

INTEGRATING WRITING ASSIGNMENTS INTO AN HISTORICALLY NON-WRITING INTENSIVE COURSE

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ABSTRACT

Students, faculty, alumni and employers all agree that it is important for students to acquire strong communications skills. However, finding a way to integrate writing assignments into technical courses, such as mathematics and accounting, can prove to be a challenge. This paper discusses one approach to address the problem. Specifically, one course writing assignment, evaluated with the StyleWriter software package, is presented. The use of StyleWriter and a rubric tailored to it, allow the instructor to provide timely, detailed feedback to students regarding both mechanical writing difficulties and content related issues. It is hoped that more faculty will adopt software to help evaluate writing assignments and allow students to hone their writing skills.

JEL: M41, M49

KEYWORDS: StyleWriter, Writing Assignment, Rubric

INTRODUCTION

Both faculty and employers agree that producing students who possess strong writing skills is important. Students also recognize the importance of being able to write well. When asked about various skills they need to strengthen, students identify writing as being critical to future success three times more than any other (Light, 2001). Attention to written communications abilities is probably well placed. Worth (1990) surveyed Harvard alumni and asked them to rate the importance of several skills to their current work and other endeavors. She found that more than 90% of them ranked the “need to write effectively” as “of great importance”. Gray et al. (2005) have found a range of studies identify the lack of excellent writing skills by new graduates is a global concern.

The remainder of this paper is organized as follows. The next section reviews work in the area of integration of writing into the curriculum. Following the literature review, one specific approach and methodology to the integration of writing into one, historically non-writing intensive course is discussed. The results, as well as implications for the assessment of student work appear after the methodology section. The paper ends with some concluding comments and an eye to possible future research.

LITERATURE REVIEW

Writing skills are widely acknowledged to be of critical importance for virtually any college graduate. According to Emir (1977), writing is a unique mode of learning. She goes on to argue that students’ learning is improved if the learning process includes writing. However, producing graduates with strong written communications skills has been a neglected element of many university programs. Glenn (2011) noted that according to the Chronicle of Higher Education, business majors are typically exposed to less than five writing intensive courses before graduation. Arum and Roksa (2010) found that business majors also tend to have weak gains on national tests of writing. Quible (2011) has gone on to state, “...most faculty members don’t see it as a priority to help students improve their writing.” Melissa Hudler, the Director of the Writing Center at Lamar University, has stated that it is unrealistic to expect most instructors to assign full length papers (2011).

What is driving this state of affairs? According to Kiefer (2000), most teachers feel uncomfortable examining student papers for grammatical and stylistic issues. Lunsford (2012) identifies a time factor which limits the number of writing assignments required of students. She suggests that while instructors, "...do not have time to grade papers continuously (it) should not interfere with students' potential to learn through writing." On the other hand, when instructors do assign writing to their students, they should provide adequate feedback about any shortcomings they identify. Elbow and Sarcinelli (2011) state that instructors should take the time necessary to write their comments on separate pieces of paper rather than simply put short comments in the margins of a student's paper.

While the above works indicate the importance of writing skills and some of the problems with integrating writing assignments into non-English Department courses, many authors have addressed the issue head-on. The late 1980's saw a move to incorporate writing throughout a student's entire college career. Carson (1992) reported that writing across the curriculum was considered to be one of the successful reforms in U.S. education. Ekroth (1990) noted that, "Professors are now expected to not only 'cover the material', but also to help students to think critically, write skillfully and speak competently". Hirsch and Collins (1988) discuss the use of memoranda and case analysis projects incorporated into managerial and cost accounting courses to help improve student writing. Stoudt et al. (1991) applauded this type of approach because it provided students with a sense of realism since it made them write for a specific audience. Riordan et al. (2000) required tax and intermediate accounting students to purchase *Effective Writing: A Handbook For Accountants* by May and May (1996). Students were then given multiple assignments from the handbook during the courses. Not only were students required to write, they were given a chance to earn additional points by revising their original papers in response to faculty comments. The authors report the result was a significant improvement in writing skills for junior level students.

However, students may fail to fully comprehend the value of discipline specific writing. Marbach-Ad and Ariv-Elyashiv (2005) found that 63% of science students agreed that scientific writing was an important part of undergraduate education. Yet, when asked to rank the importance of eight factors, these same students ranked scientific writing skills as second from the bottom. The authors went on to recommend an approach to writing which encourages students to focus on the content of the assignment, rather than to fixate on writing mechanics at the expense of expression of ideas. As they put it, "Begin by recognizing that your primary goal is to respond rather than proofread". (p. 17) Others (Curto and Bayer 2005; Huot 2002 and Straub 2000) have also found that prioritization of the content portion of assignments is an approach which is pedagogically sound.

No matter how sound something may be from the standpoint of pedagogy, a final piece of the puzzle is that of assessment. Martell and Calderon 2005 and Suskie 2004 sum things up by asking if we are actually producing graduates with the knowledge and skills demanded by the marketplace. They make a strong case that instructors need to assess course goals in order to answer that question.

DATA AND METHODOLOGY

How can faculty integrate more writing assignments into their courses? This is a particularly vexing problem if the course in question is a traditionally technical course, such as a mathematics or accounting course. Faculty members in these courses generally spend the vast majority of their time explaining and presenting problems and other technical concepts. Similarly, the homework assigned in these courses tends to be of a technical nature. Usually there is a dearth of writing assignments. However, this does not have to be the case.

The use of software packages known alternatively as "style checkers", "grammar checkers", or "writing enhancement software" can greatly reduce the time an instructor spends grading and providing feedback

on “nuts and bolts” writing issues. This frees the instructor to focus on the students’ development and discussion of technical topics. Students are not short-changed because they will still be provided with specific suggestions for improvement of writing mechanics. However, because the instructor has more time to devote to the technical discussion and presentation of ideas, students are sent a clear message that content matters.

Three software packages were considered for use. These were 1) Microsoft (MS) Word’s built in grammar checker, 2) WhiteSmoke and 3) StyleWriter. A few of the advantages and disadvantages of each of the packages can be summarized as follows. MS Word is very widely used. A big advantage to anyone using MS Word is that the grammar checking component is already built in and, therefore, available at no additional cost. A disadvantage is that it only checks for relatively low level grammar errors. While it identifies possible deficiencies in writing, it generally does not provide a detailed explanation of the error. It also does not provide possible alternative wording of sentences.

WhiteSmoke is a separate package that, in addition to basic grammar correction capabilities, provides writing enhancement tools. One such tool was termed a “writing tool menu”. It allows users to do such things as find synonyms, add adjectives and adverbs to sentences and find definitions for words. One downside to WhiteSmoke is its additional cost.

StyleWriter is a separate package that, once loaded, integrates into MS Word and analyzes a document for both style and usage errors. The following information was taken directly from the StyleWriter web-site: StyleWriter is an add-on to Microsoft Word to help you edit everything you write into a model of clear English...StyleWriter can help with any type of writing task...StyleWriter marks up your document and show you how to edit each sentence. StyleWriter assumes you can write a sentence and doesn’t check your grammar-as Microsoft Word already offers you this feature. (StyleWriter)

StyleWriter provides an overall score/rating for each paper in three different areas, “style”, sentence length and an active/passive index. StyleWriter not only identifies items it considers to be problematic, it provides a description of the specific problem and presents recommendations for correction of the problem. StyleWriter seems to be well suited to most business writing situations in that its goal appears to be the elimination of excessive words. This results in a document that is clear and concise, a hallmark of good business writing. One downside to StyleWriter is its additional cost. This consideration is discussed below.

The rest of this section details the approach taken to integrate a writing assignment into one intermediate-level accounting course. Since the course in question is a business course, StyleWriter’s goal of producing succinct writing made it the prime candidate for consideration. (The current version of the software may be downloaded at: <http://www.stylewriter-usa.com/> for \$150 US).

The instructor selected and used StyleWriter to aid in the evaluation of one written assignment. The intent of the assignment was two-fold. First, it would require students to produce a short research paper and thus, require students to write in a course where, historically, they did not. Second, the assignment would provide students the opportunity to practice researching important issues which do not have clear cut answers.

A tailored grading rubric was developed which would dovetail into the types of comments that StyleWriter would provide when it evaluated a paper. Students were given the assignment, along with specific instructions to turn in both an electronic copy (which could be evaluated by StyleWriter) via email and a hard copy, upon which the instructor could provide written comments relative to the content of the student’s writing. The project was then evaluated and graded on the basis of both basic writing skills and soundness of logic and content. The use of the combination of the MS Word grammar/spell checker and StyleWriter provided a mechanism allowing for rapid grading of the writing elements of

students' papers only. It did not absolve the instructor from evaluating the technical discussions presented by the students.

RESULTS

StyleWriter provided a scoring of each paper in the categories of 1) Style, 2) Sentence Length and 3) Passive/Active writing at the top right of the first page of the marked up copy. The instructor incorporated these scores, along with a score for the logic/content component, into a rubric. This approach allowed for the relatively fast grading of writing assignments. Rapid feedback, combined with detailed comments on both content and writing is beneficial to students and faculty. Students no longer received a paper with comments like "grammar error" or "writing difficulty". StyleWriter's report indicated the specific rule of grammar which was broken and provided alternative wording to correct the possible problem. Simultaneously, the instructor could concentrate his/her comments on the more technical issues that were to be addressed in the paper. They could focus their grading and comments to students, on content related issues, while allowing StyleWriter to provide detailed feedback and suggestions about mechanical writing issues. Students were sent a strong message that they can't simply target their writing to "satisfy some computer". They needed to organize and present their thoughts and ideas in a clear and technically correct manner, while also following the rules of basic grammar and punctuation. It was not enough to satisfy the mechanics of writing but not be able to understand and communicate the technical content of the course. The result of the application of technology to the evaluation of student writing is thought to be an advantage to both faculty and students.

The actual project assigned, including the scoring rubric and paper submission instructions are contained in Appendix A. Students were instructed to submit both an electronic copy via email AND a hard copy of their papers. The electronic copy was opened in Microsoft Word. The instructor could then scan the document at that point for any obvious grammar/punctuation issues that have been identified by Word and that the student should have dealt with prior to submission. If more than a minimum specified number of problems are found, an appropriate grade can be assigned for not meeting the minimum quality level for the assignment and no further grading action would be required. (Note: The instructor could also immediately return the paper to the student for rework and assess the appropriate penalty at this point, if desired). Assuming no obvious problems were identified by Word, the instructor will then run the paper through the StyleWriter add-in. The result is an electronic copy of the student's paper that has been marked up to identify possible writing difficulties and suggested alternatives. StyleWriter produced the marked up copy of a paper in approximately one minute (depending on the overall length of the paper submitted). The instructor was then able to save the "corrected" paper in a "graded papers" folder. When all assignments had been run through StyleWriter, the instructor was able to easily email students copies of their assignments with detailed feedback about possible writing issues clearly identified and possible alternatives for them to consider. The instructor handed back the hard copies of assignments with traditional hand-written comments pertaining to the content portion of the assignment.

It is noteworthy that StyleWriter provided a scoring of each paper's writing. The instructor was easily able to complete the grading of the writing mechanics portion of the assignment based upon the output provided by StyleWriter. The instructor was still required to evaluate the logic/content portion of a student's writing. This was relatively easy to do when freed up from the time consuming task of identifying mechanical writing difficulties and suggesting alternatives.

Overall, StyleWriter greatly aided the faculty member in grading and providing rapid feedback for the first goal, the mechanics of writing component. For the second goal, the instructor could spend the time necessary to critically evaluate the quality of a student's arguments and technical content. The use of StyleWriter, indeed, allowed the instructor to prioritize the content portion of the assignment.

ASSESSMENT

One cogent question is, does the use of StyleWriter actually result in improved writing? There are several approaches that could be taken to address this issue. First, a pretest/posttest design could be used. Under such an approach, an instrument could be administered to students during the first week or two of class. The same instrument could be administered to the students at the end of the course (after they were exposed to the StyleWriter project). If a significant improvement is found, the inference is that it is due to the exposure and learning caused by the StyleWriter project.

A second alternative exists. Under this approach the performance of a control group could be compared to that of a treatment group. If an instructor has multiple sections of a course, one or more could be assigned a writing project using StyleWriter (treatment). One or more sections could be assigned projects without the use of StyleWriter. At the end of the course, a common instrument could be administered to all sections to determine if there were any significant differences in writing between the control and treatment groups.

CONCLUDING COMMENTS

Faculty, students, alumni and employers all agree that writing skills are critical for career success. However, it may be problematic to incorporate written assignments into courses that are traditionally more quantitative in nature. The demands of such courses may not allow instructors much time to grade written assignments in addition to the technical projects required by the course. This is especially true if the class size is large and timely feedback is to be provided. This paper has presented one alternative that assigns written projects, yet allows faculty to provide students with timely, detailed feedback. The approach outlined in this paper has been used for several semesters. Overwhelmingly, students like the detailed feedback and the suggested alternatives provided to them. They were told when the marked up versions of their papers were returned, that the software is not infallible. They should look at their papers and the comments received as a whole...not simply focus on one or two items. If they believed they had been unfairly evaluated in their technical writing skills, they should redo the paper incorporating the suggestions provided by StyleWriter. If they still believed they had been wrongly evaluated, they should contact the instructor. During the several semesters that the project had been administered, the instructor had only two or three students in total ask for a re-evaluation of their work. Overall, the instructor believes the approach discussed above has produced benefits for both students as well as faculty.

There are several variations that could be made to the project. First, the project could be modified to allow students to resubmit their papers AFTER providing comments on content and writing. This would allow them the opportunity to revise and, hopefully, improve their projects. This variation was actually considered but rejected because the “real world” usually only presents one chance to submit a proposal to a potential client. The businessperson works toward a definite deadline with only one chance to get the final product right. Whether the instructor allows for revision of projects may revolve around one issue. Do they wish to emphasize the importance of having a polished product in response to a firm deadline or do they want to give their students a chance to concentrate on their writing skills. In an ideal world, a mix of projects, some using each approach may be beneficial. Second, a site license for StyleWriter could be obtained and installed in a setting such as a computer lab. Students could then be notified of the presence of StyleWriter and advised to use it during the completion of the course project. That way the instructor could still simulate a hard and fast deadline, but students could still avail themselves of the feedback provided by StyleWriter before submitting their papers. In addition to improving writing for an individual project, the presence of StyleWriter in a lab setting would allow students to get feedback on their writing for any course. This hybrid approach to allowing students access to feedback on their writing, yet having only one chance to submit a polished final project may hold the most merit of all.

APPENDIX

Appendix A: Writing Assignment

INTERMEDIATE ACCOUNTING II
WRITING ASSIGNMENT: 91-322
DR. XXXXX XXXXX
SPRING 2012

Politicians have devised many plans to curb air pollution in recent years. One highly visible plan calls for the government to set a cap (limit) on how much pollution in total will be allowed. It will then issue companies credits (licenses) to pollute based on their size/industry/etc. If a company ends up polluting less than its cap allows, it would have extra credits which it may trade or sell to other companies. While the viability of such plans is outside of the bounds of this class, discussion of any potential accounting issues is not. Variations of the plan outlined above have been discussed throughout the world. However, there is no single accepted accounting treatment for the issuance of credits and/or subsequent trading allowed under such plans. I would, therefore, like you to prepare a technical report that includes discussion **AND** analysis of accounting issues that would occur if such a plan is enacted. Your discussion should include, but is not necessarily be limited to:

- a. Any balance sheet problems/issues surrounding such a plan.
- b. Any income statement issues surrounding such a plan.

Explain the issues as if you were presenting them to someone who has only had a basic accounting course, such as Financial Accounting—avoid jargon whenever possible. You need to explain the background and state the issues clearly and explain alternative treatments thoroughly. Do NOT simply use jargon filled quotes. You should clearly state, in your own words, the treatment that you believe to be proper for any company that would be subject to the environmental regulations described above.

All papers must be prepared using a MS Word. You are to use The Portable Business Writer, 1999, Houghton Mifflin (By Murdick) [or other style manual] as a reference tool for the style and form of your papers. BOTH A HARD COPY AND A MS WORD FILE COPY of the paper is due by the BEGINNING OF CLASS on April 5, 2012. Assignments will be graded as follows (50 pts total):

- Maximum of 30 points for writing component (see next page for details) of your paper
- Maximum of 20 points for completeness/correctness of your paper

Be certain the paper is adequately cited! [If you do not know the difference between a bibliography and a works cited list, I suggest you consult your English Composition professor!] **PLAGERISM WILL NOT BE TOLERATED—IF THE PAPER IS NOT ADEQUATELY CITED, YOU WILL RECEIVE A GRADE OF ZERO FOR THE ASSIGNMENT!** Remember, you must provide authoritative support for your position on the proper treatment of the accounting issues. A reader should easily be able to locate the authoritative source(s) of the information you used to support your position.

Late papers and those turned in outside of class on the due date will earn a score of zero.

In the case of chronic writing difficulties---I will stop grading the paper and award a total score of 10 pts if I encounter more than five major errors on a page OR the writing is so difficult to follow that I can't understand what you are trying to say! Proofread for clarity before handing in your papers. Use short, simple sentences that are easily understood.

A Couple of Style Issues:

Do NOT use “watermarks” or similar markings to simulate the paper having been prepared on quality stationary.

1. Do NOT use any italics in the body of the paper.
2. If there is any need for a footnote...please use endnotes.
3. Please use double spacing and block style.
4. You may use either MLA or APA style for citations...just be consistent with your style.

Explanation of Score for Writing Component:

Your “writing component score” will be evaluated on the following three criteria:

1. Basic Writing Style (50% of Grade)-This category examines items such as (but not limited to), grammar/punctuation errors, spelling, confused words, clichés, overused words
2. Sentence Length (25% of Grade)-For a technical report, you should strive to keep your writing clear and concise. Ideally, your sentences should be about 15-20 words long. (Longer sentences tend to obscure meaning.) A few tips that may help you achieve this goal:

-Avoid jargon and vague writing.

-Use simple, instead of complex words.

-Use examples and illustrations to explain difficult items.

3. Passive/Active Writing (25% of Grade)-You should avoid passive writing. It tends to be dull and long-winded. Active writing, on the other hand, tends to be interesting and readable. The following examples initially show a “passive” sentence followed by an “active” sentence:
 - a. Accounting majors are involved in the researching of highly specialized topics.
 - b. Accounting majors research specialized topics.
 - a. The two equations are used to link the data that has been taken from the sample questionnaires.

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- b. The two equations link the data from the sample questionnaires.
 - a. After the application has been considered you may be contacted and you may be invited for an interview.
 - b. After we have considered your application, we may invite you for an interview.
- 30 Pts Scores in all three categories average in the excellent range
- 25 Pts Scores for all three categories average in the very good range
- 20 Pts Scores for all three categories average in the above average range
- 15 Pts Scores for all three categories average in the good/average range
- 10 Pts Scores for all three categories average in the bad/below average range
- 5 Pts Scores for all three categories average in the poor/dreadful range
-

(Explanation of Score for the Completeness/Correctness" Component appears on next page)

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