**Blended Learning in an ESL Class: A Case Study**

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**ABSTRACT**

Blended learning, a combination of face-to-face and online instruction, is seen as one of the most important recent advances in education (Thorne, 2003). While previous CALL studies have looked at various aspects of blended learning in foreign and second language classes, they have not allowed for a sufficient description of what actually happens in an environment of a blended learning class. In order to further advance the research in this area, a framework proposed by Neumeier (2005) was used to describe a technology-enhanced blended-learning model. The case study described here examined an intermediate ESL listening and speaking class in an intensive English program. The class used a commercially available learning management system (LMS), to combine face-to-face classroom learning (face-to-face mode) and online learning in the computer lab and for homework (CALL mode). The main findings of the study indicate that all language skills can be successfully integrated into both modes. These results can inform the design and implementation of new blended learning models as well as the comparison with the existing models.

**KEYWORDS**

Blended Learning, Technology-enhanced Course, Online Learning, English as a Second Language, Computer-based Instruction, Case Study

**INTRODUCTION**

At the beginning of the 21st century it may be hard to imagine what language teaching and learning will be like in the next one hundred years, but some authors believe that much of our future is closely connected to blended learning. Thorne (2003) claims that blended learning could be one of the most important educational advances of this century, while Hauck and Stickler (2006) see it as an answer to problems in higher education instruction.

According to Thorne (2003), blended learning “blends online learning with more traditional methods of learning and development” (p. 2). Although it may seem like a new concept, “the approach of blending Computer-assisted Language Learning (CALL) applications with face-to-face teaching and learning is as old as CALL itself” (Neumeier, 2005, p. 163). That is why it is surprising, Neumeier continues, that CALL as a field still lacks qualitative research on blended learning. This study attempts to add to the understanding of research methods of blended learning by (a) describing a blended ESL class using parameters for blended learning design (Neumeier, 2005) and (b) employing a case study methodology.

The literature offers many different practical definitions of blended learning (Bliluc, Goodyear, & Ellis, 2007). This article examines technology-enhanced blended learning, defined here as face-to-face teaching and learning supplemented by an online CALL component delivered through a learning management system (LMS). In this blend, instead of five classroom meetings a week, students met in the classroom four times a week and spent the fifth contact hour in the computer lab working on CALL materials. CALL materials were also assigned for
homework. The next section examines the framework used in the analysis and reviews the literature on blended learning.

**BLENDED LEARNING**

*Framework for the Design of Blended Learning*

The framework for examining blended learning used in this study is that of Neumeier (2005). The framework consists of six parameters: (a) mode, (b) model of integration, (c) distribution of learning content and objectives, (d) language teaching methods, (e) involvement of learning subjects (students, tutors, and teachers), and (f) location. According to Neumeier (2005), the two major modes in blended environments are face-to-face and CALL. The mode which guides learners and where they often spend most of the time is called the lead mode. Sequencing and negotiation of content is also done in the lead mode.

The second parameter, model of integration, is related to the obligatory or optional nature of activities. Moreover, level of integration is connected to the sequencing of modes, which can be alternating, parallel, or overlapping to name just a few. For example, the face-to-face mode can alternate with a CALL submode (such as message board) or the message board can be available throughout the course parallel to the other submodes. The decision on how to sequence activities can be based on the degree of transactional distance defined as the “physical distance that leads to a communication gap” (Moore and Kearsley, 1996, p. 203). Neumeier gives an example of a blended model in which an activity with a low degree of transactional difference, a group face-to-face discussion, was done after individual work on a CD-ROM.

Parameter three, distribution of learning content and objectives, can be implemented in two ways: parallel or isolated. Parallel distribution allows a certain language skill to be incorporated and practiced in both modes. Neumeier’s blended course—Jobline, which prepares students to apply for a job in English—uses isolated distribution because speaking was only practiced in the face-to-face mode (Neumeier, 2005).

Language teaching methods, parameter four, are influenced by online materials, the online tutor, and the face-to-face teacher. Neumeier (2005) claims that the CALL mode is often considered limited in comparison to face-to-face teaching regarding the range of teaching methods; therefore communicative language teaching methods should be employed to counterbalance CALL mode limitations.

Involvement of learning subjects, parameter five, refers to types of interaction that can take place in the blended environment. In addition to the two major interaction patterns, human-to-human and human-to-computer, there could be a number of variations (e.g., human-to-human through computer). Another descriptor of this parameter is teacher and learner roles. In the blended environment both teachers and students assume new roles, so teachers can become online tutors and students more autonomous learners.

The final parameter, location, refers to the physical space where learning takes place. In addition to traditional locations such as classroom and home, new technologies (such as mobile phones) will allow for learning to take place elsewhere.

*Previous Research on Blended Learning*

Empirical studies that investigate the use of blended models with language learners can be
divided into comparison (Adair-Hauck, Willingham-McLain, & Youngs, 1999; Barr, Leakey, & Ranchoux, 2005; Chenoweth & Murday, 2003; Chenoweth, Ushida, & Murday, 2006; Echavez-Solano, 2003; Green & Youngs, 2001; Scida & Saury, 2006;) and noncomparison studies (Bañados, 2006; Murday, Ushida, & Chenoweth, 2008; Stracke, 2007; Ushida, 2005). Comparison studies examine the effectiveness of blended learning by comparing blended instruction (face-to-face together with CALL instruction) with traditional instruction (face-to-face without CALL instruction). Noncomparison studies examine blended learning program design and implementation, and student and teacher attitudes towards blended learning. Participants in the comparison studies were students of French, Spanish, and German who received instruction either in the traditional class (control groups) or working on computer-based or web activities in addition to the traditional class (blended learning groups). The participants in the noncomparison studies were students of English as a foreign language, Spanish, and French taking blended learning classes.

The blended learning classes in all the studies combined two modes: face-to-face and CALL. The location of the face-to-face mode was the classroom and the CALL mode the computer lab or student home. The technology used in the CALL mode included CALL programs, learning management systems (LMSs), and the web. Most of the studies used LMSs (WebCT or Mallard) to deliver instruction, sometimes in conjunction with computer-mediated communication tools.

The authors of the studies paid attention to the integration of modes, the second parameter in Neumeier’s framework, by making some activities obligatory. Some such as Scida and Saury (2006) took advantage of CALL technology features to set deadlines for grammar and vocabulary exercises so students would complete them in a timely manner. Although the issue of integration was considered in the course design, the students in Chenoweth et al. (2006) reported needing more support from the instructor in addition to a more detailed schedule of assignments and deadlines (Murday et al., 2008). Some students observed that lessons and exercises were not connected, indicating low levels of integration as perceived by the end users. Lack of connection between classroom and individual work was one of the reasons why some students dropped out of blended French and Spanish classes that employed face-to-face instruction and individual study with a CALL program (Stracke, 2007). All of these findings underscore the need to provide examples of well-integrated modes as well as describe the features that make the integration successful.

The distribution of learning content, the third feature of blended environments, was influenced by the type of technology employed in the CALL mode. For example, in Adair-Hauck et al. (1999) students did not work on speaking tasks in the CALL mode because the CALL programs they were using in the lab targeted only reading (French Reader) and grammar and vocabulary (Dasher). Consequently, speaking was practiced only in the face-to-face mode. Similarly, the web activities in Green and Youngs (2001) involved reading on the internet and writing, so listening and speaking could not be practiced. As a result, in Adair-Hauck et al. and Green and Youngs, the distribution of learning content was isolated with certain skills practiced only in one of the modes. In contrast, in Barr et al. (2005) and Bañados (2006) students practiced speaking both in the CALL mode (role plays with the computer program) and face-to-face mode (class discussions), making the distribution parallel. Given the nature of the CALL task in Adair-Hauck et al. and Green and Youngs, it may not be surprising that students expressed concerns about the development of their speaking and listening skills in the blended class. However, a similar concern was raised by learners in Chenoweth and Murday (2006) who had weekly text chat sessions in addition to small group meetings with the instructor. These results indicate the need to rethink the CALL tasks especially given the new possibilities for oral production that technology affords.
Due to the way the courses were set up, some blended learning groups had only online materials (Chenoweth et al., 2006; Stracke, 2007). Student interviews showed that the lack of printed materials presented a problem for some of them (Chenoweth et al., 2006; Murday et al., 2008; Stracke, 2007). For example, learners in Chenoweth et al. reported printing out online materials and wished they had a paper textbook.

While language teaching methods, the fourth of Neumeier’s parameters, were mentioned in the description of CALL modes, most of the authors did not specifically address the teaching methods used in the face-to-face mode. The only three exceptions are Barr et al. (2005), Adair-Hauck et al. (1999), and Echavez-Solano (2003). For example, Barr et al. mentioned that participants had group discussions and conversations in class, while Adair-Hauck et al. reported that students did in-class speaking tasks.

The next parameter, involvement of learning subjects, Neumeier operationalized through types of interaction and participant roles. This parameter was often not addressed in the blended learning studies. Ushida (2005) briefly mentioned that different teachers utilized different types of interaction (teacher-class, teacher-student, student-student) depending on the purpose of face-to-face meetings. Participant roles were investigated in Adair-Hauck et al. (1999) and Bañados (2006) who addressed the adjustments both teachers and students had to make in blended classes. Teachers needed to learn many new skills such as how to integrate materials, use hardware and software, and troubleshoot computer problems. Students needed to learn the new technology, but also learn to be autonomous learners. Finally, Ushida and Murday et al. (2008) reported on the direct relationship between student motivation and student progress and stressed the importance of students taking responsibility for their learning. The next section explains how the findings of these studies influenced the design of the present study.

**Blended Learning Model in this Study**

Building on the results of previous research, this study investigates a blended model in a listening and speaking ESL class that used LMS technology for the first time. This particular class was chosen because oral skills were a concern for many students in blended classes (Chenoweth & Murday, 2006; Green & Youngs, 2001). Additionally, new technology features of the LMS allowed for oral skill practice in the CALL mode. Learners were provided with a printed textbook with some materials both in the book and online as a way to address the issue of having to print exercises to use for future reference (Chenoweth et al., 2006).

**RESEARCH QUESTIONS**

The purpose of the study is to investigate the blended learning environment in an ESL class in which the use of online CALL materials delivered through a commercially available LMS creates the blend. The following research questions guide the study:

**Question 1: How is the blended learning model used?**

The first research question addresses the blended model in terms of parameters proposed by Neumeier (2005). Although blended learning has been investigated in CALL, the review of literature indicated insufficient information about materials, teaching methods, patterns of interaction, and participant roles. Without understanding these features, it is difficult to create new and effective models.
**Question 2: How are the two modes, face-to-face and CALL, integrated?**

Since previous research has highlighted the importance of integration of modes (Bliuc et al., 2007; Neumeier, 2005; Stracke, 2007), this question explores the connection made between the CALL and face-to-face parts of the class. In particular, episodes that pointed to the integration of modes and teacher and student feedback were collected to determine the level and success of integration.

**METHODS**

**Research Methodology**

A case study approach was taken in this study. Case study research has been used in different areas of applied linguistics for the last thirty years (Duff, 2008). Although they do not abound in CALL, case studies can be found (see Lam, 2000; Murray, 1999). These works indicate that the case study has its place in CALL when a deeper understanding of technology use by individuals, groups, and programs is warranted.

Eisenhardt (2002) defines case study as “a research strategy which focuses on understanding the dynamics present within single settings” (p. 8). As a qualitative approach, case study strives to understand situations in their uniqueness as a part of a larger context and to provide in-depth understanding of a phenomenon using multiple sources of information (Merriam, 2002). The case under investigation here is a blended learning ESL class situated within a broader context of an English language program at an institution of higher education.

Yin (2003) distinguishes four types of case study designs based on the number of cases, contexts, and units of analysis. This study described here uses a single-case (holistic) design because it focuses on one class, which represents its unit of analysis, within the context of one language program. Since each case needs to be a bounded, integrated system (Merriam, 2002), the boundaries of the case are defined as the beginning and end of the 9-week period over which the case was studied. The components of the case include participants (the teacher and students), materials (online and textbook materials), and new technology (LMS).

The rationale for the choice of a single case is its uniqueness since the class is the first one to use this technology-enhanced blended-learning model in the program. The case study approach also gives an intensive description and analysis of the blended learning class (Merriam, 2002). This intensive description, which was missing from the previous literature on blended learning, is achieved here by using multiple sources of evidence: interviews and direct observations of class and lab sessions (Yin, 2003). In addition to qualitative sources of evidence, case studies can also include quantitative data (Duff, 2008; Eisenhardt, 2002; Yin, 2003); this case study used student surveys to quantify student responses. This triangulation of methods made possible by multiple data collection procedures serves to strengthen the reliability of the findings of the study.

**Setting and Participants**

**Setting**

The study was conducted in an intensive English program (IEP) at a large public university in the US. In addition to classrooms and offices, the IEP contains a computer lab equipped with 20 computers, internet connections, and language learning software. There are five rows of four computers facing the white board and the instructor’s computer at the back.
**Students**

Nineteen students participated in the study. The majority (17) were originally from China, and the other two were from Korea. Fourteen of the Chinese students were male, three were female, and both Korean students were female, for a total of 14 males and five females. Thirteen students were new arrivals and had spent less than a month in the US at the time of the first survey in the study (see student survey 1 in the Appendix). The other six had been in IEP the semester(s) before, but none of them had been studying English in the US for more than a year. Years of studying English in the native country ranged from 2 to 13 with the mean of 6.4 years and median of 6 years.

Students' initial placement scores ranged from 380 to 503 on the paper-based version of the TOEFL test, with the mean score of 438, median of 440, and the standard deviation of 32. In survey 1, students indicated their overall English level as beginner (5 students), lower intermediate (7 students) and intermediate (7 students). Students also evaluated their own oral skills on the scale of 1 (poor) to 10 (excellent). On average, they rated their speaking skills 4.89, listening skills 5.05, and pronunciation 5.11. These data indicate that students were intermediate-level English learners.

Survey 1 also asked students about computer use. The survey results showed that 50% were very confident or confident about computer use, 39% were somewhat confident, and 11% were a little confident. No student indicated not being able to use a computer. All students except one owned a computer and tended to spend between 1 and 8 hours a day using a computer, average of 3.8 hours per day. Additionally, 74% of students had previously used computers for English study. The first two lab meetings were devoted to student training on how to use online materials, an important step in familiarizing participants with the CALL application (Hubbard, 2004).

**Instructor**

The instructor is an experienced ESL teacher who has been teaching for 20 years both in the US and abroad. He has been affiliated with the IEP for 6 years and has taught skills courses at all levels. The instructor described himself as a daily computer user who was comfortable with computers and had previously used them in his teaching. The author also trained the instructor how to assign activities and grades, and provide spoken and written feedback in the LMS.

**Materials**

The class worked with online materials, called MyNorthStarLab, that are delivered through the LMS. In addition, the class used a printed textbook NorthStar intermediate level (3rd ed.). The online materials and the printed textbook were both developed by Pearson Longman. The textbook has 10 chapters, and each chapter contains the following sections: listening, speaking, pronunciation, vocabulary, grammar, and critical thinking. The online materials follow the structure of the book, are password protected, and are made accessible to students enrolled in the class. Approximately 20% of online content are the same as that in the textbook; the other 80% are new materials, media, and assessments developed for MyNorthStarLab.

Unlike with other LMSs (WebCT or Moodle), the instructors using MyNorthStarLab do not have to create their own course from scratch or import the outside activities into the LMS. In MyNorthStarLab, instructors choose the activities to assign from the content provided by the publisher and can, if they wish, create new activities within the platform. This greatly
decreases the time spent on course set-up compared to the time it would take instructors to create all the content by themselves.

In MyNorthStarLab, there are two types of activities based on the source of feedback to be provided to students: machine graded and teacher graded. Machine-graded activities offer immediate feedback, scores, and allow several attempts by students. The scores are automatically reported in the grade book so students can monitor their progress. Vocabulary, grammar, and most listening activities are machine scored. On the other hand, teacher-graded activities are open ended and require the teacher to assign scores. The teacher can write comments or respond orally to student work. All speaking and pronunciation activities and several listening activities are teacher scored. To record and play back their voices, students and teachers use the Wimba recorder, a plug-in feature within the system.

Data Collection Methods and Analysis

Data collection methods include teacher interviews, class and lab observations, and student surveys. One semistructured interview was conducted with the teacher at the beginning and another towards the end of the study. A total of 10 observations (four class and six lab) were conducted over 9 weeks. The author wrote detailed notes about everything that transpired in the class or lab. Later, all interviews and observations were transcribed/typed. The author read the transcripts several times and noted the topics that emerged. The topics were then coded using Neumeier’s (2005) six categories.

Three student surveys were used to solicit feedback from all students in a more efficient manner than could be done with individual interviews. All survey questions were close ended, but the second and third surveys provided a space for students to add additional comments, which were very helpful in understanding some of their responses. Survey 1, administered before learner training in week 1, asked about students’ background: demographics, English proficiency and test scores, and computer use. The second survey was administered after students had been working with the LMS for seven weeks and had completed Units 1 and 2. Answers to survey 2 were examined, and individual student responses that indicated disagreement or strong disagreement were flagged. Open-ended questions in survey 3 asked students to explain some of the answers from survey 2. In addition, all students completed 11 multiple-choice questions in survey 3 about their satisfaction with and possible offering of online materials and blended classes in the future. The third survey was given at the end of the study in week 9 after the completion of Unit 3. The student survey answers were tabulated and used to triangulate findings from teacher interviews and class/lab observations.

RESULTS AND DISCUSSION

Blended Learning Model

The first research question addressed the blended model using parameters from Neumeier (2005): mode, distribution of learning content and objectives, language teaching methods, involvement of learning subjects (students, tutors, and teachers), and location.

Mode

In this study, the face-to-face mode consisted of meetings in the classroom four days a week, and the CALL mode consisted of meetings in the computer lab one day a week. The participants spent 74% of time in the face-to-face mode, and 26% of time in the CALL mode (see Table 1).
Table 1
Distribution of Modes in the Blended Model

<table>
<thead>
<tr>
<th></th>
<th>Face-to-face mode</th>
<th>CALL mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Classroom</td>
<td>Computer lab</td>
</tr>
<tr>
<td>Contact days</td>
<td>Mon, Tue, Wed, Fri</td>
<td>Thu</td>
</tr>
<tr>
<td>Contact times (min)</td>
<td>Mon, Wed, Fri = 50 min each; Thu = 80 min</td>
<td></td>
</tr>
<tr>
<td>Total contact time</td>
<td>230 min (74%)</td>
<td>80 min (26%)</td>
</tr>
<tr>
<td>Percent</td>
<td>74%</td>
<td>26%</td>
</tr>
</tbody>
</table>

Based on observations, learning goals were established and learning organized in the face-to-face mode—two of Neumeier’s criteria for choosing this mode as the lead mode. Finally, students spent most of the time in the face-to-face mode. The modes ran parallel during the course. Unfortunately, the students were not surveyed about the amount of time spent on CALL activities for homework. Thus, it could be speculated that the overall CALL-mode time might have been a little higher.

Distribution of learning content and objectives

In the face-to-face mode, students worked on the textbook and completed all vocabulary, listening, grammar, speaking, and pronunciation activities in the unit of the textbook. In the CALL mode, listening, speaking, pronunciation, grammar, and vocabulary activities were practiced in the LMS. Students worked on the activities individually in the lab and for homework. Although MyNorthStarLab contained asynchronous communication features (email and discussion board), they were not used. The instructor assigned speaking and pronunciation activities in which students recorded their voices in the lab and later listened to students’ recordings to provide feedback and a grade. The instructor assigned the activities in the order they appeared in the LMS, which, again, followed the textbook closely. When asked about the choice of activities to cover in the lab, the course instructor explained:

I tend to follow the unit in the book as things are presented in the book. I don’t tend to jump around too much. I’ll kind of follow the unit. Just like we are working through a book but just add the extra exercises in. (Teacher interview 2, p. 4)

Learning content was distributed in the parallel way because the online materials offered presentation and practice of the same skills as in the textbook and closely followed the organization of the textbook. The availability of the recording feature allowed students to practice speaking and pronunciation, skills that are usually difficult to practice in the CALL mode, and even allowed for the type of pronunciation activities that were impossible to do in the classroom. For instance, in the second teacher interview, the instructor explained that the online exercises offer unique opportunities for individual pronunciation work and feedback that can not be done with 18 or 20 students in the classroom. He said, “We could not do the individual pronunciation, for example. That would be impossible” (Teacher interview 2, p. 5).

The results from survey 2 about the quality of online pronunciation and speaking practice show that 81% and 87% of students, respectively, thought that such practice was helpful (see Table 2). When students were asked about the helpfulness of online activities for the develop-
ment of listening, speaking, and pronunciation in survey 3, 94% agreed or strongly agreed that MyNorthStarLab exercises helped them with listening, 88% with speaking, and 75% with pronunciation. The new type of tasks available in the LMS allowed for a successful practice of oral skills in the CALL mode, a major student concern in earlier studies (Adair-Hauck et al., 1999; Chenoweth & Murday, 2006; Green & Youngs, 2001).

Table 2
Students’ Views of Online Listening, Speaking, and Pronunciation Activities

<table>
<thead>
<tr>
<th>Survey question</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recording my voice and having the teacher listen to it is a good way to practice pronunciation. (survey 2)</td>
<td>31.0%</td>
<td>50.0%</td>
<td>12.5%</td>
<td>0.0%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Recording my voice and having the teacher listen to it is a good way to practice speaking. (survey 2)</td>
<td>25.0%</td>
<td>62.0%</td>
<td>6.0%</td>
<td>0.0%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Working on online activities helps me with listening to English. (survey 3)</td>
<td>31.0%</td>
<td>63.0%</td>
<td>6.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Working on online activities helps me with speaking English. (survey 3)</td>
<td>19.0%</td>
<td>69.0%</td>
<td>12.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Working on online activities helps me with pronunciation of English. (survey 3)</td>
<td>37.5%</td>
<td>37.5%</td>
<td>19.0%</td>
<td>0.0%</td>
<td>6.0%</td>
</tr>
</tbody>
</table>

**Language teaching methods**

The instructor was asked about the fourth parameter, language teaching methods, at the beginning of the study. His response was

> As far as methods, it is, of course, very communicative. I try to engage the students actively and try to get everybody actively involved in classes. I try to create a non-threatening, or comfortable atmosphere in the class to try to encourage them to feel relaxed and more comfortable, and thus, more willing to contribute to the class, to participate. (Teacher interview 1, p. 2)

While doing classroom observations the author felt that the instructor created a comfortable atmosphere and was actively engaged with the students almost to the point of “right up front and in their faces” as he himself put it in the first interview (p. 3). For example, in the third classroom observation the author noted he went around the class and between the desks, so he could be close to each individual student and help with his/her work (third classroom observation, October 20, p.2).

Out of four classroom observations conducted, three included student pair and group work. During the first classroom observation (September 16, p. 2), students were put in pairs and given a newspaper to examine. They were asked to find an advertisement and describe it to
the rest of the class. Group work during the fourth classroom observation (October 20, p. 2) involved a textbook task of giving advice using modal verbs. In addition, in the second interview, the instructor mentioned that the class had completed a role play in unit 2 (this activity was not observed). The instructor described the role play as an enjoyable activity that the students liked.

During the second classroom observation (September 23, p. 3), pairs of students worked on a textbook exercise and described pictures to each other. Sixteen students present that day were given key verbs to describe the pictures and told to use simple present and progressive tenses correctly. Four pairs of students started working right away; one student described the picture and the other listened and corrected verb tense errors. Some pairs were slow to get started, and the teacher went around and prompted them. He also listened to pairs and corrected them. Some pairs were silent or spoke in their native language but switched to English when the teacher approached. To make sure everyone had an equal chance to speak, once all pairs had finished, the teacher called on eight students to describe the pictures in front of the whole class.

A more broadly based engagement with a speaking task was noted in the fifth lab observation. Students were all recording their answers at the same time. On the observation sheet the author wrote: "It seems to me that this is a good opportunity for students to speak. Some of them do not say a lot in the class and this is a chance for them to practice." (October 16, p. 2). Similarly, the author observed seven students preparing notes before recording a speaking task (third lab observation, September 25, p. 2). Working on speaking tasks in the lab may have prompted students to engage with the task more than they would have during class pair and group work.

Class observations showed that the instructor sometimes repeated the activities done in the lab again in class. For example, the exercise about modals done in MyNorthStarLab was checked in the class, and further explanation about modals and their uses was given (fourth class observation, October 20, pp. 1-2). In the second interview the instructor explained that he wanted to provide students with more exposure and practice and to reinforce what they had previously done. In class, he explained that they were repeating the activity because some students were absent (first class observation, September 16, p. 3).

**Involvement of learning subjects**

*Interaction patterns.* The issue of involvement of learning subjects is directly connected to language teaching methods. The analysis of observations revealed that interaction patterns in the classroom were mainly teacher to individual student but also with student-student interaction in pair and group work.

The instructor directs the question to the whole class, and then calls on individual students to answer. He reads the question and calls a name. He then comments on what they have said or repeats their answer if he thinks others have not heard it. (Second classroom observation, September 23, p. 2)

The same interaction pattern was noted during the third classroom observation—a question directed to the whole class would be rarely answered by a volunteer; the instructor usually had to call on a student to answer.
Instances of pair and group work were observed (first class, September 16, p. 2; second class, September 23, p. 3; and fourth class observation, October 20, p. 2). Thus, students had the chance to interact with each other, but how much they took advantage of this opportunity depended on their level of motivation and dedication. According to the teacher, some students were “not showing much interest in doing anything that is class related” (Teacher interview 2, p. 2), while “the committed students have done really, really well” (Teacher interview 2, p. 3). These findings corroborate the conclusions by Ushida (2005) and Murday et al. (2008) about the importance of strong motivation for successful language learning.

The interaction pattern in the computer lab was mainly student-computer. The students worked on the activities individually, and the instructor circulated through the lab, helping students with technical issues and answering questions. In the lab, the instructor was able to focus on assisting individual students more than he could in the classroom.

**Participant roles.** Another characteristic of participant involvement is teacher and learner roles. Neumeier (2005) borrows the following definition of roles from Lam and Lawrence “a role can be defined as what one does or is expected to do in a given environment” (p. 174).

In the first interview, when the instructor was asked about his role in the classroom, he described himself as a facilitator. In the second interview he said the following about his role in the lab:

> In the lab, they are all working as a big group but they are working at the same time individually so I can give more attention to them. ... I think the role is pretty much the same although my duties change a little bit in the lab, because we have technical issues to work through. I monitor more what they are doing in the lab than I can in the class. ... And I don’t do quite as much teaching I think as I do in the classroom unless I see students having a particular problem and then I’ll try to model it or explain the directions again, if I see somebody having difficulties. (Teacher interview 2, pp. 6-7)

This kind of teacher behavior was also noted in lab observations. In the lab, the teacher’s role expanded; in addition to facilitating learning he facilitated the conditions (such as technology) that make learning possible. According to Neumeier (2005), this change of roles is expected as different modes in blended instruction place different requirements on the participants.

The instructor also believed that some students may change their role in the computer lab. He explained:

> Inevitably in class you have people who are not really focused on what they are doing and when they have a computer in front of them and you are walking around making sure they are doing what they are supposed to be doing, it is easier to get everybody on task and focused. And I think just the fact that it is a computer and all the students are happy to use computers. ... I think, in general, they do enjoy it. And they feel they have more control over what they are doing. (Teacher interview 2, p. 11)

These comments suggest that in the lab some less-attentive students may be more in charge of their own learning than in the classroom, especially when the instructor is readily available to help. Finally, presentation of activities on the computer may be an additional incentive for these students to focus on the task.
Location

The last parameter in Neumeier’s list is the location where learning takes place, which in this study was the classroom, the computer lab, and students’ homes. Given the time students spent in each mode, it can be concluded that the classroom was the most frequently used location followed by the computer lab. The amount of homework assigned was not considerable at least based on the 10 observations the author made. The instructor allowed plenty of time in the lab for students to catch up with the missed online work. Therefore, it can be said that student homes were the least frequently used location for study.

Surveys 2 and 3 asked the students about their preferences regarding the access to the CALL mode. The summary of student responses in Table 3 shows that the majority of students (69%) liked to work on the online activities in the computer lab as opposed to 25% who did not. The percentages for homework assignments are slightly lower with 50.5% of students who liked to work on online activities outside of the lab. The preferences for work on online assignments between computer lab and home were split in survey 3 with exactly the same number of students (47%) favoring each location.

Integration of Modes

The second research question examined the model of integration, which, according to Neumeier (2005), includes sequencing of individual modes and level of integration. In this study, sequencing of individual modes was determined by the IEP’s schedule because the computer lab was always available one day a week. When the instructor was asked if lab availability influenced instruction, he said he had to make minor adjustments: “I’m aware of the fact that Thursday is the day that I want them to do numerous activities online. So, I’ll either postpone the start of the lesson until, or I’ll try to time it out” (Teacher interview 2, p. 10). The availability of the lab any day of the week would be a better option, but, given the number of classes
that use one lab, “it would be almost unimaginable luxury at this point” (Teacher interview 2, p. 10). Sequencing of activities in different modes can sometimes be based on the degree of transactional distance (Neumeier, 2005). However, this rationale was not used in the blended class. The instructor “followed the unit in the book” (Teacher interview 2, p. 4) and added online exercises when the class arrived at that point.

Level of integration refers to the flexibility the students have in deciding to work on certain activities; some materials can be made obligatory and others optional. Given the nature of blended learning, Neumeier (2005) writes that the face-to-face phases are often obligatory while some online activities may not be. Giving learners this flexibility presumes that students are autonomous and will take responsibility for their own learning. In this study, all materials were made obligatory by the instructor; students did not have a choice in choosing which activities to complete. In fact, the instructor complained that some students were not putting in sufficient effort into the class, and he had to remind them numerous times to complete the online work. It can be speculated that making activities optional would not have worked well for all the students in this study because many were not seen as autonomous learners by the instructor.

In addition to Neumeier’s view of integration, this parameter was also examined from the perspective of previous findings in blended learning studies since the lack of integration was cited as one of the major reasons why blended models failed to work (Stracke, 2007). This study carefully investigated how class and online work were connected. First, class and lab observations were examined to determine whether the instructor explicitly made connections between the two modes. A number of occurrences of this theme were found in the data. In the class, the instructor always mentioned that he would be assigning MyNorthStarLab activities for homework or lab work and clearly specified when the activities were due. Then, he would log into the LMS and put the activities on the calendar. Additionally, he would remind the students to attend to the feedback he provided on their oral responses. The author noted

[The instructor] gives feedback to the class about a MyNorthStarLab pronunciation activity. He explains the common pronunciation errors and how some students tend to stress the wrong syllable in words: product, rely on, advertisers. He also mentions they tend to leave out “-s” at the ends of words (gives, relies, advertisers). Some students tend to speak very fast and [the instructor] says they should not speak so fast and should slow down because recording is not a race. (Second classroom observation, September 23, p. 1)

On another occasion, the class is working on a listening activity, and the instructor remembers that a lot of students had trouble with the pronunciation of the word “receipt”. He says: “Be careful about it. Many of you did not record it correctly when you did the recording in MyNorthStarLab” (Third classroom observation, October 15, p. 2).

Numerous instances of integration were observed in regards to the progress individual students made (third class, October 15, p. 1; fifth lab, October 16, p. 2; fourth class, October 20, p. 1; and sixth lab observation, November 6, p. 1). The instructor would make a list of students who did not complete assigned exercises and call on them to complete the work. In the second interview, the instructor explained that he liked the LMS feature that tracked student progress and that he could single some students out to make sure they would complete the activities. This LMS feature and the fact that the online activities were designed to “fit the theme of the units well” helped the instructor make a clear connection between the modes (Teacher interview 2, p. 3).
In addition to the data from observations and teacher interviews, student responses to questions about integration were analyzed. Table 4 shows that the majority of students (94% in survey 2 and 88% in survey 3) were able to make a connection between modes, thus indicating that the integration of modes was successfully accomplished.

Table 4
Students’ Views About the Integration of Face-to-face and CALL Modes

<table>
<thead>
<tr>
<th>Survey question</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online activities are connected to what we do in the classroom. (survey 2)</td>
<td>31%</td>
<td>63%</td>
<td>0%</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>I can see the connection between online (MyNorthStarLab) activities and activities done in class. (survey 3)</td>
<td>35%</td>
<td>53%</td>
<td>12%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**CONCLUSION AND IMPLICATIONS**

This study described the technology-enhanced blended-learning model in an ESL class based on Neumeier’s (2005) parameters of course design. It was found that the model successfully integrated modes and distributed learning content. The integration of modes was achieved through the connections the instructor made between the modes, instructor's monitoring of student progress, and his presence during lab meetings. The blended learning class was designed to include online materials which followed the structure of the textbook of the class with some of the materials overlapping in the textbook and LMS. These features further helped with the integration of modes. Moreover, student survey responses showed that the students could see a connection between class work and online work, indicating that the model successfully addressed the problems of integration (Stracke, 2007).

The use of LMS technology allowed for all language skills to be incorporated and practiced in both modes. The speaking and pronunciation tasks in the LMS in which the students recorded their voices and the teacher provided individual feedback addressed previous limitations of oral skills practice in CALL modes (Adair-Hauck et al., 1999; Chenoweth & Murday, 2006; Green & Youngs, 2001). Some evidence suggests that even students who were not very engaged during class pair work would work on speaking tasks in the lab. Student survey data showed that students and the instructor shared the view that online speaking and pronunciation activities added value to instruction because they were helpful and unique. The teacher’s presence and assistance given to students during labs allowed for more individualized instruction than the teacher could provide in the classroom. The teacher also believed that working on online materials in the lab helped less attentive students control their learning better than in the classroom.

While there is certainly room for improvement as the model continues to be developed after its initial implementation described here, the findings can serve as a starting point for the design of other ESL blended learning courses. Moreover, the framework can be used to analyze existing blended learning models in foreign/second language programs at other institutions. Finally, the study showed that descriptive case study research can yield valuable evidence in the investigation of blended learning.
REFERENCES


**APPENDIX**

**Student Survey 1**

**Part I**

1. What is your name?
2. Where are you from?
3. What is your native language?
4. What is your most recent TOEFL score? _______
   - Paper-based (check what kind)
   - IBT
   - I have not taken TOEFL

5. How long have you studied English:
   - in your home country? _______
   - in the US? _______

6. How would you rate your general English proficiency?
   - beginner
   - lower-intermediate
   - intermediate
   - higher-intermediate

7. On a scale from 1 to 10, how would you rate your speaking skills?
   - 1 (poor) 2 3 4 5 6 7 8 9 10 (excellent)

8. On a scale from 1 to 10, how would you rate your listening skills?
   - 1 (poor) 2 3 4 5 6 7 8 9 10 (excellent)
9. On a scale from 1 to 10, how would you rate your pronunciation?  
1 (poor)  2  3  4  5  6  7  8  9  10 (excellent)  

10. How do you learn English best? By... (check all that apply)  
   □ Talking to the teacher in class  
   □ Talking to other students in class  
   □ Doing exercises on the computer  
   □ Doing exercises in the textbook  
   □ Doing homework  
   □ Talking to people outside of class  
   □ Other __________________________  

11. What kind of activities would you like to do in this class?  

Part II  

12. Do you own a computer?  
   □ Yes  □ No  

13. What do you use the computer for? (check all that apply)  
   □ E-mail  
   □ Word Processing (Word)  
   □ Spread sheet (Excel)  
   □ Internet surfing  
   □ Playing computer games  
   □ Communicating with friends and family (for example, Skype, Google Talk)  
   □ Instant messaging (for example, Yahoo Messenger)  
   □ Other ______________  

14. How confident are you about using computers?  
   □ Very confident  
   □ Confident  
   □ Somewhat confident  
   □ A little confident  
   □ Not confident at all  

15. How much time do you spend at the computer per day?
16. Have you used computers for studying English before?  
   □ Yes  □ No  
   If yes, how? (for example, I visited Internet sites with TOEFL exercises)

17. Have you used a content (learning) management system (WebCT, Blackboard, Moodle) before?  
   □ Yes  □ No  
   If yes, for which class?

18. Have you taken an English class that combined learning in the classroom with learning online (on the Internet)?  
   □ Yes  □ No  
   If yes, describe the class.

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