

# **THE EFFECTIVENESS OF BLENDED COURSE INSTRUCTION IN SECOND LANGUAGE LEARNING**

A brief summary  
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## THE PROBLEM

The number of second language students registering in Québec's cégeps continues to increase in both the anglophone and francophone sectors. These students enter cégep with weak language skills that jeopardize their success in all courses. This project examines the effectiveness of blended courses in second language learning, with particular reference to the development of reading and writing skills. Blended courses combine face-to-face classroom meetings with online learning activities.

The digital revolution of the last decade has affected all aspects of our lives: personal, professional and academic. Computer technologies are ubiquitous; we live in a knowledge economy where the prime commodity is no longer a 'product' in the traditional sense, but rather a rapidly expanding body of knowledge. Success in the current economic climate depends largely on a person's ability to manage and contribute to the explosion of information taking place within our society.

To prepare students for this new reality, educators at all levels are exploring the pedagogical applications of information technologies. Most educational theorists see the computer as a tool that has the potential to bring about real changes in teaching practices (Poellhuber and Boulanger, 2001). The process of integrating computer technologies into cégep courses is a process of change that involves many steps, and at any point, the educational institution can either encourage or impede this process of innovation (Poellhuber, 2001).

In an effort to encourage the integration of computer technologies, many cégeps have invested in communication systems such as FirstClass, WebCT and DECclic, which offer functions such as discussion boards, live chat and hosting of teacher web pages. Individual cégeps are constantly upgrading their computer laboratories and networks. For instance, in 1994 the top-of-the-line processor was the 486, and this accounted for 30% of the computers in Québec's cégeps. By 2001, only 3% of the computers in Québec's cégeps had 486 processors, while 40% were running Pentium 4 processors or better (Guay, 2002).

However, despite continued investments, computer technologies are not widely used by teachers as part of their courses. Of the course materials available on the web, most consist mainly of course notes and readings; very few interactive activities are to be found. Few teachers have harnessed the power of computer technologies to develop interactive online activities to complement their face-to-face materials. Nonetheless, anecdotal evidence suggests that a growing number of teachers are eager to exploit the advantages of online learning more fully, but are unsure as to how to proceed. Many are beginning to recognize that "by taking advantage of the pedagogical strengths of on-campus and online teaching, instructors can offer students the greatest chance to discover their strengths and weaknesses as learners" (Chamberlin, 2001). Teachers are becoming more and more aware of the potential of computer technologies to facilitate student learning. But it is not the availability of appropriate software and hardware that is limiting the integration of computer technologies into teaching practices. Rather,

anecdotal evidence suggests that many teachers continue to perceive their lack of technical ability and limited resources as major obstacles in integrating these technologies into their practices. Furthermore, their epistemological beliefs have a strong influence on whether they will adopt new technologies. Teachers need guidance and ongoing support in moving beyond the walls of their traditional classrooms, into the uncertain realm of blended pedagogy.

With ongoing pedagogical support, we believe that all educators can develop relevant and challenging activities for their students, and gradually transform their traditional, face-to-face (F2F) courses into blended courses that have both face-to-face and online components. There are several paradigms in education that could potentially guide the redesigning of the F2F course. A paradigm is a set of rules, implicit or explicit, which determines the limits within which an individual can act, and then which describes how an individual should act within these limits (Marchand, 2001). In accordance with la réforme of the MEQ and its competency-based programs (Viens, 2001; Ministère de l'éducation du Québec, 1997), we have chosen the socio-constructivist approach to be the common theoretical framework for all course formats.

The constructivist approach is a model of learning that has as its main premise that learners actively construct knowledge. Socio-constructivism adds to the main premise of constructivism by emphasizing the role of collaboration in acquiring new knowledge. Learning therefore takes on a more social dimension, and can be viewed as a “sophisticated conversation among instructors and peers” (Gallini and Barron, 2001). Viens (2001) argues that the socio-constructivist approach is characterized by four principles: project teaching, learner autonomy, collaboration and meta-cognition. A course that successfully integrates these four principles would, according to Viens, allow students to construct their own knowledge through the identification, formulation, discussion and resolution of questions or problems. Students would have the opportunity to exchange ideas and would be exposed to multiple perspectives on any given issue. This back-and-forth dialogue would allow students to rethink and reformulate their own stance, and would result in the use of higher-order cognitive processes (Bérubé and Caron-Bouchard, 2001). Knowledge is thus not seen as a static construct, but rather, as an evolving interpretation of experiences and information (Martel, 2002). Constructivism predicts that this knowledge (constructed by students themselves) would be “more flexible, transferable, and useful than knowledge transmitted to them (students) by an instructor or other delivery agent” (Cobb, 1999).

Many researchers in the field of education see computer technologies, especially web-based environments, as excellent vehicles for “enabling the objectives of constructivist principles” (Gallini and Barron, 2001; see also Poellhuber, 2001; Martel, 2002). For instance, debates posted on discussion forums encourage students to think more critically. By debating back-and-forth with others, students modify their original assumptions and gradually move to higher levels of understanding (Chamberlin, 2001; Poellhuber, 2001). Thus, online communication can be used to promote collaborative, reflective and active learning. However, to help teachers ensure the quality of the courses that they developed using the socio-constructivist paradigm and blended

learning, we needed to better understand the extent to which these online activities facilitate student learning, and the ways in which they do so.

Other studies have been conducted at the cégep level that looked at the effectiveness of integrating computer technologies (e.g. Poellhuber and Boulanger, 2001; Ouellet et al, 2000; Séguin, 1997). In particular, we can cite the work done at Vanier by Dedic et al. (2004) in mathematics and science. Despite these and other studies, there is still insufficient evidence that the integration of computer technologies leads to improved achievement and motivation among cégep-level students. Also, to our knowledge, similar studies have not been conducted in the context of second language learning. Since the number of second language students registering in Québec's cégeps continues to increase, and these students enter cégep with weak language skills, it is important to do what we can to help these students succeed in cégep.

## THE STUDY

Our project sought to address these issues by investigating the following research question: **To what extent are courses that integrate online activities more effective than those that do not?** More specifically, we investigated, both quantitatively and qualitatively, the effectiveness of blended courses that were developed with limited resources and minimal technical skills, and which were used in a context of second language acquisition (SLA). At the same time, we also investigated the interaction between student characteristics, instructional setting and effectiveness. Our primary goal was to systematically investigate how, why and to what extent blended courses are effective in improving student persistence, performance, and motivation, while being an appropriate instructional option for E.S.L. teachers at large. Thus, the primary focus of our study was to measure the relative effectiveness of four instructional settings:

- (1) Instructional setting I: F2F, traditional approach
- (2) Instructional setting II: F2F, socio-constructivist approach
- (3) Instructional setting III: Blended, traditional approach
- (4) Instructional setting IV: Blended, socio-constructivist approach

Blended courses combined face-to-face meetings with online learning activities, while courses adhering to a socio-constructive pedagogical approach included activities that allowed learners to actively construct knowledge.

Our specific objectives were as follows:

- (1) to determine whether blended courses developed with limited resources and minimal technical skills improve student outcomes in second language classrooms where the focus is on reading and writing skills;
- (2) to investigate the interaction between student characteristics, instructional setting and effectiveness and to identify differential effects with respect to gender, prior level of performance and prior level of motivation.

Cégep educators do not have access to large budgets that would allow them to develop such sophisticated, technology-intense learning environments. In addition, most do not have the requisite skills or training to create such environments. Many teachers are deterred by the seemingly arduous task of developing the online components of a blended course. They believe that such a task calls for strong technical skills and demands an incredible investment, both in time and energy. Since cost-intensive projects are not feasible for most cégep educators, we constrained ourselves to cost-effective, small-scale projects that require a minimum of technical expertise with tools that were easy to use and, for the most part, free of charge.

165 students participated in the study and were drawn from the *Academic Writing Skills* and *Effective Reading and Writing Skills* courses offered at Vanier College. This research made use of both quantitative and qualitative methods. Impacts of instructional setting on student achievement and motivation were primarily examined with analyses of variance, while student knowledge of the essay-writing process was examined through content analysis of student writing and student responses to a series of open-ended questions.

### **Quantitative Data**

The dependent variables in the study were: persistence; change in performance; change in motivation.

- (1) *Persistence*: Student persistence, measured by in-class attendance, was compared across all four settings.
- (2) *Performance*: Performance was assessed by measuring student performance on a test with two types of questions: (a) open-ended questions that incorporated the main concepts of the course; (b) 500-word essay on a given topic.
- (3) *Motivation*: We adapted and translated a questionnaire developed by Lapostolle et al. (2003). This instrument measures motivation to improve in a second language in a school environment. We translated the questionnaire, substituting learning English in the place of learning French. Indicators of motivation include: Perceived Value of Reading, Perceived Value of Writing, Perceived Value of the Internet, Perceived Value of the Course Overall, Perceived Competence in Reading, Perceived Competence in Writing, Perceived Competence in the Course Overall, Learning Goals with Respect to Reading, Learning Goals with Respect to Writing, Learning Goals with Respect to Performance in Reading and Writing, Interest/Enjoyment, Use of Learning Strategies, Persistence in Reading and Writing, Perceived Pressure, Perceived Control over Course, and Perceived Choice in Taking the Course.

The control variables in the study were: prior level of performance, gender and level of technical skills.

- (1) *Prior level of performance*: Pre-test scores on essays written at the beginning of the semester assessed students' prior level of performance
- (2) *Gender*: One of the questionnaires included demographic data such as gender.

- (3) *Level of technical skills:* A questionnaire was administered to all students to measure their level of computer knowledge. This variable was eliminated once it was determined that there was very little variation in the level of computer knowledge among students – just about every student had experience with MS Word, Internet Explorer, emailing, instant messaging, playing video or audio files, using file attachments and searching the Internet. Most students also had experience participating in discussion forums, and many also had experience in creating web-pages and posting to blogs.

Other variables:

- (1) *Online participation by students:* Statistics were collected on the level of student online activity over the semester (number of posts, replies, views on the course blog, as well as completion of online activities/assignments).
- (2) *Level of teacher online activity:* Statistics were collected on the level of teacher online activity over the semester (number of posts, replies, views on the course blog).
- (3) *Student feedback/attitude:* Questionnaires distributed at the end of each semester collected feedback from students about the course and the online activities, if applicable.
- (4) *Teacher attitude towards online learning:* Teachers gave their feedback about the course either in written form, or in response to a series of interview questions.

### **Qualitative Data**

- (1) *Motivation and Feedback:* A series of group interviews were held at the end of each semester. We invited students to participate in interviews and explained that it was completely voluntary. The results of the interviews served primarily to clarify the findings of the motivation questionnaire.
- (2) *Essay-Writing Process:*
  - a) *Knowledge Questionnaire:* Given that no existing instruments fit our purposes (to measure students' knowledge about essay writing) we developed a questionnaire with 6 open-ended questions related to how students decide upon a topic, decide what to write after the topic has been chosen, structure an essay, what students include in an introduction, what students believe makes a good essay, and what students do after the essay has been completed.
  - b) *Student Essays:* While the Knowledge questionnaires sought to determine what students say about the process of writing an essay, actual student essays were then examined to determine whether they actually "do what they say." Essays were analyzed at the beginning and at the end of the course to determine whether they contained the important components of a five-paragraph essay: Introduction, Body, Conclusion; Thesis statement; Topic Sentences; Arguments and examples.

## QUANTITATIVE RESULTS

### *Higher achievement, a higher competence overall, and a greater value of writing in the blended socio-constructive setting*

Students participating in the study completed a motivation questionnaire at the beginning and at the end of the course. The analysis of these questionnaires as well as an analysis of the students' achievement on the Knowledge questionnaire and the essay revealed some interesting findings. First, when controlling for prior achievement, students in **settings with blended delivery**, especially the females, showed a significantly **higher gain in achievement** than those in face-to-face settings. Further, students in settings with blended delivery experienced a significantly **higher gain in pressure** than students in the settings with face-to-face delivery, even when controlling for gender. Students in settings with blended delivery may have felt an increase in pressure due to an increase in the amount of work that they had to do online in addition to their normal workload. Furthermore, many students may have felt additional stress at having to use unfamiliar technology to complete their homework.

The motivation questionnaire also looked at how much students valued certain aspects of the course including reading, writing, the course overall, and the Internet. The only one of these that differed between instructional settings was the **value of writing**, with students in settings with a **socio-constructive approach** valuing writing more than students in settings with a traditional approach. The traditional method of teaching writing is to teach students the structure of an essay and then have them practice it repeatedly. On the other hand, one method that was used in settings with a socio-constructive approach involved giving students a piece of writing to read and having them study its structure on their own, generate a hypothesis regarding essay structure in general, discuss their ideas with classmates and then having them come to a class-wide consensus. This approach required students to think more deeply and actively about how and why an essay is structured in a given way, instead of simply memorizing a structure that is taught to them passively by a teacher. Therefore, these students may have come to value writing more than those who were taught using more traditional non-socio-constructive methods. This particular result is a very interesting finding, as deep learning is important and hard to achieve. It may also account for some of the self-questioning about competency that follows. Note also that despite valuing writing more highly than students in traditional settings, students in settings with a **socio-constructive approach** actually showed **less interest** in the course overall.

In addition to students' values, the motivation questionnaire also sought to determine students' perceived competences in reading, writing, and the course overall. Students in **face-to-face settings** were found to have a significantly **higher perceived competence in reading** than those in settings with blended delivery even when controlling for gender and prior achievement. This effect was especially important for females. One possible explanation for this finding is that the students in settings with blended delivery did more of their reading online. If these students did not print out the readings, then it was likely difficult for them to highlight important aspects of the text or

mark up the text with their own notes; therefore, these students may have felt that they were not as competent in reading as they could have been. Furthermore, many people find it difficult or uncomfortable to read online or off a computer screen. The relationship that is formed with a physical page that can be held at varying distances from the reader and serves only a single purpose as a tangible object is not the same as the relationship between a computer user and his or her computer screen, which functions for more than just reading. However, students in settings with **blended delivery** were found to have a **higher perceived competence in the course overall** than those in face-to-face settings. Although these students felt more pressure than other students and had a lower perceived competence in reading, the extra work and thinking involved in courses with blended delivery, especially those courses within the blended socio-constructive setting (Setting IV), may ultimately have helped them feel more confident in the course overall.

Students in **face-to-face settings** were found to have a significantly **higher change in perseverance** in the course than those in the blended setting. Many of the questions relating to perseverance in the motivation questionnaire related to whether students continued to read something even if they found it difficult or whether they read over difficult passages multiple times; therefore, the less positive change in perseverance for the students in settings with blended delivery may be related once again to the online readings of the blended socio-constructive setting.

Students in settings with **face-to-face delivery** were found to have a significantly **higher positive change in their perceived choice** about participating in the course as compared to those in settings with blended delivery. Although a student's choice to participate in any of the courses was their own, it is possible that this perceived lack of choice on the part of the students in settings with blended delivery may have been due to their inability to choose whether or not to partake in the online component of the course. In other words, these students really had no idea when they registered for the course that they would be required to complete a portion of their coursework online.

The blended socio-constructive setting (Setting IV) was analyzed separately to determine how online participation and achievement were related to various factors. **For males, online participation** was found to be significantly **related to teacher online activity and student attitude and feedback**, with online participation increasing with increasing teacher online activity and with more positive attitudes towards online learning. A possible explanation for both of these relationships is that there is a tendency for females to do their work regardless of their teacher's effort and regardless of their own personal feelings towards the work, while males tend to need more constant feedback from the teacher and will not perform the necessary work if they have negative feelings towards this work (Porche and Spencer, 2000).

**Final achievement**, but not achievement gain, was found to be significantly **related to online participation**. Those with higher final results were the students who participated most online. This result does not indicate any causal effects and could just be due to the tendency of those who participate more to be stronger achievers, even though they did

not necessarily have stronger pre-test scores. This result raises the important point that in second language learning research, pre-test scores that assess language skills are not necessarily related to student achievement in general, and thus might give no indication as to whether a student is a “strong achiever” overall. It is also interesting to note that there was no effect of achievement gain; that is, students who participated more online were no more likely than other students to experience a greater *change* in achievement over the semester, though they were more likely to have a higher final grade. Since achievement gain measures the difference between post-test and pre-test scores, and final achievement but not achievement gain is affected by online participation, it becomes apparent that pre-test scores should not be used to predict online participation. What all of this also tells us is that of those who participated actively online, pre-test scores were not good predictors of final achievement. **Attitude**, as measured by student feedback, was a more important indicator of final achievement for these students, though not necessarily for all students.

## QUALITATIVE RESULTS

### ***Greater emphasis on the role of arguments in an essay in the blended socio-constructive setting***

Students in all settings were also given a knowledge questionnaire aimed at determining what students know about the process of writing an essay. Their declarative knowledge about essay writing could then be compared to their procedural knowledge by comparing what they said they did when writing an essay and what they actually did. This analysis was done in order to determine whether blended and/or socio-constructive settings had an influence on any particular aspect of the essay writing process. The most dramatic difference between students in the blended socio-constructive instructional setting and those in other settings was the importance they attributed to the role of arguments in an essay. Not only did these students consistently rely on arguments to choose their essay topic and to determine what to write in an essay, they also indicated more frequently that strong arguments make an essay “good” and they actually applied this knowledge in their own writing.

The percentage of students who actually structured an essay based on key arguments and who also included an introduction, a body, and a conclusion, increased in general across all settings. There was also an increase in the use of separate paragraphs for an introduction, the body, and a conclusion, as well as an increase in the use of supporting details within the body, with the blended socio-constructive group having the highest increase in the use of supporting details for structuring an essay. However, it appears that a higher percentage of students actually included this structure in their essays than said that they included it. This is a surprising result; typically, students are better able to say how to do something (declarative knowledge) than to actually do it (procedural knowledge). Perhaps a good number of the ESL students in this study had mastered the procedural knowledge involved in writing an essay by the end of the course, but were not yet able to accurately describe this process in response to the survey questions.

Across all settings, there was an increase in the percentage of students who said that they include a main idea and an outline in the introduction of their essays, while there was also an increase in the percentage of students who actually included these elements in their essays. The increase in the percentage of those who said they include a main idea in their essay was higher than that in the actual essays, while it was the opposite for an outline. It is likely that the concept of a main idea is more difficult for many students to grasp and apply as compared to the concept of an outline. Understanding what a main idea is and what is included in a thesis statement is more subtle than simply listing the ideas to be covered in the body of the essay.

The greatest increase in the reported use of a main idea was most apparent in the settings with blended delivery, while the blended setting with a traditional pedagogical approach had the highest increase in the percentage of students who said they include an outline in the introduction. This last setting also had the highest increases in the use of a main idea and of an outline in the actual essays. Although the increase was not higher because these students started out with a higher percentage to begin with, the final percentage of students who said they include a main idea and actually included a main idea and an outline in their essays was highest in the Effective Reading and Writing group of the blended socio-constructive setting. Other elements that were looked for in the introduction include an attention grabber (or 'hook') at the beginning of the essay and a general introduction to the topic. The use and reported use of an attention grabber increased only in the Effective Reading and Writing group of the blended socio-constructive setting. The inclusion of a general introduction to the topic increased in reported use only in the Academic Writing Skills group of the blended socio-constructive setting and increased the most in its actual use in the Effective Reading and Writing group of the blended socio-constructive setting.

Other questions on the knowledge questionnaire could not be compared to their application in essay writing since they are questions that do not pertain to the actual structure of an essay. When students were asked how they choose a topic, in general, the number of students who indicated that they choose their topic based on their own interest decreased, while the number of students who indicated that they choose their topic based on their own knowledge and experiences either remained the same or increased over the semester. The importance of knowledge by itself or in combination with other strategies was evident in all groups. This means that students were more likely to choose topics based on what they already know once they had finished the course. The use of one's knowledge in writing an essay may bring students one step closer to using the more complex strategy of selecting a topic based on arguments; we noted that when the use of knowledge to choose a topic decreased, the use of arguments increased. The use of arguments to select a topic appeared to be more important to students in settings with blended delivery.

When students were asked how they choose what to write in an essay after deciding upon a topic, overall, the number of students who said they choose what to write in an essay by explaining the topic or sharing what they know about the topic decreased,

while the number of students who said they choose what to write based on a specific strategy increased over the semester. A strategy by itself or in combination with other methods of determining what to write was important to students in all groups. Strategies used by students to organize their ideas and arguments before starting to write included outlining, brainstorming, and free-writing. Using a strategy to decide what to write was slightly more important to students in the settings with face-to-face delivery. It was also evident that, in settings with blended delivery, a higher percentage of students considered arguments to be crucial in deciding what to write in an essay. Strategies such as outlining require the breaking down of one's arguments. Furthermore, the Effective Reading and Writing students were the only ones to emphasize the use of secondary sources in helping to decide what to write in an essay.

When students were asked what makes an essay "good," most students indicated that good arguments and support, clarity, and good grammar and vocabulary were important in an essay, with structure also being important to the students in Effective Reading and Writing. At the end of the course, grammar and vocabulary, as well as clarity, increased in percentage in settings with face-to-face delivery. Structure increased in settings with blended delivery. Arguments and support increased in the face-to-face, socio-constructive setting, in the blended, traditional pedagogy setting, and the Effective Reading and Writing group of the blended, socio-constructive setting. The greatest increase in grammar and vocabulary occurred in the face-to-face traditional pedagogy setting, the greatest increase in clarity occurred in the Academic Writing Skills group of the blended, socio-constructive setting, and the greatest increase in structure and arguments and support occurred in the blended, traditional pedagogy setting. Improvements in the importance of arguments and support, clarity, and structure were deemed to be of a higher value than improvements in the importance of grammar and vocabulary, as the ideas, and organization and coherency of the ideas, in an essay are more difficult concepts to grasp but ultimately more important to learn than simpler concepts of grammar and vocabulary.

When students were asked what they did once they had completed an essay, across all settings, there was an increase in the percentage of students who indicated that they simply correct the mistakes in their essays. At the end of the course, only the students in the blended socio-constructive group indicated that in addition to correcting mistakes, they also edit for meaning or have another student peer edit their essay. A small percentage of students in the blended traditional pedagogy setting said in the post-test that they read the essay aloud. All students in the face-to-face settings either failed to answer the question, did nothing, or corrected mistakes once they had finished writing their essay. It is interesting to note that only students in settings with blended delivery felt that it was necessary to go beyond simply correcting grammatical and spelling errors.

## CONCLUSION

### *Recommendations for future practice*

To summarize, achievement in the course appears to be positively related to whether or not a student is in a setting with blended delivery and to whether or not a student participates frequently in online activities. In other words, students in courses with a blended delivery, as well as students who participate more frequently in online activities, tend to have a higher overall achievement in the course. Furthermore, students in settings with blended delivery also have a higher perceived competence overall in the course and seem to be better able to grasp that arguments are critical in the essay-writing process.

However, in order to properly take advantage of these potential benefits of blended learning, the possible disadvantages of such learning must also be addressed. These disadvantages become apparent when analysing students' motivation with respect to the course. The main issues with blended delivery were an increase in pressure and a perceived lack of choice in participating in the course, as well as a lower perceived competence in reading and lower perseverance in reading through course materials. Though initially discouraging, these findings cut to the core of blended/socio-constructivist learning. This type of learning requires deep thinking and the use of meta-cognitive strategies on the part of students. The extra demands of deep thinking don't always feel comfortable, especially at first. Students need to be helped to understand and integrate such experiences and ultimately have positive feelings about them. Students in blended socio-constructivist courses need a kind of orientation, not just in terms of the technology being employed, but more importantly, in dealing with the potential for profound change that working deeply with their learning may bring them. In this way, we can help reduce the sense of pressure students feel and support them in their strides towards stronger reading and writing skills.

Our results suggest that students should be made aware before registering for a course that the course contains an online component and they should be made to understand what this entails. This would then allow them to make an informed decision as to whether or not they want to participate in a blended course and students would no longer feel forced into taking this type of course.

The increase in pressure that students feel when taking a blended course could be attributed to either an increase in work overall or stress brought on by the use of unfamiliar technology. Students who register for a class that they know will contain an online component may be more technologically inclined; therefore, openly advertising that a course contains an online component could also be a partial solution to this problem. To address the other possible reason for an increase in pressure, teachers of blended courses should be discouraged from simply adding online work to the work they would have assigned in a face-to-face course; rather, they should be encouraged to integrate both online and non-online activities to balance out the workload, so that the workload of the blended course is comparable to that of a face-to-face course.

Furthermore, the more that some of the online work can be done in class during regularly scheduled times in a computer lab, the more students will see it as an integral part of the course and not as just a fancy 'add-on.' This, we feel, is of the utmost importance, as students will also be less likely to feel that they have been given more work if they have been allowed to perform the work in class rather than as homework.

The lower perceived competence in reading and the lower perseverance in reading through course materials could be explained by the inability of students who are reading materials online to mark-up their readings and highlight important details. Although one of the advantages of performing class activities on a computer is a decreased reliance upon paper, ESL students in general might rely more on paper copies of readings in order to write definitions in the margins or underline important phrases. They should therefore be encouraged by the teacher to print the class readings. Perhaps reading does not have to be done at all on the computer, while discussions, the sharing of ideas and writing assignments online, and other interactive activities can continue to be done online.

Given the small numbers and heterogeneous population, this study should be replicated. The study should also be repeated after the suggested changes to course delivery have been made to see if there are any additional effects. Furthermore, other issues, such as the gender of students, the gender of the teacher, and the ethnicity and age of the student population could also be taken into account in future studies.

## **Summary**

This project found that blended online and face-to-face teaching could be beneficial to the instruction of English as a Second Language by increasing overall achievement and students' perceived competence in the course, as well as their understanding of the importance of arguments in the process and the actual writing of an essay. A blended delivery could also be beneficial once an essay is completed, as a higher percentage of students in the blended delivery of the course felt that it was necessary to go beyond simply correcting grammatical and spelling errors by reading their essay aloud, having a peer edit it, or even editing their own ideas. However, in order to fully take advantage of these potential benefits, several suggestions for practice can be made based on our findings: (1) allow students to choose whether or not to take a course with an online component by advertising the blended aspects prior to registration; (2) discourage teachers from increasing the workload of students in blended courses, while encouraging them to allow more class time for online work; and (3) separate reading activities from the online component of the course. It is also important, especially for the males, that the teacher of a course with a blended delivery also participate actively in the online component of the course, as our study found that male online participation was related to the online activity of the teacher. With these suggestions, interactive technology implemented with minimal resources and minimal technical skills when combined with in class learning can further increase the effectiveness of teaching English as a Second Language.

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