Despite their success at improving writing, learning, and teaching, writing-across-the-curriculum (WAC) programs are seen by several researchers to be in difficulty. Increasingly, one of the most pressing questions for WAC advocates is how to keep such programs going in the face of numerous difficulties. Case histories offer the best chance for fashioning rhetorical arguments to keep WAC programs going because they offer the opportunity to provide a coherent narrative that contextualizes all documents and data, including what is generally considered scientific data. A case study of the WAC program, "Writing across the Business Disciplines," at Robert Morris College in Pittsburgh demonstrates the advantages of this research method. Such studies are ideal homes for both naturalistic and positivistic data as well as both quantitative and qualitative information. (Contains 24 references.) (NH)
The perceived success of writing-across-the-curriculum programs has made them widely popular at colleges and universities across the United States. Susan McLeod's 1989 study estimates that almost half the schools surveyed were in some stage of planning or implementing a WAC program. McLeod points out how startling these statistics are "considering that only a decade ago only a handful of such programs existed" (338). Although that study is now four years old, its conclusions about WAC popularity seem to be, if anything, conservative. In a 1990 article, Cornell and Klooster suggest that "in terms of numbers of participating institutions, the WAC movement has never been stronger" (7). The February, 1992, award-winning WAC Teleconference sponsored by PBS and Robert Morris College is estimated to have drawn more than 15,000 viewers to 200 downlink sites. The February, 1993 edition of the videoconference achieved another sizable audience at more than 100 sites. Plans are now underway for a fourth Videoconference in 1994. My colleague, Bill Sipple will be talking more about that shortly. A movement that, four of five years ago, a number of people, including Toby Fulwiler, saw as waning is still going strong.

Despite their success at improving writing, learning, writing in the disciplines, and teaching, WAC programs are seen by several researchers to be in difficulty. Cornell and Klooster warn that the continuation of writing-across-the-curriculum programs, even well established ones, is threatened. Richard Young points out that the goals of such programs conflict with other goals already established at the university. David Russell warns that the
grant money that was used to implement many programs has dried up. Russell also puts the history of cross-curricular writing programs in dismal perspective: such programs have occurred before in the history of American education; all have failed. Increasingly, one of the most pressing question for WAC advocates is how we can keep such programs going in the face of these difficulties.

A number of approaches to adding longevity to WAC programs have appeared, including on-going searches for outside grant money and attempts at implementing or continuing under-financed programs. But, in the end, most program directors and supporters will need persuasive rhetoric to keep their programs going. WAC advocates on a particular campus must eventually face their own administrators or those from some outside funding agency and argue that their particular program is succeeding or will succeed. In “finding the available means of persuasion,” they will need some proof that such programs work. What kind of proof suffices? My colleague John O’Banion has clearly and forcefully pointed out that this difficult problem is not new (O’Banion). The on-going battle between positivists and phenomenologists has often succeeded in effectively presenting, with each salvo, about half the answer.

My argument today is that the case study has been misunderstood and underused in this debate. Such studies are ideal homes for both naturalistic and positivistic data. Case histories offer the best chance for fashioning rhetorical arguments to keep WAC programs going because they offer the opportunity to provide a coherent narrative that contextualizes all documentation and data, including what is generally considered scientific data. The histories that can result offer us opportunities to draw meaningful conclusions and make effective arguments to justify the continuation of our WAC programs. After examining why quantitative/qualitative issue has become such a difficult one, I will briefly discuss the implications of this issue today and examine the growth of the acceptance of the case history to resolve it. To prove (not just illustrate) my point, I will use my own case study of our WAC program, “Writing Across the Business Disciplines at Robert Morris College: A Case Study,” to show the advantages of this research method, especially its ability to bring together these two supposedly disparate kinds of research.

“What in the universe constitutes evidence” (64)? Janet Emig asks in the February 1982 CCCarticle “Inquiry Paradigms and Writing.” She argues in that famous article that positivists decontextualize and therefore sometimes distort situations.

For the phenomenologist, focus upon the phenomena must include
acknowledgement of the field; but for the positivist, there is no field, only focus, only the phenomenon to be examined a-contextually, with no consideration or acknowledgement of setting. Consequently, they engage in "context-stripping" (66).

Not only have the positivists claimed all the credibility, Emig argues, but, they also control too much of the research funding:

Within a single inquiry paradigm that can be tagged as the positivistic reside many researchers in the physical, biological and social sciences, as well as most evaluators of research in state, federal, and private funding agencies - a matter of immense conceptual and political consequences since it means that believers in a single mode of research guard almost all entries to monies and to influence (64-65).

David Foster maintains the ability of the discipline to credibly accumulate knowledge may hinge on the outcome of the argument.

Perhaps precisely because composition is a hybrid entity embracing contrarieties, the scientific emphasis has generated forceful opposition from those who believe much important knowledge in composition is not and cannot be scientific. These scholars argue that the true condition of science do not obtain in composition inquiry because much of what is important in composition cannot be measured or verified, and knowledge not verifiable in the scientific sense cannot accumulate... (34).

Stephen North suggests authority from other disciplines powerfully motivation this search for paradigm allegiance.

Experimentalists bask in the reflected glow of the social sciences, seeking a share of their institutional currency; formalists (for example, those who infer cognitive models from protocol analysis) draw legitimacy from psychology and information theory; scholars - rhetorical theorists and historians - perceive themselves as the defenders of humanism (Foster 35).

This is a high stakes game. Our legitimacy to each other, to granting agencies, our interdisciplinary consistency, and our belief in our ability to best accumulate knowledge as a profession, all seem to rest to some degree on the outcome of this debate.

But keeping our WAC programs going is also a high stakes game in which increased learning, literacy, and good teaching can go to winners. Indications of how this problem can
be solved have begun with the wider acceptance of phenomenological research. As Emig suggests, the tide against descriptive or phenomenological inquiry is shifting. Scholars are recognizing the imperative of doing and accepting both kinds of research, if not yet in an entirely integrated way, at least separately and perhaps equally. David Foster tells us that,

The scientific and humanist ways of knowing can carry equal power for the knower, provided he or she understands the different processes of knowledge upon which each depends. We know some things as humanists, some things as scientists, and we can accommodate each way of knowing into our total field of awareness so that we prevent ourselves from being trapped into dualistic either-or thinking (37).

Richard Lloyd-Jones writes recently that the CCs is headed in the right direction in accepting more qualitative research. "All research reports are essentially persuasive documents. . . . I'm happy that people here have pressed conventional bean counters to value qualitative research, and that once again we have come to value theoretical and historical scholarship" (495).

Stephen Witte dismisses George Hillocks argument against context-oriented research as recognizing only half the argument: "The field of written composition is large enough and vital enough to make good use of qualitative and quantitative methodologies and to embrace the logic of discovery and the logic of validation" (207).

But we need to go beyond peaceful coexistence to a kind of understanding that recognizes and encourages research that incorporates quantitative and qualitative data together. We need to achieve the kind of understanding of research expressed by Lucille Parkinson McCarthy and Stephen Fishman in "Boundary Conversations: Conflicting Ways of Knowing in Philosophy and Interdisciplinary Research"

Naturalistic researchers assume that realities are multiple and evolving and are constructed by participants as they interact in social settings. Further, Naturalists assume that the investigator and the object of study cannot be separated and that inquiry is never value-free. Naturalistic researchers use both qualitative and quantitative methods, and research design, as well as explanatory theory. (423-4).

In his review of the Thinking and Writing in College, Richard Larson affirms "social constructivist" research and praises Barbara Walvoort and Lucille McCarthy for their collaborative study of four teachers in the Baltimore area in case studies of how writing assignments support the teaching of subject area material, especially by showing how context
The collaborators adopted "social constructionist" perspective, basing their work on the assumptions, in their words, that "language processes must be understood in terms of the contexts in which they occur. . . . writing, like speaking, is a solitary activity that takes place within a speech community and accomplishes meaningful social functions. . . ." The report demonstrates for [Larson] the forcefulness and instructiveness attainable in research conducted according to a constructivists paradigm, which . . . does not exclude quantitative data (348).

Wendy Bishop points out the increasingly pervasive nature of such research in a recent Rhetoric Review article. "In writing research, ethnography is here to stay - for a while anyway . . . . Studies labeled ethnographic, naturalistic, case study and so on are well represented in the R&F bibliographies in the last several years (148).

Why is such research becoming so popular? Part of the answer can be traced to the power of the narrative. Walter Fisher suggests that the narrative is fundamental to human understanding.

Narration is the foundational, conceptual configuration of ideas for our . . . species . . . the shape of knowledge as we apprehend it. We interpret our lives and our literature as stories that emerge within other stories of history, culture, and character, within all of which struggles and conflicts inhere . . . . Behind any structure that is given to human communication, the perceived framework of narration will always also be constraining and projecting meaning (194).

A number of scholars have noted the advantages of the case study approach. Leslie Salmon-Cox, for example, argues that the case study allows a close examination of a real situation. William Cooley and William Bickel in Decision-Oriented Education maintain that case histories have a unity of purpose and abundance of detail that allows "the reader to recapture something of the experience of the actual participants." Thus Bickel finds the case study an ideal method for his Decision-Oriented Educational Research, which he describes as "very applied research . . . by and for people whose primary concern is educational practice and how to help educational systems do their jobs better . . . done within the context of an educational system" (4).
These and other advantages of case histories have also been appreciated by those who study writing across the curriculum. Much WAC research is of the case study type. Some researchers suggest this is true because the movement is in an early diagnostic stage, a stage where case studies can identify issues that later may be tested in more carefully controlled investigations. In Bissex and Bishop's terms, WAC is still in a stage where a way of learning is more helpful than a way of proving. Norman Garnezy argues in "Single-Case Research Design" that the case study is particularly appropriate to the beginning of formal inquiry into any study of human behavior. Elaine Maimon suggested a need for case studies as appropriate to the beginning stages of the writing-across-the-curriculum movement. In her 1987 review of Fulwiler and Young's *Writing Across the Disciplines: Research into Practice*, a book she describes as a series of case studies, some of which report empirical data, Maimon argues:

In fact, detailed case studies of a significantly innovative program will be useful, well nigh indispensable, to individuals setting out now to initiate comprehensive writing programs on their own campuses. The use of... conceptual material will differ as leaders of writing-across-the-curriculum programs study the culture and configuration of each campus setting (229).

James Kinneavy suggested in 1987 that "the jury is still out on writing across the curriculum... Further cases must be brought to the courts to test the movement" (377). Although Kinneavy is speaking metaphorically, there is some literal truth concerning how most of us learn and become convinced by WAC.

Even as writing across the curriculum moves into a second-stage and beyond, case studies will continue to be important because they allow us to capture valuable information of both the phenomenological and positivist type. We will need both to keep our WAC programs going.

I now would like to suggest how my experience in writing a case study of Writing Across the Business Disciplines at Robert Morris College allowed me to see how a meaningful narrative can make sense of all kinds of proof that our program was working. By the time I started my case history the RMC WABD (which was also my dissertation), much information on the program, both quantitative and qualitative, had already been collected. Just the list of documentation took 38 pages to catalog. Much of that documentation concerned evaluation. In fact, our program is one of the most evaluated programs in the country. It was by design, not accident, that so many kinds of evidence were collected. The
originator of the program and the outside expert had decided that in order to make arguments that WABD worked they would have to have convincing evaluations. In the absence of one certain measure, they opted for a multiple-measure approach: they attempted to gather data from many different sources that pointed to the success of the program. While not absolutely proving that WABD succeeded, these multiple measures suggest that there was a high degree of probability that so many indications of success would not be wrong. This approach was also taken by the Michigan Tech program, and remains an excellent model for WAC evaluation.

The following evaluations give some idea of the variety of “proof” that my case study had to synthesize:

* Three protocol analyses (analyzing about 60 individual protocols taken from faculty members over the first four years of the program).
* Three other external evaluation report on the “Attitude and Practice Survey Report,” which reported how much writing was required by individual Robert Morris faculty members and their attitudes toward assigning writing.
* Yet another external evaluation carried out by the Board of Consultant Evaluators of the Council of Writing Program Administrators. The on-site team consisted of four distinguished faculty from across the country. The team read syllabi and reports, visited classes, and interviewed large numbers of faculty, students, and administrators.
* Quantitative proof that the program was working appeared most clearly in the individual faculty participant’s own evaluation of his/her course. Every WABD full course plan has an evaluation component, some of which are highly statistical. An accounting teacher in the pilot group of faculty participants is a good example of a common evaluation approach by faculty. He compared two sections of one course that he was teaching. In one section he used the WABD write-to-learn principles; in the control group, he used his old methods. The students in the WABD section earned on average, statistically significant higher grades.

Fewer faculty used descriptive evidence that their WABD course was working. But some tried both. A number chose to work with researchers from Carnegie-Mellon to use protocol analysis as an evaluation tool - the first documented time protocol analysis had been used for evaluation.

One excellent example of the combined use of quantitative and qualitative data came on the evaluation plan for a Basic Mathematics course taught by my colleague Dick Lesnak.
Lesnak taught four Basic Mathematics courses, two of which he taught with his old method and two of which he taught with the new write-to-learn approach. He then compared the grades on the two classes. Those students taught with write-to-learn methods achieved, on average, statistically significantly higher grades than those students taught with the old methods. Suspicious of decontextualized quantitative data, Lesnak collected a significant amount of qualitative data from students. His efforts captured some interesting information not normally available. For example, some students in the write-to-learn classes who did poorly on the math teacher's exams, including four students who failed the course, reported liking the new methods and believing that they helped the students learn. Here is a good example of the power of combined use of quantitative and qualitative data.

The case study of the whole program included a number of these individual evaluations as well as others such as the outside WPA evaluation and the protocols mentioned above. The resulting narrative history synthesized that and other documentation and interviews to give "a comprehensive understanding of a single idiosyncratic case that may have a more generalized applicability beyond the single case under study" (Garmezy 12) and, I hope, allows "the reader to recapture something of the experience of the actual participants" (Cooley and Bickel 4).

Our program also had a number of secondary effects. Perhaps chief among these was the sense of intellectual community that the WABD seminars had created among the participants. A number of faculty commented on how much fun it was to work with others in a challenging atmosphere that could have such a beneficial effect for students. One said, "When I'd hear someone explain a course, sometimes I thought that sounded really interesting. I thought, I'd like to take that course." Such information from interviews is hard if not impossible to get from a purely positivistic evaluation approach. A narrative that includes such interviews can be a part of a powerful argument for the continuation of a program.

On the other hand, purely qualitative data does not say, at least as efficiently or, perhaps, as well, that the math teacher's and accounting teachers and many other teachers' students had a statistically significant rise in the average test score after the use of the WABD techniques, nor that over a four year period 47 faculty have participated in the program and that, currently, forty-three per cent of the Robert Morris faculty are past WABD participants. Another ten are presently going through the program. These faculty have redesigned more
that 100 courses in which more than 6,000 students have been taught by these effective techniques. Nor can qualitative data as efficiently say that part of the spinoff of the program has been a number of video productions concerning WAC, including three videoconferences that have reached more that 20,000 viewers.

These lists of data, some primarily quantitative and some qualitative could go on at length and, in the case study, do: for example, number and quality of journal articles and presentations that grew out of the program, comments by faculty concerning the effectiveness of the program in their courses, and so on. Out of all this data the originator of the program, Jo-Ann Sipple, and the Dean of Learning Resources, Bill Sipple, whom you will hear shortly, were able to fashion arguments to keep the program going and to get increased grant support for videoconferences. I believe the collection of this data into a meaningful, coherent narrative will enable future administrators to make effective arguments to continue a viable WABD program.

I think this narrative and others like it can help keep our programs going, especially in an era where the more and the more different kinds of evaluation you have the better, both quantitative and qualitative, phenomenological and positivist.

Thank you.
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