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Theory and Method in Research on Literacy Practices

Adaptations and Alignment in Research and Praxis

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When I began my doctoral studies in 1983, research conduct was relatively clear. The modal investigator in reading, writing, and language studies conducted research in order to identify best teaching practices, typically employing experimental designs to contrast two or more “treatments” to determine their relative effects. Hillocks (1986) describes a typical study of this sort:

Troyka (1974) conducted a study with college freshman remedial composition students in twenty- ve experimental classes (n = 172) and twenty- ve control classes (n = 181). The experimental procedure involved what she called “simulation-gaming”. . . . The control groups, on the other hand, were taught about using facts, reasons, incidents, and comparison and contrast, but in what appears to be a traditional presentational manner. (pp. 125–126)

Studies of this sort, designed to identify factors that contributed to higher writing scores as determined by such factors as the presence and detail of primary traits (e.g., in an argument, the presence of claims, evidence, and warrants), were de rigueur through the early 1980s. The researcher’s task was to identify treatments for contrast, determine the variables to contrast across treatments, set up the experiment to control for other variables, construct appropriate pre-test and post-test tasks and counterbalance them in the design to avoid task and order effects, develop valid scoring rubrics and train raters to evaluate the essays reliably, persuade teachers to run the study, observe the instruction to corroborate the teachers’ use of the different treatments, and run appropriate statistical tests to calculate the significance of differences in the students’ change scores from pre-test to post-test and contrast the effectiveness of the experimental and control groups according to these change scores.

With a single paradigm dominating research, what mattered most was to construct experiments that produced significant differences between treatments while also meeting standards for validity and reliability. Even with so little under dispute to complicate research conduct, Hillocks

(1986) only found 35 of over 500 studies conducted over a 20-year period that met the most basic standards within the experimental tradition, in particular the control of variables. Given that Braddock, Lloyd-Jones, and Schoer (1963) had found even fewer exemplary writing studies conducted from 1904 to 1963 that met their standards for rigor, we can conclude that throughout the history of writing research, and perhaps literacy research more broadly speaking, studies have been plagued with problems of design, even when relatively few designs have been available to muddy the methodological waters.

In the years that immediately preceded the publication of Hillocks’s (1986) review of writing research, a major methodological upheaval had begun as literacy researchers, often emerging from backgrounds in the humanities, began to reject experiments and statistics and argue in favor of studies that looked at qualitative features of literacy practices rather than those that could be reduced to numbers for statistical contrasts. Qualitative researchers argued for the value of studying smaller samples in greater depth, inquiring into why and how things happen rather than how often, focusing on the particular or typical rather than the general, humanizing research by emphasizing language rather than numbers, and otherwise studying processes rather than outcomes of education. Other investigators began studying literacy in community settings (Heath, 1983), in clinical environments (Flower & Hayes, 1980), in the workplace (Odell & Goswami, 1985), and in other settings outside the classroom, drawing on traditions beyond the experimental norm: anthropology (Heath, 1983), cognitive psychology (Flower & Hayes, 1980), sociolinguistics (Green & Wallat, 1979), and other fields that have since contributed to the expansion of possibilities in literacy research.

Many people found this new emphasis to be liberating. At the same time, it provided the basis for new realms of confusion, given that the open-endedness of research conduct and the novelty of the approaches provided few guidelines. The experimental tradition provided a certain

algorithmic comfort in that its procedures were fairly standard, sequential, and tidy, even as it appears to have mystified the great majority of researchers whose work Hillocks (1986) found lacking. The newer qualitative methods, drawing on heretofore unaccessed traditions, provided little in terms of precedent or established procedures in literacy studies. And as the field undertook a “social turn” in the 1980s, each study’s situated nature further devalued the straightforward application of cookbook approaches to conducting research.

If my experiences as a reviewer of manuscripts for many journals is any indication, the field of educational research has never quite recovered from its move from one established focus and tradition to seemingly unlimited possibilities for research topics, the theoretical perspectives that motivate inquiries, and the methods available to guide investigations. Hillocks’s (1986) exclusion of about 93% of experimental studies for methodological problems is actually lower than the percentage of articles that I recommend that editors reject in my role as reviewer, often on methodological grounds. Research method thus continues to perplex the field, even as methodology remains a common topic of discussion and dispute in books and journals.

My page allocation for this chapter will allow for a relatively brief effort to illustrate some studies in which authors have eschewed algorithmic conceptions of research design and conduct in order to adapt theory and method to inquiry. These examples demonstrate the protean nature of employing research methods in situated studies and the adaptive decision-making that is often required to get beyond the sorts of research recipes outlined in methods textbooks. This reflexive approach involves considerably more than picking a theoretical frame or paradigm and adopting its accompanying methodology. Rather, it requires an effort to adjust method to situation and engage in adaptations where appropriate in terms of design, conduct, analysis, and interpretation. I will next illustrate the adaptive nature of research conduct, first with my own use of protocol analysis and then a teacher research study by Fecho (2001).

Illustrations of Paradigmatic Adaptation and Alignment

Protocol Analysis from Two Perspectives My evolving use of protocol analysis illustrates the relation between theory and method (Smagorinsky, 1998). During my doctoral studies, I adopted an information processing approach from the field of cognitive psychology to investigate how people think as they write. I was impressed and influenced by Flower and Hayes’s (1980 and many other publications) adoption of Ericsson and Simon’s (1984/1993) argument regarding the clear and careful alignment between information processing theory and protocol analysis as an investigative method, a perspective I defended in a set of publications (Smagorinsky, 1989, 1994a, 1994b). I used that framework for my dissertation research (Smagorinsky, 1991), which employed a quasi-experimental comparison of

three instructional methods for teaching extended definition to high school juniors. I took a sample of students from each treatment and had them produce pre- and post-instruction think-aloud protocols. I conducted a statistical analysis of the extent to which the different means of instruction produced different effects in the types of thinking they engaged in. I interpreted the results in terms of the different patterns in cognition revealed through the protocols, which at the time I treated as “in-the-head” cognition that was responsive to the single external variable of instructional modes.

Following my dissertation I began to read more sociocultural perspectives on cognition that led me to question the interpretation of data as in-the-head phenomena responding to a single variable such as instruction as a one-to-one correspondence. These readings (e.g., Newman, Griffin, & Cole, 1989; Vygotsky, 1987; Wertsch, 1991) led me to see cognition as more intricately interwoven with the setting of activity, not only the immediate surroundings but the cultural and historical practices through which current performance takes its cues. The premises of the information processing paradigm became insufficient to me, leading me to conceive of the “task environment” that was recognized but unelaborated in information processing studies as the source of the cultural mediation that shapes cognition.

Yet, I still valued protocol analysis as an investigative method. I needed to re-theorize it, however, if it were to serve my inquiries from a sociocultural perspective. In all of my studies beginning in the early 1990s, I have taken a Vygotskian framework to understand not only cognition but its relation to the cultural practices that precede it and mediate it in the present. I have used protocol analysis as part of this effort, including studies of writing (e.g., Smagorinsky, Daigle, O’Donnell-Allen, & Bynum, 2010) and nonverbal composing both in English classes (e.g., Zoss, Smagorinsky, & O’Donnell-Allen, 2007) and across the secondary school curriculum (e.g., Smagorinsky, Cook, & Reed, 2005). In doing so, I have needed to change the theoretical terms on which I base its use.

From an information processing standpoint, protocol analysis provides a window into the mind (Hayes & Flower, 1983) and identifies cognitive processes so that researchers may develop models of cognition. These assumptions presume cognition to take place largely between the ears. From a sociocultural perspective, however, thinking is mediated by cultural tools that tie cognition to the setting of mentation; thinking is situated in settings and is inseparable from the particular tasks, purposes, addressees, genres of activity, and other factors of communicative importance. Further, since thinking is mediated by speech during the production of a think-aloud protocol, thinking develops through the process of articulation, making a protocol less a window into the mind than a vehicle for thinking itself. The cognition inferred is thus less amenable to the formation of transferable models than an occasion for understanding a situated utterance responsive to the social demands of the situation.

Through this ontological shift in the use of protocol

analysis, I have moved away from the construction of universal cognitive models and used the method to make inferences about the means of cultural mediation through which frameworks for thinking are internalized. These cultural schemata suggest that when I study cognition in relation to writing and other forms of composition, I need to situate that thinking within communities of practice that might be disciplinary, community-based, and otherwise originating in and mediated by specific forms of cultural practice. This shift has enabled me to continue using a methodological tool in which I have confidence, yet change the framework, focus of analytic attention, specific ways of using the method from controlled clinical setting to participants' chosen situated locations, and other factors that must be clearly outlined in any reports I fashion through which to share the findings.

Adapting Methods to a Practitioner Inquiry Action research—the study of one's own practice—has been used by classroom teachers since at least the 1950s. Various factors have helped to elevate teacher research to higher status in the last few decades: its embrace by university researchers as both a source of better teaching and insightful research (e.g., Cochran-Smith & Lytle, 1993); the availability of publication outlets through book publishers, journals, and the Internet (e.g., Gallas, 2003); explicit efforts on the part of the editors of research journals to publish and reference teacher inquiries that meet university standards for publication (e.g., Smith & Smagorinsky, 1998); the establishment of refereed journals dedicated wholly to teacher research (e.g., <http://journals.library.wisc.edu/index.php/networks>); the creation of awards to honor exemplary practitioner inquiries (e.g., the James N. Britton Award established by NCTE); the development of teacher research networks to support classroom inquiries and their inquirers (e.g., Brookline Teacher Researcher Seminar, 2004); the generation of reviews of teacher research in such areas as composition (e.g., Fecho, Allen, Mazaros, & Inyega, 2005); the identification of teacher research as a critical area of development by the National Writing Project and other national networks and organizations (http://www.nwp.org/cs/public/print/resource_topic/teacher_research_inquiry); the creation of online resource collections to assist aspiring classroom inquirers (e.g., http://carbon.ucdenver.edu/~mryder/itc_data/act_res.html); the formation of the Teacher as Researcher Special Interest Group in the American Educational Research Association; and other developments in the field that support the view that distance and disinterest are not requirements of systematic studies of classroom processes.

Practitioner inquiries cannot be conducted in the same manner as research done by an outsider such as a university researcher, who has considerable latitude in how to position herself in the classroom and attend to other details of method, and the time both to prepare for each stage of the research and to analyze it in relative peace and quiet. Teachers who wish to study their own teaching, in contrast, must

add the research component to a day already replete with students, administrivia, grading, reporting, additional duties, and much else. The demands of teaching constrain research efforts at every level: planning, conducting, and analyzing. It is no surprise that much effective teacher research benefits from small communities of inquiry that provide support in not only the intellectual demands of conducting research but the emotional needs of those who take on what can be an onerous task (O'Donnell-Allen, 2001).

Because classroom research must be conducted on the fly, conventional research methods must be adapted in order to be applicable to the demands of simultaneously teaching and meeting other obligations in school and life, and studying one's own teaching. Producing teacher research that is publishable through refereed outlets often requires further, often extreme measures, such as taking leaves of absence in order to produce the writing (e.g., Gallas, 2003) or doing the writing as part of a dissertation that might only find time for refinement into publications through the luxurious provision of time available through a university position (e.g., Fecho, 2001).

I will next look at Fecho's (2001) teacher research study, recognized as exemplary through its receipt of the Alan C. Purves Award as the article published in the 2001 volume of *Research in the Teaching of English* most likely to have an impact on classroom practice. Fecho's study looks into issues of threat that arose through his students' critical inquiry into a cultural clash between their own Caribbean American community and that of neighboring orthodox Lubavitcher Jews. Fecho frames his study through a Freirean "post-structural view of literacy learning, one that sees language, literacy, culture, power, inquiry, and agency as being present throughout our daily transactions and possessing a productive potential despite the sense of threat often associated with them" (p. 12). To put this framework into action, he formed his classes into task forces that investigated issues of culture and power that they encountered in their daily lives, and for this article focuses on the conflict with the Lubavitchers explored by his Caribbean American students and the attendant reading they did to inform their analysis, which they produced as a written report.

To conduct this inquiry, Fecho (2001) needed to adapt research methods to his position as a practicing teacher, albeit one who wrote his account after leaving the classroom. He begins his method section by arguing that "teacher research, as a genre of academic research, can and perhaps should be conducted and reported differently from other genres of academic research." These differences are manifest in "the importance of the story of the question [and in] the way teacher research, so embedded in practice, develops its own sense of rigor and validity" (p. 17). Rigor and validity, he argues, must be conceived differently from the ways in which they have historically been treated in educational research, because the rigor of an investigation often relies on serendipity, i.e., on the teacher researcher's opportunism in collecting data while simultaneously teaching the class being studied. Validity is often a function of the teacher

researcher's emic, or insider perspective on the classroom, and thus follows from the teacher's embedded understanding of what matters locally. Fecho further argues that

Because their research grows out of their practice as much as it grows out of the discussions of the larger research community, teacher researchers find it facilitative and significant to tell in narrative form how their question and methods emerged. This description frequently links them to a dissonant or disconnecting event that focuses a generic question and sets the study into full gear. Responding to an immediate transaction within the classroom, teachers use their intimate knowledge of the context and history of that classroom to enact a study that responds to all three concerns. Telling the story of that moment when some event calls context and history into question seems not only useful but necessary. (p. 18)

Fecho (2001) thus links his critical theoretical perspective to his emic stance to provide a rationale for his research methodology, which did not rely entirely on a carefully prepared design but rather was enacted *in situ* as the opportunities to collect data emerged during his teaching. His data collection, he reports, included

classroom transcripts conducted during self-evaluation discussions (CT), written self-evaluations (SE), compilations of student work (SW), my *ad hoc* audio journal (AJ), pertinent excerpts from the dialogue journal completed between student teacher Rachel Ravreby and me (DJ), and two student interviews that were the result of serendipity: A discussion was begun that we then agreed to tape (SI). (pp. 18–19)

His written report for the journal article consists of “vignettes created from the audio journal, the student self-evaluations, and the dialogue journal initiated by Rachel because these are the tools that were most conducive to representing the data that pertained to issues of threat” (Fecho, 2001, p. 19). This approach enabled Fecho to attend concurrently to both his teaching and his research, allowing him to dovetail his students' inquiry into his own by using students' work and drawing on a dialogue journal that was being kept with or without the research, and employing the audio journal to record his impressions in the catch-as-catch-can whirlwind of classroom teaching.

Fecho chose to report his findings through a series of vignettes, which he argues “honors the stories of my classroom by positioning them as central to the work. Also, my writing about my sense of these stories extends the meaning making, narrative process. My intent is to, as Ellis (1997) argues, use stories to provoke other stories and to put a human face on abstract and dispassionate research” (2001, p. 20). Thus, across the organization of his article, Fecho worked to align his theoretical perspective with his stance and investigative method, and, ultimately, to realize the consequence of these areas in the narrative mode of data presentation. His effort at transparency helped to substantiate his work for a readership that was not accustomed to reading a report with this orientation or form in an archival literacy journal.

Conclusion

In this chapter I have argued that complex studies cannot rely algorithmically on canned research methods. Rather, researchers need to adapt methods to epistemology and seek alignment across the whole of the study and its conduct and reporting. Given how infrequently a textbook approach can be uncritically applied to a new and interesting problem, it is thus incumbent on a researcher to provide the details of research conduct so that readers can fully appreciate the thoughtful adaptations made to produce the inquiry within the framework of antecedent scholarship. Without such details, reviewers and readers must infer a study's integrity, a risk that I do not recommend.

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