

WAC programs in secondary schools may have been fostered by the same body of knowledge as those in the colleges and universities, but their evolution has been shaped by a different set of circumstances.

School and University Articulation: Different Contexts for Writing Across the Curriculum

Mary A. Barr, Mary K. Healy

Encouraging increased articulation between secondary school and university WAC programs seems particularly useful to us, although we acknowledge the possibility of an "apples and oranges" situation when writing about programs in two such different institutions. The public schools and the universities differ in purpose, organization, and distribution of power. The public schools must attempt to educate all who are eligible; the universities teach only those who choose to attend. Public school teachers are responsible, in their curricular and methodological decisions, to a hierarchy of constituents, including students, administrators, community members, and local, state, and national regulatory agencies; university professors have far greater latitude for curricular and methodological choice and far fewer constraints on their actions.

Institutional differences aside, the role that writing plays in student learning in subjects across the curriculum remains the same. The need for teachers to engage in their own writing to learn is just as crucial at both levels if the syndrome of lecture, assigned paper, and test is to

change. Clearly, there is much for secondary school and college teachers to learn from each other about the evolution of their respective WAC programs. Articulation between public school and university WAC programs depends, we believe, on mutual knowledge of the context-specific development of each other's programs.

In order that those involved with university WAC programs can understand the developmental context of such programs in the public schools, we will first describe, quite generally, the evolution of WAC programs in the schools. Then we will describe how problems encountered in this first stage have led to the design of second-stage programs.

The First Stage: Raising Awareness

Interest in research on writing development grew in the 1970s in response to a national decline in scores on the multiple-choice tests that purported to measure writing skills achievement. At the same time, an influential study of writing development in British schools by James Britton and his colleagues (1975) investigated students' writing abilities across a range of school subjects. These researchers' recognition that the act of writing is a means of learning in all subject areas received wide dissemination in the U.S. public schools. Individual WAC presentations at local, state, and national conferences for teachers were followed closely by individual school districts offering introductory WAC in-service sessions to their teachers.

In 1980, Arthur Applebee published the first of three studies of writing in secondary schools, which both followed up and expanded on the Britton study. As the Applebee (1980, 1983; Applebee and Langer, 1987) studies appeared, the findings were disseminated via conference presentations, journal articles, and local school district in-service sessions, thus spurring a new wave of interest in WAC.

Generally, the content of these school district WAC programs was essentially informational and did not explore in any depth the theoretical connections between writing and learning articulated by Applebee and by Britton and his colleagues. More specifically, the characteristics of these first-stage in-service programs were: (1) a superficial conception of writing to learn, (2) an insufficient provision for sustained staff development, and (3) isolated individual classroom experimentation.

Superficial Conception of Writing to Learn. Fueled by the public demand for an improvement in "basic skills," state and district administrators and curriculum specialists began to include recommendations for incorporating writing activities into all subject areas in official curriculum guidelines and subject area frameworks.

These recommendations were generally quite vague—exhortations rather than clear rationales or descriptions of specific classroom practices.

Usually the recommendations asked only for the inclusion of the stages of "the writing process" or mentioned generic types of writing—the journal—rather than detailing the purpose and context for these activities and the necessary teacher or peer response essential to promote student involvement and understanding of the subject matter.

A further problem with this first stage of superficial encouragement of WAC was that the resulting student-written products usually did not match the assessment or testing schemes used in the different subject areas. Thus, students who had found journal or speculative writing helpful in exploring their confusion with the subject matter were then evaluated and graded on the basis of a quite different type of assessment—for example, a multiple-choice or short-answer test that required recall of factual material rather than the type of problem solving that their extended writing had encouraged. In many cases, the result of this contradiction in expectations was the students' rejection of the possible benefits of expressive, exploratory writing. Thus, both teachers and students were caught in the bind that results when means and ends contradict each other.

Insufficient Provision for Sustained Staff Development. As already mentioned, in-service sessions at the school and district levels were offered during this first stage to acquaint teachers with the underlying principles of WAC. Often these were one-time awareness sessions taught by visiting college or university professors with little specific knowledge or appreciation of the considerable constraints in the secondary teachers' working conditions. Usually little provision was made for extended follow-up to any of these sessions. Teachers were expected to take the ideas presented, adapt them, and use them in their classes.

Perhaps the most serious disadvantage of these brief awareness sessions was the lack of time devoted to the teachers' own writing about the subject matter of their disciplines. Typically, teachers trained in subjects other than English had little experience with the informal, speculative uses of writing—for example, logs, journals, quickwriting—that are necessary to allow students to reformulate the new information their teachers present. Without such involvement and with the ever-present perceived need to "cover" a set curriculum, most teachers failed to incorporate a range of writing opportunities in their classes after such short-term sessions.

Isolated Individual Experimentation. Another characteristic of the first stage of WAC development was isolated experimentation by individual teachers. Typically, through the institutes of the National Writing Project (NWP) and the subsequent workshops led by NWP teacher-consultants, individual teachers in different subject fields would become intrigued with how writing might aid learning in their classes. They would experiment with and adapt different methods or approaches and perhaps share their results with district teachers at a one-time in-service session.

However encouraging this individual teacher interest was, there was generally little or no district allowance or encouragement for collaboration among subject area teachers who wished to explore different uses of writing in their classes over any extended period. Nor was sufficient additional training or release time provided for teachers to pursue the implications of their experiments in order to restructure the curriculum they felt obligated to cover. Thus, thoughtful teachers reluctantly set aside promising WAC practices either because of lack of administrative support or because of the inexorable demands for covering their set curriculum (Barr, 1983; Healy, 1984).

In summary, this introductory stage of WAC did succeed in establishing the need for the inclusion of writing in the teaching and learning of subjects across the curriculum in the secondary schools, and individual teachers who had successfully incorporated frequent, informal uses of writing in their classes began to write and publish articles describing their classroom successes (Salem, 1982; Wotring and Tierney, 1981). On the other hand, this first stage also revealed a fair degree of disillusionment on the part of administrators in particular, who, after fitting WAC into their already full in-service calendars, discovered that the brief sessions had little real effect. The amount of writing their teachers were including in their subject area lessons did not increase, nor was the purpose of that writing transformed to focus more on the process of learning. Consequently, no link could be made between writing across the disciplines and improving test scores.

The Second Stage: Implementing Programs and Changing School Policies

With the K-12 curriculum reform measures passed in many state legislatures following a bombardment of curriculum reform proposals at the national level, the second WAC stage began. School policy makers, urged to set higher expectations for student writing and thinking, looked to the research in staff development as well as that in language development in order to design new curricula. What they found is the work of Britton (1975), Emig (1983), and Applebee (1980) among others, in which the benefits of writing for clarifying and generating ideas are given equal importance to the use of writing as evidence of what is being learned. Perhaps more significantly, these administrators also found the professional literature equating *effective* staff development with *sustained* staff development.

A recent article synthesizing staff development research in *Educational Leadership* (Showers, Joyce, and Bennett, 1987), for example, speaks directly to school policy makers, those with the budget discretion for staff development. The authors criticize fragmented, skill-based instruction and advocate instead a planned, school-based, faculty-wide, ongoing

program. Such staff development involving teachers in all disciplines is in line with the recommendations of some of the influential commissions studying school reform. Generally, the recommendations of these groups call attention to the teacher's own preparation as a key component in the implementation of a more complex curriculum in which students engage in problem solving and higher-order skills. The potentially nurturing context recommended by these groups bodes well for the direction of the WAC movement in public schools.

Currently, the three first-stage characteristics described earlier in this chapter seem to be undergoing a metamorphosis out of which the characteristics of second-stage WAC programs are beginning to emerge:

1. The superficial conception of writing to learn is developing into a deepened awareness of the nature of thinking and learning.
2. The insufficient provision for sustained staff development is transforming into sustained school-based, content-specific staff development.
3. Isolated individual classroom experimentation is being replaced by collaborative learning and teaching.

Deepened Awareness of the Nature of Thinking and Learning. In 1985, a publication (Costa, 1985) by the Association for Supervision and Curriculum Development (ASCD), the largest curriculum study group for school administrators, signaled a widespread recognition that the emphasis on direct teaching of "basic skills" might be depriving students of intellectual stimulation. The publication, entitled *Developing Minds: A Resource Book for Teaching Thinking*, was a collection of disparate notions of what it means to help students think. With an introductory quotation from Walt Disney ("Our greatest national resource is the minds of our children") to set the tone, the collection, although replete with mindless recipes and simplistic checklists for "thinking across the curriculum," nevertheless did propose a national agenda for improving student learning through attention to learning processes. In this proposal, writing became more than a way to test student knowledge of subject matter and use of conventions; instead, it was linked with the students' learning processes and moved to the top of the schools' agenda.

The current test score situation is helping focus school administrators' attention on sustaining support for WAC programs. With few exceptions, achievement scores for poor and ethnic minority students remain low in a context of low scores for the general student population. This situation has become politically unbearable for those who administer schools; test scores are published in the newspapers, schools are compared, and administrators' careers are on the line. The first defense against public attack in the past has been to cite a correlation between race, socioeconomic class, and achievement. Currently, however, models of superior achievement in poor and minority schools, such as that provided by Jaime Escalante and

his students at Garfield High School in Los Angeles, discredit the notion of the immutability of achievement by disenfranchised students. Many teachers and administrators are beginning to go beyond superficially conceived programs devoted to "basics" and minimum competencies because the promise of this focus has not been fulfilled.

The latest study of writing by the National Assessment of Educational Progress (Applebee, Langer, and Mullis, 1986) reports as its major conclusion that "students at all grade levels are deficient in higher-order thinking skills" (p. 11). The report goes on to say that "students have difficulty performing adequately on analytic writing tasks, as well as on persuasive tasks that ask them to defend and support their opinions. Some of these problems may reflect a pervasive lack of instructional emphasis on developing higher-order skills in all areas of the curriculum. Because writing and thinking are so deeply intertwined, appropriate writing assignments provide an ideal way to increase students' experiences with such types of writing" (p. 11). Applebee, Langer, and Mullis recommend that *both* reading and writing tasks be integrated into student work throughout the curriculum because of "the relationship between reading proficiency and writing achievement" (p. 12).

New expectations, arising out of similar reports on reading and writing research (Anderson, Hiebert, Scott, and Wilkinson, 1984; Freedman, Dyson, Flower, and Chafe, 1987), insist on a respect for the learner's prior knowledge and the provision for the active construction of new knowledge as well as the comprehension of complex and valued text by all students. Applebee and Langer's (1987) study of writing achievement across the curriculum attests to the fact that writing improves higher-order reasoning abilities. WAC programs are ideally suited to these new expectations for they provide the theoretical base for teachers and the instructional strategies that enable students to reformulate ideas from text.

As a consequence of the new understandings about learning, testing is changing. Commercial test publishers and state testing offices alike are reviewing their tests to align them with the goals of the recent national curriculum reform efforts. Teachers, as well as administrators, are looking for content validity—consistency between what is tested and what is taught—knowing that teachers and schools will be judged solely by the test results. For the first time in U.S. history, test makers are being asked to ensure that their products do not contradict the instructional practices on which WAC depends.

The development of the new California Writing Assessment is one example of a test that supports WAC goals. The test uses a matrix sampling technique that assesses schoolwide achievement rather than individual student performance and therefore does not restrict the curriculum to one or two kinds of writing. Instead, the test evaluates whole pieces of discourse from various genres. Each student writes one type of essay

that contributes to the overall school profile of achievement in writing. Selected groups of social science and science teachers as well as English teachers have developed the writing tasks and scoring guides for the assessment to reinforce the necessity of frequent writing across the curriculum with appropriate instruction.

This assessment does more than merely rank students according to their performance. The test evaluates the characteristics that define different kinds of writing, and follows a conclusion reached by Hillocks (1986): "Scales, criteria, and specific questions which students apply to their own or others' writing . . . have a powerful effect on enhancing quality" (p. 249). Using a scoring system perfected by Charles Cooper, University of California, San Diego, and a team of teachers from throughout the state, this assessment gives most weight to the ability of all students to marshal their ideas in a given writing situation. The situations posed represented real tasks confronted by writers of all kinds of writing: autobiography, problem and solution, report, interpretation, and speculation about causes or effects. This new state writing assessment will provide evidence of the development of student reading and writing achievement across a wide range of topics and genres over the years of schooling.

Students cannot succeed on either traditional or new assessments, however, without frequent opportunities to write informally in their classes. By writing their way to understanding, they integrate what they are learning with what they already know. And WAC proponents are not surprised that the quality of student writing improves as students move beyond the formulas and correct answers imposed by those concerned with final products only. This correlation between process and product is central to the nature of second-stage WAC staff development.

Sustained School-Based, Content-Specific Staff Development. Models of staff development have emerged in state and district settings that promise broad dissemination of WAC programs. State departments of education have brought attention to working classroom and school or district models. For instance, Judy Self (1987), a curriculum consultant for the Virginia Department of Education, has edited a collection of articles written by and for Virginia teachers about specific issues in using writing across the curriculum. The collection, *Plain Talk About Learning and Writing Across the Curriculum*, features lively writing by professionals eager to share the results and the solutions to the problems of using writing to learn in their subject areas. The articles are thoughtful, referenced to scholarship in the field, grounded in classroom practice, and mindful of school-based questions. For example, in "When Writing to Learn Didn't Work in Social Studies" (pp. 69-76), Bernadette Glaze, a high school history teacher, explains how she learned to help students put school knowledge into their own words. And, in "Yes, Writing in

Math" (pp. 51-59), Pam Walpole describes the ways her students have used writing to improve their grades and test scores.

In 1985 the California State Department of Education began its subject-specific staff development projects with the California Literature Project, so named to highlight the use of literature as the content of the English class. The project goal was to create a cadre of English language arts teachers, representative of regions and districts across the state, whose task would be to illustrate what happens when a broad-based understanding of language and learning research and the instructional strategies necessary to improve student literacy are implemented. Teaching writing is, of course, one of the most important of these strategies.

Presently, 200 teacher-leaders in the California Literature Project are supported by representatives from district and county offices and colleges and universities to conduct field tests in their own classrooms of research-based methodologies and contents; they also provide services to districts, such as workshops, demonstrations, and consultations, and they conduct summer institutes and two years of follow-up support for other teachers. Teacher leadership in the other academic areas will follow this model of extended staff development, in which writing is incorporated as a fundamental way to acquire meaning from text and experience.

These state models for implementing WAC programs support school staffs who are in the process of developing their own site-based programs—in Virginia, by publicizing the work of individual teachers and schools; in California, by equipping schools and districts throughout the state with informed and experienced teacher-leaders in each subject area.

Aided by the state models that lend credibility and policy assistance, schools and districts in Virginia and California are growing their own consultants. Rather than depending on the traveling expert who cannot help with the specifics of implementation, mature WAC programs now conduct ongoing, school-based staff development with local talent. In the Fairfax County public schools in Virginia, for instance, where Marian Mohr has brought national attention to the importance of classroom-based teacher research, a faculty group at Langston Hughes Intermediate School conducted classroom research studies of the learning being done by minority and underachieving students. As significant as their findings is the district publication of them, entitled *Teacher Research on Student Learning* (Langston Hughes School-Based Collaborative Research Group, 1987), which demonstrates a serious attempt by a school staff to use writing itself to clarify the effects of school goals and practices.

At San Diego High School (SDHS) in California, student writing across the curriculum flourishes, achievement is up by all measures, and there is a waiting list for students to enroll. This scene runs counter to what was happening before SDHS became a magnet school, drawing white students to the inner city. The key to success in this case is the

intensive and sustained faculty involvement in WAC staff development. Key teachers like Sharilyn McSwan (English), Beth Schlesinger (math), Norm Leonard (second language), and Stan Murphy (history) work together to design the in-service program supported by a highly trained, full-time in-school resource teacher. Reassigned from her regular classroom, Barbara Storms is this resource teacher who maintains the school-wide teacher network as well as making connections with district curriculum staff and professional organizations. The program includes full-day departmentwide workshops, a faculty book club, demonstration lessons conducted by a widening circle of key teachers, training for college aids in the writing process, and monthly "writers' forums" to discuss program issues and results.

Collaborative Learning and Teaching. With the understanding that the writing and learning processes require collaboration among writer-learners and their interaction in response to the accumulating meaning on the page or the computer screen, there is a new emphasis on collaborative learning for both students and teachers. The formerly quiet classroom has given way an active, often noisy community of learners. Teachers, supported in this second stage by their administrators who have read that collaborative learning will bring higher test scores, are using response and discussion groups.

The question now is not *whether* to use small groups for response to writing in progress but *how*. Teachers across the disciplines who once refused to include writing activities because they worried about having to grade papers now understand the ways in which collaborative groups can provide response using class- or teacher-made criteria for product evaluation. We do not mean to imply that all teachers can use small groups or that they all understand the value of many readers and writers in the classroom, but these techniques and ideas are widespread, and many local teachers are available as models.

Conclusion

The second stage of WAC clearly depends on this now-critical mass of teachers who themselves use collaborative learning in their own classrooms to create that community of learners so necessary to success in school and college. That these teachers are, at least in some cases, being supported by state and district offices enlarges their scope of influence. And these teachers believe that, just as they must be writers and readers themselves to teach writing and reading effectively, they must also collaborate with each other in order to understand the principles and benefits of collaboration for their students. As Swanson-Owens (1986) points out, resistance to curricular change occurs when the proposed changes contradict what teachers believe about learning and teaching. It should,

therefore, come as no surprise when we find that successful WAC programs are found only in those schools where teachers are involved in activities similar to those that they design for their students. More specifically, schools succeed when the emphasis, by both teachers and students, is on writing and thinking about relevant and significant ideas within the subject areas.

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Mary A. Barr is director of the California Literature Project and is a member of the board of consultants of the National Network of Writing Across the Curriculum Programs.

Mary K. Healy is research and training coordinator for the Puente Project—a writing, counseling, and mentoring program for Mexican-American community college students sponsored by the University of California and the California community colleges. She is also regional director of the International Sites of the National Writing Project and coeditor of the National Council of Teachers of English journal English Education.