Reading Research Quarterly Vol. 40, No. 1 January/February/March 2005 © 2005 International Reading Association (pp. 90–110) doi:10.1598/RRQ.40.15

NEW DIRECTIONS IN RESEARCH

Contemporary qualitative research methodologies and issues in literacy education

cholars who are drawn to qualitative research methodologies represent a diverse group of disciplines and fields. They also represent themselves as researchers and the theoretical frameworks in which they work quite differently. Indeed, it was this diversity in representation that initially motivated us to propose a New Directions feature on qualitative methodologies. Specifically, we were curious as to how scholars who use different approaches to inquiring about a wide range of literacies and literate practices would respond to an invitation to comment on what they perceive as the most significant or critical issues currently facing qualitative researchers.

Through a series of e-mail exchanges, Joseph Tobin (Arizona State University); Constance Steinkuehler, Rebecca Black, and Katherine Clinton (University of Wisconsin–Madison); Kathleen Hinchman (Syracuse University); and Deborah Dillon (University of Minnesota) settled on the following points around which to respond to the "critical issues" question that we had posed initially:

- 1. Their perceptions of the current state of qualitative research.
- 2. Methodological insights they have gained from disciplines and fields outside their own.
- Examples from their current work that illustrate how they are dealing with issues they perceive as critical to advancing qualitative research.

The authors' responses characterize what we believe is a wellspring of ideas worthy of consideration and further discussion. Toward that end, we invite readers to enter into dialogue with the ideas presented here, either in the form of letters to the editor or commentaries.

Donna E. Alvermann & David Reinking

Strengthening the use of qualitative research methods for studying literacy

JOSEPH TOBIN

Arizona State University, Tempe, USA

The political and professional climate for qualitative research

An antiqualitative mood no doubt prevails in Washington, DC, these days. The team U.S. President Bush has assembled in the newly formed Institute of Education Sciences is pushing a version of scientific investigation that leaves little role for qualitative research. The politicizing of research in the service of a war against whole language, bilingual education, and constructivism and the collateral damage this war is causing to the field of qualitative research are pernicious problems that are no doubt familiar to readers of this journal and that have been addressed in a series of recent books (cf. Allington, 2002; Coles, 2003; Smith, 2003). But I believe that it is a mistake to see this ideological attack as the only or even the core problem facing qualitative educational researchers.

The antiqualitative mood in Washington, DC, and throughout the United States is not just held by Republicans, and it is not just ideological. Many Democratic politicians, believing that policy decisions should be informed by data, share with their colleagues across the aisle the concern that education research be more rigorous and useful. Also, many scholars located in schools of education as well as in other disciplines are concerned that education research is insufficiently rigorous. This concern was put forward with the greatest fanfare and impact in the report Scientific Research in Education (SRE; Towne & Shavelson, 2002) of the Committee on Research in Education of the National Research Council of the National Academy of Sciences. SRE is careful to include qualitative research under the heading of scientific, and some of the report's exemplars of scientific research are qualitative studies. And yet I am concerned that the use of the term *scientific* in this report and elsewhere as a synonym for rigorous is having

deleterious effects on qualitative research in education, and particularly for the versions of qualitative research such as narrative research; teacher research; and research informed by feminism, queer theory, critical theory, and postcolonial studies that are furthest from the scientific research paradigm (Erickson & Gutiérrez, 2002; St. Pierre, 2002).

Post-SRE, I was made a member of the ad hoc Committee on Research in Education. In our committee meetings, I continually voice my concern that the push for scientific research in education works to privilege certain kinds of educational inquiry over others and to undermine support for research approaches that are not scientific. My colleagues on the committee reassure me that they consider me and my fellow qualitative researchers to be scientists. However, I find this reassurance less than reassuring. I respond that some qualitative researchers don't think of themselves as scientists and are ambivalent about being invited to join—or more accurately, to be told that they are already considered to be members of—the scientific club.

In these meetings, I argue that all good education research is not scientific, that science is not the only source of scholarly rigor, and that our reports need to be very clear about these points. The committee has been patient in listening to my concerns; I am hopeful that the reports we issue will avoid privileging scientific over other forms of scholarship in education. Nonetheless, often in our discussions I am left with the uneasy feeling that although the committee members usually hesitate to say so directly, they believe that much of the research in education is weak and that much of the weak research is qualitative. What makes me even more uneasy is that part of me agrees with them.

I believe also that much, even most, of the quantitative research in education is weak and not very useful, but I will leave an analysis of the

weaknesses of quantitative research to other commentators. My concern is with qualitative research. My argument is that we qualitative researchers need to get beyond our defensiveness and paranoia (though both are justified in the current political and ideological climate) and to acknowledge and address our weaknesses. In a climate of accusation and attack, we can ill afford to be sentimental about the quality of our work or to repress awareness of our shortcomings. We've got to get our house in order if we are to defend it from attacks from the outside.

The fact is that too much qualitative research in education is insufficiently rigorous. Too much qualitative research describes itself as grounded theory, a term that too often is used to mean something like "I didn't know exactly what I was studying when I began, and as I went along observing and talking to people, I looked for and found some interesting things." Too many qualitative studies are called case studies, without making clear a case of what or what method of case analysis is being employed. Too many qualitative studies call themselves ethnographies when there is little or nothing rigorously ethnographic or anthropological in their approach. Too many studies use the term discourse analysis to mean just that the researchers worked with transcripts (or, alternately, that they are employing ideas of Foucault) and *content analysis* to mean that they clumped the answers they were given in their interviews into categories of responses. I am not knocking grounded theory, ethnography, case study, content analysis, or discourse analysis (of either the Fairclough/Gee or Foucauldian varieties), but I am making the point that in much of the qualitative research that crosses my desk in the form of student papers, thesis proposals, manuscripts to review, and even published articles I find these terms used haphazardly and inconsistently.

Because the causes of this problem are multiple and complex, there can be no one solution. One place to start, however, is for those of us who consider ourselves experts on qualitative research methods to speak out more often and more aggressively in the varied contexts (at conferences, in thesis proposal meetings, in comments on books and journal articles both under review and already published) where we see qualitative methods being used sloppily or incorrectly. We also need to push harder to develop a sequenced core of research method courses and research apprenticeships that will help our doctoral students learn to systematically and creatively apply cutting-edge qualitative research methods to their current and future research projects. As it is now, doctoral students in language and literacy concentrations, as well as in other subdisciplines of education, all too often do well in their two required qualitative research method classes, and yet when it's time to construct a dissertation project find themselves unprepared to design and carry out a high-quality qualitative research study.

Methodological insights to be gained from fields other than literacy

Education is a field, not a discipline. This is a strength more than a weakness, as it invites and encourages the use of multiple disciplinary and methodological perspectives to engage with a core set of problems and issues. Education should not have its own methods—we should continually be bringing in innovative methods from other disciplines.

Let me suggest three approaches that offer valuable methodological insights for research in reading. The first is anthropology. Many literacy researchers conduct what they call classroom ethnographies. These researchers, who borrow ethnographic research methods from the field of anthropology, often do so to great advantage (I am thinking of excellent books such as Dyson's 1997 Writing Superheroes and Newkirk's 1992 Listening In). These educational ethnographies, though wonderful works of scholarship, are ethnographies only by analogy, as they treat classrooms or communities as if they are cultures and employ ethnographic research methods only sporadically. Less well known in literacy circles is the work of anthropologists who conduct ethnographic studies of literacy in other cultures, working from an explicitly anthropological perspective (foregrounding culture and cultural transmission) and employing explicitly ethnographic research methods. I am thinking here, for example, of the work of Rogoff (2003) on literacy and learning in a Mayan village, of Briggs (1998) on the development of conversational competency in an Inuit community, or of my own work, which includes the study of language development in Japanese, Chinese, and American preschools (Tobin, Wu, & Davidson, 1989). These studies are ethnographic in the older, original, nonanalogical meaning of being studies of the underlying cultural logic of something intensely unfamiliar and exotic to the researcher and to his or her readers. The goal of these ethnographies is to make the exotic familiar and, in so doing, to make the familiar exotic. The field of reading research in

the United States could be opened up by more engagement with ethnographic studies of what it means to be literate and to be brought into literacy in non-Western cultures. A more systematic engagement with anthropology could also improve the rigor of those literacy researchers who conduct classroom ethnographies. A specific recommendation would be that would-be classroom ethnographers take at least one course in ethnography, either in an anthropology department or at least taught by someone trained in anthropology. A couple of weeks covering ethnography in a qualitative research class are not enough to learn how to conduct a good ethnography of either the literal or analogical variety.

A second discipline I think literacy researchers should borrow more from is literary studies. Because literacy and literature share a common root this suggestion sounds paradoxical, but in my experience these fields sound closer than they are. Graduate students and faculty in literacy studies within a college of education tend to have insufficient contact with their counterparts in literature departments. Or they have contact, but mostly as mediated by the field of English education, which means that the great majority of professors of language arts and of literature have little to do with one another. I am an exception to this pattern mostly because my wife is a professor of English literature. Beth has introduced me not only to her colleagues in English but also to various forms of theory and method from her field, which I then bring into my work and introduce to my students. Over the (many) years we've been together, I've been introduced by Beth to formalism, new criticism, reader response, deconstruction, and, most recently and most usefully for me, to Mikhail Bakhtin's writings on heteroglossia, dialogism, citationality, and the carnivalesque. I have applied each of these theories and approaches to my teaching (in a course I teach called Interpreting the Interview and Other Qualitative Texts) and to my research on children. Bakhtin has been employed to good advantage in recent publications by literacy researchers including Kamberelis (2001) and Dyson (1997). Like these other researchers, I find Bakhtin particularly useful for highlighting the inherently social nature of speaking and listening and of writing and reading and of the way the utterances of students and teachers can be productively read as the citing and deployment of a range of genres, tropes, idioms, and registers.

A third source of ideas I find helpful is the British media studies research tradition. Media studies has the advantage over literacy studies of systematically including the study not just of books but also of popular culture, newspapers, television, movies,

music, and advertising, reflecting a parallel difference between the British and U.S. K-12 language arts curricula. The British approach to research in media studies and media education also differs from language and literacy studies in the United States in having a greater tendency to make use of social scientific research tools. I'm thinking here in particular of Hodge and Tripp's (1986) Children and Television: A Semiotic Approach and Buckingham's (1993) Children Talking Television. Like the Dyson and Newkirk studies discussed earlier, these British reader response studies have an ethnographic component, but they are more quasi-experimental and social scientific (without being quantitative) in their use of visual cues and focus-group interviews. Our tendency in the United States to emphasize classroom ethnography and case studies and other low-intervention forms of qualitative research could be augmented by more use of research designs like Buckingham's and Hodge and Tripp's informed by the reader response school that feature the quasi-experimental use of cues and semistructured interviews of children of a range of ages and backgrounds. The British media studies tradition is also more consistently political than the U.S. tradition in connecting literacy practices to issues of class, privilege, economics, and, most recently, globalization.

The essays I assembled in *Pikachu's Global Adventure: The Rise and Fall of Pokémon* (2004) reflect a combination of ethnographic, literary, and media studies approaches to understanding Pokémon as an economic, cultural, and pedagogical phenomenon. Key issues addressed in this book include the question of whether children are passive victims or active agents in their interactions with commercial popular cultural products, the localization of meanings and uses of globally circulating cultural products such as Pokémon in particular local communities, and the pedagogical and literacy implications of the Pokémon phenomenon.

Methodological issues I am facing in my current work

As a researcher and as a research methods instructor, I find myself increasingly concerned with finding new techniques for making meaning out of the interviews and other transcripts generated in qualitative research. In our qualitative research methods classes we tend to give more emphasis to gathering than to analyzing the stuff (I don't want to use the word *data* here) we study. Introductory research

Appropriating methodologies

If we want to generate robust understandings of the complexities of meaning-making practices with/in digital spaces and technologies, then we need to set aside disciplinary differences (oftentimes maintained, despite our good intentions, under the rubric of much grander notions such as ontological or epistemological incompatibility) and resourcefully adapt empirical methods best suited for just such work. In our own work, we borrow methods from disparate fields that emphasize different units of analysis and therefore different time scales. Working within and across multiple time scales is crucial to literacy research as a whole: As Lemke (2001) aptly pointed out, "sign interpretation is itself a material dynamical process that always involves relations across multiple scales of organization" (p. 18). Thus, genesis on the microlevel (experience) is indelibly tied to sociohistorical change on the macrolevel (community) and vice versa (cf. New London Group, 1996) through varying levels of intermediate organization that shape and constrain in both directions. What methodologies can be leveraged toward understanding digital literacies in ways that might foreground one unit of analysis or time scale but resist ignoring others? In our own work, we borrow from three outside domains.

Activity theory

Philosophically rooted in the early 20th-century cultural-historical school of Russian psychology, the work of Vygotsky, Leont'ev, and Luria initiated a trajectory of inquiry that has grown into contemporary conceptions of activity theory (Engeström & Miettinen, 1999). As a broad methodological approach, activity theory provides a conceptual framework for mapping the transformation of complex systems of goal-oriented activities over an extensive scale of time (Nardi, 1996). From this perspective, qualitative analyses of short-term individual and collective activities must take into account the ways in which these activities are embedded in and linked to wide-ranging historical, cultural, and institutional systems of activity. Thus, activity theory provides a means for situating the local in the broader context of the global.

Central to this approach is an understanding of how the tools and artifacts that mediate activity are historically formed and both shape and constrain the actions of individuals within a system. As people make use of existing artifacts, tensions develop between the constraints of existing tools and individual goals. It is these tensions and contradictions that drive change within and across systems, as individuals adapt and adopt new artifacts and tools (e.g., media, genres, technology) to make meaning at the local level (Engeström & Miettinen, 1999). Thus, activity theory takes a broader developmental perspective; yet, in the context of new digital spaces, such an approach becomes increasingly complex. The digital technologies in which a given system of activity is embedded serve as both tool for (e.g., archiving digital documents, accessing participant information) and object of (e.g., fan fiction, virtual social interaction) inquiry. As these technologies (and the researcher's facility with them) evolve over time, the act of theorizing the literacy activities of interest becomes a developmental process for both the researcher and the researched (Hine, 2000; Reinking, McKenna, Labbo, & Kieffer, 1998). In other words, your own technical literacy in the digital space of interest tightly constrains what you can observe and therefore are in the position to theorize.

Distributed cognition

If we scale down to "slices" of time to attend to the more local activities that constitute (and are constituted by) the broader systems of interest to activity theory, we find that methods from studies of socially or materially distributed cognition aid us in unpacking the situated interactions of individuals with their environment, tools, artifacts, representations, and other actors. Research at this intermediate level of analysis between system (activity theory) and instant (phenomenology) can reveal important characteristics of learning at the level of both the group (changes in shared practice, knowledge, tool or artifact use) and the individual (a person's "process of coming to be, of forging identities in activity," Lave, 1988).

For example, methods such as think-aloud protocols (Ericsson & Simon, 1980) can be put to new use when applied to routine or exceptional community events by providing members' in-tandem verbal interpretations of activities. Such data then become the basis for theorizing the interpretive practices that constitute varying types of group membership. Semistructured interview techniques such as repertory grid interviews (Fransella & Bannister, 1977) can be repurposed and employed without their original presumption of stable factors inside the "individual head" in order to elicit community-member identified categories and their dimensions of similarity or difference. Directed graphs can be used to capture the temporal and spatial rhythm of complex (virtual) social or material coordinations (e.g., collaborative

problem solving) and then compared, qualitatively or quantitatively (cf. Strom, Kemeny, Lehrer, & Forman, 2001), across different points in time (e.g., novice versus expert). Finally, known *discourse analysis methods* (e.g., Fairclough, 1995; Gee, 1999) can be used in less overtly critical or political ways to provide a rigorous, data-driven basis for content analyses (cf. Tobin, this issue) of text and interaction. Though the goal of developing a viable account of the situated meanings people construct and the definitive role of communities in that meaning-making process remains the same, the goal of *generalizing* out toward broader, shared patterns in such meaning-making processes becomes an added objective.

Phenomenological approach

At the "atomic" unit of analysis taken by a phenomenological approach, the time scale is abbreviated to focus on literacy as experience, an activity made possible by meanings situated in the sensory life of the "body-in-world" (Merleau-Ponty, 1979). A literacy experience is the outcome of a dynamic interaction between a subject (person using literacy) and an object (the literacy technology being used). These coordinations between the person and the literacy technology are inscribed in the subject-body as sensemovement configurations, which provide a material base upon which consensual meanings can rely. We can add an analytical focus on "literacy as experience" by describing literacy in terms of a new metaphor. Drawing on Internet researcher Markham's (2003) insight that a "way of being" metaphor offers a means for explaining the ways technologies become interwoven with our experiences, a "literacies as ways of being" metaphor creates a framework for explaining how the "tempos, timings, and properties" (Latour, 1996, p. 268) of technologies have an impact on the rhythms, textures, and contours of our experiences. More specifically, this metaphoric framing enables us to account for how new technologies introduce changes in literacy.

To define literacies as "ways of being" makes salient how using literacy requires gaining a familiarity with experiencing it. In a sense, we could say that learning literacy is a process of *learning to be affected* (Latour, 2004) by literacy in the ways an insider to a system of meaning (e.g., Discourse, community of practice, affinity group) would be affected. Such descriptors as *blurred genres*, *multilayered lifeworlds*, *hybrid identities*, and *quasi-objects* are just a few examples of the new kinds of states emerging as people experience digital media. These new forms of experience—due to how they are new ways of read-

ing and writing—are new forms of literacy (D. Abrahamson, personal communication, May 15, 2004). Informed by the phenomenological perspective, the method of *philosophical reflection* (see Abram, 1996; Sudnow, 1983) offers a way to document the new sense-movement blends emerging as people experience digital technologies. As the theories, equations, and stories that organize our sense of "reality" (i.e., the world on paper; Olson, 1994) become increasingly mediated by digital technologies, *fluency* in enacting the sense-movement blends anchoring their meaningfulness becomes the new embodiment of "being literate" in contemporary culture.

New metaphors for literacy

Participatory observation across the contemporary digital spaces we study—online fan fiction, massively multiplayer online games (MMOGs), and single-player video games—suggests new definitions of what literacy is or *could be*. The varying nature of our individual research sites has pushed us in different directions in terms of the kinds of metaphors we feel best capture (even if only partially) the semiotic work and play people do within them. Next, we summarize these individual lines of research using Markham's (2003) "tool, place, way of being" metaphoric framework as a way to describe how literacy plays out within each context.

Literacy as tool: Online fan fiction

Moving toward a method of analysis that conceptualizes literacy as tool, Black's (2004) research focuses on generating a typology of information exchange and social interaction in an online fan fiction website as a means of understanding the array of literacy activities in which participants in this space engage (Burnett & Buerkle, 2004). This research seeks to contribute to our understandings of the ways in which adolescents or English-language learners (ELLs) use technological tools to enhance and extend their literacy practices as they enact their fandom in digital spaces in and out of school contexts (Alvermann, 2002; Alvermann & Hagood, 2000; Chandler-Olcott & Mahar, 2003; Jenkins, 2004; Lam, 2000). While fan fictions are derivative in the sense that they draw from media and popular culture such as books, television, movies, music, and video games, these adolescent fans are far from being mindless consumers and reproducers of dominant media as they actively engage with, rework, and transform the original genres (Jenkins, 1992).

Activity theory provides a framework for conceptualizing the ways in which fans adopt and adapt tools such as genres, forms of media, and digitally mediated modes of representation to create texts that are culturally, linguistically, and multimodally hybrid (New London Group, 1996). A typology of information exchange and social interaction based on such analysis has the potential to provide a great deal of insight on the relationships among literacy, identity, and learning in this virtual fandom. It provides a means for mapping how individual ELLs as subjects encounter the tensions of using historically rooted tools and artifacts such as print-based genres, English-language conventions, and popular forms of media that conflict with their personal goals at the local level. Thus, the developmental scope of activity theory offers insight on how ELLs respond to these tensions by drawing on cultural, linguistic, and personal resources to create an array of hybrid fan fiction texts or objects. In adition, activity theory provides a means of understanding how these hybrid forms, over time, come to shape the social context of the site at the global level, including its norms, conventions, and division of labor, as other participants take up and begin to use these hybrid forms (Barab, Barnett, Yamagata-Lynch, Squire, & Keating, 2002). It is clear that tracing the dialectical and mutually constitutive components of a hyperlinked and highly networked online community presents a wealth of practical methodological challenges. However, many of these issues can be resolved through an activity theoretical approach in that it involves a research time scale that is sufficient for observing and understanding changes in tools, objects, and context; allows for varied means of compiling and triangulating data; and highlights the importance of situated understandings of participants' meaning-making practices within this space (Nardi, 1996).

Literacy as place: MMOGs

Despite recent public indictments (e.g., Anderson, 2003; Provenzo, 1992) and their dismissal as barren play, massively multiplayer online games (MMOGs) constitute a complex and nuanced set of social, material, and discursive practices, tied to particular communities and consequential for membership and identity (Steinkuehler, 2003). Thus, MMOGaming is participation in a multimodal and digital textual *place*, one with fuzzy boundaries that expand with continued play: What is at first confined to the game alone (e.g., in-game talk, letter writing) soon spills over into the virtual world beyond it (e.g., websites, chatrooms) and even life off-screen (e.g.,

telephone calls, face-to-face meetings). Building on this conceptualization, Steinkuehler (2003, 2004a, 2004b) is conducting a broad virtual cognitive ethnography (Hutchins, 1995) of MMOGameplay: a thick description (Geertz, 1973) of the socially and materially distributed semiotic practices that constitute the game. Traditional ethnographic methods including participatory observation (to date, for a period of over 24 months), unstructured or semistructured interviews with informants, and the collection of community documents (e.g., player-authored user manuals, fan sites, fan fiction) and transcripts from game-related discussion boards or chatrooms are used in order to capture gameplay not only within the virtual game space itself (between login and logoff) but also beyond.

Methodological tools culled from distributed cognition studies can be applied to data so gathered to provide robust, empirical accounts of the forms of participation and meaning making that emerge in MMOGameplay; yet making sense of such virtual worlds can be daunting. From data collection through analysis, old issues arise in new forms, and new issues arise when least expected. Simply participating in these spaces, for example, is no small task. The game changes with time spent in-play, and mere access to various subpopulations of the community (e.g., hardcore gamers) can require months of online participation. Establishing and maintaining your own consistent and forthright online presence can put your personal and professional privacy at risk in ways that can be unnerving. Ensuring anonymity in an online world of quasi-enduring digital archives of all things "Google-able" is difficult if not impossible. Involving the parents of minors, triangulating sources in order to verify your data without invading the privacy of confidants, and even extricating yourself from the space when your work is complete all present challenges that require constant negotiation and engineering. However, such efforts will remain necessary if we are to understand cognition and culture in a world that, increasingly, logs in.

Literacy as way of being: Single-player video games

Clinton's (2004) research aims to contribute to the development of an analytic framework for explaining the new forms of reading and writing emerging as people experience such semiotic resources as three-dimensional spaces, stereo sound, virtual objects, interface icons, representational bars, symbols, and (perhaps most crucially) avatars. As video games are cutting-edge examples of digital technologies, they represent a rich site for anticipating the new kinds of literacies emerging. Research on experience in digital contexts, however, faces a real methodological challenge: It must develop methods that enable researchers to identify how literacy use in digital contexts may take on radically different forms due to the unique characteristics and properties of digital media.

Semiotics provides a method for studying how digital literacies make possible new ways of interacting with written signs. This form of meaning making pivots on the player's ability to "be a representation" by projecting herself or himself sensorially into a game character, setting a new kind of stage for meaning making. While reading and writing mediated by such technologies as cave painting, books, and billboards require a person to orient to the sign as a signifier, digital technologies have the unique affordance of enabling a person to orient to the sign as both signifier and signified. Within video games, for example, the reader becomes or inhabits a symbol, enabling him or her to interact with signs as if they are the very things they represent. A likely result of this new capacity of written communication is that new forms of literacy will share much in common with the dynamics of meaning making in face-toface communication. In the same way that interpreting language, gestures, body language, and facial expressions relies on such sensory cues as body sense, sound, vision, and movement, it is likely that newly emerging literacies will become increasingly defined by digitally rendered corporeal cues.

Concluding comments

Despite all of our professional rhetoric about first choosing a theoretical paradigm and its concomitant methods and only then making observations of the world (that, should all go well, bear back on the theory first espoused), actual practice, in our experience, sometimes marches to the beat of a very different drum. The methods we have outlined, culled from distinct (though perhaps compatible) theoretical paradigms, were chosen after the phenomenon of interest, not before. For, in a massively networked society like in the United States, with such ferocious capacity for enabling both the global to be localized (e.g., the rewriting of the animé series Card Captor Sakura from Japan into local terms of teen pregnancy by a 14-year-old girl coming of age in Utah) and the local to be globalized (e.g., the editing, rescoring, and widespread distribution of the

illicitly Web-posted Star Wars Kid video, originally a recording that an adolescent boy clandestinely made of himself while horsing around at school with an 8mm camera, a Jedi fantasy, and a golf club), it becomes less and less viable to presume meaning as a stable, countable construct that can be categorized, catalogued, and quantified. Here, participation is a creative act where signs are not merely consumed but rather reworked, recontextualized, and then redistributed. In such contexts, qualitative methods may very well be our only means for seriously understanding what it means to participate: For, in digital worlds, the very act of participation is a hermeneutic one.

CONSTANCE A. STEINKUEHLER is a learning sciences researcher at the University of Wisconsin, Madison, and the Academic Co-Lab whose work focuses on the documentation and analysis of the forms of cognition and learning MMOGs recruit from those who play. She is currently finishing her dissertation on MMOGs in the University of Wisconsin Literacy Studies Department and is an associate lecturer in educational psychology. She can be contacted at 112A Teacher Education Bldg., 225 North Mills St., University of Wisconsin, Madison, WI 53706-1795, USA, or by e-mail at steinkuehler@wisc.edu.

REBECCA W. BLACK is a doctoral student in the Department of Curriculum and Instruction at the University of Wisconsin, Madison, where she teaches courses in the teaching of English language arts. Her current research interests include adolescent identity, secondlanguage acquisition, and literacy and composition practices in online contexts. She can be contacted at 112A Teacher Education Bldg., 225 N. Mills St., University of Wisconsin, Madison, WI 53706-1795, USA, or by e-mail at rwblack@wisc.edu.

KATHERINE A. CLINTON is a doctoral student in the Department of Curriculum and Instruction at the University of Wisconsin, Madison. Her current research focuses on studying the roles of feeling and the body in bringing about new forms of literacy and learning in the digital domains of video games. She can be contacted at 112C Teacher Education Bldg., 225 N. Mills St., University of Wisconsin, Madison, WI 53706-1795, USA, or by e-mail at kaclinton@wisc.edu.

REFERENCES

ABRAM, D. (1996). The spell of the sensuous: Perception and language in a more-than-human world. New York: Random House.

ALVERMANN, D.E. (Ed.). (2002). Adolescents and literacies in a dig-

ital world. New York: Peter Lang. ALVERMANN, D.E., & HAGOOD, M. (2000). Fandom and critical media literacy. Journal of Adolescent & Adult Literacy, 43, 436-446.

ANDERSON, C.A. (2003). Violent video games: Myths, facts, and unanswered questions. Retrieved August 18, 2004, from http://www.apa.

org/science/psa/sb-anderson.html
BARAB, S.A., BARNETT, M., YAMAGATA-LYNCH, L.,
SQUIRE, K., & KEATING, T. (2002). Using activity theory to understand the contradictions characterizing a technology-rich introductory astronomy course. Mind, Culture, and Activity, 9, 76–107. BLACK, R.W. (2004, April). Animé-inspired affiliation: An ethno-

graphic inquiry into the literacy and social practices of English language learners writing in the fanfiction community. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

BURNETT, G., & BUERKLE, H. (2004). Information exchange in virtual communities: A comparative study. Journal of Computer-Mediated Communication, 9(2). Retrieved August 18, 2004, from http://www. ascusc.org/jcmc/vol9/issue2/burnett.html

CHANDLER-OLCOTT, K., & MAHAR, D. (2003). Tech-savviness meets multiliteracies: Exploring adolescent girls' technology-mediated literacy practices. Reading Research Quarterly, 38, 356-385.

CLINTON, K. (2004, April). Being-in-digital-worlds as a new kind of resource for learning. Paper presented at the annual meeting of American

Educational Research Association, San Diego, CA.

COALITION FOR EVIDENCE-BASED POLICY. (2002). Bringing evidence-driven progress to education: A recommended strategy for the U.S. Department of Education (Executive Summary). Washington, DC: Author

DE CERTEAU, M. (1984). The practice of everyday life. Berkeley:

University of California Press

DE SAUSSURE, F. (1986). Course in general linguistics (R. Harris,

Trans.). Berkeley, CA: Open Court.

ENGESTRÖM, Y., & MIETTINEN, R. (1999). Introduction. In Y. Engeström, R. Miettinen, & R. Punamaki (Eds.), Perspectives on activity theory (pp. 1-16). New York: Cambridge University Press.

ERICSSON, K.A., & SIMON, H.A. (1980). Verbal reports as data. Psychological Review, 87, 215–251.

FAIRCLOUGH, N. (1995). Critical discourse analysis: The critical study of language. New York: Longman.

FRANSELLA, F., & BANNISTER, D. (1977). A manual for repertory grid technique. London: Academic Press.

GEE, J.P. (1999). An introduction to discourse analysis: Theory and method. New York: Routledge.

GEERTZ, C. (1973). The interpretation of cultures. New York: Basic

HINE, C. (2000). Virtual ethnography. Thousand Oaks, CA: Sage HUTCHINS, E. (1995). Cognition in the wild. Cambridge, MA:

JENKINS, H. (1992). Textual poachers: Television, fans, and partici-

patory culture. New York: Routledge.

JENKINS, H. (2004). Why Heather can write: Digital renaissance. Technology Review, 6. Retrieved August 18, 2004, from http://www.tech nologyreview.com//articles/04/02/wo jenkins020604.asp

LAM, E. (2000). Literacy and the design of the self: A case study of a teenager writing on the Internet. TESOL Quarterly, 34, 457-482.

LATOUR, B. (1996). On interobjectivity. Mind, Culture, and Activity, 3, 228-245

LATOUR, B. (2004). How to talk about the body? The normative dimension of science studies. Body & Society, 10, 205-229.

LAVE, J. (1988). Cognition in practice: Mind, mathematics, and culture

in everyday life. Cambridge, UK: Cambridge University Press. LEMKE, J. (2001). The long and the short of it: Comments on multiple timescale studies of human activity. The Journal of the Learning

MARKHAM, A.N. (2003, October). Images of Internet: Tool, place, way of being. Paper presented at the fourth annual conference of the Association of Internet Researchers (AoIR), Toronto, Canada.

MERLEAU-PONTY, M. (1979). Phenomenology of perception (C. Smith, Trans.). London: Routledge & Kegan Paul.

NARDI, B. (Ed.). (1996). Context and consciousness: Activity theory and human-computer interaction. Cambridge, MA: MIT Press.

NEW LONDON GROUP. (1996). A pedagogy of multiliteracies: Designing social futures. Harvard Educational Review, 66, 60-92.

OLSON, D. (1994). The world on paper: The conceptual and cognitive implications of writing and reading. Cambridge, UK: Cambridge University Press.

PROVENZO, E.F., JR. (1992). The video generation. American School Board Journal, 179(3), 29-32.

REINKING, D., MCKENNA, M., LABBO, L., & KIEFFER, R. (Eds.). (1998). Handbook of literacy and technology: Transformations in a

post-typographic world. Mahwah, NJ: Erlbaum.

REYNA, V. (2002, January). What is scientifically based evidence? What is its logic? Paper presented at the Use of Scientifically Based Research in Education Work Group Conference, Washington, DC.

STEINKUEHLER, C.A. (2003, September). Massively multiplayer online videogames as a constellation of literacy practices. Paper presented at the 2003 International Conference on Literacy, Ghent, Belgium.

STEINKUEHLER, C.A. (2004a). Learning in massively multiplayer online games. In Y.B. Kafai, W.A. Sandoval, N. Enyedy, A.S. Nixon, & F. Herrera (Eds.), Proceedings of the Sixth International Conference of the Learning Sciences (pp. 521-528). Mahwah, NJ: Erlbaum.

STEINKUEHLER, C.A. (2004b, January). Online cognitive ethnography: Methods for studying massively multiplayer online videogaming culture. Paper presented at the 17th Annual Conference on Interdisciplinary Qualitative Studies, Athens, GA.

STROM, D., KEMENY, V., LEHRER, R., & FORMAN, E. (2001). Visualizing the emergent structure of children's mathematical argument.

Cognitive Science, 25, 733-773.

SUDNOW, D. (1983). Pilgrim in the microworld: Eye, mind, and the essence of video skill. New York: Warner Books.

Why qualitative research continues to thrive: Jason and the politics of representation

KATHLEEN A. HINCHMAN

Syracuse University, Syracuse, New York, USA

Reading is looking for the little words in the big words, and knowing enough words. Hey, you know I'm the third worst reader in my class. I know, because the other kids read books with more pages in them than I do.

This trusting third grader helped to confirm my belief that children's insights provide an important window through which to view their literacy, as Johns (1972) and others (Michel, 1994; Taylor, 1994) have long suggested. The purpose of this piece is to argue that the situated perspectives of literacy program constituents, including students like Jason, their teachers, and other members of their community, should be central to district, state, and federal program policy. This view suggests an important direction for qualitative research, one that considers policy implications for the social constructions represented in individuals' perspectives. Such representations can help to reshape current policy to address a more diverse range of individuals and literacies.

Status of qualitative research: Theorizing from qualitative representations

As my colleagues Dillon, Tobin, and Steinkuehler, Black, and Clinton acknowledge in their accompanying commentaries, we are in the midst of a pendulum swing that has made it more difficult to find public or private funding for qualitative research in the United States (American Educational Research Council, 2003), even at a time when the concept of literacies is exploding in multiple directions (New London Group, 1996). Although such a swing will be best understood through historical analyses (Woodside-Jiron, 2003), it is important to note that many literacy researchers continue to choose a qualitative stance. For example, slightly less than half the studies in volumes 37 (2002) and 38 (2003) of Reading Research Quarterly, across two editorial teams, used qualitative methods, either by themselves or in combination with other methods (e.g., Volume 37 included 8 qualitative or mixed method and 7 quantitative studies, and Volume 38 included 6 qualitative or mixed methods and 7 quantitative studies).

Our continued reference to qualitative perspectives may be due, in part, to pragmatics. With enough stamina and permission from subjects, one can orchestrate publishable qualitative research without extensive outside support. One needs time and energy to read widely, discern compelling questions, develop worthwhile theoretical groundings, gather and transcribe interviews or observational field notes, analyze data in ways that are thorough and consistent with theoretical groundings, and write.

One must "only" make sure that one's questions are compelling enough, that one's data are rich enough, and that one's analytic techniques are trustworthy enough to garner novel and informative insights (Lincoln, 1998).

Policymakers might critique such qualitative representations, including my representation of Jason's insights, as too subjective interpretation of an idiosyncratic confluence of experiences, instruction, genetics, and other factors. Jason's words themselves can be interpreted as naïve. But does he understand how he feels about a particular program's instructional initiations, or what one might do to help him? He does, but not necessarily in words that carry the same meaning for adults. When I corroborate his words with data from other children and with other research reports, and when I acknowledge the theories and biases that frame my analysis, the representation becomes more understandable. It begins to make a contribution toward our developing theories regarding the perspectives of children who are identified as struggling readers (e.g., Ivey, 1999; Johnston, 1985; Kos, 1991). As Labov suggested, "The central prerequisite for advancing the teaching of reading is to grasp the process of learning to read through the nonreader's eyes and ears—we must understand what it is like not to be able to read" (2003, p. 129).

There is nothing new in the revelation that children like Jason can share understandings that, captured qualitatively, help teachers to explain other data, including such quantitative representations as scores produced during high-stakes literacy assessments or counts of oral reading miscues. Qualitative research can help us understand the variations in what it feels like to not read "well enough" for a setting, to participate in an intervention, or to provide that intervention to a group of students. Considered systematically over time, qualitative data can provide insights on why Jason responded in certain ways to instruction, giving an astute teacher clues regarding what and how to teach him. Such data can provide grounding for large-scale experimental studies, as we might do if we were to test a word identification treatment meant to modify ineffective reading strategies described by children like Jason.

Such data can also inform policy. Pressure is great to adhere to federal and state program regulations set by No Child Left Behind (U.S. Department of Education, 2002). Because these regulations are derived from specific studies addressing areas such as phonological awareness, phonics, and comprehension instruction (National Institute of Child Health and Human Development, 2000), inferences must be drawn to set policy to drive instructional

programs. Jason's insights echo the literacy programs and other sources of information in his life. These sources have left him with a limited strategy for word identification and the stigma of not measuring up to classmates—both at an age when interventions are not usually very helpful (Allington, 1994). Our federal, state, and local policy should be able to account for and address insights like Jason's—even if he is the only child who thinks this way.

Representations of individuals' perspectives can help us account for variations in interpretations that occur when policy is implemented. The need for such representations is ongoing as times, instructional trends, and contexts evolve. Imagine this: One approach to phonics instruction caused Jason to talk about looking for little words in big words, and another, more evolved approach might cause him to describe a more efficient strategy, such as decoding by analogy (Gaskins, Gaskins, & Anderson, 1995).

Borrowing from other fields: Theorizing meaning

What are the considerations in conducting qualitative research that will be useful to policy? In addition to orchestrating methodology with attention to trustworthiness, Schwandt (2000) argued that qualitative researchers must grapple with their beliefs about how individuals construct meaning, as well as with how this meaning is represented in researchers' reports. For instance, I was trained as a qualitative researcher within a phenomenological tradition, symbolic interactionism, that Schwandt would describe as interpretivist. Interpretivist perspectives suggest that "to understand a particular social action (e.g., friendship, voting, marrying, teaching), the inquirer must grasp the meanings that constitute that action" (Schwandt, p. 191). During my training, I learned to engage in participant observation, in-depth interviewing, and document analysis to discern such meanings, generated from the premise that

Human beings act toward things on the basis of the meanings that the things have for them,...the meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows,...[and] these meanings are handled in, and modified through, an interpretive process used by the person in dealing with the things he encounters. (Blumer, 1969, p. 2)

According to Bogdan and Biklen (1998), these words position Blumer's interactionism as compati-

ble with phenomenological approaches that assume that "human experience is mediated by interpretation" (p. 25), and that reality is "socially constructed" (p. 24). Deriving their work from such Chicago School sociologists as George Herbert Mead, John Dewey, Robert Park, and Erving Goffman, sociologists in this group use case studies to explore symbols and personalities emerging from social interactions as participants in settings see them. This has made the perspective attractive to some literacy researchers, notably those who share my interest in teachers' and adolescents' views toward literacy and instruction (Dillon, 1989; Moje, 1996).

However, symbolic interactionism's assumptions can be viewed as problematic. One criticism is that it is not, in a literal sense, possible for researchers to understand and represent a phenomenon as others see it. To compensate, researchers must spend enough time in the worlds of those we are trying to interpret to be able to theorize those worlds believably. Indeed, Denzin (1992) critiqued the tradition as representing an uneasy blend of behaviorist and less visible, more socially derived concerns. He suggested that the perspective fails to resolve competing arguments for "the interpretive, subjective study of human experience" and the historical desire to "build an objective science of human conduct, a science which could conform to criteria borrowed from the natural sciences" (p. 2), leaving the researcher rooted in this perspective in an unclear position as interpreter. Denzin argued for an alternative view that is more cognizant of social construction, pairing interactionism with contemporary cultural studies. He suggested that such a perspective provides a clearer path toward representation because it "[d]irects itself always to the problem of how the history that human beings make and live spontaneously is determined by structures of meaning that they have not chosen for themselves" (p. 74).

Denzin (1992) explained that cultural studies borrows from feminist and poststructural perspectives to locate meaning in the link between the personal and the political, in an effort to "make a difference in the lives that people live" (p. 167). Schwandt (2000) added that, as a result, knowledge in cultural studies is not understood to be disinterested or apolitical, but rather riddled with ideology and politics. Such a perspective directs researchers to acknowledge power relations in their interpretations of the realities of their participants as well as in the representations connoted by their conduct of the research. We recognize the power in our position of being able to offer interpretations of others' views and actions. We know that the theories that we

develop to explain others' experiences are colored by our own histories, values, and structures of meaning, only some of which are within our awareness.

Cultural studies includes varied theories of the social construction of meaning to frame researchers' interpretations of power relations. For example, Marxist epistemologies allow us to explore sources of oppression by locating individuals' meaning construction within the hegemonies of social hierarchies (Freire, 1970; Shannon, 1995). Critical race theory invites us to begin inquiry with the assumption that, because we live in a racist society, education and other social systems have evolved in ways that privilege some children over others (Ladson-Billings & Tate, 1995). Feminist postmodern theories invite us to a Foucauldian view of multiple subjectivities through study of how an individual's discourses shape and are shaped by others (Davies, 1993).

Sociolinguistic studies of discourse also add to our ability to theorize the social construction of literacy. Boden (1990) argued that "where thought becomes action through talk we may find a crossroads" (p. 265) when traditions of symbolic interactionism and conversational analysis intersect. For example, discourse analysis shows us the workings of the initiation-response-evaluation cycle of secondary school classroom discussions—the context by which we can explain much of adolescents' and teachers' enactments of academic literacy (Cazden, 2001; O'Brien, Stewart, & Moje, 1995). More recently, the critical discourse analysis of media studies has helped us to consider connections among the features of text, institutions, and society (Fairclough, 1995; Gee, 1999). Critical discourse analyses have also helped us to explore how discourses of femininity (Finders, 1997) and masculinity (Young, 2000) are woven through adolescents' literacy and identity construction. We understand how students' discourses position them in classroom discussions (Gee & Crawford, 1998).

Noticing connections among the texts that individuals produce and the social constructions of institutions and society allows us to theorize that individuals develop multiple literacies for use in varied social contexts in and out of school (Hull & Schultz, 2002; New London Group, 1996). This theorizing invites us to understand how social structures related to literacy inform the identity construction of adolescents like Grady (Alvermann, 2001) and Khek (Moje, 2000), young people who struggle with academic literacy but who exhibit multiple strengths with more marginalized literacy practices. This perspective shows us alternative paths to designing instruction that draws more effectively on youth's existing funds

of knowledge (Moje, Ciechanowski, & Kramer, 2004).

A cultural studies analysis of Jason's insights might lead us to consider how his background in rural farming poverty is woven into his sense of self. Such an analysis might consider that males in his family have long found work on the family farm without diplomas, and that his family has other hopes for Jason. Jason's funds of knowledge include extensive farm work, both before and after school. Knowing more about the social structures from which Jason and other students develop funds of knowledge can be accounted for in education policy. His school district can acknowledge and build from his expertise as they purchase texts and design programs. Without diminishing expectations for his eventual performance, policy at the state and federal levels can allow for such situated decision making.

Methodological issues in my current work: Theorizing intervention

As I noted in the preceding section, my earliest work referenced a symbolic interactionist perspective, exploring secondary subject area teachers' perspectives toward reading (Hinchman, 1987). Wanting to understand teachers' use of content area literacy recommendations, I orchestrated a classroom study in collaboration with a social studies teacher, and we developed interpretations of students' perspectives toward events in her classroom together (Hinchman & Zalewski, 1996). Finding myself increasingly influenced by the explanatory power of theories of social construction to be found in cultural studies and sociolinguistics, I moved to attending to a more explicitly critical perspective, examining power relations in classroom talk about text (Hinchman & Young, 2001).

Most recently, I have been collaborating with teachers and administrators in an urban middle school that is at risk of closing due to the school's inability to meet current requirements for annual yearly progress in English language arts and mathematics (U.S. Department of Education, 2002). Our first goal is, of course, to improve test scores; we like to tell ourselves that we are also working to improve literacy in broader, more generative ways that will augment students' life opportunities. In addition to basing our decisions on test scores and item analysis, our collaboration considers qualitative data, such as

error patterns in writing and oral reading samples. Almost all the youth in this school know letter sounds and can read single- and many multisyllable words. Even so, many read in halting, word-by-word fashion, struggling with reading technical and less regular words like *colonel* or *sergeant*. Other students sound fluent and understand main ideas but cannot write cohesive, extended written pieces to fulfill subject area or testing requirements.

The school constructed policy that all teachers were to address literacy across the curriculum, requiring daily reading and writing in each class, cooperative groups, and strategic comprehension and composition instruction, agreeing in principle to attending to sociocultural issues that research suggests are important to adolescent literacy development (Hinchman, Alvermann, Boyd, Brozo, & Vacca, 2003). To implement this policy, reading teachers teamed with subject area teachers to model strategies and help with planning. The school provided coaching in the use of culturally responsive participatory instructional structures (Ladson-Billings, 1994) and planned schoolwide reading events to foster a more literate school culture (Fullan, 2001). Because initial progress was not dramatic, reading teachers recently began working directly with small groups of students in collaboration with English language arts teachers, engaging in responsive reading, writing, and discussion of strategies (Pressley, 2002).

Even so, we continue to see youth choosing to engage only sometimes and for some teachers. Our slow progress has suggested that we might benefit from better understanding of our students' existing literacies and identity construction (Alvermann, 2001), exploring mismatches between youths' funds of knowledge and academic requirements (Gutiérrez, Baquedano-López, & Turner, 1997; Moje et al., 2004). We have decided that constructing qualitative case studies will help us take a larger step toward instruction to which participants are more likely to bring "multiple resources or funds to make sense of the world and...to make sense of oral and written texts" (Moje et al., p. 42). Learning more about students' situated perspectives and theorizing underlying social structures may yield revision of school policy for more inviting and beneficial instructional space.

Conclusion

I echo my colleagues' calls for varied research methodologies to address questions whose answers will best inform the policy we need for effective literacy instruction. Dillon, Tobin, and Steinkuehler, Black, and Clinton offer several alternative theoretical groundings for such work in their commentaries, but one implication across these groundings is consistent: Exploring the social structures of individuals' literacy-related perspectives can inform policy in important ways. At the same time, I know that the multiple and competing theories used to explain social structures can be frustrating to policymakers who want to know which to believe and enact. I would like to argue that such epistemological pluralism is a good thing: Each adds a new way of seeing and each has limitations. Acknowledging such strengths and limitations to our understandings, and then looking at commonalities across findings, should be central to the ongoing process of constructing an education policy that allows for attention to situated representations—like those we might develop about Jason.

Social structures that can seem impermeable to individuals can, over time, be restructured through changes in policy that result from what we learn from individuals' perspectives. At the same time, the mistakes of white liberalism teach us that the paths to such restructuring will not be easy to discern and are likely to result in unanticipated consequences that will disadvantage individuals in new ways (Lalik & Hinchman, 2001). For instance, Jason's instruction might be changed following analysis of his perspective, but this change could result in even less productive insights. This reminds us to bypass current either/or policy debates by creating policy that examines individuals' responses to such changes in ongoing ways. Such a new direction for policy promises to promote more engaging, situated interventions.

KATHLEEN A. HINCHMAN is an associate professor and chair of the Reading and Language Arts Center at Syracuse University, where she teaches methods courses in elementary and secondary school literacy and runs the Literacy Clinic. Her research interests focus on the social construction of literacy, with emphasis on adolescent literacy and literacy teacher education. She can be contacted at the Reading and Language Arts Center, School of Education, Syracuse University, Syracuse, NY 13244-2340, USA, or by e-mail at kahinchm@syr.edu.

REFERENCES

ALLINGTON, R.L. (1994). What's special about special programs for children who find learning to read difficult? *Journal of Reading Behavior*, 26, 1–21.

ALVERMANN, D.E. (2001). Reading adolescents' reading identities: Looking back to see ahead. *Journal of Adolescent & Adult Literacy*, 45, 118–122.

AMERICAN EDUCATIONAL RESEARCH COUNCIL. (2003). Resolution on the essential elements of scientifically-based research. Washington, DC: American Educational Research Association. Retrieved June 10, 2004, from www.aera.net/meeting/councilresolution03.htm

BLUMER, H. (1969). Symbolic interactionism: Perspective and method. Englewood Cliffs, NJ: Prentice-Hall.

BODEN, D. (1990). People are talking: Conversational analysis and

symbolic interaction. In H.S. Becker & M.M. McCall (Ed.), Symbolic interaction and cultural studies (pp. 244-274). Chicago: University of Chicago Press.

BOGDAN, R.C., & BIKLEN, S.K. (1998). Qualitative research for education: An introduction to theory and methods (3rd ed.). Boston: Allyn &

CAZDEN, C. (2001). Classroom discourse: The language of teaching and learning (2nd ed.). Portsmouth, NH: Heinemann.

DAVIES, B. (1993). Shards of glass: Children reading and writing be-yond gendered identities. Cresskill, NJ: Hampton Press.

DENZIN, N.K. (1992). Symbolic interactionism and cultural studies.

Malden, MA: Blackwell.

DILLON, D. (1989). Showing them that I want them to learn and that I care about who they are: A microethnography of the social organization of a secondary low-track English-reading classroom. American Educational Research Journal, 26, 227-259.

FAIRCLOUGH, N. (1995). Critical discourse analysis: The critical study of language. New York: Longman.

FINDERS, M. (1997). Just girls: Life and literacy in junior high. New York: Teachers College Press.

FREIRE, P. (1970). Pedagogy of the oppressed. New York: Seabury. FULLAN, M. (2001). Leading in a culture of change. San Francisco:

GASKINS, R., GASKINS, I., & ANDERSON, R.C. (1995). The reciprocal relationship between research and development: An example involving a decoding strand for poor readers. Journal of Reading Behavior, 27, 337-377

GEE, J.P. (1999). An introduction to discourse analysis: Theory and

method. New York: Routledge.

GEE, J.P., & CRAWFORD, V. (1998). Two kinds of teenagers: Language, identity, and social class. In D.E. Alvermann, K.A. Hinchman, D.W. Moore, S.F. Phelps, & D.R. Waff (Eds.), Reconceptualizing the literacies in adolescents' lives (pp. 225-246). New York: Erlbaum.

GUTIÉRREZ, K.D., BAQUEDANO-LÓPEZ, P., & TURNER, M.G. (1997). Putting language back into language arts: When the radical middle meets the third space. Language Arts, 74, 368-378.

HINCHMAN, K.A. (1987). The textbook and three content-area

teachers. Reading Research and Instruction, 24, 247-263.

HINCHMAN, K.A., ALVERMANN, D.E., BOYD, F., BROZO, W., & VACCA, R. (2003). Supporting older students' in- and out-ofschool literacies. Journal of Adolescent & Adult Literacy, 47, 304-310.

HINCHMAN, K.A., & MICHEL, P. (1999). Reconciling polarity: Toward a responsive model of evaluating literacy performance. The Reading Teacher, 52, 578-587.

HINCHMAN, K.A., & YOUNG, J.P. (2001). Speaking but not being heard: Two adolescents negotiate classroom talk about text. Journal

of Literacy Research, 33, 243-268.

HINCHMAN, K.A., & ZALEWSKI, P. (1996). Reading for success in a tenth-grade global studies class: A qualitative study. Journal of Literacy Research, 26, 91-106.

HULL, G.A., & SCHULTZ, K. (2002). School's out: Bridging out-ofschool literacies with classroom practice. New York: Teachers College Press. IVEY, G. (1999). A multicase study in the middle school:

Complexities among young adolescent readers. Reading Research Quarterly, 34, 172-192.

JOHNS, J. (1972). Children's conceptions of reading and their reading achievement. Journal of Reading Behavior, 4, 56-57.

JOHNSTON, P. (1985). Understanding reading disability: A case study approach. Harvard Educational Review, 55, 153-177.

KOS, R. (1991). Persistence of reading disabilities: The voices of four middle school students. American Educational Research Journal, 28, 875-895

LABOV, W. (2003). New directions in research: When ordinary children fail to read. Reading Research Quarterly, 38, 128-131.

LADSON-BILLINGS, G. (1994). The dreamkeepers: Successful teachers of African American children. San Francisco: Jossey-Bass.

LADSON-BILLINGS, G., & TATE, W. (1995). Toward a critical race theory of education. Teachers College Record, 97, 47-68.

LALIK, R., & HINCHMAN, K.A. (2001). Critical issues: Examining constructions of race in literacy research: Beyond silence and other oppressions of white liberalism. Journal of Literacy Research, 33, 529-562.

LINCOLN, Y. (1998). From understanding to action: New imperatives, new criteria, new methods for interpretive researchers. Anthropology & Education Quarterly, 34, 339-342.

MICHEL, P. (1994). The child's view of reading: Understanding for

teachers and parents. Boston: Allyn & Bacon.

MOJE, E.B. (1996). "I teach students, not subjects": Teacher-student relationships as contexts for secondary literacy. Reading Research Quarterly, 31, 172-195.

MOJE, E.B. (2000). "To be part of the story": The literacy practices of gangsta adolescents. Teachers College Record, 102, 651-690.

MOJE, E.B., CIECHANOWSKI, K.M., & KRAMER, K. (2004). Working toward third space in content area literacy: An examination of everyday funds of knowledge and Discourse. Reading Research Quarterly, 39, 38-70.

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT. (2000). Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction (NIH Pub. No. 00-4769). Washington, DC: U.S. Government Printing Office.

NEW LONDON GROUP. (1996). A pedagogy of multiliteracies: Designing social futures. Harvard Educational Review, 66, 60-92.

O'BRIEN, D., STEWART, R., & MOJE, E.B. (1995). Why content literacy is difficult to infuse into the secondary school: Complexities of curriculum, pedagogy, and school culture. Reading Research Quarterly, 30, 442-463.

PRESSLEY, M. (2002). Reading instruction that works (2nd ed.). New York: Guilford

SCHWANDT, T.A. (2000). Three epistemological stances for qualitative inquiry: Interpretivism, hermeneutics, and social constructionism. In N.K. Denzin & Y.S. Lincoln (Eds.), Handbook of qualitative research (2nd ed., pp. 189-213). Thousand Oaks, CA: Sage.

SHANNON, P. (1995). Text, lies, and videotape: Stories about life, literacy and learning. Portsmouth, NH: Heinemann.

TAYLOR, D. (1994). From a child's point of view. Portsmouth, NH: Heinemann.

U.S. DEPARTMENT OF EDUCATION. (2002). No child left behind. Retrieved July 27, 2004, from www.ed.gov/nclb/overview/ intro/presidentplan/index.html

WOODSIDE-JIRON, H. (2003). Critical policy analysis: Researching the roles of cultural models, power, and expertise in reading

policy. Reading Research Quarterly, 38, 530-536.

YOUNG, J.P. (2000). Boy talk: Critical literacy and pedagogy. Reading Research Quarterly, 35, 312-337.

There and back again: Qualitative research in literacy education

DEBORAH R. DILLON

University of Minnesota, Minneapolis, USA

The current state of qualitative research

Debates about the value and credibility of qualitative versus quantitative research, which peaked in the 1980s and waned in the 1990s, were rekindled by the National Reading Panel (NRP) report, Teaching Children to Read (National Institute of Child Health and Human Development, 2002). NRP members were selected to review experimental and quasiexperimental studies, and studies not yielding quantifiable results were set aside in this review and synthesis. This report served as the impetus for ensuring that federal funding for the improvement of reading instruction be used by grantees only on programs and professional development initiatives that were grounded on scientific evidence. In addition, a definition of scientifically based research was crafted and became part of the 1999 Reading Excellence Act (REA) legislation. The NRP report, the REA legislation, the No Child Left Behind legislation (NCLB, 2001), and the influence of reading policy entrepreneurs such as Reid Lyon from the National Institute of Child Health and Human Development (NICHD; Song, Coggshall, & Miskel, 2004) served to narrow definitions of scientifically based research, touting the testing of hypotheses, experimental and quasi-experimental designs, and the random assignment of subjects.

Educational researchers and their projects received closer scrutiny and critique when the National Educational Research Policy and Priorities Board (NERPPB) requested that a National Research Council (NRC) committee explicate the nature of scientific research in education. This group was also asked to construct a framework for a future federal educational research agency that would be charged with overseeing quality scientific work. In 2002, the NRC committee published its work:

Scientific Research in Education (SRE; Towne & Shavelson, 2002). The report promoted a "post positivist approach to scientifically based research in education, including a range of research designs (experimental, case study, ethnographic, survey) and mixed methods (qualitative and quantitative) depending on the research questions under investigation" (Eisenhart & Towne, 2003, p. 31). The Education Sciences Reform Act (ESRA, 2002). wherein the Office of Educational Research and Improvement (OERI) was replaced with the new Institute of Education Sciences (IES), outlined another definition for "scientifically based research" in education. This definition no longer required studies that only tested hypotheses. It also stated that causal conclusions could be drawn from research designs with nonrandom assignment and that research could be conducted that sought to rule out competing explanations for observed differences. ESRA also acknowledged an important point: Research designs cannot be prescribed in advance; rather, studies are designed "as appropriate to the research being conducted" (ESRA, 2002, Section 102, No. 18, p. 4).

In their excellent review of the NRC report (2002), Eisenhart and Towne (2003) pointed out that educational researchers must critique and provide input about how research is defined to "provide leverage for altering the meanings of scientifically based research and education research as they are operationalized in public policy" (p. 32). In fact, they believe that much of the recent debate in educational publications, journals, and public meetings has improved earlier rigid definitions of research and "what works." They also argued that dialogue is critical to educational research efforts and the use of findings generated from research.

What impact have multiple definitions of scientifically based research had on the field of literacy? How do teachers and researchers feel about particu-

lar forms of research and the positioning of some as more valuable, credible, and allowable than others? Many K-12 educators are experiencing confusion about which research studies and findings, teaching practices, programs, and materials are, or are not, scientifically based and thus appropriate for use. Grant funding, tied to particular definitions of literacy research evidence, influences many school-based educators to reject a breadth of practices that meet the educational needs of various students in favor of approved but narrower reading programs, materials, teaching practices, and research. In addition, qualitative researchers need to discuss whether those we do research with, and for, value qualitative research and use it. I pose this concern because in today's world of NCLB and increased accountability, research that focuses on the complexities of teaching and learning instead of providing the "right answers" may not be embraced by practitioners. Ideally, we need teachers who, as Pressley noted (2004), spend time with educational researchers studying current research findings and collaborating to create new, cutting-edge educational science projects that address complex teaching and learning issues.

Many literacy researchers are angry and defensive, sensing a return to the 1980s when the quantitative and qualitative wars were in full swing. Hence, the title of this piece: "There and Back Again." I fear that we could return to a situation where researchers begin to "circle the wagons" to defend qualitative and quantitative camps, and camps within these camps (e.g., postpositivist theories versus critical theories). This action could negate the very conversations we need to have as a research community. If researchers retreat to camps, I worry about the marginalization of scholars who seek to use combined methods or those that may violate some researchers' long-held beliefs about not blending research designs or methods based on epistemological reasons. Last, I am concerned about scholars who decide to continue to turn a blind eye to the current conversations, proceeding forward with predesigned research agendas with little attention to understanding or trying to influence new research policy or practices.

Potential solutions to the debate

I am heartened by conversations led by scholars like Erickson and Gutierrez (2002) who discussed why qualitative research is more than "merely allowable; it is essential if causal analysis is to succeed. A logical and empirically prior question to 'Did it work?' is 'What was the 'it'?'—What was the

'treatment' as actually delivered?" (p. 21). These authors noted, as do others (e.g., Cohen, Raudenbush, & Ball, 2003), that the interventions and experiments we do in classrooms are situated and must be interpreted on the basis of the dynamic interactions that occur as events unfold. To understand whether and how treatments work, Erickson and Gutierrez argued that a large portion of a research budget must be allocated to documenting what happens when the treatment is delivered. Otherwise causal inferences drawn from research will be incomplete and potentially misleading. Erickson and Gutierrez also argued that "Real science is not about certainty but about uncertainty" (2002, p. 22). They contended that we need flexible research designs that account for the "variety and changeability of the hierarchically embedded contexts of social life" (p. 23).

What Erickson and Gutierrez proposed is a pragmatic solution to solving complex problems in educational research. In a recent piece about where we believe research should be going in the next millennium, my colleagues and I concurred (Dillon, O'Brien, & Heilman, 2000). We drew from Dewey's (1938/1981) views on research; noting that the value of scientific research must be considered in terms of the "end-in-view" and that problems should be identified from actual social situations in which they play out. In our work we proposed that one of the greatest challenges for researchers working within a pragmatic stance will be working with diverse groups of stakeholders to identify and define the dimensions of problems. This stance means resisting the temptation to fixate on certain methods yet employing empirical, ethical tools and strategies that yield insightful yet sometimes unsettling answers to real problems, and writing up the findings to illuminate both the processes and results of inquiry (Dillon et al., 2000). These methods may seem incompatible with the epistemological underpinnings of qualitative research, but what might new forms of qualitative research or combined methodologies offer that better address the needs of teachers and policymakers? How can we maintain a stance that values research that is sensitive and responsive to specific contexts, participants' needs, and particular school and community situations? How might we conduct highquality research while we are under pressure from within and outside the research community for more prescriptive definitions of research that offer "what works"? How can we heighten the need for research that is less definitive but nonetheless critical to helping educators better meet the needs of individual students in their respective schools?

Several research designs are being employed that are sensitive to important research questions and educational contexts and offer results that meet the needs of a broad constituency. I would like to overview two: formative experiment and mixed methodologies. Formative experiment designs have been used by several literacy researchers (e.g., Baumann, Ware, & Edwards, 2003; Jiménez, 1997; Reinking & Bradley, 2003; Reinking & Watkins, 2000). Jacobs (1992) presented formative experiments as a solution posed by neo-Vygotskian scholars who wanted to address limitations they saw in both experimental and naturalistic research designs. As they begin their work, researchers use qualitative methods of observation and interviewing to understand who the participants are, the context of the situation they intend to study, and the participants' perspectives and needs. Once the intervention is designed and as it is implemented, data are collected in an ongoing manner to document what happens, when, and why. Modifications are documented, qualitative and quantitative methods of investigation are used, and results indicate whether an intervention works or not and how different interactions and processes and particular settings affect the intervention (e.g., Newman, 1990; Newman, Griffin, & Cole, 1989; Reinking & Watkins, 2000).

There are many issues to work out when using this design. We posed several questions to start this conversation (Dillon & O'Brien, 2003) including the following: How will researchers indicate that they understand and have used knowledge of the contexts that they work in and the participants' social, cultural, and cognitive backgrounds? How will researchers document what they do and the effect of changes on the data collected at various points within the formative experiment? How will they justify shifts in procedures, materials, and tasks and the impact of these on future data collection? How will researchers examine the use of multiple theoretical frameworks and methodologies used within the study and how these impact the data collected and how it is interpreted and used? Will the methodology of formative experiments privilege methodology as procedure, rather than methodology as an epistemological stance? What will the write-ups of formative experiments look like? Is one formative experiment enough to generate warrants and change practices? We posit that researchers must consider how changes in research processes within the experiment impact data collection and how these data are understood within the context of how and when they were secured (e.g., findings gleaned midway through a study affect future data collected and the

overall findings). Also, important discussions about the weighting of evidence gleaned using particular methodologies and research tools will be important. Finally, it will be interesting to see how researchers respond to criticisms from researchers and practitioners who are wedded to particular epistemologies and methodologies.

A second pragmatic solution to solving complex research problems in literacy is constructing interdisciplinary teams of researchers and using a combination of research methods. In mixed designs, quantitative research should not be privileged over qualitative research and one method is not used to address more important questions. An excellent example of mixed methods is a recent NICHD-funded study that spans multiple years and focuses on the social and cultural influences of adolescent literacy development. The purpose of this study is to produce developmental profiles of types of readers and writers in different contexts and to produce profiles of the types of contexts that support or constrain adolescent literacy development and transfer of skills (Moje, Eccles, Davis-Kean, Watt, & Richardson, 2003). Researchers will then offer classroom instructional strategies and interventions based on the observed strengths of learners and designed to meet the needs of different types of adolescent readers and writers. To accomplish these goals, a collaborative team composed of literacy researchers, psychologists, linguists, statisticians, and anthropologists will use integrated quantitative and qualitative methods and analytic techniques. The team, led by Elizabeth Moje, a literacy researcher, will examine the influence of peers, family, community, and cultural factors on the development of literacy skills in struggling and successful adolescent readers. Large-scale survey data measuring students' abilities and preferences will be employed, interviews and observation will be conducted, diary studies and textual analyses will be used, and multiple assessments will be developed and used to document literacy skills and practices and test hypotheses. Qualitative observation and interviewing will be used to understand in- and out-of-school activities. These data will be used to design a series of experimental tasks, employed in the final year of the study. The tasks will assess the hypothesis that youth transfer out-of-school literacy skills and practices to their in-school literacy-based work and vice versa. The experimental tasks will also allow the development of classroom-based interventions. Qualitative data will be collected to document what happens across these contexts to deepen the experimental findings (Moje et al.).

What seems evident is that for literacy research to be funded by sources such as NICHD, questions must focus on key issues that emerge not only from a researcher's line of work over several years, but also from problems and questions that are identified at the policy level as critical for the field (e.g., in adolescent literacy panel meetings at the national level; in NICHD research meetings). NICHD-funded studies also focus on large-scale projects (e.g., beyond one or two classrooms) and are longitudinal in nature. These studies are often driven by questions that require quantitative methods with the collection of some supplementary qualitative data, and researchers are encouraged to use methods and assessments that model similar NICHD-funded projects. The Moje et al. (2003) project indicates that high-quality research studies do not have to employ only quantitative methods or privilege these. Instead, studies can employ a mixed methodology—even with a strong bent toward qualitative research. A strong interdisciplinary research team is key to funding success. What is most promising with this study is that a literacy educator is providing leadership for the conceptualization of the research questions and design, the implementation of the research, and the analysis and interpretation of the data.

Closing comments

I value and admire innovations in qualitative research and adaptations in the area of methodology. Perhaps some qualitative researchers feel that I am suggesting that we all move toward formative experiments and mixed-methods studies. I am not. I believe there is a vital need for high-quality qualitative studies of individual teachers, students, classrooms, and schools. There is also a critical place for a variety of methodologies to address questions in an appropriate and valid manner. As Pressley (2004) remarked, literacy researchers should attend to "emerging hypotheses that might dramatically transform our thinking about how reading education could and should occur" (p. 296). What I propose is that our literacy research community talk about and identify the key questions (with our school- and community-based colleagues and policymakers) that our field should be researching and work to craft quality research methodologies to address these questions. The literacy community would also benefit from discussing and identifying basic principles and criteria about which we agree regarding high-quality research that employs qualitative methodology. Principles developed to ground qualitative research

and criteria for judging its quality already exist, but there is little consensus on the criteria among researchers in education or in the field of literacy (Dillon, 1996; Patton, 2002; Peshkin, 1993). It will be important to be sensitive to the various theoretical frameworks employed by literacy researchers and the methods used to address particular questions.

Despite the disdain currently expressed among many in our field for the convening of panels, I support bringing together a core group of respected literacy scholars who use qualitative methodologies and selected colleagues from related disciplines (e.g., educational anthropology) to work on the important task of outlining principles and criteria. This reflects recommendations that emerged from the SRE report (Towne & Shavelson, 2002) and the concept of developing a cohesive research community that selfregulates its members (as opposed to having policymakers or people outside the discipline do so). Editors of literacy research publications could help identify scholars to work on this task; they would also benefit from the principles and criteria generated. This work will require leveraging monies from various sources to allow a comprehensive review of qualitative research methods texts, research publications, and grants that employ qualitative research methodology. This group of scholars would also need to consider current educational problems and new qualitative or mixed methodologies that may be used by scholars in the field. After the principles are drafted, they should be discussed and debated within our research community. The resulting document would be regarded like other compilations of the best of what we know at this point in time—open for innovations and the expectation of continual updating.

However, crafting principles and criteria and discussing them with other qualitative researchers in literacy will not be enough. The task of talking with colleagues who work using theoretical frameworks and methodologies that differ from one's own will be key. St. Pierre (2002) noted, "[u]nfortunately, it is often the case that those who work within one theoretical framework find others unintelligible" (p. 16). St. Pierre was also not optimistic about the NRC SRE report's (2002) charge to build a "cohesive community with self-regulating norms" (p. 22), because she felt that this could lead to "one group controlling the production of reason, science, knowledge, and researchers themselves" (p. 26). She urged us not to marginalize particular epistemologies or new ways of producing knowledge in an attempt to control or "center" the science we engage in, but to promote new ways of seeing and doing research. I agree with this perspective while not giving up on the idea of

working to generate some useful criteria and principles. St. Pierre reminded us that innovation should be valued and will create the need to constantly revisit, rethink, and revise the principles and broad criteria crafted for quality literacy research. The crucial tension for me is that if we do not step forward and take a stance on creating these principles and systems and continually review and update them, then who will? The lack of attention to these issues places qualitative research in a position where it can continue to be marginalized or, worse yet, dismissed based on a claim that no one can agree on what quality inquiry entails.

DEBORAH R. DILLON is a professor of literacy and language and qualitative research methods in education and Chair of the Curriculum and Instruction Department in the College of Education and Human Development at the University of Minnesota. Her research interests focus on the literacy practices of teachers and learners in K-12 schools, particularly adolescents, and the sociocultural and historical contexts shaping literacy events and participants' lives. Dillon also participates in and researches undergraduate literacy teacher education initiatives and long-term professional development programs with K-12 school partners. She can be contacted at 145 Peik Hall, 159 Pillsbury Drive SE, Minneapolis, MN 55455-0208, USA, or by e-mail at dillon@umn.edu.

REFERENCES

BAUMANN, J., WARE, D., & EDWARDS, E.C. (2003, December). Teaching vocabulary in fifth-grade: A year-long formative experiment. Symposium conducted at the meeting of the National Reading Conference, Scottsdale, AZ.

COHEN, D.K., RAUDENBUSH, S.W., & BALL, D.W. (2003). Resources, instruction, and research. Educational Evaluation and Policy

Analysis, 25, 119–142.

DEWEY, J. (1981). Social inquiry. In J.J. McDermott (Ed.), The philosophy of John Dewey (pp. 397–420). Chicago: University of Chicago Press. (Original work published 1938)

DILLON, D.R. (1996). Perspectives for literacy research: Qualitative inquiry. In L. Baker, P. Afflerbach, & D. Reinking (Eds.), Developing engaged readers in school and home communities (pp. 219–223). Mahwah, NJ:

DILLON, D.R., & O'BRIEN, D.G. (2003, December). The role of formative experiments within the broader framework of pragmatism and practicality in literacy research. Symposium conducted at the meeting of the

National Reading Conference, Scottsdale, AZ.
DILLON, D.R., O'BRIEN, D.G., & HEILMAN, E.E. (2000). Literacy research in the next millennium: From paradigms to pragmatism and practicality. Reading Research Quarterly, 35, 10-26.

EDUCATIONAL SCIENCES REFORM ACT OF 2002, Pub. L.

107-279, 116 Stat. 1939 (2002). Available from Thomas Legislative Information on the Internet, http://thomas.loc.gov

EISENHART, M., & TOWNE, L. (2003). Contestation and change in national policy on "scientifically based" education research. Educational Researcher, 32(7), 31-38.

ERICKSON, F., & GUTIERREZ, K. (2002). Culture, rigor, and science in educational research. Educational Researcher, 31(8), 21-24.

JACOBS, E. (1992). Culture, context, and cognition. In M.D. LeCompte, W.L. Millroy, & J. Pressle (Eds.), Handbook of qualitative research in education (pp. 293-335). New York: Academic.

JIMÉNEZ, R.T. (1997). The strategic reading abilities and potential of five low literacy Latina/o readers in middle school. Reading Research

Quarterly, 32, 224-243.

MOJE, E.B., ECCLES, J., DAVIS-KEAN, P., WATT, H., & RICHARDSON, P. (2003, December). An examination of the social and cultural influences on adolescent literacy development (Grant # RO1 HD046115-01). Paper presented at the NICHD/OSERS/OVAE meeting of the Adolescent Literacy Network, Bethesda, MD.

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT. (2002). Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction (NIH Publication No. 00-4769). Washington, DC: U.S. Government Printing

NEWMAN, D. (1990). Opportunities for research on the organizational impact of school computers. Educational Researcher, 19(3), 8-13.

NEWMAN, D., GRIFFIN, P., & COLE, M. (1989). The construction zone: Working for cognitive change in school. Cambridge, UK: Cambridge University Press

NO CHILD LEFT BEHIND ACT OF 2001, Pub. L. No. 107-110,

115 Stat. 1425 (2002).

PATTON, M.Q. (2002). Qualitative research and evaluation methods (3rd ed.). Thousand Oaks, CA: Sage.

PESHKIN, A. (1993). The goodness of qualitative research.

Educational Researcher, 22(2), 23-29

PRESSLEY, M. (2004). What I have learned up until now about research methods in reading education. In R. Robinson, M.C. McKenna, & J.M. Wedman (Eds.), Issues and trends in literacy education (pp. 287–301). Boston: Allyn & Bacon.

READING EXCELLENCE ACT. TITLE VIII OF THE DEPARTMENTS OF LABOR, HEALTH, AND HUMAN SERVICES, AND EDUCATION, AND RELATED AGENCIES APPRO-PRIATIONS ACT, 1999 OF THE OMNIBUS APPROPRIATIONS BILL, 1999. Pub. L. No. 105-227 112 Stat. 2681. Retrieved August 17, 2004, from http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?db- name=105 cong public laws&docid=f:publ277.105.pdf.

REINKING, D., & BRADLEY, B.A. (2003). What are formative experiments and why are they needed? Symposium conducted at the meeting of the National Reading Conference, Scottsdale, AZ.

REINKING, D., & WATKINS, J. (2000). A formative experiment investigating the use of multimedia book reviews to increase elementary students' independent reading. Reading Research Quarterly, 35, 384-419.

SONG, M., COGGSHALL, J.G., & MISKEL, C.G. (2004). Where does policy usually come from and why should we care? In P. McCardle & V. Chhabra (Eds.), The voice of evidence in reading research (pp. 445-461). Baltimore: Brookes.

ST. PIERRE, E.A. (2002). "Science" rejects postmodernism. Educational Researcher, 31(8), 25–27.

TOWNE, L., & SHAVELSON, R. (Eds.). (2002). Scientific research in education. Washington, DC: National Academy Press.