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Using Writing Across the Curriculum in Economics: Is Taking the Plunge Worth It?

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The American Economic Association-commissioned report "The Status and Prospects of the Economics Major" states that in order to reach the central pedagogical goal of helping students learn to "think like economists," instructors could integrate the *writing across the curriculum* (WAC) approach into the teaching of economics (Siegfried et al. 1991, 211). In this article, we report on a collaboration between an economist and a writing instructor in using this writing-to-learn approach into a history of economic thought course. The collaboration includes ongoing consultation on designing assignments and feedback to students and two class visits per term by the writing instructor to discuss strategies for reading and writing. The restructured course has yielded much improved student papers, more satisfying educational experiences for students and instructor, and students who are better able to think like economists.

This article will provide enough information for the interested reader to experiment with a similar restructuring. Beginning with a synopsis of the appropriate aspects of writing-across-the-curriculum theory,[1] we report our experience in restructuring a traditionally formatted course (midterm, final exam, term paper) that had produced mediocre student papers, reflecting fuzzy student thinking. For those who have shared the depressing reality of struggling through countless rambling papers with topics but no theses, take heart: the resulting improvement in student writing, thinking, and arguing skills is well worth the modest effort.

WRITING ACROSS THE CURRICULUM

As recent research and our own experience has shown, writing can be a powerful tool in achieving the goal of teaching students to think like economists (Gregg and Steinberg 1980; Herrington 1981). To fully exploit a writing-to-learn approach, instructors must devote energy not just to the students' finished papers but to the students' *writing processes,* the strategies and procedures followed in the act of writing. It is also important to devote attention to assignment design, to clarifying the appropriate audience for the paper, and to responding to student writing.

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Process Orientation: Recursiveness and Revision

Traditionally, the writing process has been taught as a series of discrete linear steps: analyze the assignment, research the available information, create a central controlling argument, make an outline of the points to be included, write a draft, and then edit. Students usually presume that as each step is completed, the writer moves on to the next without ever returning to previous ones. In adhering strictly to a linear writing approach, students revise only by editing at the sentence and word level. This limited conception of revision not only produces weak papers, but more important, fails to take advantage of writing as an act of idea generation.

This is not how experienced writers write (Dougherty 1984). They follow a recursive writing approach, moving freely back and forth among the steps of researching, planning, producing, revising, and editing as they discover new arguments and clarify relationships. Because they understand writing as a process of idea generation, as well as a means of communication, skilled writers revise at the global *and* local levels (Sommers 1980).

When students are taught with emphasis on the writing strategies of skilled writers, they can learn to improve their own writing processes, thereby sharpening their thinking and arguing abilities.

Process Orientation: Writer-Based/Reader-Based Prose

To help students use writing to generate and polish ideas and arguments, Linda Flower (1979, 1989) has a useful model that artificially divides the writing process into two stages: writer-based prose and reader-based prose.

The writer-based stage emphasizes the power of writing to generate ideas. Putting ideas into writing not only clarifies thinking but actually creates ideas by generating new connections among those ideas. In this stage, the writer writes for her- or himself, consciously using writing to explore her or his thinking. The writer is concerned primarily with generating arguments, planning, and clarifying the audience, not with grammatical correctness.

When the writer has found a clear focus and relevant supporting evidence, he or she then transforms this self-oriented writing into reader-based prose that meets the structural, grammatical, and content expectations of the audience. To effect this transformation, the writer might take the initial draft and identify the main ideas generated. After deciding which idea best represents the main argument, the writer would express that thesis in a concise sentence or two and use it to prioritize the remaining ideas, removing those not relevant to the clarified argument.

The final step in the reader-based stage is to write a draft that *makes the main argument clear to the reader.* This entails developing the argument hierarchically, that is, general statements are supported by increasingly specific evidence. Reader-based prose takes the audience into account with an introduction that provides the context and background information necessary for the reader to understand the thesis. Even in writing the final reader-based draft, students

should remain open to reworking the thesis and reorganizing evidence. As they write more consciously for their reader, students will further generate new conceptions. Even this stage is best understood as a recursive, not linear, activity.

Audience

Students face a unique difficulty in clarifying the audience for whom they are writing. In most writing situations, the writer writes to inform a reader who is generally less knowledgeable. In sharp contrast, students are asked to write for a reader (the instructor) who is clearly more knowledgeable. This places the student writer in an artificial and hence difficult situation.

One solution is for the instructor to create an imaginary reader to serve as a more "realistic" audience for the student. A generic naive but educated reader, a professor in another course, or a fellow student in the discipline can each serve as an effective imaginary reader.

Responding to Student Writing

On the other end of the writing process is the feedback that instructors provide to students. In a course concerned with improving student thinking and writing, it is important to have students write a number of papers and to give them opportunities to rewrite. Because comments on papers provide the basis for improvement, the response to student work becomes a critical component in their learning.

A few important principles for responding to student writing simplify grading while enhancing student learning (Sommers 1982). Delineate the criteria for evaluation and make these clear to the students. Criteria might include thesis, analysis, supporting arguments and evidence, originality, organization, grammar, and so on. Create a *hierarchy of concerns* by ordering the criteria from most to least important. For example, in responding to students' writing, emphasize arguments and analytical issues instead of surface errors, thus reinforcing the importance of idea generation and global revision.

Comments are most effective when they use the essay's specific content and the reader's response to explain areas of weakness. For example, the comment "This paragraph on Ricardo's labor theory of value doesn't help me understand your argument about comparative advantage" is much more helpful to the student than "poor organization." Acknowledging some of the strengths of the paper and focusing on the most important opportunities for improvement, while ignoring less serious weaknesses, also make for effective feedback.

Given this synopsis of the relevant aspects of writing across the curriculum, we now turn to the restructuring of a traditionally formatted course.

INITIAL CONDITIONS: THE TRADITIONAL COURSE FORMAT

At York University, history of thought is taught at the fourth-year level in an elective sequence of two semester courses. Prior to restructuring, enrollments

averaged 30 students per semester. Each course required an in-class midterm, a final exam, and a 15- to 20-page term paper.

For many students, this was the first economics course that required a paper. Students usually chose from among the suggested paper topics, which identified an important issue and involved instructions like "compare," "discuss," "evaluate," or "explain and comment." Papers were mediocre, regurgitative, and uninspired. A typical paper would often competently describe the issues and relevant authors' points of view. It would fail, however, to make the reader care because the information was not tied to, nor motivated by, an organizing thesis. Frequently, the student's opinion or thesis would appear on the last page, almost as an afterthought.

In the terminology of WAC, students were submitting writer-based prose. They would string together their writer-based reading notes with minor sentence and word revisions. When a thesis did appear at the end of the paper, the writer-based stage had been useful in helping the students *discover* their argument. What was necessary (and lacking) to turn the paper into effective reader-based prose was an extensive revision process that would reorganize the material around the thesis so as to meet the reader's needs and expectations.

Although each paper received detailed comments, ranging from argumentation to spelling, over half of the students never picked up their papers. Because the papers were graded as an end product only, once the students knew the grade, the suggestions were obviously considered irrelevant. That pile of uncollected papers was a sure sign of student alienation from their writing, and a frustrating disincentive for continuing to provide detailed feedback.

When students were asked about the lack of coherent arguments in their writing, typical responses were: "How can you expect an undergraduate to say anything original?" or "How can I [the novice student] tell you [the expert instructor] anything you don't already know?"

TAKING THE PLUNGE

Frustrated with this experience year after year, I (the economist) welcomed the opportunity to enroll in a faculty seminar in Teaching Critical Skills, sponsored by the York University Centre for Academic Writing. That seminar led to the discovery that some of the poor quality of student papers was *my* responsibility and, more important, that much could be done to get improved results. What was necessary was some effort in restructuring the course. As one seminar participant put it, "You have to make a choice. Do you want to spend the rest of your career complaining to colleagues over coffee about lousy student writing, or do you want to try and do something about it?" What follows are the results of a collaborative effort with a writing instructor to do something about it.

INTEGRATING WAC INTO THE HISTORY OF THOUGHT COURSE

The assignments for the history of economic thought course were restructured around the primary objective of getting students thinking analytically and mak-

ing arguments.[2] The course content remained the same, but the in-class test and the exam were eliminated and replaced with the following requirements:

Due	Percentage of course grade	Task
Sept.–Nov.	15	Three 1-page abstracts (with revisions)
Oct. 22	15	4- to 6-page paper
Dec. 7	35	10- to 12-page paper
Dec. 20	35	Take-home final exam

Abstracts

The abstract assignments were at the core of the course restructuring. Because the students were inexperienced writers, it was clear that before they could be expected to make their own arguments, it would be helpful to expose them to what good arguments look like. Accordingly, the required course readings were divided into 60 article or chapter-length blocks. Each of the approximately 20 students was required to abstract three different readings, due at staggered dates throughout the first two-thirds of the term. Abstracts were graded on a pass/fail basis, giving students an unpressured opportunity to develop their writing skills. However, the knowledge that a complete set of the abstracts would be distributed to all students to aid in preparing for the take-home final exam created peer pressure that succeeded in motivating diligent work.

To teach how to write an abstract, we initially asked students to read an accessible course-related article (Boulding 1971) and to identify (1) the thesis—Boulding's controlling argument and (2) the main supporting arguments. Students were asked to imagine explaining their one- to three-sentence answers to a fellow student.

At the next class, the two of us modeled the process we would use in writing an abstract. We began by demonstrating an effective method of *reading* the article. Numbering each paragraph, we showed the main idea of each in three or four words, pointing out where in the paragraph the idea was stated (often in the first sentence) and how the rest of the paragraph directly related to that idea. On the blackboard, we then grouped the paragraphs by larger themes. We next worked through the grouped ideas to show the crucial step of determining the central thesis and the relationship of the supporting ideas to that thesis.

The identification of the thesis is crucial because it dictates what is to be included in *writing* the abstract and what is to be left out as less essential. It also provides the opportunity to differentiate a summary of the article, which systematically reiterates the article from beginning to middle to end, from an abstract, which requires manipulating the article. Abstracts not only leave out many less important ideas, but they usually present the material in an order quite different from that of the original article. By focusing on the difference between a summary (writer-based) and an abstract (reader-based), students are forced to assess the priority of ideas and arguments.

Establishing the priority of ideas depends critically on the intended audience. Students were asked to think of their reader as an intelligent undergraduate economics major. Because other students would ultimately use these abstracts, the actual and imagined audiences became identical, eliminating the artificiality of the student author writing for the expert professor.

At the end of the class, we presented two sample abstracts of the Boulding article that we had written. This gave the students models for their own work. The samples were used to discuss the structure of an effectively written abstract that mirrors many of the principles of a well-structured paper: stating the main argument in the first paragraph, building each paragraph around a controlling theme, writing a topic sentence for each paragraph, and limiting paragraph length.

Fortunately, we disagreed as to which idea was the central thesis. This allowed us to demonstrate how the same article can be read differently, with equal validity, depending on the reader's background, purpose in reading the article, and intended audience for the abstract. The differences between our abstracts reflected differences in our backgrounds. Because Spencer is a writing teacher, his abstract emphasized more the teaching and studying of the history of thought, whereas Cohen-the-economist's abstract emphasized more the justification for including history of thought in the economics curriculum.[3]

When students turned in their abstracts, I (the economist) gave them detailed suggestions for revision, using a standardized response sheet (Appendix A). Students were then required to revise and resubmit the abstracts; this exercise provided the opportunity to learn from the feedback and gave practice in the process of substantive rewriting. Although more can be said about feedback, that discussion will be deferred to the section "Responding to Student Writing."

Papers

Once all the students had revised at least one abstract, they were required to write a short (4- to 6-page) paper due half-way through the term. The design of paper assignments was improved by making the suggested topics controversial and worded to elicit explicit arguments. Instructors often get what they ask for from students. The thesis-less papers that I had previously received in the form of explanations of other authors' positions followed by the student's opinion were, in fact, rational responses to my vague instructions "explain and comment." In their place, I substituted more argumentative instructions, such as: "On the basis of your reading of Sahlins (1972), argue whether or not it is human nature to have 'limitless needs.' " Or, "The Physiocratic theory can be easily criticized for its errors and excessive emphasis on the role of nature. Defend the Physiocratic contribution to the development of economic theory."

To prepare students, we devoted one class to discussing basic principles of writing effective papers. Students often do not realize that instructors are primarily interested in the quality of the arguments in papers. To emphasize this objective, we discussed the power of writing for generating arguments (through writ-

ing strategies like brainstorming, freewriting, and mind maps)[4] and formulating an effective thesis.

After distinguishing between the process of writing and the end product that the students would submit, we pointed out the recursive *process* used by experienced writers and their global and ongoing vision of revision. We discussed transforming writer-based prose into reader-based prose around a controlling thesis and specified audience, emphasizing the need to discard many ideas. We concluded with the instructor's *product* expectations, moving from issues of thesis to supporting arguments, to organization and paragraph structure (introductory paragraphs, body paragraphs, and concluding paragraphs), down to sentence structure.

The emphasis on making a clear argument was reinforced by the grading priorities that were made explicit. Students were informed that their grade would not be based on which position they took on a topic, but rather on the *quality of their arguments* and the extent to which they convincingly refuted counterarguments. More specifically, without a clear argument, a student could not get a grade higher than a C+, no matter how well-written, thoroughly researched, and clearly organized the paper. A paper with an argument that was competent in the other areas would receive a B, and better writing, organization, or argumentation could further raise the grade.

The paper assignment also reinforced the thinking skills developed through the abstract process. Students were required to submit a 100-word abstract with their paper; writing the abstract gave them the experience of abstracting their own work and sharpening awareness of the existence (or lack of) a clear thesis in the paper. The assumption about the naive reader as the intended audience remained. Even though the instructor is the real audience for the paper, the naive-reader assumption removes the difficulties of the novice writing for the expert and liberates students from the paralyzing prospect of trying to tell the instructor something new. Finally, the short paper, although graded, counted for relatively little (15 percent) of the course grade, keeping excessive pressure off this still-early attempt at writing.

The longer paper assignment (10 to 12 pages), due on the last day of class and worth 35 percent of the course grade, shared with the shorter paper the argumentative topics, grading scheme, abstract requirement, and target audience. The major difference was that for students who continued in the second term, the first assignment was to rewrite the longer paper incorporating suggestions for revision from the response sheets.

Responding to Student Writing

Responding to or marking student papers is often the greatest source of apprehension for instructors contemplating a WAC course. Two fears at the top of the anxiety list are being overwhelmed by the volume of marking and lacking the expertise and/or inclination to teach grammar, sentence structure, or spelling. Fortunately, the concept of a hierarchy of concerns can allay those fears.

Students, like instructors, can also be overwhelmed by too much marking. The

story is told of a student who, after picking up a heavily red-penned paper from the professor's office, waves it despondently in the air and says to a friend, "Look, my poor paper is bleeding!" Students simply cannot absorb too much feedback. Focused feedback is more effective in helping students improve their writing. The hierarchy of concerns dictates prioritizing suggestions for revision. Those priorities are reflected in the ordering of categories on the abstract and paper response sheets (Appendixes A and B): (1) clear thesis, (2) paragraph structure and supporting arguments, (3) logical progression of thought in relation to purpose, (4) appropriate audience, and last, (5) use of language and conventions.

Given the primary objective of teaching students to think like economists, it is not worthwhile spending 20 minutes marking the spelling in a paper that does not have an argument. This does not send the signal that spelling is unimportant, just that it is less important than a thesis. It is best not to make detailed suggestions in a response category unless the student has shown reasonable competence in a higher category; to do otherwise is to mislead students as to what is most important in their writing or to overwhelm them. It is important to provide some feedback in all relevant categories, but comments in categories below the student's competence level can take the form of sample suggestions rather than comprehensive overhauls.

With this hierarchy, most marking time is spent making suggestions about categories in which instructors clearly have competence and interest: thesis, the organization and flow of an argument, and supporting evidence. Students with serious grammar or sentence structure problems are urged to seek help elsewhere in the university, such as at the Centre for Academic Writing.

Abstracts and papers improved dramatically as students used the response sheets to focus their rewriting efforts. Students did read the suggestions on the abstract response sheets, as there was no grade, which is what usually seizes their attention, and because they had the immediate task of applying the comments to their revision. For the revision of the long paper, students were graded on how well they incorporated the suggestions; again students' attention was focused on the rewriting process. Students were required to submit the response sheet together with rewritten assignments so that their progress could be monitored.

Take-Home Final Exam

The take-home exam, although not especially innovative, did reinforce the course objectives. The exam asked an argumentative question requiring students not just to regurgitate information but to organize it thematically around an analytical thesis. Take-home exams also allow for more practice in drafting and revising. Because abstracts are distributed to all students to aid in studying for the exam, there is peer pressure for doing an effective job on the abstracts.

TRADEOFFS: IS THIS WAC COURSE FOR YOU?

Although the outcomes of the restructured course have been extremely gratifying, WAC courses do involve tradeoffs, both for students and instructors. From

a student's perspective, the WAC course has the disadvantage of demanding more work. As a consequence, enrollments may drop (they dropped by roughly one-third with our restructured course format). On the other hand, advantages for students include a lower student-professor ratio and the lack of in-class tests and exams.

The most important advantage is the sense of accomplishment students derive from learning how to think and write. Many students have reported that they learned more about making an argument and defending a thesis in this class than in any other in their undergraduate education. Most single out the abstract assignments as the most instructive writing exercise. They are also struck by the emphasis on making a convincing argument, rather than looking for a specific point of view. Although some students are unsettled by not knowing what argument is expected, that must be considered constructive intellectual uneasiness.

For the instructor considering this WAC approach, an obvious disadvantage is the additional paper marking per student. This increased workload is partially offset by reduced numbers of students and by eliminating the construction and marking of tests. The total workload, however, does increase, by about 25 percent. Although the classroom time lost to writing instruction appears to be a disadvantage, the time loss was offset by the elimination of in-class tests.

The advantages fall into two categories: disadvantages that are not as bad as you might have expected, and true benefits. In the not-as-bad-as-expected category, the additional marking is evenly staggered over the term. Ten abstracts are submitted each week for six weeks. It takes only about 10 minutes using a response sheet to mark a one-page abstract. No abstracts are due the week before the short paper, providing an opportunity to clear any marking backlog. The week after short papers are submitted is also kept clear of abstracts to allow for paper marking. Marking is continuous throughout the term, but at quite a manageable pace. The end-of-term marking binge (long paper, take-home exam) is no different from that in the traditionally formatted course.

The hierarchy of concerns, combined with the response sheets, means that marking is not as onerous as expected. The hierarchy affords a convincing rationale for providing more-focused feedback in areas like argumentation and evidence, where all instructors have competence and interest, and less feedback in areas like grammar and spelling.

The true advantage is the increased effectiveness in getting students to think more like economists. There is considerable satisfaction in seeing a student, who initially could not even recognize someone else's argument, produce by the end of term a paper with a well-defended thesis. This intellectual progress is clearly related to the grading feedback, which makes marking a more meaningful, constructive, and less-alienating experience. The public-goods value of the writing and thinking skills that students acquire and the potential to reduce colleagues' complaints about student writing are also important benefits.

Given the increasing emphasis on the quality of undergraduate education and the objective of teaching students to think more like economists, transforming a traditional course into a WAC course can be rewarding institutionally, pedagogically, and personally. The restructuring described can obviously be applied in

other courses,[5] and the WAC approach can be applied in many ways. For all of these reasons, taking the plunge is well worth the effort.

APPENDIX A
Abstract Response Sheet

Student Name:

1. Clear statement of purpose/subject of article:
   (2 inches of blank space)
2. Paragraph structure; supporting arguments:
   (2 inches of blank space)
3. Logical progression of thought in relation to purpose (without unnecessary digression or repetition):
   (2 inches of blank space)
4. Audience:
   (2 inches of blank space)
5. Use of language and conventions:
   A. Sentence structure (conciseness, clarity, and precision):
      (3/4 inch of blank space)
   B. Word choice:
      (3/4 inch of blank space)
   C. Definition of important concepts:
      (3/4 inch of blank space)
   D. Verb tense:
      (3/4 inch of blank space)
   E. Punctuation:
      (3/4 inch of blank space)
   F. Spelling:
      (3/4 inch of blank space)
   G. Citations:
      (1 inch of blank space)
6. Other comments:
   (2 inches of blank space)

APPENDIX B
Paper Response Sheet

Student Name:

1. Clear statement of thesis/subject of paper:
   (2 inches of blank space)
2. Paragraph structure; supporting arguments:
   (2 inches of blank space)
3. Logical progression of thought in relation to purpose (without unnecessary digression or repetition):
   (2 inches of blank space)
4. Conclusion:
   (2 inches of blank space)
5. Use of language and conventions:
   A. Sentence structure (conciseness, clarity and precision):
      (3/4 inch of blank space)
   B. Definition of important concepts:
      (3/4 inch of blank space)
   C. Punctuation; spelling:
      (3/4 inch of blank space)

D. Citations:
(2 inches of blank space)

6. Other comments:
(4 inches of blank space)

NOTES

1. The approach in writing across the curriculum stresses the integration of the teaching of writing into disciplinary courses, attention to the writing processes of students rather than to only the finished products, and the use of writing as a tool to improve students' analytical skills (writing-to-learn). Classic WAC texts include Fulwiler (1990), Holder and Moss (1987), McLeod (1987), Meyers (1986), and Strenski (1988). Crowe and Youga (1986) were the first to provide a brief discussion on applying this approach in economics.
2. As Siegfried et al. (1991, 201) pointed out, "What is important and what is shared across all fields in the liberal arts curriculum is argument. Fields as different as literature, chemistry, and economics do not share much content, but they do share general forms of human reasoning."
3. Additional motivation for the assignment was provided by handing out a pertinent passage from Stigler (1969, 220–21): "The goal in the understanding of a scientific essay is the formulation of the essential structure of the author's analytical system. . . . Only if the analytical system is well-defined and cleansed of irrelevant digression and inessential error may we determine whether it is a worthy addition to the corpus of the science. . . . The act of reading well a piece of scientific writing will therefore be a contribution to the progress of the science: the fully professional reading has improved upon the original statement of the theory."
4. For a discussion of these techniques, see Flower (1989).
5. Lee Hansen (1993) describes his experience in teaching labor economics as a WAC course.

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