Writing Across the Curriculum Works: The Impact of Writing Emphasis upon Senior Exit Writing Samples

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Abstract
Seniors’ writing skills were assessed in 1998 at a medium-sized public university. Blind scoring, a standard scoring guide, and trained graders were used. Curricular writing emphasis was assessed through a syllabus study, yielding a Curricular Emphasis Score. Controlling for entry-level skill in writing, Writing Score and Curricular Emphasis were highly correlated.

Introduction
Writing across the curriculum is an emphasis that, like apple pie, enjoys widespread appeal. According to the MLA Commission on Writing and Literature (1985), 47% of 4-year colleges had writing across the curriculum programs, and that percentage continues to climb. The belief in its effectiveness remains strong in colleges and universities across the land. However, among writing professionals skeptics point out that after programs have been set up, assessment is often lax or non-existent. Convincing evidence sufficient to satisfy the wary researcher, policy-maker or administrator, controlling for relevant variables, is difficult to find. A partial catalogue of these relevant variables would include, at the top of the list, pre-existing writing ability as it can be estimated upon college entry. In addition, given the fact that increasing numbers of students attend more than one institution on their journey toward graduation, there is the factor of the writing emphasis found at multiple institutions. Since the experience gained earlier at another institution is beyond the control of a college or university, how does the latter institution determine what part of the writing proficiency of its graduates was contributed by its courses and what part by the prior experience?

Another major problem facing research comes from the nature of the curriculum. Accreditation standards require that virtually all institutions have curricula that foster writing proficiency along with other general education skills. Many institutions, including the one that is the object of this presentation, address this requirement through both required freshman writing courses and other required courses in the curriculum, sometimes designated as having a “writing emphasis.” The problem that remains is that learning does not necessarily follow prescribed patterns laid down in the curriculum. Students may improve their writing in many ways through a myriad of course-taking patterns, including those without any official designation as “writing-intensive.” What may be needed is a method that brings to bear an independent outside assessment of the writing-intensiveness of the curriculum. Further, such a method must allow for individualized measurement of the writing intensiveness for students’ particular courses of study.

Method
Such a method was developed by the one of the authors, the late Dr. Edward D. Smith (see Note 1), and presented at a regional assessment conference. The method requires the collection and review of syllabi for all, or almost all, courses in the undergraduate curriculum. Each syllabus is rated by an independent rater on a 3-point scale to measure the degree of emphasis on a number of process variables. These variables included the following: written communication, oral communication, problem solving, computer applications, mathematical applications, international perspectives, and diverse perspectives. The 3-point scale defines three degrees: (a) no emphasis that the process variable was being address in the course (score = 0); (b) some emphasis that the process variable received some attention at some point (score = 1); and (c) strong emphasis that the process variable received emphasis throughout the semester (score = 2). For example, strong emphasis in written communication was defined as two or more assigned papers. The method has been used at several public institutions in Virginia including the object of the current presentation. In the latter, a sample of syllabi from six departments yielded satisfactory reliability estimated by correlations between two independent raters in the approximate range of $r = .7$ to .9.
Validity was also addressed. At a second institution, validity in the area of written communication was indicated in a special study connecting curricular writing intensiveness with seniors’ writing proficiency. Writing intensiveness of the curricula in the institution's divisions (percent of courses with “strong emphasis”) correlated significantly with pass-rates on the institution-wide senior writing test; i.e., the measure of writing intensiveness in those divisions tracked the proportion of students passing the test, having majors in those divisions. This result suggests that, for measuring course process variables, the syllabus method can connect such variables with important outcomes. Further, it supports an extension of the study to another institution in the particular area of written communication. Another study based in the first institution found evidence of validity of syllabus ratings as a measure of writing intensiveness. That study found a significant correlation ($r = .80, p < .01$) across departmental programs between syllabus ratings and referrals to the university’s Writing Center.

The question of the stability of the syllabus method also was addressed. The syllabus study was repeated for the institution under study during two different years, 1996 and 1999. The same process variables named above were measured. The primary rater and investigator was the same person, an independent outside consultant. For each of the variables, chi squared analysis showed that the combined percent of “some emphasis” and “strong emphasis” did not differ significantly for any of the variables between the two years. For example, Written Communication showed a mean of 69% in 1996 and 66% in 1999.

In the current study, the institution is much smaller than the institution that was the focus of the previous study reported above. Therefore, students ($N = 71$) rather than divisions of the institution were the focus of study. It thus became necessary to devise an individual measure of the writing intensiveness of the individual's prior course of study. Since this phase of study was quite labor-intensive, a random sample of 25 students was drawn. The academic records of these students revealed the number of courses taken in each discipline. A weighted sum for each student, with weighting by the percent of syllabi that showed “strong emphasis” on writing in each discipline from the syllabus study, yielded a Curricular Emphasis Score.

For the writing outcome measure, since the university did not require a senior writing test it was necessary to recruit a sample ($N = 71$) of the graduating seniors to participate in a senior exit writing test. The testing was done in the spring of 1998. Similar writing sample data were collected from samples of seniors from 1995 ($N = 60$) and 1997 ($N = 93$). Students were selected from the list of prospective graduates, using a sampling plan designed to guarantee a good representation of subjects who transferred in freshman writing course credits and those who took those courses at the institution. With this one restriction, the sample was a random sample. Students were recruited by letter from the provost with a follow-up letter and telephone calls from the Director of Assessment. The letter invoked the catalogue graduation requirement to participate in various forms of assessment. It also offered a small stipend ($15) for all participants. Testing was conducted during the last two weeks of the term. Participation was nearly 90 percent of those students eligible and invited to participate.

The writing sample followed the same procedures and used the same test as was used by freshman writing students for the final of the spring term. For security purposes, it was necessary to schedule the testing immediately after the writing prompt was selected and just before finals week when freshmen were scheduled to take the examination. Grading also followed the same structured procedures as used for freshmen. A standard, structured Scoring Guide was used and all graders, teachers of freshman English, were trained for grading consistency. Six dimensions were rated on a 5-point scale. The scale points were as follows: 0 = failing, 1 = below average, 2 = average, 3 = above average, and 4 = superior. The dimensions of the scoring guide were the following: Summary of Reading, Critique of Reading, Personal Response to the Reading, Structure, Correctness, and Style. For this study, a Total Score based on all dimensions was also constructed to summarize performance. In addition, instructors assigned a holistic grade on the standard 4-point scale. Batches of papers were assigned randomly to readers, who were professors of English. These assignments were blind with respect to graders’ knowledge of the special status as seniors of those being graded. Readers did not read their own students’ papers, and all writers’ identities were disguised. While some graders may have suspected, they were not intentionally informed that such a special status existed. Only the Director of the Freshman Writing Program, who assisted with the project, was aware of those assignments. Superficially, freshmen and senior papers looked identical.

For statistical purposes, other data were added to the dataset: the mean grades for the two freshman English courses, the student’s cumulative GPA at the university, transfer GPA, overall GPA, and the SAT-
Verbal score. Due to the importance of examining pre-existing writing ability, the SAT-Verbal score was used as a surrogate although it is a fallible measure for that purpose. Support for this choice can be found in the results (below) where it will be seen that, of the variables in the study, the SAT-Verbal was most highly correlated with the Total Score or composite exit writing score.

Results

The syllabus study revealed that approximately two-thirds of courses at the university incorporate written communication, defined as the combined ratings of “some” and “strong” emphasis. About one-fourth showed a “strong” emphasis or incorporation of two or more writing assignments. For comparison, this degree of curricular emphasis was less than the problem-solving emphasis (> 80%), about equal to the oral communication emphasis, and greater than all the other dimensions of curricular emphasis. As already reported, results were highly consistent over a 3-year period. Senior exit writing results can also be compared on the same six dimensions plus the Total Score. These comparisons will not reveal the same degree of consistency over time as shown in the syllabus study.

Comparisons between freshman scores and senior scores were studied in depth in the 1997 study. While these were interesting and can be briefly reported, the focus of the current study was on the 1998 writing study (combined with the 1999 syllabus study), i.e., the relationships between the writing outcomes variables and the curricular process variables.

Correlations among all variables were examined with a view toward predicting skill in writing. For summary purposes, the Total Score will be used in this proposal in place of the other six writing outcome variables, of which it is the composite. Total Score correlated significantly with freshman English grades ($r = .43$), cumulative GPA ($r = .38$), and SAT-Verbal ($r = .57$). In addition, freshman English grades correlated ($r = .58$) with the cumulative GPA. All correlations were significant at the $p < .01$ level of confidence.

The role of transfer was also examined. One comparison was made between participants who transferred their freshman English credits from another institution and those who took their freshman English course at the university. The dependent variables in the comparison were the holistic grade received on the writing test and the Total Score. These differences were not statistically significant. A second related comparison looked at native students (students with no transfer credits) versus transfer students on the same two dependent variables. Again, these differences were not statistically significant. These results were consistent with those found in the 1997 writing study. For 25 students randomly selected to derive a Curricular Emphasis Score, the correlation between that score and the Total Score on the writing test was $r = .40, p < .05$. To control for entry-level skill in writing a partial correlation was conducted on Curricular Emphasis and Total Score on the Writing Test, using SAT-Verbal scores as the controlled variable. The partial $r$ was $.78, p < .001$.

Conclusions

Mean grades in freshman English courses, cumulative GPA, and SAT-Verbal scores all correlate significantly with an independent assessment of writing skills of seniors. There are no significant differences on this senior assessment of writing skills between native and transfer students or between students who had taken freshman English at the university or elsewhere. Curricular emphasis on writing correlated significantly with this senior assessment of writing skills. This correlation was even stronger after controlling for differences in entry-level writing skills as measured by SAT-Verbal scores. Thus, pre-existing writing ability (estimated by the SAT-Verbal) continues to be a strong influence on writing skills later in college, continuing through until the time of graduation. However, again there is a highly significant contribution of the curricular emphasis on writing that comes through strongly when pre-existing writing skill level is controlled. Certainly, there are flaws in the study; one could wish for a larger sample in the crucial test reported here. Nonetheless, the substantial correlation and level of significance are worthy of note.

Beyond the findings themselves, this study illustrates the use of two methods that have shown considerable promise. The first is the syllabus study method, which has been used with good results in at least four different institutions. While syllabi present only one window on the important process variables related to valued general education outcomes, these early studies are promising. They suggest that instructor’s educational intents as stated in syllabi are stable and often may be valid indicators of the general knowledge and skills that students gain.
The second innovative method introduced here is a disciplined process of assessing seniors’ writing skills. We used trained graders and a structured scoring guide with which graders have become comfortable and can use efficiently. We also made the process as blind as we could. The problem of assuring student motivation to perform well under these institutional circumstances remains difficult. However, compliance with the task was good and students’ performance was reasonably in accord with their academic records as regards writing. In other circumstances, where real consequences are attached to performance, this approach might be even more successful.

The real message is that of the title of our presentation: “Writing Across the Curriculum Works.” We believe our study has overcome at least some of the obstacles that stand in the way of making such a claim with confidence, if not certainty. Professors of English as well as many others, who believe in and care deeply about fostering writing ability in college, and who have labored toward this end for many years, can be encouraged by these results.

Notes
1. An earlier version of this paper was presented at the meetings of the Association for the Study of Higher Education, Sacramento, CA, November 17, 2000. It was also presented at the 14th annual Virginia Assessment Group Conference, November 3, 2000. The first author particularly acknowledges a debt to Edward D. Smith, Ph.D., who was a well-known and respected member of the assessment community in Virginia, and a professor of psychology at Longwood University, for many years until his untimely death in 2003. Dr. Smith was the inspiration for the method used and its successful application in many contexts including the present case, in which he collaborated fully. The first author thanks Mrs. Sherry L. Smith for her gracious permission to include her late husband posthumously as honored co-author.

2. Requests for additional information may be sent to Dennis R. Ridley, Institutional Research and Planning, Virginia Wesleyan College, Norfolk, Virginia 23502-5599.