BLENDED LEARNING STRATEGY IMPROVES BUSINESS WRITING SKILLS

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ABSTRACT

Blended learning is an innovative strategy that combines electronic and face-to-face learning. In effort to deal with increasing classroom size, decreasing budgets, and growing demands of college graduates from industry, a four-year state university designed and implemented the blended learning concept for its Business Communication classes. Using a course management system and limited resources, the blended product, called the Online Writing Laboratory, achieved unprecedented progress in student learning by incorporating mechanisms to individualize educational material. In the pilot semester alone, student business writing scores improved, and the university learned to use its course management system beyond expectations.

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Educators face many challenging issues in their attempt to provide students with quality learning. The National Center for Education Statistics (2002) projects that student enrollment will increase 15% between 2000 and 2012, from 15.3 to 17.7 million students. Large birthrates in the early 1980s and 1990s, and also increasing numbers of nontraditional students returning to the classroom, can explain the growth trend. In a time of economic and educational budget uncertainty, administrators are scrambling for space and faculty to keep up with the growing number of students. While struggling to maintain student retention and academic achievement, we as many universities, have identified learning technologies and distance learning as resources for in-class instruction. The term *blended learning* may be relatively new, but the concept has been around for decades: combining distance learning with traditional classroom instruction.

Enrollment growth and budget issues, however, are only part of the barriers faculty must overcome in their teaching. Another challenge is producing college graduates with the necessary skills that employers demand. For example, industry has voiced concerns for many years regarding the poor writing levels of college graduates. The U. S. Department of Education's National Assessment of Educational Progress (NAEP), called The Nation's Report Card: Writing 2002 (2003), gives some indication of when students' writing style fails to make the shift to *persuasive writing*, which is commonly expected in college-level work. Also, in many respects, persuasion is an "art" that leads to success in business. After all, a high percentage of business documents mean to influence some other entity or individual to "buy our product/service" or "to hire us."

The 2002 NAEP states that 51% of 12th grade participants scored at the basic writing level, while 26% ranked below the basic level – indicating no relative change from the 1998 NAEP (U. S. Department of Education, 2003). Conversely, in years 1998 and 2002, the 4th and 8th grade survey groups showed increased average scores. One possible explanation for the 12th grade stagnated performance could be explained in the weighting of the assessment tasks. In the 4th grade category, the tasks were weighted toward "narrative" writing, with "informative" next, and then "persuasive." In the 8th grade category, the weighting was equal for narrative and informative writing, with persuasive worth the least. Then, in the 12th grade category, the weighting shifted, finally making persuasive writing worth the most, with informative next, and then narrative. With college beginning only one year later, quite possibly this is not enough time for students to make the transition to persuasive writing. Therefore, by the college-level, many students do not have a solid foundation in persuasive writing.

Literature shows a plethora of studies on distance learning and technology-based instruction in higher education (e.g. Hantula, 1998 and U. S. Department of Education, 2003). So rather than re-teaching college students with limited lecture time and resources, universities can use their course management systems (CMS), which are educational web-based software programs, to enhance classroom instruction and accommodate student learning. Instructors upload course-related readings and exercises, and offer quizzes on-line through a CMS, such as WebCT. Students gain access to the CMS via the Internet, and then view, print, and complete material outside of the classroom.

In this paper, we describe how our project team for the Department of Management under the College of Business at The University of Texas at San Antonio (UTSA), blended on-line resources, in the form of an Online Writing Laboratory

(OWL), with the Business Communication course, in an effort to improve students' business writing skills. While this project targets the enhancement of business writing skills through a computer-generated on-line program, the blended learning strategy could apply to virtually any academic course in facilitating a higher-level of learning.

BACKGROUND

UTSA successfully initiated the OWL for the undergraduate Business Communication classes. The OWL process included a pre-assessment to identify areas in need of improvement, learning modules related to those specific areas, and post-assessment as a tool for indicating student improvement.

For our project, five key elements have played a significant part in achieving an effective blended-learning product:

1. *Identification Process*. Our team of one faculty member and two graduate students from the Department of Management initiated an informal survey and general grammar quiz to Business Communication students in a prior semester. Based on that information and other in-house research, we determined the overall project objective and identified the corresponding learning strategies available for providing remedial assistance to an expected 400 Business Communication students per semester. After assessing the available resources beyond the university's CMS interface, WebCT, we determined the additional support, resources, schedules and design of the OWL.

2. *Evaluation of Campus Situation/Environment*. Several factors were taken into consideration in deciding how to provide this additional resource to students. Approximately 60% of the Business Communications students worked while attending college and over 50% took in excess of 10 credit hours each semester. These facts revealed that students could not add another three-credit hour class to their course loads. However, earlier data from the College of Business faculty showed that the business students clearly needed remedial help to improve their business writing skills.

3. *Course Management System*. Because of the innovative design objective, the decision to use WebCt could not hinge on a CMS paradigm simply because of its convenience. For that reason, the team looked at several alternatives. Cosmetically, the team wanted an HTML-like environment, allowing flexibility in the appearance on screen of the OWL, versus the standard CMS motif. Technologically, the OWL needed the capability of supporting the linear design, tracking students, accommodating hundreds of students each semester, and providing adequate processing power and storage. The OWL team chose a nostalgic theme to promote a welcoming and comfortable working environment – including custom icons, animations, and navigational elements. As the majority of students demonstrated computer literacy and at least had a basic familiarity with WebCT, the team finally chose to host the OWL through WebCT.

4. *Internal Support*. From the beginning, the core team was accountable for the ultimate decisions, including the identification of a support team, which consisted of other faculty, distance learning technicians and other teaching assistants. The success of the project hinged on buy-in from all interested parties, or else the project would not have moved forward in a timely fashion.

5. *Funding*. Though minimal at best, the project team received a small budget. Depending on the final choice of using WebCT, which was the only course management system being used on campus, the bulk of the funding would go either towards personnel or technology. Without the financial support, the project would not have been possible.

DEVELOPMENT OF THE OWL

Exemplary examples of on-line writing laboratories are available on the Internet (e.g., Purdue University, University of Arkansas at Little Rock, and Washington State University). For example, Purdue University's OWL offers plentiful writing handouts and exercises for students, resources for teachers, and workshop listings. In addition, Purdue has a physical laboratory space with computers and tutors available for one-on-one and group workshops. While the specific needs of business students are addressed in part in other OWL sites, we determined that the most effective use of our resources, and the best chance for student improvement, required a more structured learning environment, specifically addressing student weaknesses in their business writing, and the ability to monitor and keep track of student progress.

The project team's vision of the UTSA OWL exhibited many unique qualities. For example, by supplementing content from the Business Communication classes, the in-class instructor could devote more time to student performance. Moreover, the linear design of the OWL helped keep students on track and focused. The students were first assessed in four business-specific areas using the CMS quiz feature. Depending on student scores, learning modules would become available. After completing any required learning modules, students would then take a post-assessment, again using the quiz feature. To provide personal support, teaching assistants (TAs) from the university's graduate business programs would offer class presentations, one-on-one assistance with students and professors, telephone and email inquiry support, and student progression monitoring. The university's distance learning center would answer CMS specific questions. Further, given the computer-based nature of the instruction, the university's disability services would assist campus-registered handicapped students.

END PRODUCT

When students enrolled in the Business Communication course, they were simultaneously enrolled in the OWL. Figure 1 shows the homepage graphic students saw upon logging into the OWL.

Figure 1. OWL Entry.

Once students clicked on the schoolhouse, an image of a floorplan appeared, as shown in Figure 2. Students could click on the titles of these rooms to enter different sections of the OWL. The *Welcome Center* presented students with an orientation, including general OWL information, pre-assessment instructions, and a student contract, which students had to read and accept in order to proceed to the pre-assessment.

Figure 2. OWL Floorplan.
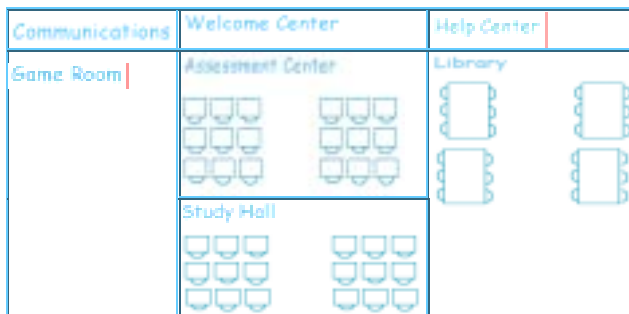
The *Study Hall* served as the main area of the course. Here, students could access all course content in the form of learning modules. The *Library* acted as a repository of appropriate and exceptional links to further business writing and communication information. The *Communications Room* provided students the ability to email other course participants, post asynchronous discussion board messages, and engage in chat room exchanges – important features for collaborative learning. Additionally, students had a calendar on which TAs posted deadlines and other time-sensitive information to keep students on schedule. The *Help Center* provided an illustrated, cross-referenced glossary of business terms and CMS instructions to assist students in completing OWL assignments. Finally, the *Game Room* provided links to Internet games to give students opportunities to take study breaks.

Another important design of the OWL was the ability to control and monitor student progress. The CMS provided a *Selective Release* feature, which was used to divide the OWL into three time-released segments: (1) pre-assessment, (2) modules, and (3) post-assessment and a concluding feedback

survey. The *pre-assessment segment* was released for a two-week period, giving time for students to complete the initial test. During this time, students would enter through the Welcome Center, gaining access to the pre-assessment. The Communication Room and Help Center stayed open for this period, but the Study Hall, Game Room and Library remained closed. In the *module segment*, all the rooms would open and remain available for six weeks, with exception to the Assessment Center. If during the pre-assessment, students scored 79% or below on any or all of the sections, they would proceed to the Study Hall and complete those learning modules that were released automatically. For any sections that students scored 80% or above, they would find their completion certificates released and available for printing in the Study Hall (see Figure 3).

Figure 3. OWL Certificate of Completion.

In the *final segment*, the Assessment Center would open for one week for students to take the post-assessment and complete the feedback survey, which gave the team valuable information on such items as time spent in the learning modules and on the most user-friendly features.

Four learning modules, which directly corresponded with the pre-assessment sections, were available for the initial semester on-line: composition, mechanics, writing style, and critical thinking. The goals for each module are listed below:

Composition:
1) Read an e-book on the basic elements of writing;
2) Practice using the online dictionary and thesaurus tools; and
3) Introduce rules for effective business writing.

Mechanics:
1) Identify common punctuation errors that occur in business writing;
2) Review rules of usage for commas, semicolons, colons and apostrophes; and
3) Practice identifying and correcting punctuation errors.

Writing Style:
1) Define good business writing style; and
2) Identify ways to make business writing more effective.

Critical Thinking:
1) Develop good critical thinking skills; and
2) Organize those thoughts into meaningful communication.

PILOT SEMESTER

In four short months, the OWL went from an idea to a fully operating program. Although the professors teaching the Business Communication course offered different grading structures for the work performed in the OWL, all students were required to participate. To start the semester, TAs visited each Business Communication class to make introductions and to provide explanation of the resources available on the OWL. The presentation consisted of a slideshow, detailing each requirement the student needed to complete in order to receive credit. While most students were familiar with WebCT and had taken quizzes through WebCT in past semesters, the OWL team considered it important to reinforce this familiarity since the remainder of the OWL did not resemble the system in which they had previously used. Further, students received a handout with step-by-step instructions on how to complete the assessment.

ASSESSMENT RESULTS AND FEEDBACK

In total, 407 Business Communication students from three different classes were enrolled in the OWL. As mentioned earlier, the instructors for the Business Communication course credited the students in different ways for completion of the OWL. Due to the students' personal motivation and individual choices, not every student completed the OWL.

To assess student achievement, scores from only those students who completed the pre-and post-assessments were compared. 289 students completed both assessments. Table 1 exhibits the descriptive analysis of the pre-and post-assessments.

Table 1

Descriptive Analysis of Pre- and Post-Assessment Comparisons		
	Pre-Assessment	Post-Assessment
Mean	57.5	63.1
Median	56.5	64
Mode	56.5	70
Standard Deviation	9.7	12.3
Range	50.5	64
Minimum	31.5	30
Maximum	82	94
Count	289	289

Note. The population (N) differed for the pre- and post-assessments because students were not required to take the pre-assessment in order to meet the OWL requirements. If students missed the pre-assessment phase, they were automatically required to complete all modules and post-assessment and survey.

The analysis of the two scores shows an improvement in test scores following the intervention of learning modules. While we see some relationship between the pre- and post-assessments, there is a more pronounced statistically significant relationship when we group and compare the scores by either an increase or a decrease in the post-assessment score and by class section. In particular, a portion of the population performed lower on their post-assessment when compared to their pre-assessment. This occurrence, we believe, is a result of several factors. First, some students read through the learning modules too quickly, followed by the post-assessment without sufficient practice in application of the concepts. As when students "cram" for midterms and finals, they frequently doubt their answers since they didn't gain full understanding of the topics. Second, from the survey feedback, several students admitted they had not applied themselves due to the amount of credit the assignment was worth in their overall course grade

Assessing the scores and reviewing the student survey, we noticed that motivation, among other factors, explains some of the difference in changes that occurred between the pre-assessment and the post-assessment, as shown in Table 2. Though the analysis shows statistical significance between the test scores and the learning module intervention, student feedback indicated that the manner in which this entire program is presented to the students weighs heavily on positive change that can occur. Only 26% of the students who took both the pre-and post-assessment scored lower on the post assessment.

Table 2

Summary Output for the Pre- and Post-Assessment Regression Statistics

	Total	Increase Score	Decrease Score	Percent Decrease
Multiple R	0.37	0.61	0.60	
R Square	0.14	0.38	0.36	
Adjusted R Sq	0.14	0.37	0.35	
Standard Error	12.43	7.60	11.60	
Observations	287	184	75	26

Decreased Scores (by class)			
	Class A	Class B	Class C
Multiple R	0.39	0.55	0.83
R Square	0.16	0.31	0.69
Adjusted R Sq	0.05	0.28	0.68
Standard Error	18.02	15.51	5.57
Observations	10	25	40

ANOVA	df	SS	MS	F	Sign F
Regression	1	7167.41	7167.41	46.37	5.79-11
Residual	285	44049.15	154.56		
Total	286	51216.56			

	Coefficients	Std Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	32.61	4.50	7.25	4.05-12	23.75	41.47	23.75	41.47
X Variable 1	0.52	0.08	6.81	5.79-11	0.37	0.67	0.37	0.67

NON-TECHNICAL CHALLENGES AND SOLUTIONS

Though yielding no statistical significance, student responses to the feedback surveys, submitted after the post-assessment, provided rich and useful information. In addition, throughout the pilot semester, students shared their frustration and apprehension on discussion postings, in e-mails, and in one-on-one conversations. TAs diligently monitored electronic forms of communication and promptly responded. Several topics arose that lent constructive feedback to the team, which in essence was student-driven learning.

One significant issue in light of the analysis of the scores reflected in Table 2 regarded the student frustration over the grading system. In the three classes, the OWL assignment had different weight for the final course grade, resulting in student complaints, which were posted on the OWL bulletin board and through other electronic mediums. The TAs worked diligently to quell the negative comments, so as students would not be influenced by these issues. Concerns such as these were presented to the instructors of the courses. The scores on the OWL component of the Business Communication course, in fact, reflect student interest and motivation is influenced by the classroom protocol.

Another subject of apprehension was the relevance and grade-level of the material in a junior-level Business Communication course. As stated by one student, "I do not understand the reason why we have to take these especially if it has been so long since most people have taking some kind of English or writing class." All material and resources were adapted from junior-level Business Communication test banks, and learning modules were tailored to business-specific methodology. Students who scored below the 80% level on their pre-assessments would not study general English but business-specific material. As a result, OWL staff decided to more thoroughly address the relevance of the OWL to students and faculty in future semesters.

TECHNICAL CHALLENGES AND SOLUTIONS

As with any new program, the project team experienced technical challenges, but on a relatively small scale given the large number of students accessing the OWL and the limits to which the CMS had been pushed. The primary challenge students experienced centered on the selective-release tool. As the OWL was designed to have students progress in a linear fashion, each segment was made available using the date-released function. The team had anticipated using this option to

help pace students and give them attainable milestones. However, keeping track of dates confused them. In a following semester, the date-released feature was changed to a task-released criterion. Releasing by task meant that after a student completed the pre-assessment, learning modules would release automatically based on pre-assessment scores, and then after completing modules, the post-assessment and feedback survey would release.

Second, the team determined that the assessments required clearer instructions and revisions to better guide students through the testing process. For instance, for the critical thinking assessment, students needed to click on a link to view and then read an article in a separate window. Based on that article, they then had to answer the assessment questions. However, some students did not realize that the article was associated with the assessment questions. The team improved the instructions by clearly stating the connection between the article and the assessment.

In addition, the team decided to replace fill-in-the-blank questions with multiple-choice. Given that good writers normally learn from practice, this was a difficult decision to make. While WebCT allowed for many answer options to each quiz question, it became labor intensive trying to anticipate all the answers students might provide. For example, a correct answer of "James wrote the report" required answers with different capitalization to include "james wrote the report, JAMES WROTE THE REPORT, James Wrote the Report," and so on. Therefore, the multiple-choice version ensured standardized of answers, and thus made certain students received credit for correct answers, but in compromise the team decided to incorporate more writing exercises into the learning modules.

Also with respect to assessments, students did not have the option to view their graded assessments, which would have shown them the questions they answered correctly and incorrectly. Having a limited test bank meant many questions from the pre-assessment were used again on the post-assessment. Since the OWL was new, an expansive test bank of questions had not been compiled. Moreover, the learning modules explained in detail the subjects covered on the quizzes, so if students scored poorly on the pre-assessment and better on the post-assessment, then the module content could be determined as effective. However, many students complained that they would have preferred to view their graded quizzes. As stated by one student, "The one complaint I have about the system is I would like to know what I got wrong." In response, the OWL team decided to develop a more expansive test bank to satisfy this request.

Third, the learning modules required minor revisions. For instance, the Writing Style module contained a wealth of good information on business-specific areas; however, students stated that it was substantially longer than the other three learning modules. In response, the module was reduced in length. Also, in direct response to one student's suggestion, the team added estimated completion times to give approximate time dedication for each module.

Fourth, the limitations of WebCT created difficulties when incorporating HTML coding since the tracking system does not work on HTML pages. For example, for each student a detailed tracking history in the CMS showed the times students accessed certain pages of the learning modules. However, the tracking feature did not work on HTML pages. This created problems for students since they did not know if they had completed the segments. In response, all learning module pages were converted to a form in which the tracking system would acknowledge student progression.

CONCLUSION

Despite the minor challenges and study limitations, the OWL proved a major success for several reasons. First, with limited resources, the OWL became the first blended learning product at the university to offer instruction and material to large classes via a CMS. Plus, by implementing the pre- and post-instructional testing to gauge improvement through the employment of a linear design shows other faculty the capabilities available to them. Also, now that the OWL is a developed and tested product, other professors at the university have the ability to use the OWL design as a template to apply their own blended learning environment. More importantly, hundreds of students had one last opportunity before graduating and entering the work environment to refresh their writing skills and learn business-specific writing tools, which otherwise they would not have received.

Since the pilot semester, the OWL has completed three more cycles. Faculty of both classes have continued to experiment with grading incentives. As a result, incompletes for the OWL assignment have fallen and motivation has increased. At the end of each cycle, the team has analyzed student performance, system functionality, module and assessment effectiveness, and student and professor input. Then, using the compiled data, the team implements revisions and seeks ways to expand the OWL.

One such initiative was the development of three new learning modules: *Résumés*, *Cover Letters*, and *Report Writing*. While the four initial learning modules actually tied into the OWL assignment for the Business Communication course, these three additional modules assist in reinforcing lecture material. Specifically, instructors provide instruction in class, but then the learning modules allow students to learn more in-depth on topics outside of class and at their own pace. Pre- and post-assessments for these learning modules were deemed unnecessary since students turn in written material for grading, which in return students receive individual feedback.

Further, in progress is an additional module, *Oral Presentations*, which will assist professors in the assignment of developing and giving presentations, including detailed instructions on creating effective Microsoft PowerPoint slides.

Beyond continual system refinement and module creation, the team anticipates adding an innovative Internet reading mechanism to make the OWL even more handicap accessible. And, finally, the OWL team hopes to organize business-writing workshops to address specific topics and group tutoring sessions to facilitate additional student learning outside of the classroom.

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