environments

Studies on the relationship between class size, student–teacher interaction, and student perceptions have proliferated with the advent of Web-based learning. The studies listed below have been conducted in a myriad of disciplines, and the generalizability, or external validity, of their results is largely unknown. Although it may be reasonably surmised that some transferability exists from one academic context to the next; what follows is an attempt to give a snapshot of some of the numerous studies that generally and genuinely represent discipline-specific investigations that focus on the effect of class size in online and/or distance courses.

Research in college-level online courses has purported to reveal that class size does not seem to be related to the following: (a) student satisfaction with their courses or instructors (Burruss, Billings, Brownrigg, Skiba, & Connors, 2009; Jiang & Ting, 2000), (b) educational practices (Burruss et al., 2009; Heinrich, Milne, & Ramsay, 2007; Karakaya,
is the idea that online classes are believed to require a disproportionate effort that is pervasive in all of the literature related to Web-based education (Heinrich et al., 2007; Jiang & Ting, 2000; Rovai, 2000), or (d) the investiture of time on the part of the instructor (Heinrich et al., 2007; Mupinga & Maughan, 2008; Nagel & Kotzé, 2010). However, other research studies (Drago & Peltier, 2004; Kingma & Keefe, 2006; Orellana, 2006; Sugrue, Rietz, & Hansen, 1999; Tomei, 2006) have yielded results that are contradictory to the aforementioned studies. Of note, Sugrue et al. (1999) is the only study found that examined the impact of class size on student achievement in a managerial course. For the FTF course, he accounted for didactic instruction, FTF advisement (answering students' emails), and online assessment of students’ assignments. The researcher used an 85:5:10 ratio (teaching, research, and service) with a 3 course faculty workload per semester to compute a maximum of 170 h of work required per course. In reality, Tomei found that it took 136.50 h to teach the course in a FTF setting while it took the same instructor 155.83 h to teach the course in an online environment. While the amount of time it took to evaluate student work was comparable, the amount of time that it took for online delivery of content and student advisement was protracted in the online environment. Tomei found that online instruction required 14% more time than FTF instruction. However, Tomei's study may be criticized for using a ratio (85:5:10) that is uncommon at most major US universities. Further, for the online course, the instructor did not use a discussion board for students' general questions. It is possible that the lack of knowledge of effective online pedagogy could have resulted in a higher workload with respect to student advisement for the online course. Further, more than one instructor would need to be examined for the results to be generalizable. However, Tomei's study appears to support the claim that teaching online is more time consuming than teaching the same course in a FTF setting.

As the results of the aforementioned studies are largely mixed, more research is needed in each discipline across varying course levels (beginner, intermediate, advanced) and type/size of institution (community college, 4-year public, private, graduate school, etc.). It could be that students at large public institutions have different expectations about the quantity and quality of interactions with their instructors than students who attend smaller institutions. Similarly, some subjects may require more interaction and personalized attention from instructors for students to be successful in an online course. In addition, it is possible that a myriad of unobserved variables were at work in the aforementioned studies such as differences in the online pedagogical training of the instructor, whether the online course was required or an elective, and whether the course had teaching assistants. As more research studies are conducted to investigate online class size, it will be helpful to compare studies that stem from the same discipline, subject, course level, and setting.

3.1.2. The effects of class size on face-to-face language courses

The effects of class size on face-to-face (FTF) language courses have been a recurring theme in the literature for decades. As early as 1956, the Modern Language Association made the recommendation that language courses should not exceed 20 students in number, with 12 students being considered the efficient maximum (Horne, 1970). Horne recommended an optimum class size of five to nine pupils for intensive language instruction, like that offered at the Defense Language Institute.
at the time of the article’s publication. Though second language acquisition (SLA) theory has shifted greatly from the time of Horne’s writing, current recommendations on class size do not vary greatly from those offered then.

In a comprehensive examination of existing literature related to class size and foreign language learning, Morgan (2000) noted that research studies investigating the role of class size in traditional post-secondary foreign language courses are relatively scarce. Because of this, the evidence for promoting smaller class sizes in FTF foreign language classes is incomplete (Morgan). Morgan also emphasized the belief that affective issues related to class size are of unique concern in the foreign language classroom, as affective stimuli in the learning environment are believed to have an effect on SLA (Krashen, 1980, 1981, 1985). However, affective factors are not tangible; thus, it is difficult to determine their impact on student achievement in relation to class size.

In addition to the above, Morgan noted that administrators tend to make decisions about foreign language class size in elementary and secondary settings based on research findings from other disciplines. One of the most influential studies was Tennessee’s Project STAR – which stands for Student–Teacher Achievement Ratio – which was a four-year longitudinal study that examined the relationship between class size and student performance (Mosteller, 1995). The study was experimental in nature and ultimately included 6500 student participants (Finn & Achilles, 1999; Mosteller, 1995). The first phase of the study led researchers and policy makers to conclude that class size has a definitive effect on learner achievement in early elementary (K–3) grades (Finn & Achilles, 1999; Mosteller, 1995). Additionally, student performance gains were seen irrespective of the subject of study (reading or math), and minority students appeared to benefit the most from having smaller classes during the first two years of schooling (Finn & Achilles, 1999; Mosteller, 1995).

The STAR study has not passed without criticism. While the quality of the research and strength of its design has been praised by scholars (Ehrenberg, Brewer, Gamoran, & Wilms, 2001; Finn & Achilles, 1999), its external validity, or applicability to other contexts (such as foreign languages) has been called into question (Hanushek, 1999), which questions its external validity, or applicability to other contexts (such as foreign languages). Additionally, Simonson (2004) reported that there is presently not enough research across the disciplines) are typically based upon instructors’ online teaching experiences and self-reports rather than on formal research. According to Simonson (2004), there is presently not enough research on class size in Web-based education, which has resulted in two popular myths about online class size: (a) smaller is better because teaching online is more work, and (b) if the online course is organized well, then one class can be supersized to accommodate hundreds of students. It is not surprising that instructors favor the former myth while administrators favor the latter. However, Simonson (2004) stated, "If distance education is to be credible and adopted widely, then definitive statements about instructor effort and class size must be developed. And, the only truly definitive statements about issues such as these, statements that will stand close inspection, are those based on research." (p. 56), Thus, Simonson issued a clear call for research studies that specifically address the issue of class size in online and distance learning environments.

Orellana (2006) suggested that online classes have different interactive qualities, depending upon the subject matter that is taught. She suggested that a one-size-fits-all approach for computing an optimal online class size is not realistic. Rather, online class size should depend on the level of interactivity required by the online course. As successful foreign language learning requires a high level of spoken and written interaction in the target language (Long, 1981, 1985, 1996; Mackey, 1999), it is understandable why ACTFL recommended a small online class size.

While researchers have not yet formally addressed the issue of class size in online language learning, there has been some research into effective foreign language pedagogy. Pelz (2004) for best practices related to the teaching and learning of languages and cultures. In 2010, ACTFL issued a position statement on maximum class size. This statement was based upon the recommendations of the National Educational Association (NEA) and the Association of Departments of Foreign Languages (ADFL). Foreign language teachers’ opinions and experiences were also taken into account. Interestingly, the issue of online language class size was not addressed by ACTFL until 2010. At that time, they opted to include both traditional and online settings in the position statement on class size, which recommended that language classes be capped at 15 students. The small class size was deemed necessary in both environments because in order to foster students’ ability to communicate in standards-based language programs, ACTFL posited that there must be opportunities for meaningful and frequent student–teacher and student–student interaction, individual feedback, and monitored practice during instructional time (ACTFL, 2010). However, ACTFL’s recommendation for online class size was based largely on anecdotal evidence and not on the results of research. Morgan (2000) asserted that conventional wisdom and policy statements by organizations such as the ADFL – rather than research findings – influence administrators’ curricular decisions about foreign language class size. For example, in a frequently cited Education Resources Information Center (ERIC)1 document, Alatis (1992) made the following statement, “Class size directly affects the quality of language instruction: the smaller the class, the more intensive the exposure to the language and the better the results (p. 13).” Alatis’ claim was based on “experience and many years of observation” (p.13). Morgan heavily criticized Alatis (1992) because he failed to back up his assertions with any solid research findings. It appears that the tendency to make recommendations for class size based on anecdotal evidence is not limited to foreign languages. Similarly, Hewitt and Brett (2007) stated that recommendations for online class size (across the disciplines) are typically based upon instructors’ online teaching experiences and self-reports rather than on formal research.

1 ERIC is an online digital library that includes the following types of documents: journal articles, books, research syntheses, conference papers, technical reports, policy papers, and other education-related materials. There are more than 1.4 million bibliographic records in the library, and each week hundreds of new records are added. ERIC users include teachers, researchers, administrators, librarians, policy makers, parents, the general public, and the media and business communities. ERIC users conduct more than 13 million searches each month.
recommended three key features for a successful online language course: (a) students should be in charge of their own learning, (b) "interactivity is the heart and soul of effective asynchronous learning" (p. 107), and (c) instructors should strive for presence. If Pelz’s recommendations are to be followed – in particular for items b and c – it would seem that smaller online language classes would be preferable to larger ones. Further, Goertler (2011) underscores the importance of interaction with peers, materials, and the teacher in online language classes, as students may become lost without sufficient interaction and clear instructions from the teacher. In addition, teacher presence is especially critical for students who struggle to understand spoken and written linguistic input in the foreign language.

Given that no published research studies on the effect of class size in online language learning environments were found, previously conducted research in the field setting serves as one good starting point for future research in online language learning. Another starting point which must not be ignored is that of studies exploring the role that class size plays in Web-based learning courses offered in other disciplines, which were reviewed in the previous section. To recap, the research studies that were reviewed examining online class size and student satisfaction, educational practices, student–teacher interaction, and teacher workload (Burruss et al., 2009; Drago & Peliter, 2004; Heinrich et al., 2007; Karakaya et al., 2001; Kingma & Keefe, 2006; Mupinga & Maughan, 2008; Nagel & Kotzé, 2010) had largely mixed results, which points to the need for more discipline-specific research that addresses how class size impacts online language teaching and learning.

3.2. Research questions

In recent years, many world language departments of post-secondary institutions in the United States have experienced top-down administrative pressure to foray into the online realm, and adding seats in online sections is one way to cut costs. Following the trends of some other disciplines, administrators often push for large class sizes. However, educators thrust into this situation have real concerns about the effects of such class sizes on pedagogy, learner performance and satisfaction, and language proficiency development. As demonstrated with the literature review above, research related to this specific problem is scarce. Therefore, in the present exploratory study the researchers set out to take steps in identifying how this phenomenon affects students and teachers alike.

Specifically, the following research questions were addressed in this study: is there a differential level of satisfaction with the online language learning experience between participants in the large- and the small-scale course? Is a large-scale online Spanish course (cap 125 students) qualitatively different from that of a small-scale course (cap 25 students) as defined by student and teacher perceptions? If so, to what is this owed? Does this have any pedagogical or administrative implications?

4. Method

4.1. Sequential exploratory design

The present study employed a mixed-methods sequential exploratory design. Following this approach, data was collected in two phases, and analytical priority was given to qualitative data. During the interpretation phase, the findings of quantitative data were used for the purpose of illuminating and supporting qualitative findings.

4.2. Context and participants

The present study sought to explore the experiences of learners and educators involved in two online Spanish language courses. One of these, which the researchers have classified as large-scale, was housed at a Carnegie Research One university with very high enrollment. The other, which the researchers categorized as small-scale, was offered at a satellite institution in the same university system. For the purposes of the present study, however, scale was determined by course cap and not the size of the overall student population. The large-scale course was capped at 125 students, while the small-scale course was limited to 25 students. Both classes were second-semester undergraduate Spanish courses counting with only one instructor and no graduate teaching assistants. The instructor of the small-scale course taught full-time at a regional university in another state during the academic year and worked part-time as an adjunct faculty member at the satellite campus during the summer semester. The instructor of the large-scale course coordinated the online Spanish program at the main campus in addition to teaching one course (cap 125). Two teaching assistants also worked in the online program, but they were responsible for teaching the first semester Spanish course (cap 250).

In the large scale course, 92 of 125 students completed the course, with a dropout rate of 26.40%. In the small-scale course, 22 of 25 students completed the course, with a dropout rate of 12%. Although 114 students from the two courses signed the informed consent form and enrolled in the research study, the final sample consisted of 60 students. In the small-scale course, 7 of 22 students (31.82%) completed the survey instrument. In the large-scale course, 53 of 92 students (57.61%) completed the survey instrument. Participants ranged in age from 19 to 45 and there were nearly twice as many females enrolled in these courses as males. All of the participants spoke English at home. None of the participants had advanced beyond the second semester of Spanish language study at the university level.

The instructor of the small-scale course had 30 years of language teaching experience. During this time, she had accumulated 10 years of online teaching experience. The teacher of the large-scale course had 19 years of language teaching experience and 4 years of experience studying in a graduate-level instructional technology program. In addition, she had taken upper-level coursework that focused on instructional technologies, instructional design, and online pedagogy. Both teachers sought opportunities for training on the advanced features of Blackboard Courseware Management System (CMS) at their respective institutions, and each of them reported feeling comfortable using technology to teach a foreign language online.

4.3. Course design

While no specific data was collected on student achievement as measured by course grade (the present study focused on student satisfaction), both instructors reported that the percentage of high and low-achieving students did not appear to be disproportionate in their courses. Further, the dropout rates for each course were 26.40% for the large-scale course and 12% for the small-scale course. All of the instructional content for both courses was delivered 100% online and both instructors used the same course materials (e-book and online activities delivered through the Quia platform).

The students in both courses were required to complete 15–20 short online activities each week, and both teachers also assigned asynchronous recording activities that they embedded in Blackboard Courseware Management System (CMS). The large-scale course used an open source audio dropbox, an online tool that was created and made available by Michigan State’s Center for Language Education and Research (CLEAR), a U.S. Department of Education Title VI Language Resource Center. The small-scale course employed WIMBA voice boards (asynchronous voice threaded discussion boards) for students’ audio recordings. The primary difference between the two applications is that students could not hear their peers’ responses with the audio dropbox tool, as only the instructor had access to students’ recordings. With the WIMBA voice boards, both the instructor and the students
could listen to all of the responses that were posted on each voice board. Another difference is that students in the small-scale course were required to submit weekly recordings while students in the large-scale course were only required to submit five recordings throughout the course (one per chapter plus an additional recording that was factored into the final exam grade). Students in both courses received written feedback from their instructors on their audio recordings. However, the small-scale instructor also posted oral corrections to students’ general pronunciation errors on the WIMBA voice boards. She did not provide oral corrections to students individually; rather, she modeled the correct pronunciation of words that several students mispronounced on each WIMBA voice board activity that was assigned.

Further, both courses offered optional synchronous sessions to review content and answer students’ questions. The small-scale course offered optional synchronous sessions every two weeks (8 sessions throughout the semester) and the large-scale course offered optional online and FTF sessions before each major exam (5 online and 5 FTF sessions were offered throughout the semester). The synchronous sessions for both courses were archived and available to be viewed at any time by students who could not attend the sessions synchronously. In the small-scale course, approximately 10–15 students attended the biweekly synchronous sessions. In the large-scale course, approximately 25–40 students attended the FTF review sessions, and 6–10 students attended the synchronous online review sessions. Another 30–40 students in the large-scale course reported that they watched the archive of the synchronous review session prior to each course exam.

Moreover, both courses were primarily designed as self-study courses where students relied more heavily on the materials than on their instructors to learn the course content. The two courses also required students to complete assignments on a weekly basis and to remain on pace with the course deadlines, as late work was not accepted without a documented excuse. Both courses also offered discussion boards for students’ general questions; however, students in the large-scale class tended to send questions to the instructor via email. When several students asked the same question, the instructor of the large-scale class posted explicit explanations for the whole class. The instructor of the small-scale course reported that students tended to use the discussion board to post their questions to homework activities, but questions of a more personal nature were asked via email. In addition, both instructors posted explanations to difficult homework activities as well as instructional materials that they authored (e.g., grammar explanations to supplement the textbook) for the benefit of all of the students in the course.

The courses also differed with respect to assessment. The small-scale course employed proficiency-based assessment with a focus on learners’ spoken and written production in the target language while the large-scale course employed traditional paper-and-pencil exams that were proctored by the instructor. In the large-scale course, the students came to campus on five Saturdays to take their exams. Make-up exams were administered during office hours. There were four chapter exams and a final exam in the large-scale course. In the small-scale course, the students were assessed on their weekly WIMBA recordings and on their weekly writing prompts. There was also one oral exam at the end of the semester that was delivered synchronously and individually with the instructor via WIMBA class. Table 1 presents a visual comparison of the two courses.

### 4.4. Instruments

#### 4.4.1. Teacher questionnaire

A 16-item questionnaire employing open-ended and multi-layer questions was developed and administered to the instructors of the large- and small-scale second semester online Spanish courses. Questions related to the following topics: (a) the instructors’ experiences teaching online, (b) administrative support, (c) course curriculum, (d) perceived differences between teaching in FTF and online environments, (e) workload, (f) enjoyment/satisfaction with online teaching experience, (g) factors necessary for SLA to take place, (h) technology tool use and training, (i) perceptions of the impact of class size, (j) communication/interaction with students, and (k) perceptions of the effectiveness of online language courses. Member checks were employed to ensure the validity of the instrument (Lincoln & Guba, 1985).

#### 4.4.2. Student questionnaire

The instrument was a 10-item questionnaire that was developed primarily as a diagnostic tool to help the instructors make improvements to their courses; however, four items on the questionnaire were designed specifically for this study (Questions 2, 3, 5, and 6). These were the items that measured students’ level of satisfaction with their online language course. Participants were asked to rate their feeling of satisfaction with the following course components: (a) online learning experience, (b) online course materials, (c) instructor feedback, and (d) online homework activities. Students responded to these items with a 5-point Likert scale. To ensure that the instrument was valid, the item-to-total correlation for each item that measured satisfaction was examined, and no single item was found to be significantly lower than the other items measuring the same construct. Internal consistency reliability, or Cronbach’s alpha, was computed for the four items that measured the construct satisfaction. The reliability estimate was .86. According to Nunnally (1978), .70 is the minimum acceptable value.

There were six items in addition to those that measured learner satisfaction with the online course. The six questions were broken down as follows: Question 1 elicited participants’ motivation for taking the Spanish class online and students were asked to select from a list options (options are listed in the results section below); Question 4 asked participants if they would be willing to take another language class online in the future; Question 7 asked participants if they felt the assigned activities helped prepare them for course exams; Question 8 asked how the online language course compared

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<td><strong>Institution type</strong></td>
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<td><strong>Percentage of content delivered online</strong></td>
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<td><strong>Number of instructors</strong></td>
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<td><strong>Course enrollment cap</strong></td>
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to a FTF language class and students responded to this item with a 5-point Likert scale; Question 9 asked students to select activities and resources that would help improve their online language class. Students were given a list and they were asked to check all that applied (options are listed in the results section below). Question 10 asked participants what could be done to improve the course, which was an open-ended response. This item was analyzed qualitatively.

4.5. Data collection, procedures, and analyses

The 10-item Student Questionnaire was delivered anonymously via Blackboard CMS. The questionnaire was available to participants during the final two weeks of classes for the semester in which the study was conducted. The course instructors requested students to fill out the questionnaire (voluntarily), and students were told that the purpose of the questionnaire was to elicit their opinions about the course.

The course instructors received and completed the 16-item Teacher Questionnaire previously described. The qualitative data obtained through these instruments was then analyzed utilizing Atlas.ti 5.6.3, a software program designed for the purpose of reviewing large texts and other media in which multi-modal qualitative data may be saved (see Lewis, 1998, 2004 for an exposition of the features and uses of Atlas.ti).

4.6. Qualitative analysis

For qualitative analysis of data, the constant comparative method (Glaser & Strauss, 1967) was employed. This method is carried out via an iterative, multi-step process that includes the principal & recursive phases of open coding, axial coding, and selective coding (Merriam, 2009).

Open coding was the first phase of qualitative analysis for the present study, and it included the initial identification of themes and the development of categories utilized in subsequent recognition of related thoughts, ideas, and concepts. During the axial phase of data codification, connections and linked ideas were identified, and the relationships between the categories of the open coding phase were explored. During the selective coding phase, the categories were refined and contracted to include those which were most salient.

Realization of the constant comparison method of data analysis, including data codification and theme exploration, was facilitated via Atlas.ti, software designed specifically for the purpose of organizing and analyzing qualitative and multi-modal data sets. Using this software, the following specific steps were taken to ensure the accuracy of data analysis and interpretation.

First, the data were coded according to prominent themes that seemed to be initially salient to the researchers. These codes were then compared for similarity, contrast, relationships, and overlap before being reduced to the ten codes that are presented in Table 2. The researchers, working separately, subsequently conferred with each other about the accurate application of these codes. In this manner, they reached 99% agreement on data codification.

The data could qualify for inclusion in more than one category or code if the student or instructor made mention of more than one of the themes identified. Frequency counts produced using Atlas.ti software are provided in the table below. Though the frequencies alone were not employed to determine the cogency of a given code, they did serve to guide the researchers in determining the relative importance of each of these themes to the study's participants. This, in turn, assisted the researchers in refining the categories in the selective coding phase. The themes identified and described in the pages below were those that remained after the final stage of selective coding.

Table 2

<table>
<thead>
<tr>
<th>Codes</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration's perspective and curriculum</td>
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<td>9</td>
<td>13</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Challenges unique to F2F teaching</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Challenges unique to online teaching</td>
<td>5</td>
<td>12</td>
<td>7</td>
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<td>26</td>
</tr>
<tr>
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<td>6</td>
<td>4</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>Necessary for acquisition</td>
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<td>3</td>
<td>14</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>Quality of communication</td>
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<td>3</td>
<td>3</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Special learner traits</td>
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<td>8</td>
<td>11</td>
<td>0</td>
<td>24</td>
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<tr>
<td>Preference of online environment</td>
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<td>3</td>
<td>0</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Technology as leveler</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Time consumption</td>
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<td>11</td>
<td>7</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>Totals</td>
<td>34</td>
<td>58</td>
<td>64</td>
<td>6</td>
<td>162</td>
</tr>
</tbody>
</table>

In an effort to provide the emic voice of participants, a series of representative vignettes culled directly from the data is offered, analyzed, and discussed in the pages that follow.

4.7. Quantitative analysis

Scores from four items on the Student Questionnaire that measured learner satisfaction with various aspects the online language course were tallied to compute an overall learner satisfaction score. As these items were rated on a 5-point Likert scale, the maximum score was 20 and the minimum score was 4. Learner satisfaction scores were subjected to an independent samples t-test using SAS® 9.1 for Windows. In addition to the inferential statistical procedure (t-test), five items on the questionnaire were examined descriptively and one item was examined qualitatively.

5. Results

5.1. Quantitative results

Questions 1, 4, 7, 8, and 9 elicited learners’ opinions about the online course. Question 1 asked students why they took a language class online. They had the following options to choose from, and they could only select one option: (a) convenience, (b) enjoy using the computers and the Internet, (c) disability, or (d) other. In the small-scale course, 7 out of 7 participants (100%) indicated that convenience was their motivation for taking a language class online. In the large-scale course, 48 of 53 participants (90.57%) indicated that convenience was their motivation for taking a language class online, while 1 of 53 participants (1.89%) indicated that enjoyment of computers and the Internet was his or her motivation for taking a language class online. Only 4 of 53 participants (7.55%) indicated other as their motivation, and no students from either course indicated that having a disability was their motivation for taking a language class online.

Participants were asked if they would take another language class online in the future in Question 4. There were three response options: yes, no, or maybe. In the small-scale class, 4 of 7 students (33.96%) stated that they would take another language class online, 3 of 7 students (42.86%) indicated that they might take another language class online, and 0 of 7 students in the small-scale class stated that they would not take another language class online. In the large-scale class, 18 of 53 students (33.96%) indicated that they would take an online language class in the future, 20 of 53 students (37.74%) stated that they might take an online language class in the future, and 15 of 53 students in the large-scale class (28.30%) stated that they would not take an online language class in the future.

Question 7 inquired about the course homework activities; it asked students to check all items that applied (options are listed in the results section below). Question 10 asked students what could be done to improve the course, which was an open-ended response. This item was analyzed qualitatively.
well for the course exams. Conversely, in the large-scale class, only 30 of 53 respondents (56.60%) felt that the homework activities adequately prepared them for the course exams. In addition, 23 of 53 (43.40%) respondents in the large-scale class felt that the assigned homework activities did not prepare them well for the course exams.

Participants were asked to rate how the online language course compared with a FTF language class in Question 8. They were asked to select from the following options: much harder = 1, harder = 2, about the same = 3, easier = 4, or much easier = 5. The results for the small-scale class were split, with 3 of 7 students (42.86%) responding that the online language class was easier than a FTF language class and 3 of 7 (42.86%) students responding that the online language class was harder than a FTF language class. In the small-scale class, 1 of 7 students (14.29%) responded that the online language class was about the same as a FTF language class with respect to level of difficulty.

For the large-scale course, over half of the respondents (58.49%) indicated that online language learning was harder or much harder than a FTF language class, as 20 of 53 students (37.74%) stated that the online language class was harder than a FTF language class, and 11 of 53 students (20.75%) stated that the online language class was much harder than a FTF language class. In the large-scale course, 14 of 53 students (26.42%) felt that the online language class was about the same as a FTF language class with respect to level of difficulty. Some students in the large-scale course felt that learning a language online was easier than learning a language in a traditional classroom, as 7 of 54 students (13.21%) stated that the online language class was easier than a FTF language class, and 1 of 53 students (1.89%) stated that the online language class was much easier than a FTF language class.

Scores ranged from 1 to 5 for level of difficulty, with 1 indicating that participants felt the online language class was much harder than a FTF language class and 5 indicating that participants felt the online language class was much easier than a FTF language class. The mean score for the small-scale group was 3 with a standard deviation of 1. The mean score for the large-scale group was 2.38 with a standard deviation of 1.02.

Question 9 asked students to select items from a list that would help improve the online language class, and they were asked to check all that apply. They chose from the following resources and activities: (a) online review sessions, (b) FTF review sessions, (c) PowerPoint grammar explanations, (d) video-taped lessons, and (e) working with a conversational partner.

Responses broke down as follows: for the small-scale class, 3 of 7 students (42.86%) felt that online review sessions would help improve the online language class, while 27 of 53 students (50.94%) in the large-scale class felt that these would be helpful. With respect to FTF review sessions, only 1 of 7 students (14.29%) in the small-scale class indicated that having FTF review sessions would improve the course while, 23 of 53 students (43.40%) in the large-scale course indicated that these would improve the course. For PowerPoint grammar explanations, 3 of 7 students (42.86%) in the small-scale course felt that these would be helpful while 23 of 53 students (43.40%) in the large-scale course believed that the provision of PowerPoint grammar explanations would help improve the course. With respect to video-taped lessons, 7 of 7 students (100%) in the small-scale course indicated that these would help improve the course, while 21 of 53 students (39.62%) in the large-scale course indicated that video-taped lessons would improve the online language course. For working with a conversational partner, 2 of 7 students (28.57%) in the small-scale class felt that this activity would help improve the course, while only 7 of 53 students (13.21%) in the large-scale class felt that this activity would improve the course.

When both groups were combined, the most popular choices were online review sessions, with 30 of 60 participants (50.00%) indicating that these would improve their course followed by video-taped lessons, with 28 of 60 participants (46.67%) stating that these resources would improve their online language course. The third most popular option was PowerPoint grammar explanations, as 26 of 60 students (43.33%) felt that these would help improve their course. The least popular options with both groups were working with a conversational partner, as only 9 of 60 respondents (15.00%) stated that this activity would improve their course, and FTF review sessions, with 24 of 60 respondents (40.00%) stating that this activity would help improve their course.

Questions 2, 3, 5, and 6 examined learner satisfaction with elements of the online language class. These items were answered using a 5-point Likert scale: very poor = 1, poor = 2, fair = 3, very good = 4, or excellent = 5. Question 2 asked participants to rate their satisfaction with the online language learning experience. In the small-scale class, students appeared to be satisfied with their experience, as 3 of 7 students (42.86%) rated the experience as excellent and 4 of 7 students (57.14%) rated the experience as very good. No participants rated their experience as fair, poor, or very poor. Conversely, in the large-scale class, only 3 of 53 students (5.66%) rated their experience as excellent, and 19 of 53 students (35.85%) stated their experience as very good. Further, 22 of 53 students (41.51%) rated their experience as fair, while 8 of 53 students (15.10%) rated their experience as poor, and 1 of 53 students (1.89%) rated their experience as very poor in the large-scale class.

Participants were asked to rate their satisfaction with the course materials (e-book, online activities, etc.) in Question 3. In the small-scale class, 3 of 7 respondents (42.86%) indicated that their course materials were excellent and 4 of 7 (57.14%) respondents stated that their course materials were very good. No participants in the small-scale class rated their course materials as fair, poor, or very poor. In the large-scale class, 5 of 53 respondents (9.43%) indicated that their course materials were excellent, 22 of 53 respondents (41.51%) stated that their course materials were very good, 20 of 53 respondents (37.74%) felt that their feedback was fair, while 2 of 53 students (3.77%) believed that the feedback they received was poor and 2 of 53 students (3.77%) felt that the feedback that they received from their instructor was very poor.

Question 5 elicited participants’ satisfaction with the feedback that they received from their instructor. In the small-scale class, 3 of 7 students (42.86%) felt that the feedback that they received was excellent, and 4 of 7 students (57.14%) believed that the feedback from their instructor was very good. No participants in the small-scale class rated their feedback as fair, poor, or very poor. Conversely, in the large-scale class, 7 of 53 students (13.21%) felt that the feedback that they received was excellent, 22 of 53 students (41.51%) believed that their feedback was very good, 20 of 53 students (37.74%) felt that their feedback was fair, while 2 of 53 students (3.77%) believed that the feedback they received was poor and 2 of 53 students (3.77%) felt that the feedback that they received from their instructor was very poor.

Participants were asked to rate their satisfaction with the online homework activities that they completed for the course in Question 6. For the small-scale course, 3 of 7 students (42.86%) rated their homework activities as excellent and 4 of 7 students (57.14%) rated their homework activities as very good. No students in the small-scale course rated their homework activities as fair, poor, or very poor. In the large-scale course, 5 of 53 students (9.43%) rated their online homework assignments as excellent, 19 of 53 students (35.85%) indicated that their homework assignments were very good, 19 of 53 students (35.85%) rated their assignments as fair, 8 of 53 students (15.09%) indicated that their assignments were poor, and 2 of 53 students (3.77%) rated their online homework assignments as very poor.

5.1.1. Inferential results

Learner satisfaction scores were arrived at by tallying scores for the four items that measured satisfaction with elements of the online course (learning experience, course materials, instructor feedback,
and assigned activities). To determine if the overall mean satisfaction score was significantly different between the two groups (small-versus large-scale), scores were subjected to an independent samples t-test. Although the total number of participants in each group was unequal, the Folded F test revealed that there was homogeneity of variance, $F(6, 52) = 2.35, p > .05$; thus, it was appropriate to compute a $t$ value using pooled scores.

Participants responded to the four items that elicited learner satisfaction with elements of the online course on a 5-point Likert scale, with a maximum score of 20 and a minimum score of 4 when scores from the four items were added together. Results were analyzed using an independent-samples $t$-test. This analysis revealed a significant difference between the two groups, $t(58) = 3.59, p < .0007$. Participants in the small-scale course scored significantly higher on satisfaction than participants in the large-scale course. For the small-scale course, $M = 17.71$, $SD = 1.89$, and for the large-scale course, $M = 13.66$, $SD = 2.90$. The observed difference between the means was 4.05 and the 95% confidence interval for the difference between means extended from 1.79 to 6.31. The effect size was computed as $d = 1.44$.

5.2. Qualitative results

5.2.1. Administration's perspective and curriculum

One of the more prominent themes that emerged in the analysis of data from the current study was the university administration's perspective of online language education as well as student and instructor reflections upon the resulting curriculum. The instructor of the large-scale course, for example, believed that an online language course could be as effective as a FTF course at developing students' proficiency in the four skills of reading, writing, speaking, and listening. However, owing to the high volume of students, she was unable to assign or realize a number of activities that she would have liked to conduct. In particular, she noted that the students were only assigned one speaking activity per lesson. She felt this was insufficient for meeting their needs. Likewise, regular synchronous interactions with the students were made unfeasible by the lack of personnel and high numbers of enrollees. She believed that class size was the ultimate issue impacting the quality of instruction in her course saying, “If class sizes were smaller – around 15 or fewer – it would be possible to provide students with more opportunities for listening, speaking, and interacting in the TL.” This frustration was also presented by one of the students enrolled in the large-scale course, who said, “This course is like a teach yourself Spanish [sic]... There were face to face review sessions, but I take this course for convenience and cannot attend them.”

In addition to lamenting the lack of support, learners decried the amount of content they were expected to learn in a relatively short period of time (one semester). One student in the large-scale course asked:

“Why is it not organized more like how we learned English; alphabets, numbers, single words? And then to throw in all the stuff about the culture and how many kisses on which cheek. I mean, let’s learn the basics first, and then we can be concerned with which is the biggest football rivalry in Columbia, or Argentina, or Spain. Way too much information, let’s learn the language.”

This student’s comment is illustrative of three things. First, it is an indicator of the lack of integration of language and culture in the curriculum. Second, it is indicative of the fact that in the university setting expectations for learning outcomes are often unrealistic with what is known about the time required for SLA to take place. And third, as indicated by the instructor of the large-scale course, this disconnect is an example of what happens when teachers do not have control over the curriculum of the courses they teach.

5.2.2. Challenges unique to FTF teaching

While it may seem self-evident that there are challenges unique to the online teaching environment, the data presented here show that instructors are also aware of challenges faced in the presentational class with which one may not have to contend when teaching online. In particular, the instructor of the small-scale course identified stage presence and introversion as factors that present challenges more likely to manifest themselves in the FTF context. While the instructor associated stage presence with the ability of the docent to perform and “act out [her] role as instructor,” this trait is related to the student characteristic she outlined as well. According to this teacher, “some in an FTF Spanish class may never utter a word if they can avoid it, while others will dominate the scene.” This being the case, it seems that the FTF class may exhibit disparities that are assuaged in the online course.

5.2.3. Challenges unique to online teaching (and quality of communication)

Perhaps unsurprisingly, the challenges unique to online teaching also constituted a topic of interest to the instructors. For instance, the turn-around time involved in asynchronous communication meant that the receipt of instructor replies possessed less immediacy than responses received in a FTF class. Furthermore, the evaluation of student oral production may be less effective, if not accurate, than that which teachers might be able to offer in a physical space. This, too, may be due to turn-around time, but it may also be the result of technological failure, imperfection, or schedule incongruency. In this case, both instructors indicated an advantage for the immediacy of FTF teaching: “In the FTF class I was able to answer students’ questions in real time if they struggled with certain grammatical forms or structures.” (Instructor, Large-Scale).

In addition to these concerns, the replaceability of the old-fashioned classroom conversation in the target language was considered somewhat dubious. This questionability was attributed, not to insufficient technology, but to the demands on the time of the online language learner:

“The classroom ‘conversation’ is still hard to replace as many students’ schedules prevent them from being with their classmates all at one time. Yet, it is exactly this liberty that students like in a world that demands their attention to family, work and other courses.” (Instructor, Small-Scale)

5.2.4. Class size

Class size is the recurring factor that appears to be present in each of the categories of data codification outlined in this paper. Nonetheless, specific mentions of class-size or other factors related to it were made by both students and instructors. The instructor of the small-scale class indicated her belief that raising the course cap would also constitute a topic of interest to the instructors. For instance, another felt

“The online materials were not helpful at all. I have to try and teach myself a language and the explanations were in Spanish. The homework was just lengthy and helped little. The instructor could be a little more involved in the subject.”
5.2.5. Necessary for acquisition

Students and instructors alike indicated that interaction is an important part of the language learning experience and that it is necessary for true acquisition to take place. This is consistent with the research literature on the role of interaction in L2 acquisition (Long, 1981, 1985, 1996; Mackey, 1999). One student enrolled in the large-scale course made a rather poignant statement to this effect:

“I feel more hands-on and face-to-face interaction is necessary to facilitate the learning of a second language. The readings online helped greatly, although more segments in which the language is spoken through personal interactions would help greatly.”

In addition to this, both pupils and pedagogues pointed to an excessive curricular emphasis on the study of grammar in lower-level language courses. They indicated a desire for the classroom to be a place where communicative competence could be developed in a contextualized atmosphere.

5.2.6. Special learner traits

Instructors of each class as well as students indicated that some special learner traits may be desirable for success in an online language course. This is resonant with research conducted in online courses of other academic disciplines (Garrison & Archer, 2000; Lamy & Goodfellow, 1999; White, 2003). Among the traits outlined by the instructors participating in this study are independence, self-discipline, and intrinsic motivation.

Additionally, the data suggest that some students may perform better in the online context because of their apprehension or aversion to the public performance aspects of FTF study. One student from the large-scale class described her experience this way: “I have felt much less pressure from this class (than previously taken French classes). The lack of pressure makes me want to learn the material more and tread the class much much less.” These findings may signify a way in which online education can better meet the needs of some students.

5.2.7. Preferability of online environment

The instructors in both large- and small-scale learning contexts indicated that in some ways the online environment may be more suited to their personal preferences as pedagogues. They pointed not only to its flexibility (a characteristic praised by the student participants in the present study), but also to the way in which some tasks are inescapable in the online environment. Whereas some learners may never volunteer to answer a question in the target language in the time-limited meetings of a FTF class, each student in the online courses had to respond orally to prompts designed to elicit verbal communication. Despite this, it is worth noting that the instructor of the large-scale course implied that the volume of students enrolled made the provision of detailed corrective feedback for each student impracticable.

5.2.8. Technology as leveler

One interesting theme that did not figure as prominently in the data as others, but nevertheless is noteworthy, is that of technology as a leveler. Both instructors alluded to the notion that many of the problems associated with eliminating FTF contact from the teaching equation have been all but effaced by the technological resources made available in recent years. Additionally, technology is perceived as a leveler because it seems to diminish the disparities between introverted and extroverted students that may exist in the FTF classroom. It may also eliminate many of the affective stimuli in the environment that inhibit or hamper student production in a traditional setting.

5.2.9. Time consumption

Each instructor participating in the study indicated that time consumption is an important consideration in online language teaching. However, the perspectives reported by each of the instructors contrasted in interesting ways. The instructor of the small-scale class said, for instance, that “the transition to some 100% online courses is a pleasant diversion that eliminates some personal effort.” She also indicated that the course management system employed by her institution permitted her to interact with the students more than when she did not have the ability to copy course modules from one semester to the next. She reported that the benefits afforded by this particular technology give her the ability to interact more frequently with students via the CMS.

Interestingly, the instructor of the large-scale class offered a slightly different portrait of the role of time and online language education. She said, “All aspects of teaching are more time consuming in an online environment compared to a FTF environment, especially answering student’s questions, providing feedback, and creating materials.” This instructor continued to say, however, that once quality course materials have been created, they – when recyclable – will make the time required for teaching an appropriately-sized online course roughly equivalent to that of its FTF counterpart.

6. Discussion

The findings of the present study lend weight to Horne’s (1970) assertion that small class sizes are necessary for intensive language learning as well ACTFL’s recommendation of no more than 15 students in a foreign language class (whether FTF or online). Based on the results of the present study, it appears that large online language class sizes prevent the instructor from doing that which s/he knows or believes to be pedagogically effective. Though it might be possible to argue that certain technology tools may be exploited for the purpose of maximizing instructor efficacy and efficiency, it should be apparent that there is a threshold for optimum effectiveness. To ignore these limitations is a disservice to students. Moreover, after taking their language class online, over 28% of participants in the large-scale course stated that they would not take another language class online while all of the participants in the small-scale class indicated that they were likely to take an online language course in the future. Further, many of the comments from students who were enrolled in the large-scale course (cap 125) were negative and reflected students’ overall dissatisfaction with the course, while the vast majority of student comments from the small-scale course (cap 25) were positive and demonstrated students’ satisfaction with the online language course. Thus, the qualitative data from the student questionnaire in the present study appear to support the assertions of Kingma and Keele (2006) who found that student satisfaction with online courses is maximized at 23 students and begins to decline steadily with increased enrollment. In addition, the quantitative analysis revealed that there was a statistically significant difference in students’ level of satisfaction with their online language learning experience, with students in the small-scale course demonstrating significantly higher levels of satisfaction than their counterparts in the large-scale course. This finding is contrary to Burruss et al. (2009) who found that class size did not affect student satisfaction with their courses or instructors. Both the quantitative and qualitative results of the present study indicated that students in these courses had dramatically different experiences.

The qualitative data also demonstrated that students in the large-scale course did not feel that there was enough teacher presence to support their online language learning. This is evident from student comments that stated that the instructor could be “more involved with the subject” or that the course required students to “teach themselves” the language. In addition, the instructor of the large-scale course also indicated that she could not support students’ language learning sufficiently because most of her time was taken up by administrative tasks such as answering students’ emails and administering make-up exams. The instructor of the large-scale course also reported that
evaluating students’ work and creating Web-based instructional mate-
rials were also very time consuming, which left little time to interact with students in the target language (either synchronously or asyn-
chronously). Conversely, the instructor of the small-scale course stated that the small class size allowed her to facilitate the development of students’ listening and speaking skills through synchronous and asynchronous interaction in the target language. Goertler (2011) and Pelz (2004) asserted that teacher presence is paramount in an online language class, and the results of this study demonstrate that a smaller online class size may facilitate the instructor’s ability to support student learning and appear present in the course.

One way in which student experience suffers when class size exceeds optimal levels is the diminishing quality and quantity of novice–expert interactions. It is believed that these interactions, in particular, are of special import in language acquisition because they offer learning affordances that are especially conducive to the co-construction of cultural, linguistic, and pragmatic knowledge (Lantolf & Thorne, 2006). Furthermore, the findings of the study revealed that peer-guided affordances are drastically reduced as well. As the language acquisition process requires a high level of student-teacher and student–student interaction in the target language (ACTFL, 2010; Long, 1981, 1985, 1996; Mackey, 1999), the findings of Orellana (2006) would suggest that a small class size of 15.9 students would be optimal to achieve the highest level of inter-
student interaction plays perhaps the pivotal role in student attitudes about online learning and distance education” (p. 532). Thus, the limited student–teacher interaction in the large-scale course may have contrib-
uted to students’ dissatisfaction with their online language learning experience.

Beyond limiting the quality and quantity of student–student and student–instructor interaction, the present study revealed that instructor expertise was wasted when class size limited the docent’s ability to orchestrate learning or create an environment conducive to it. When an educator spends the majority of his or her time responding to student e-mails, calls, and other queries unrelated to the course content – but necessary for the successful completion of it – he or she undoubtedly becomes an under-utilized human resource. Having sufficient administrative and technological support available to the instructor could alleviate some of the burden that prevents the instructor from implementing the plans that he or she is uniquely prepared to carry out.

One of the interesting findings of the present study is that students had their own ideas about what is necessary for language acquisition to take place in a Web-based learning environment. At times, these assumptions were erroneous, but some were accurate as well. For this reason, it may be helpful for teachers of online language classes to offer students the rationale behind the pedagogy, tools, and curricular choices that have been made for their particular learning contexts, as doing this might create an environment that is more conducive to learning and students’ erroneous assumptions could be corrected.

Participants in this study also revealed that, for some students, the online environment may be more inviting than a FT course, and thus, more propitious for the facilitation of language learning. Although there is evidence in the literature to suggest that online learners may experience anxiety due to the permanent record of their postings (Lui, 2008; Tu, 2002), there was no indication that any of the participants in the present study experienced increased anxiety based on their responses to the Student Questionnaire. Participants’ responses on the Student Questionnaire revealed that some students preferred the online language learning environment, in particular the students enrolled in the small-scale course. The quantitative results also support this finding, as students in the small-scale course only rated their online language learning experience as excellent or very good, and no participants in the small-scale course rated their learning experience as fair, poor, or very poor, which is remarkable even for a FT course. Conversely, students in the large-scale course had markedly dif-
erent perceptions about their online course. Over half of these partic-
ants (58.50%) rated their online language learning experience as fair, poor, or very poor. It is clear that curricular choices, administra-
tors’ instructional paradigms, and over-sized classes often prevent online language instruction from achieving an equitable experience. This is owed to the fact that curricular decisions often appear to be made with cost, and not efficacy, in mind. In sum, the exploratory study described here signals that a smaller class size is more optimal for online language learning, as perceived by both instructors and students alike.

6.1. Limitations

As with all studies, the present study was not free of limitations. Namely, the number of student participants from the small-scale course was only seven. Having closer to an equal number of partici-
ants from the large- and small-scale courses would have been pref-
erable, especially for the quantitative analysis. Second-semester Spanish was only offered online once per year at the satellite campus that capped enrollment at 25 (small-scale course). If the researchers had more time and resources, they would have been able to collect data over a longer period of time in order to ensure that more partic-
ants from the small-scale course were included in the analysis. However, since the primary focus of the present study was on the qualitative analysis, the researchers opted not to wait an additional year to collect more data.

In addition, there may have been a teacher effect in the present study, as two different instructors taught these courses. Future studies could replicate this one with the same instructor teaching both the large- and small-scale courses. This was not feasible in the present study because the courses were offered at different campuses, and course instructors were already in place when the data was collected. Although there were two different instructors in the present study, they both had similar backgrounds, their beliefs about language teach-
ing and learning were aligned, and they both had similar experience with language learning technologies, Blackboard CMS, and online peda-
gogy. Moreover, both courses were designed primarily as self-study courses where students completed weekly modules on their own while receiving pedagogical support from their instructors. In addition, the instructional materials utilized in both courses were identical. These factors likely helped to mitigate any teacher effect.

Additionally, the qualitative analyses described above would have been enriched by the completion of semi-structured individual stu-
dent interviews. Such conversations would have permitted partici-
ants to elaborate on their experiences. In so doing, they might have further elucidated the nature of the online learning experience in language courses of differing sizes. Unfortunately, this step was not possible in the time-frame or scope of the present study. Future studies employing a non-anonymous questionnaire could include this type of dialogue with individuals whose responses are especially replete, interesting, or enlightening.

6.2. Suggestions for future research

More studies are needed that examine online language courses and class size. This is an urgent need, as the growth rate for online enroll-
ments in higher education is 21% per year (Allen & Seaman, 2010) and curricular decisions regarding class size have the potential to adversely affect learning outcomes for students in large-scale online language courses. Future studies could investigate class size and online language courses at varying levels (novice through advanced). These studies could also measure and compare the linguistic gains of students in both large- and small-scale courses. Also, the technology tools and re-
sources that are used to facilitate large- and small-scale courses could be examined by future studies, as it may not be feasible to use some

Conversely, students in the large-scale course had markedly dif-
erent perceptions about their online course. Over half of these partic-
ants (58.50%) rated their online language learning experience as fair, poor, or very poor. It is clear that curricular choices, administra-
tors’ instructional paradigms, and over-sized classes often prevent online language instruction from achieving an equitable experience. This is owed to the fact that curricular decisions often appear to be made with cost, and not efficacy, in mind. In sum, the exploratory study described here signals that a smaller class size is more optimal for online language learning, as perceived by both instructors and students alike.

6.1. Limitations

As with all studies, the present study was not free of limitations. Namely, the number of student participants from the small-scale course was only seven. Having closer to an equal number of partici-
ants from the large- and small-scale courses would have been pref-
erable, especially for the quantitative analysis. Second-semester Spanish was only offered online once per year at the satellite campus that capped enrollment at 25 (small-scale course). If the researchers had more time and resources, they would have been able to collect data over a longer period of time in order to ensure that more partic-
ants from the small-scale course were included in the analysis. However, since the primary focus of the present study was on the qualitative analysis, the researchers opted not to wait an additional year to collect more data.

In addition, there may have been a teacher effect in the present study, as two different instructors taught these courses. Future studies could replicate this one with the same instructor teaching both the large- and small-scale courses. This was not feasible in the present study because the courses were offered at different campuses, and course instructors were already in place when the data was collected. Although there were two different instructors in the present study, they both had similar backgrounds, their beliefs about language teach-
ing and learning were aligned, and they both had similar experience with language learning technologies, Blackboard CMS, and online peda-
gogy. Moreover, both courses were designed primarily as self-study courses where students completed weekly modules on their own while receiving pedagogical support from their instructors. In addition, the instructional materials utilized in both courses were identical. These factors likely helped to mitigate any teacher effect.

Additionally, the qualitative analyses described above would have been enriched by the completion of semi-structured individual stu-
dent interviews. Such conversations would have permitted partici-
ants to elaborate on their experiences. In so doing, they might have further elucidated the nature of the online learning experience in language courses of differing sizes. Unfortunately, this step was not possible in the time-frame or scope of the present study. Future studies employing a non-anonymous questionnaire could include this type of dialogue with individuals whose responses are especially replete, interesting, or enlightening.

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sources that are used to facilitate large- and small-scale courses could be examined by future studies, as it may not be feasible to use some
tools in large-scale courses and others may facilitate the instruction of large numbers of students, either synchronously or asynchronously. Another area of interest for future research is the relationship between online language classes and end of semester evaluations. Since evaluations factor into decisions for promotion and tenure, instructors may be unwilling to teach language classes online if they believe that their student evaluations will be adversely affected due to the online environment. Finally, the RAIQ (Roblyer & Wiencke, 2003) could be administered to online language instructors from a variety of contexts (community college, 4-year public, private, etc.) to determine the actual and optimal level of interaction that is perceived to be necessary for successful online language learning, which has implications for class size.

7. Conclusions

Based on the results of this study and on the recommendations of ACTFL (2010), it appears that online language class sizes should be as small as FFT course sections. Of note, Horne’s (1970) recommendation of small class sizes for intensive language learning still seems to be relevant for today's online learners. The findings of the present study suggest that pedagogy suffers and students may become frustrated, unsuccessful language learners in large-scale online language classes with only one instructor. The practice of supersizing online language classes without sufficient pedagogical support is not recommended, especially for institutions of higher education that espouse the philosophy of preparation for the age of globalization. Even in tough economic times, it is imperative that the principles of good pedagogy and best practices in online teaching not suffer because of overzealous efforts to increase enrollment while minimizing institutional costs. Tomé (2006) cautioned that online courses should not be used as a panacea for increasing student enrollment and tuition revenues at the expense of increasing instructor workload. Further, Tomé (2006) observed that online delivery of instruction is more time consuming than FFT delivery (especially since online learners tend to expect near real-time responses from their instructors every day of the week, at any time of the day or night), which underscores the need for smaller online class sizes.

In addition, online language instruction should provide ample opportunities for student–student and, in particular, student–teacher interactions, as expert–novice interactions are essential for successful language learning to take place (Lantolf & Thorne, 2006), something which may not be practical in large-scale courses. Further, teachers of large-scale online language courses may not be able to provide learners with timely feedback and sufficient opportunities to practice listening and speaking skills synchronously and/or asynchronously. Finally, instructors sometimes need to educate students about the rationale behind pedagogical and curricular decisions that may conflict with students’ preconceived notions of what is required for successful language acquisition to take place. Failing to correct such misconceptions may also end in a frustrating experience for both parties. Needless to say, when administrators make curricular decisions divorced from their faculties’ intentional course design and development efforts, such explications could lead only to contention.

While these conclusions are tentative and more research is needed before any definitive claims can be made, they highlight the distinct nature of online language teaching and learning from other forms of distributed education. While class size may not be an issue in the online classes of some academic fields and programs, it certainly appears to influence both instructor and student satisfaction with the online language teaching and learning experience.

References


