

Developing a Technical Communication Program: The Role of the WPA

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Writing program administration is often thought of as directing only the freshman composition writing classes in a college or university. The roles of writing program administrators (WPAs) are expanding, however, to include other kinds of responsibilities, such as directing writing across the curriculum activities or intensive learning experiences. Another role often not written or thought about is administering technical communication programs, which sometimes involves developing them as well. WPAs (or "whoppers" as I've seen us called on the WPA network that David Schwalm has started) may well ask, "Why will I want to develop one? I'm busy enough already." WPAs are now more involved in program development than ever before, and conceptualizing a program in technical communication is not an unlikely expansion of the role of the WPA, although actually developing it might be delegated to someone else. WPAs becoming involved in this development will ensure that the new program shares an integrated and coherent relationship to the rest of the writing program.

Most WPAs recognize that technical communication has become a permanent part of the writing program at a number of universities. The number of technical communication programs has grown dramatically in the last 10 to 15 years. In the latest edition of the directory of *Academic Programs in Technical Communication* (Kelley et al.), fifty-six institutions reported technical communication programs of one kind or another. Earlier editions, one published in 1976 and the other in 1981, also report the growth of such programs. Between 1976 and 1985, the number of programs almost tripled; and in the four years between 1981 to 1985, the number of programs doubled (Kelley, Masse, and Sullivan).

Additionally, many institutions have developed successful classes in technical writing. Most of these classes in universities are offered at the upper-division level and satisfy, as they do on my campus, the upper-division writing competency requirements. Sometimes these classes become the core of a program, making it possible for a coherent program to be developed without adding many new courses.

That many schools now have successful programs, of course, is not an adequate rationale within itself for creating one. More to the point, I believe, is that recent theorizing about the place of writing in the university

reconceptualizes the role of a WPA in many ways. Complex questions are being asked about the history of writing studies and its institutional structures (Little, 1993; see Russell, especially 3-34). Its traditional association with English departments is being questioned and, in fact, the number of separate writing programs has recently increased dramatically with new departments of rhetoric and writing at Colgate University (Howard; Jamieson and Howard), San Diego State University (Little, 1991; Little, 1993; Rose), and the University of Arkansas at Little Rock. A new division for rhetoric and writing has been created also at the University of Texas at Austin.

The impact of writing across the disciplines focuses the attention of teacher scholars on the discourses of all disciplines, rather than privileging one text (such as the literary) over another (such as the scientific), making WPAs and all scholars in writing studies question the shape and content of writing classes at all levels. Technical communication has emerged in recent years as an important area of study within this broadened, expanded view of rhetoric and writing studies. Technical communication includes under its large, undefinable umbrella a broad range of writing, and many have tried to develop a workable definition that encompasses all its aspects. At the 1990 Wyoming Conference, Stanley Fish suggested, "All writing is technical writing." For my purposes, however, I'm suggesting a more limited meaning, one associated with the writing that a professional technical writer produces, a professional educated in what Carolyn Miller identifies as the "rhetoric of 'the world of work'" ("What's Practical" 24). The mission of the program I will discuss here would be to prepare technical writers to enter the profession of technical communication.

What this essay provides is information that can serve as suggestions for developing such programs, questions that must be answered before beginning, and resources available to any WPA who might be asked to or chooses to develop such programs. You'll find additional details, like addresses, in the Appendix. This essay also discusses an issue familiar to most WPAs: the conflict between theory and practice that confronts composition studies itself, the conflict, in the words of John Schilb, "between its populism and its service ethos" (96). In technical communication studies, this conflict is sometimes referred to as the "Is-ought" controversy (Johnson). Carolyn Miller suggests that these sets of "related oppositions" can be resolved by considering Aristotle's *techne* and *praxis* ("What's Practical" 21). In an earlier work, she identifies the "humanistic" concerns of technical writing ("A Humanistic Rationale"), and perhaps WPAs can see a model for their own resolution of this issue in the ways that technical communication tries to come to terms with this problem.

Questions To Ask Before You Begin

An important first step for any WPA who thinks about developing a technical communication program is to become familiar with the kinds of programs that other institutions have designed by studying such sources as the directory published by the Society for Technical Communication (STC), *Academic Programs in Technical Communication*. Although woefully out of date, this STC directory does describe programs, illustrating the kinds and numbers of courses required. Notice immediately that technical communication programs come in a variety of shapes, depending on resources and student needs; however, C. Gilbert Storms identifies in all this diversity three components shared by most programs: coursework devoted to technical writing, preparation in technical areas, and application experiences such as internships. Many programs are certificate programs at either the graduate or undergraduate level, sometimes spanning both levels. Because certificate programs are usually adjuncts to a degree program, they are open to both students pursuing a degree and to those who already have completed degrees, making them very flexible programs. Some certificate programs are extremely thorough, requiring as many units as an undergraduate major, while others require as few as one or two courses. The program in technical and scientific writing at San Diego State University, for example, requires 21 units and includes a required core of classes in writing and technical writing, classes in technical specialties, and internships. Some technical communication programs are undergraduate programs; some are master's programs. Many of these graduate and undergraduate programs reveal the same diversity found in the certificate programs.

Technical communication is an interdisciplinary field so new that programs can use many existing courses. For campuses suffering economic reverses, beginning a new program that demands an increase in resources is not possible; but because existing courses can provide much of the technical information technical communicators need, such as information about computer technology, graphics, science, engineering, and business, programs can be developed with a minimum of new resources required. All that will be needed is some cooperation among the departments providing these courses. Because we are not talking large numbers of students, no strain will be placed on other departments' budgets as well.

Developing these close ties within the university community brings up another question that must be resolved: What are the needs within the academic community that will supply the clientele for the program and the needs of the industrial community that will most likely be hiring students

when they have finished the program? Sometimes programs are designed to appeal to English majors who need a better alternative for a career than teaching or selling books at Walden's bookstore. I have heard some people refer to such programs as a means for creative writers "to support their habit." Although these justifications have some validity, the appeal of technical communication programs extends beyond the English major. People from many fields become professional technical communicators. Students enrolled in the program offered at San Diego State University, for example, come from all disciplines of the university, including English, engineering, religious studies, Classics, nursing, and geology.

The number of faculty needed to give a program continuity and permanence depends, of course, on the type of program offered. At San Diego State University, for instance, two faculty members specialize in teaching technical communication. Local practitioners with experience in teaching writing also teach part-time in the program. The certificate program at UCLA is taught by practitioners who have also helped design the program and the courses. The master's program offered by the University of Washington, which has its own department of technical communication, demands a higher number of tenured and tenure-track faculty. Many programs, especially at the graduate level, offer degrees in rhetoric or English with an emphasis or specialization in technical communication. In these programs, faculty in rhetoric join those in technical communication in offering courses, and many faculty in rhetoric have backgrounds that span both areas. A prerequisite in the best programs expects faculty to have experience as both practitioners and academics.

Identifying Technical Communication Resources

WPAs have learned from such activities as the WPA Conference and the WPA electronic network that we all face similar situations. Talking to each other and learning from other people's experience allow us to accomplish our responsibilities without reinventing the wheel. Such networking is certainly recommended in developing and directing technical communication programs. Many experienced administrators can provide helpful guidance and advice. One organization that creates a forum for technical communication program administrators is the Council for Programs in Technical and Scientific Communication (CPTSC). Proceedings from its annual meetings describe many programs, as well as the procedures undertaken to develop them. CPTSC, which joined STC in developing the third edition of the directory of academic programs published by STC, is now jointly with STC developing an electronic directory that can be

updated and accessed easily. CPTSC is also designing a self-study program, modeled after the WPA self-study, that will help to develop new programs and to evaluate established ones.

STC and its journal *Technical Communication* offer much valuable information; especially helpful is the 1984 Fourth Quarter issue, dedicated to education. One article in this issue, among many fine ones, is the descriptive study of types of programs reported by C. Gilbert Storms referred to earlier. As well, STC holds the annual International Technical Communication Conference (ITCC), now renamed the STC Annual Conference, publishing a *Proceedings* that includes good information about all kinds of programs, both academic and industrial.

Besides CPTSC and STC, another resource is the Association for Teachers of Technical Writing (ATTW), an organization that publishes the *Technical Communication Quarterly*, formerly *The Technical Writing Teacher*. This journal is another good resource for information about programs, classes, and other pertinent subjects. Articles, such as Earl McDowell's survey of undergraduate and graduate programs in the United States, explore curricula, providing good overviews of programs. ATTW publishes an anthology series too that includes valuable procedural information, such as William Coggin's anthology on establishing and supervising internships.

Other journals provide help. *IEEE Transactions on Professional Communication* published Paul Anderson's article on designing programs and Lionel Howard's earlier survey of technical communication programs in the United States. The *Iowa State Journal of Business and Technical Communication*—now the *Journal of Business and Technical Communication* (Sage Publications) that published Meese and Wahlstrom's descriptions of graduate programs being developed in the United States—can save hours of work if you are thinking about a graduate program. The *Journal of Technical Writing and Communication* (Baywood Publishing Company) is also worthy of study for information on programs and courses.

Such a short description of resources illustrates the best advice I can offer: network.

Developing Ties with the Industrial Community

Earlier I suggested that developers of technical communication programs should know the needs of both the academic community and the industrial and business community that will be hiring students who complete programs. I have already suggested that many courses can be part of an interdisciplinary program developed with other departments in the uni-

versity. Of vital importance as well are close ties with the industrial community outside the university.

One of the best ways I know to create such ties is forming an advisory committee or corporate advisory board, a type of group not overly familiar to English department faculty. This group is not made up of faculty from the departments of the university but of representatives from industries in the community who would be interested in helping to develop a technical communication program. Being active in a local STC chapter can create valuable contacts for anyone hoping to develop a technical communication program and to establish an advisory committee. Not much is written about advisory committees, how to establish them and maintain their continuing support. Brockmann published an early, brief study of advisory boards, and CPTSC *Proceedings* published suggestions for establishing and maintaining them (Little, 1985; Bosley; Deming). Such an advisory group can give much support to a developing program, and involving these industrial representatives in developing a program helps them identify strongly with the program, much to the program's benefit. They can be especially beneficial in establishing internships and providing employment opportunities for students.

Universities in rural areas may need to look to a larger metropolitan area to develop ties with industry, perhaps even to state-wide networking. Some universities call on alumni who have moved into metropolitan areas to serve on their advisory committees, although doing so may prove expensive to either the university or the alumni if members are asked to travel great distances and to spend large amounts of time in meetings on campus. Working with people on campus who are interested in fund raising may provide some support for this cause. Internships can be provided within the university too, as at Oklahoma State University (Southard) and University of Texas at El Paso (Hager).

Needs assessment studies also provide valuable feedback about the type of program industry desires, although care should be taken that programs not become training grounds for immediate jobs while overlooking that the technical communicator of the future may need more than the skills and techniques used by the technical communicator of today. Some studies of practitioners (Little and McLaren; Green and Nolan; Buchholz) can supplement the advice of advisory committees; however, keep in mind that, although advisory committees and studies of practitioners give much needed and much appreciated advice and support, their role should remain advisory. Miller ("What's Practical") and Anderson address the descriptive versus prescriptive use of information about the practice of technical communication. This "uneasy relation" mirrors the debate in composition studies as well as "a larger debate in American higher

education" (Miller "What's Practical" 18). Any WPA developing a technical communication program must remain critically aware of the implications of this debate.

Balancing the Theoretical and the Practical

Critical to the success of any technical communication program is the issue of whether the program is *training* a student for a position as technical communicator or *educating* the student to become a contributing member of society. This issue applies to all programs, whether at the undergraduate certificate level or at the graduate degree level, if not to all education today and, as I mentioned earlier, to composition studies as well. It's certainly an issue that those technical communication programs housed in English departments will have to address. A study by William Rivers in 1985 reported that most technical writing is taught in English departments, and the directory, *Academic Programs in Technical Communication*, corroborates this finding. In many ways, the English department is an uneasy home for technical communication programs, primarily because of the issue of what constitutes *education* and how it differs from *training*. Technical communication can be regarded as suspect if it is seen as a study of how to get a job rather than as critical questioning of and inquiry into such issues as ethics and the history of science and technology, the implications of information as a product instead of a means--in truth, the place of technology in a college liberal arts curriculum. Walking the tightrope and balancing these forces demand careful, continuous awareness of the issue of what place practice plays in relation to theory. Of particular value in seeing this issue revealed in technical communication studies, in addition to those referred to earlier, are David Dobrin's "What's Technical About Technical Writing?" and "What's the Purpose of Teaching Technical Communication?" The publication *New Essays in Technical and Scientific Communication: Research, Theory, and Practice*, edited by Paul Anderson, R. John Brockmann, and Carolyn R. Miller, is a must-read source for all WPAs who are thinking about creating technical communication studies in their writing program.

David Kolb and other experiential learning theorists also provide a partial solution to this issue when they see the growing acceptance of "the critical linkages that can be developed between the classroom and the 'real world'" (Kolb 4). These critical linkages use "the workplace as a learning environment that can enhance and supplement formal education. . . . [Experiential learning theory] stresses the role of formal education in lifelong learning and the development of individuals to their full potential as citizens, family members, and human beings" (4).

The internship, one experiential learning strategy that bridges the gap between theory and practice—that which distinguishes *education* from "mere" *training* of techniques and skills—becomes a critical link in successful technical communication programs. Many of these important internship experiences can be provided by members of the advisory committee, who are especially aware of seeing it as the culminating experience it can be.

Conclusion

WPAs will find that developing a technical communication program provides many rewards for the hard work entailed. Technical communicators are in great demand, and as technology continues in its ubiquity and increases in its complexity, the need for technical communicators promises to continue. Education has answered the demand for technical communication by developing in the last few years new programs, programs that need administrators, and a good deal of interest remains in developing more new programs or in expanding existing programs into degree or graduate programs. The WPA's role in this program development, perhaps only at a conceptual level or in its actual development, will ensure that the technical communication program forms a coherent piece within the entire writing program.

The benefit of such programs to students is obvious: they get jobs. More important is their role in making technology available to the user, their introduction into a world of writing that with all its constraints provides a complex challenge to their experience, education, and skill. Developing these programs also provides a complex and familiar challenge for WPAs to keep a balance between theory and practice, to make careful use of the important ties necessary for the success of these programs without obligating themselves to a program that they cannot defend or to a program that suffers from a schizophrenic attempt to be all things to all people.

Note

1. For more on the use of internships in technical communication programs, see my article, "The Technical Communication Internship: An Application of Experiential Learning Theory," *Journal of Business and Technical Communication*, forthcoming.

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Appendix

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