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ABSTRACT

A pilot program at the University of Michigan integrated the teaching of developmental writing and the teaching of introductory psychology based upon the two-fold principles of writing-across-the-curriculum: learning to write and writing to learn. The program consisted of four components: (1) a series of brief autonomous composition assignments that served as constituent units for longer term papers and introduced students to the writing process; (2) formal term papers that permitted the teaching of outlining, selection, organization, and revision; (3) journals based on readings from the principal psychology text; and (4) weekly conferences that served as a forum for individualized instruction and discussion of all the writing activities. The shorter compositions on discovering a topic and defending a methodology, and especially the journal writing, maintained the connection between writing and the content course. Keeping a journal, a structured activity, helped the students understand their structured content reading more clearly. The conference approach increased student motivation and allowed the instructor to provide more focused, concentrated instruction. Students were given a diagnostic test at midterm and a placement test for future writing courses at the end of the term that placed 9 of the 11 developmental students in the introductory composition courses. These successful developmental students' average final grades in psychology were better than the class average, suggesting that the joint program was effective. (References are attached.) (NKA)

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Joining the Composition Classroom and the Content Course:
A Contextualized Approach for Teaching Developmental Writing

by
Michael Steven Marx

Through the emphases on writing-across-the-curriculum and critical thinking, composition instruction has moved toward presenting writing as a mode of intellectual exploration. The teaching of developmental writing, in contrast, remains isolated, preparatory to, but independent of, the larger ideal called "college education." In a survey of 221 basic writing instructors, Christopher Gould and John Heyda report on this isolation (8-27). They find that "basic writing courses . . . seem to emphasize editing written products to meet standards of formal correctness rather than generating new meaning or knowledge through rhetorical manipulation of language" (15). Focusing on conventions and correctness has an undeniable place in the teaching of developmental writing (Shaughnessy). However, since developmental writers are often those students least prepared for college and least comfortable with the "academic discourse" of college education, developmental writing courses should not remain isolated. Instead, these courses should be recontextualized into the broader educational experience of college so that developmental writers actively engage in opportunities that invite writing to learn--a principle central to the collegiate educational process--while they are learning to write. The curriculum I discuss in this article, designed for the English Composition Board (ECB) of the University of Michigan, seeks to provide the developmental writer with such an

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integrated environment by joining the composition classroom with an introductory level content course.

The joint program rests upon the two-fold principles of writing-across-the-curriculum: learning to write and writing to learn (Knoblauch and Brannon 465-474). Developmental writers urgently need to experience and participate in this unification to enhance their understanding of the role of writing in education, and, more practically, because they are enrolled in other courses requiring papers at the same time as they are learning to write. In designing the program, my aim was to allow students to gain and develop writing skills that would be transferable to their entire academic programs. Moreover, I wanted to develop a program which would provide a mutually enriching learning environment. Writing both about and for a content course would make composition a "real" writing activity (purposeful in the students eyes) rather than a contrived exercise. Writing would invite exploration of the subject, motivating participation in class discussions and instilling a more thorough knowledge and appreciation for the subject.

The program integrated the teaching of developmental writing and the teaching of Introductory Psychology. Although this model could be applied to other disciplines, Psychology was selected for several reasons: its popularity among first semester freshpersons, the presence of writing in the introductory course curriculum, and the concern for writing Psychology faculty at Michigan and elsewhere have demonstrated (Cole 23-26; Palladina 36). Under the joint ECB-Psychology program, students attended a four hour a week Psychology class and met with me individually

for 14 weekly writing conferences of 30-45 minutes. This differs from the regular ECB format for developmental writing courses. ECB students attend an intensive seven week class which meets two hours twice a week with additional individual half-hour conferences.

Building upon the syllabus of the advanced teaching assistant of the Introductory Psychology course, I developed a four-tiered writing program integrating writing into the students' study of Psychology. Each of these components provided clearly defined tasks and progressions which facilitate composing for developmental writers. The required writing of the course was two term papers: a Psychology Research Review and a Behavior Modification Experiment. Firstly, a series of smaller, autonomous compositions served as constituent units for the larger papers and introduced students to writing as a process. Secondly, the formal term papers permitted the teaching of outlining, selection, organization and revision. Thirdly, journals based upon readings from the text entitled Psychology: An Introduction (Kagen, Haveman, and Segal) provided the kind of continuous involvement in writing required for developmental writers. Finally, weekly conferences served as the forum for individualized instruction and discussion of all of the writing activities.

Term Paper Writing Units

The first term paper unit, the Psychology Research Review, focused on developing reading comprehension skills and research technique.¹ Because the Behavior Modification Experiment

correlated more closely with the material the students were learning in class I will report on it fully here. This project asked students to try to modify a personal behaviors by choosing one of the following psychological learning theories: shaping, the Premack Principle, changing antecedents or changing consequences, theories they had been reading about and discussing in class. In addition, it built upon the critical thinking skills we were nurturing informally in the journals. Unlike the Research Review, it required that students generate their own resources, analyze them and organize them according to academic conventions.

Discovering a topic was the task of the first composition of the Behavior Modification Experiment. The instructions for this composition asked that the student write an essay "presenting your given behavior and explaining why you want to change it. . .

. When you shift into explaining why you want to modify this behavior, present three (minimum) fully supported reasons which explain why you want to change the behavior or why the behavior needs to be changed." This paper required students to apply heuristic techniques such as brainstorming and freewriting presented earlier in the semester. The students also drew flow charts of the causes leading into the behavior and the consequences the behavior produced; these helped them visualize potential patterns for organizing this composition and, later, evaluate an appropriate behavior modification technique.

Given the egocentric focus of the Behavior Modification Project, the first composition confronted students with the task of making clear to a reader what was so intimate to the writer.

I had previously introduced the concept of reader-based and writer-based prose in individual conferences; this paper in particular demanded reader-based prose if it were to be accessible to readers beyond the author. The concentration on reader-based prose helped several students understand how it is possible to write more detailed, longer papers, a problem frequently characteristic of developmental writers. It became clear to them that their difficulty with length was not primarily that they had nothing to say on a subject, but that they were making unfounded and often detrimental assumptions about their readers' knowledge. In the Research Review papers, for example, the students often felt that giving details was unnecessary because they were working from published articles available to their audience. The absence of a shared text for this paper permitted the students to see the transparency of the excuse "the reader already knows that."

To foster the ample use of detail and explanation, my instructions encouraged students to describe fully their behavior "so that the readers can visualize it in action." This suggestion, along with the drawing of flow charts, helped engage the students in their subject.² Moreover, in conference I modeled the kinds of questions a reader might ask and ultimately that writers should learn to anticipate and ask for themselves to compose reader-based texts. On the simplest level, I encouraged students to ask the what, why, or how of each idea presented. At this stage I introduced the heuristic techniques of Burke's Pentad and Journalism's 5-Ws and 1-H. Along with my questions,

these strategies helped students develop and internalize a writer's questioning process. As one student wrote in her course evaluation: "Soon I found myself asking various questions about some of the statements in my paper, thus being able to realize what I should explain about a particular statement."

The second composition of this unit focused on methodology. After studying learning theories in class, the students selected the method(s) they would use in their experiment. This composition required that students "explain and justify" their choice. The added emphasis on justification began to expose students to writing simple argumentation--writing which supports an opinion, decision or choice. Having been introduced to comparison and contrast analysis in the Research Review Project, many of the students used this approach in their freewrites and final drafts to argue the strengths and appropriateness of the methodology they chose.

The two compositions on discovering a topic and defending a methodology approximated the first two sections of an experiment write-up format. Once the students were well informed on how to proceed, rather than write individual compositions about the remaining sections, they wrote the rest of their experiments following the thorough directions the Psychology instructor provided. In conference we worked on selecting and reshaping the compositions for the Behavior Modification Experiment and their observation notes.

Journals: Reinforcing The Writing-Psychology Connection

The weekly compositions and two term papers formed one level

of integration between the Writing and Psychology courses--one pattern of introducing writing into the college learning process of developmental writers. The division of term papers into constituent compositions meant that the correlation between what the students were learning in class and what they were writing about for Composition class varied. During the Research Review project, for instance, the unit on physiological psychology greatly assisted one student investigating the effect of brain disfunctions on dreaming. The journals, however, maintained the connection between writing and the content course, fostering writing to learn.

The journal was the nexus of writing and Introductory Psychology. In addition to helping the teacher assess and guide the students' writing, journal writing actively presents the thick integration of subject content and writing practice necessary for writing as learning. As I explained to students on the first day course description. "The Journal provides . . . a place for practicing writing. The entries you write will also reinforce the material you are studying." Students were asked to write two entries of 1-2 pages for each chapter they read every week. Although aware of the benefits a journal could add to student learning, the psychology instructor was initially hesitant about journals because of the additional time "correcting the journals" would require. She also feared that the journal would simply become a collection of not-so-carefully-paraphrased summaries of the text. Therefore, we decided that much like any assignment for beginning students, the format must be carefully defined. Students were instructed that entries were

to respond to the readings in one of the following manners:

- A. Raise a question that occurred about the material you read and attempt to answer it.
- B. Discuss the relevance of a theory or concept you have read.
- C. Apply a theory or concept you have read to a real life situation. . . . analyze a situation according to a theory of concept in Psychology.
- D. Critique an idea or concept presented in the textbook.

Each of these approaches asked the students to engage themselves actively in the material they were studying. For some students the intellectual participation required by the journal proved to be too demanding. And as the Psychology instructor had predicted, some students did fall prey to writing summaries.

No matter how the students "kept" their journals, however, the journals maintained the central purpose of learning to write and writing to learn. Student comments about the journal in their end of the term evaluations echoed this benefit. For one student who consistently handed in long, exploratory entries, the advantages and excitement of the journal were obvious. He writes: "As far as journals go, I had a great time writing them. I don't really see how they could not be beneficial. Journals encourage active interaction between the material and one's own personal thoughts." Another student could not admit "enjoying" writing in his journal, but conceded: "They helped me to understand the chapters a bit more and get an idea of what was going on."

For students whose journals were primarily a collection of summaries, the journal "did not only help in writing but it was also like another study guide" which "helped refresh . . . memory

and give . . . a better understanding of the work being done": writing to learn. Reading comprehension skills proved to be a major weakness of many of the students. As reflected in the entries of even the more elementary students, the journal helped the students better comprehend their reading because it was a structured activity which forced them to pay close attention to their reading. Many students asked questions in their journals about concepts they did not grasp. Any misconceived information written in the journal suggested to the Psychology instructor areas which needed further explanation or qualification.

Conferences: The Student-Teacher Connection

In addition to journals, compositions, and term papers, this curriculum encourages beginning students to learn to write through a close working relationship between the student and instructor. One-on-one conferencing is an educational ideal not always affordable in college education, but its appropriateness and value are unquestionable for composition courses and particularly developmental writing classes (Carnicelli 104-131; Dawe and Dornan). Developmental writers lack confidence in themselves as writers and in their writing. As the term progressed and the students and I became more comfortable with each other, the close relation proffered in conferencing proved beneficial. Seeing an instructor respond to their writing potential and written performance in each conference may have encouraged some to hand in their best and discouraged others from submitting inadequately prepared work. It is easier for students to submit ill-prepared work if they do not have to sit beside the

instructor and review it. Conferencing thus revealed another advantage closely linked to the learning theories and behavior modification the students were studying in Psychology: intensified motivation. The personal attention seemed more of a reward than grades, as revealed in one student's comment: "You had much influence upon me to become a better writer. Many times as I wrote I would strive for perfection trying to impress you as a writer. I would feel much better about myself when I left your office after hearing you say 'good work.'"

As the instructor I, too, found the conference approach beneficial. Freed from holding back an entire class or penalizing an individual student, I presented instruction to each student as needed and devoted additional amounts of time to assignments as required. One-on-one conferences make all writing instruction immediately relevant and accessible. One student's evaluation of the conference approach reflects this. She writes: "The conferences were great for me because when I went in we would talk about my writing. You showed me my weaknesses and what I needed to work on. We didn't talk about someone else's writing or what a textbook said. We talked about what I needed to work on and I really liked that" (emphasis added). This student's use of pronouns reveals the different levels of success possible with individual versus classroom instruction. The student dismisses activities traditionally found in the best composition courses because they deal with an "other" writer. In contrast, conferencing provides very focused, concentrated, and relevant instruction devoted not simply to writing, but to "my"

writing, that is, each student's individual writing.

Evaluating the Joint Program

Student comments, however informative, provide only impressionistic and descriptive data on the advantages and disadvantages of the joint writing and learning program. Quantitative assessment of the success of such a writing program is more difficult to ascertain. Instructors can, however, measure the growth or improvement of the students' writing. The ECB administers an impromptu essay test to all Tutorial students at the end of each course (Clark 59-79; Fader 79-92). The students in the Writing and Psychology program took this test twice: at mid-term as a diagnostic and at the end of the term when the test results determined the students' placement in future writing courses. At mid-term, half of the students received Tutorial level assessments while the other half raised their scores to the "Introductory Composition" level. Between mid-term and the end of the semester, two of the original thirteen students dropped the class because they had failed to fulfill course requirements. Both of these students had received Tutorial assessments at mid-term. In the final assessment, nine of the remaining eleven placed into Introductory Composition. Of those, four students raised their composite scores. Two students' composite scores were lower, although their placement was unchanged. One student's score remained constant. Two of the Tutorial level writers from the mid-term assessment again received Tutorial level scores and subsequently re-enrolled in traditional seven week courses.

The joint program was designed to benefit the students' mastery of the content material as well as to improve their writing abilities. Therefore, we should also examine the success of these students in the Introductory Psychology course. There were only enough developmental writing students preregistered for Introductory Psychology to fill one section; equally important the Psychology Teaching Assistant could teach only one section of Introductory Psychology. Thus, this pilot program lacked a clearly defined control group. Five of the eighteen students in our section of Introductory Psychology were not involved in the joint program. But this sub-group was also unsuitable as a control group because they had placed into Introductory Composition on their Assessment Tests and were not all first year students. Furthermore, they participated in many of the Writing Component activities: the journals and the term papers.

Nonetheless, the average final grades of the students in the joint program suggest they benefitted from it. The average final grade of the 18 students was 2.79. Not surprisingly, the four students who failed to complete the writing component averaged significantly below this at 2.07. In contrast, the nine who successfully completed the joint program averaged 2.96, better than the class average and only slightly below the average grade of 3.06 of the non-developmental writers in the class.

Revisions for Thorough Integration

The relative merit of the coordinated classes can be attributed to two central features: the program engages the students in purposeful writing activities, and it guides the

students in a variety of activities relevant to writing throughout their curriculum. Both of these traits, however, need to be expanded and fully exploited. The following critique serves as a guideline for instructors seeking to establish such a program in their institutions.³

Like any team teaching program, this model requires the total cooperation and support of the instructors involved. The writing instructor has to remain faithful to the academic integrity of the discipline to which he or she is joined. Using content material as a springboard to nonacademic topics or informal writing activities may be a valuable approach to the teaching of writing. Yet such activities may dilute the aim of using writing as a technique for learning and gaining understanding of the content course material. At the same time, the content course instructor must treat seriously the new writing activities built into the course. In the pilot course, the reading and commenting on the content of the student journals unfortunately worked against this goal. The Psychology instructor's comments were often superficial and sarcastic, rather than encouraging and probing; this implicitly undermined the value of the journals as a forum for learning Psychology and Writing. It may have also weakened the confidence of uncertain developmental writers.

To encourage the kinds of cross-fertilization needed in such a program, both instructors should attend each other's period of instruction. One frequently heard complaint from instructors in a writing-across-the-curriculum program is that they are not experts in the subject content, or, alternatively, they are not

specialists in writing. The instructors' regular attendance in each other's course would physically represent to the students the interrelationship between the two disciplines. By attending the content course, the writing instructor becomes more knowledgeable of the materials studied in the content class; he or she can encourage the students in appropriate directions in their writing. Because most of the writing instruction occurs during conference, the regular presence of a third party may intrude on the intimate learning environment. However, occasional visits from the content teacher could be helpful in presenting writing as communication. This expert could question and help clarify the information the student presents.

Building upon the initial cooperation between the faculty and their willingness and understanding of the program they are engaging in, a joint program requires that the content instructor revise his or her traditional curriculum to incorporate more writing situations into the classroom (Donavan 12-13,34-46; "Science and Math Professors Are Assigning Writing" 19-20; Tierney 149-166). This explicitly sends the message to the students that writing is not simply a skill learned for and used in English classes. Instead, it introduces students to the idea of writing as a powerful tool for exploration, learning, evaluation, and communication. In my program, the addition of the journal--a practice occurring more frequently in many content classes--was one method of intensifying the amount and role of writing in the course. But for developmental students learning to write and writing to learn the immersion needs to be even

deeper.

Writing needs to be a fully integrated activity of the content course. It should be part of the work of that course, not simply an additional activity done because of the Writing Component. One opportunity we failed to seize upon was the writing of essay tests, a writing activity omnipresent in an undergraduate education. Because of its understanding of test taking theories and situations, the teaching of Psychology tends to rely upon multiple choice examinations. In fact, the text we used came complete with a teacher's manual of over 900 multiple choice questions for use on tests (Dodson). In light of pragmatics--the popularity and thus the large enrollments of Psychology courses--the use of multiple choice tests seems prudent. Although instructionally valid, if college learning involves interaction between the material and the student's mind required for activities such as synthesis, analysis, and what we now call critical thinking, the role of essays and short answer questions on tests is undeniable. Since part of the writing we had students do in journals and compositions was exploratory and analytical, we should have reinforced these skills in test situations. Incorporating essay tests into a course with a writing component affords the opportunity for students to learn to develop and refine the particular writing skills required of writing within time limitations and under pressure. With the writing course attached to the content course, the essay test would not simply be an evaluative tool; it would become a further resource for teaching writing.

Formal written compositions, too, need to be closely integrated into ongoing classroom activities if learning to write is to be simultaneous with writing to learn. Developed out of convenience rather than educational concepts, our structure of two term papers divided into constituent writing activities had its limitations. Structuring the writing around the two larger papers provided an effective framework for teaching writing as a process and teaching research skills. However, the often weak correspondence between the term project (especially the Research Review) and the work in the classroom only served to separate writing from the daily class work of Introductory Psychology and from the very learning it was to foster.

Bringing the term paper project into the domain of the content classroom partially rectifies this problem. For instance, students might choose topics from areas to be studied in class and to make oral presentation on the "state of the art," updating both their textbook and their classmates. Such a solution still lacks the immediate connection to the everyday learning of the course. The problem of integrated compositions can be more productively solved if, rather than being a part of one larger assignment, the individual compositions are viewed as projects unto themselves, growing out of the reading, lectures, and discussions in the course. In such a format students are immediately using the material they are learning, while the writing simultaneously reinforces their learning. As the term progresses, students might write on topics before they are formally discussed in class, a modification which might also

enhance the quality of classroom discussion.

The methods described above are ways of bringing writing instruction into the content course classroom; however, the writing classroom itself needs to exist in a more visible and tangible form than a conference format of meetings once a week. Although the individual conference is a successful method of teaching writing, its minimal contact time often creates problems for developmental writing students. Meeting only once a week requires that the students have a high level of self discipline and motivation, traits often undeveloped in students in developmental writing classes. Unlike regular classes, no intervening sessions existed to reinforce deadlines, clarify instructions, and answer questions. The tutorial arrangement places the burden of responsibility squarely on the students. Several of these freshmen, including the two who failed the course, were not mature enough to function in such an independent learning environment.

Thus, in addition to writing conferences, the Writing Component should include class meetings after the content course sessions. Coming immediately after the content course, the writing class could more effectively use the ideas studied in the content course to introduce and shape assignments, thus actualizing the connection between writing and learning. In terms of practicality, this time could be used to reinforce assignments, practice in-class writing and review student papers. A group meeting would also allow the instructor to present material pertinent to all of the students' writing at once; it would thus make more efficient use of conference time by

increasing the amount of time given to each student's particular problems.

Like writing itself, a joint program requires time. It creates new demands and responsibilities for both students and instructors. While such a program may initially create more work, the strengths enhance the quality of learning and the amount of materials mastered. Most importantly, the curriculum allows developmental writing students to experience early in their college careers the interconnection among disciplines that is the centerpiece of learning in the liberal arts tradition.

Notes

¹The Psychology Research Review unit consisted of six writing activities: discovery of a topic, summarizing, comparison/contrast, outlining, drafting, and revising. The use of primary sources for this project revealed that many of the students had reading comprehension problems. Like other developmental writers, many of my students reported having read infrequently in their pre-college years. Undertaken early in the semester, the initial compositions helped students develop reading and study skills by introducing them to the steps for writing summaries and distinguishing among summarizing, plagiarizing, paraphrasing, and analyzing. The articles they read and the summaries they wrote also served as the resources for their comparison/contrast essay and were the basis for the completed Research Review.

²In their unpublished essay "Essay Thinking: Empty and Chaotic," Emily Golson and Judith Kirscht explain that the use of visual stimuli may successfully involve developmental writers in writing. Golson and Kirscht suggest presenting advertisements and pictures as prewriting heuristics. They explain: "Visual stimuli also prove useful in engaging students with material and making them aware of their own capacity for idea formation and interpretation, for they too bypass the discomfort with writing and focus student attention off the page" (8).

³For the Fall 1987 semester, ECB lecturer Helen Isaacson and Psychology professor Drew Weston will jointly teach a section of ECB Tutorial and Introductory Psychology (Psych 172). Their

course is based upon the principles and recommendations presented in this article. They hope to study further how connected courses facilitates student learning in both disciplines.

Works Cited

- Carnicelli, Thomas A. "The Writing Conference: A One-to-One Conversation." Eight Approaches to Teaching Composition. Eds. Timothy R. Donovan and Ben W. McClelland. Urbana, Illinois: NCTE, 1980, 101-131.
- Clark, Michael. "Evaluating Writing in an Academic Setting." Forum: Essays on Theory and Practice in the Teaching of Writing. Ed. Patricia L. Stock. Upper Montclair, NJ: Boynton/Cook Publishers, Inc., 1983, 59-79.
- Cole, David. "Psychology as a liberating art." Teaching of Psychology 9: 23-26.
- Dawe, Charles W. and Edward A. Dornan. One to One: Resources for Conference Centered Writing, 2nd edition. Boston: Little Brown and Company, 1984.
- Donovan, Timothy R. "The Write Way." The Boston Globe Magazine 16 March 1986: 12-13, 34-46.
- Dodson, Jerry P. Text Item File to Accompany Kegan, Havemann, and Segal's Psychology: An Introduction, Fifth Edition. New York: Harcourt Brace Jovanovich, Inc., 1984.
- Fader, Daniel. "Writing Samples and Virtues." Writing Assessment: Issues and Strategies. Eds. Karen L. Greenberg, Harvey S. Wiener, and Richard A. Donovan. New York: Longman, 1986, 79-92.
- Golson, Emily, and Judith Kirscht. "Essay Thinking: Empty and Chaotic." Unpublished essay.
- Gould, Christopher, and John Keyda. "Literacy Education and The Basic Writer: A Survey of College Composition Courses." Journal of Basic Writing 2 (1986): 8-27.
- Knoblauch, C.F. and Lil Brannon. "Writing as Learning Through The Curriculum." College English 45 (1983): 465-474.
- Palladina, Joseph J. "Caring for Inquiring Minds: The joining of research and liberal arts goals." The APA Monitor 17 (1986): 36.
- "Science and Math Professors Are Assigning Writing Drills to Focus Students' Thinking." The Chronicle of Higher Education January 22, 1986, 19-20.
- Shaughnessy, Mina P. Errors and Expectation: A Guide For The Teacher of Basic Writing. New York: Oxford University Press, 1977

Tierney, Robert. "Using Expressive Writing to Teach Biology." The Teacher-Researcher: How To Study Writing In The Classroom. Ed. Miles Myers. Urbana, Illinois: NCTE, 1985, 149-166.