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Reading Research As an Agenda-Setting Enterprise: Bringing Science to Art, and Art to Science

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Scientific problems are expressed in the available scientific language. James Gleick, 1987, Chaos: Making a New Science. (p. 197)

I know that most [wo]men, including those at ease with problems of the greatest complexity, can seldom accept even the simplest and most obvious truth if it be such as would oblige them to admit the falsity of conclusions which they have delighted in explaining to colleagues, which they have proudly taught to others, and which they have woven, thread by thread, into the fabric of their lives.

Joseph Ford, physicist at Georgia Institute of Technology, quoting Tolstoy. (Cited in Gleick, 1987. p. 114)

Over a decade ago, James Gleik (1987) noted that how we define reality has much to do with where we position ourselves as observers of this reality. Imagine that we were trying to define a jagged California coastline. If we walked along a stretch of this coastline, we would observe huge irregularities. From where we stood, we would discern different outcroppings of rock, different plant formations, and different ways ocean waves would crash upon the shore.

Now imagine we had the opportunity to view this coastline from successively higher elevations as we climbed a nearby mountain. As we made our ascent, we would begin to see that the nonlinear irregularities began to branch into definable units called *inlets*. As we continued to climb, the disparate shapes of the inlets would begin to become more linear, allowing us to discern common patterns in shape and size. As we climbed even higher, we might begin to get a sense of how one inlet stood in relationship to the next. Climbing still higher, we might begin to see how inlets related to one another in contiguous clusters. At the summit, we might even see how these clusters formed recursive, noncontiguous patterns.

While Gleick leaves us with a sense of unity atop the Chaos mountain by the sea, the story is not complete: There are always other coastlines with their accompanying mountains. As we move from coastline to coastline, we find different kinds of rocks and plants. In some cases, we do not find inlets at all—only long stretches of sandy beaches that extend for miles. As we climb the mountains accompanying these coastlines, we arrive at altogether different definitions of coastlines and their characteristics. This is not unlike the problem of reading research.

In the endeavor of reading research, we, as observers of the phenomenon of reading,

all begin and end with the same basic problem, the problem of how to define reading (Mosenthal, 1984, 1985). Similar to selecting different mountaintops to observe coast-lines, we select different academic disciplines as our vantage points for observing reading. Each discipline entails a different set of assumptions of how phenomena should be defined, different notions of cause and effect, different methods deemed acceptable for observing these phenomena, and different scales (e.g., nominal, ordinal, interval, or ratio) considered appropriate for measuring these phenomena. Moreover, the members of these disciplines act as "tribes," each replete with its own culture and mores as Becher (1989/1996) has described:

The tribes of academe, one might argue, define their own identities and defend their own patches of intellectual ground by employing a variety of devices geared to the exclusion of illegal immigrants. Some ... are manifest in physical form ('the building occupied by the English department' ...); others emerge in the particularities or membership and constitution ... Alongside these structural features of disciplinary communities, exercising an even more powerful integrating force, are their more explicitly cultural elements: their traditions, customs and practices, transmitted knowledge, beliefs, morals, and rules of conduct, as well as their linguistic and symbolic forms of communication and the meanings they share. To be admitted to membership of a particular sector of the academic profession involves not only a sufficient level of technical proficiency in one's intellectual trade but also a proper measure of loyalty to one's collegial group and of adherence to its norms. An appreciation of how an individual is inducted into the disciplinary culture is important to the understanding of that culture. (p. 24)

Disciplines, like coastlines and their accompanying mountains, come with readymade details and generalities. By selecting one over the other, we define a different reality of coastlines and reading. For example, some reading researchers (Lyon & Rumsey, 1996; Shaywitz et al., 1996) have drawn upon the biological sciences and its discipline of neurology to define reading; they explain reading in terms of the principles of how neural networks operate. For example, as Lyon (1997) has argued, in "children who have difficulty understanding that spoken words are composed of discrete individual sounds that can be linked to letters ... the neural systems that perceive the phonemes in our language are less efficient ... than in other children" (p. 3).

Others draw upon the social sciences to define reading (Mosenthal, 1999). Here researchers create entirely different definitions of reading depending upon whether they select psychology, sociology, linguistics, economics, political science, or anthropology as their primary starting point. To illustrate this, consider first Gough's (1972) classic definition of early reading:

... the child clearly has the capacity to produce and understand sentences. He comes to school equipped with a lexicon, a comprehension device, and a phonological system ... His lexicon obviously contains fewer entries than it will, and there are indications that the entries it has are not as complete as they will be ... His comprehension device ... is not that of an adult; there are a variety of syntactic structures which he does not yet reliably process ... His

phonological component, at least as it is engaged in speech production, is likely to show considerable deviation from the adult norm.

But at the same time, none of these shortcomings preclude the assembly of (at least) a primitive reading machine, for the child can readily make use of what he has. What is lacking is a character recognition device (the Scanner) and the device which will convert the characters it yields into systematic phonemic representations (the Decoder). (p. 346)

Now contrast this with Gee's (Foreword in Lewis, 2001) approach to literacy drawn from sociolinguistics:

[R]eading and writing are not primarily mental acts; they are primarily socially situated acts. From this perspective, there is no such thing as writing and reading in general. We always read and write within a specific social practice ... Literacy-related social practices almost always involve a good many other things besides written language. They almost always include and integrate. along with written language, specific and characteristic ways of talking, acting, interacting, feeling, thinking, valuing, and using various sorts of symbols and tools ... Becoming a participant in a specific social practice requires access offered by those already adept at the practice or those who 'own' and control it ... [W]e cannot separate literacy from trust, values, access, and affiliation. We cannot separate literacy, and the cognition involved in literacy. from affect, from society, from culture, or from politics in the sense of equal and fair access to social participation and power. ... In my view, we do not have a reading crisis in our schools. Rather we have what I would call an affiliation crisis ... Lots and lots of children will not or cannot affiliate with specific school-based, literacy-related practices. (pp. xvi-xviii)

The discipline of psychology clearly includes definitions of reading as primarily mental acts; the discipline of sociolinguistics defines reading not as a single cognitive phenomenon but as a mere aspect of *multiple literacies*.

The problem unfortunately does not end with the question of which science to use to define reading; some of us select disciplines in the humanities and the arts to create definitions. In this regard, we follow Eisner's (1997) observation that "[o]ver time, the concept of research has broadened, and science [is now] recognized as [but] one among several of its species" (p. 5). While science-based researchers tend to be preoccupied with understanding such questions as "What is?" and "What will be under specified conditions?" (Mayer, 2000, 2001), others are concerned with such questions as "What is possible?" and "What should be ideal outcomes?" Frye (1964) expressed this elegantly when he noted.

Science begins with the world we have to live in, accepting its data and trying to explain its laws. From there, it moves toward the imagination: it becomes a mental construct, a model of a possible way of interpreting experience. . Art, on the other hand, begins with the world we construct, not with the world we see. It starts with the imagination, and then works toward ordinary experience; that is, it tries to make itself as convincing and recognizable as it can. You can see why we tend to think of the sciences as intellectual and the arts as emotional: one starts with the world as it is, the other with the world we want to have. (pp. 23-24)

In defining reading more from the arts perspective, we reposition the observer and the person being observed much as Bakhtin (1963/1984) has suggested as in the case when we read a novel: Such reading represents "a plurality of independent and unmerged voices and consciousness, a genuine polyphony of fully valid voices" (p. 6). Barone (2001) further elaborates:

It is a plurality in which no singular voice—none of the voices of the character (i.e., research participants) nor, especially, that of the researcher-author—is privileged over others. And because these voices speak to a range of experiences from within often disparate worldviews, because they arise out of and express alternative realities, the reader may be enticed into vicariously experiencing educational events and confronting educational issues from vantage points previously unavailable to him or her. Imaginatory participation in some of these alternative realities may mean perceiving educational phenomena in a strange new way. They may transgress against the reader's comfortable, previously unquestioned ways of viewing and acting within the world. (p. 25)

When taken to the extreme, art-based research gives as much status to imagination as it does to observation (Barone & Eisner, 1997); it becomes an opportunity to reflect and validate oneself (Bullough & Pinnegar, 2001). Over four decades ago, Mooney, in a work titled, "The Researcher Himself" (1957), argued this perspective as follows:

Research is a personal venture which, quite aside from its social benefits, is worth doing for its direct contribution to one's own self-realization. It can be taken as a way of meeting life with the maximum of stops open to get out of experience its most poignant significance, its most full-throated song. (p. 155)

This form of research has further evolved into different forms related to the construction and interpretation of life-history narratives (Casey, 1996; Clandinin & Connelly, 2000; Pinar, 1980), as well as portraitures within narratives (which require an observer to reflect on his/her own reflections, a reader to interpret his/her own interpretations) (Callen, 1995; Lawrence-Lightfoot & Hoffman-Davis, 1997).

In sum, the very selection of a discipline for defining reading—be it on the side of science or the side of art—has as great a consequence for determining the definition of reading as does any success a researcher might achieve by engaging in this discipline. In essence, each discipline acts as its own geometry (or *deductive system*), having its own postulates, primitive terms, theorems, and derived principles (Barker, 1964). As such, each discipline has its own irrefutable, internal validity. To conduct research—be it in a *scientific discipline* or an *artistic discipline*—is to enter a ready-made system of explanations and justification.

Given the internal validity of disciplines, the question remains as to how to deal with the problem of multiple realities of singular phenomena viewed from the vantage of different disciplines. To date, one popular strategy has been to climb to the highest peak of one's mountain using some form of meta-analysis (Gage, 1996). As Gage would suggest, by viewing a phenomenon from a higher vantage up the mountain, we are led to believe that the internal consistency of our observation can be generalized (more or less) to define

and explain the nature of coastlines associated with most (if not all) mountains and reading associated with most (if not all) other disciplines. In Gage's (1966) words:

In the last 20 years ... meta-analysis has yielded knowledge concerning the impressive magnitude, consistency, and validity across contexts of many generalizations in the behavioral sciences and promising methods for quantifying and analyzing the generalizability of research results. These arguments, findings, and methods justify ... continuing the effort to build sciences of behavior. (p. 5)

This strategy, of course, has recently been championed by the federal government in its attempt to support national panels conducting meta-analyses of reading acquisition in the psychological discipline (National Reading Panel, 2000; Snow, Burns, & Griffin, 1998). By achieving a more complete meta-analysis within one such discipline, researchers and bureaucrats claim greater *legitimacy* of this discipline as a vantage point for defining reading. Data from that discipline are then said to constitute *valid evidence* while data from other disciplines are considered to be somehow *less valid*. Hence, when government officials argue that programs must be *evidenced based* to be acceptable for funding, this means that such evidence must come from the discipline that has been meta-analyzed and, therefore, legitimized (Boyd & Mitchell, 2001). (One might call this process *discipline sanctioning through politically directed meta-analysis*.)

Note that this approach to addressing the problem of multiple mountains and disciplines results in one mountain and one discipline being declared *valid* while others remain *less valid*. In this case, the only thing left for researchers on other mountains and in other disciplines to do is to attack the dominant discipline's definition by referencing it in terms of their own discipline's postulates and derived principles (cf., Coles, 2000; Gee, 1999; Strauss, 2001; Taylor, 1998). However, because these attacks are not mounted from the same level of comprehensive meta-analysis, they usually have little effect in displacing the dominant discipline.

The unfortunate consequence of this current approach to defining reading is that we never get to a meta-analysis that truly bridges all the different mountain peaks used to observe coastlines and all the different disciplines used to define reading. Foucault (1973) had a similar frustration with this problem, noting that social science disciplines (by themselves and in combination) cannot be entirely separated from the humanities and arts. The difficulty and uncertainty of these sciences is due to "their dangerous familiarity with philosophy, their ill-defined reliance upon other domains of knowledge, their perpetually secondary and derived character, and also their claim to universality" (p. 348). Foucault (1973) further posited that the "entire domain of what can be known about man" can be reduced to three pairs of words: "function and norm; conflict and rule; signification and system" (p. 357). According to Foucault, "these concepts occur through the entire volume common to the human sciences [and arts]" (p. 357). Psychology represents the study of "man in terms of functions and norms"... "sociology is fundamentally a study of man in terms of rules and conflicts . . . [In terms of art], the study of literature and myth is essen-

tially the province of an analysis of signification and signifying systems" (p. 358). In the ideal, Foucault observed that all of the social sciences, in connection with art, "interlock and can always be used to interpret one another, their frontiers become blurred, intermediary and composite disciplines multiply endlessly, and in the end their proper object may even disappear altogether" (p. 358).

Against this ideal, Foucault (1973) argued that the current problem with the social sciences and art is that:

they find themselves treating as their object what in fact is their condition of possibility ... They never cease to exercise a critical examination of themselves. . . So that, unlike other [disciplines], they seek not so much to generalize themselves or make themselves more precise as to be constantly demystifying themselves: to make the transition from an immediate and non-controlled evidence to less transparent but more fundamental forms. (p. 364)

Against this backdrop of meta-analysis within but not between mountains and disciplines, I would like to propose a way that allows one to understand the points of convergence and divergence within and among the disciplines that researchers draw upon to define reading. This approach acknowledges that the questions of science (i.e., What is? and What will be under specified conditions?) cannot be entertained without also entertaining the questions of art (i.e., What is possible? and What ought to be?). To this end, I would argue that both science and art, and all attempts to define reading, always begin and end with setting and implementing agendas. In the limited space below, I introduce the notion of agendas and then illustrate how they provide a critical structure that shapes how all definitions of reading (and all other key educational phenomena) are conceptualized in research. Moreover, they serve to identify key points of reference that can be used to analyze the discourse contents of policy and practice, as well as research. By understanding the structure of agendas, researchers, policy makers, and practitioners may have a basis for understanding the tradeoffs they make and the advantages they secure by selecting one discipline over another to define reading (Mosenthal, 1999).

The Nature of Agendas in Reading (and Educational) Research

Although the Random House Dictionary would have us believe that agendas are little more than "a list of things to be done or matters to be acted upon," they are actually much more complex (Mosenthal, 1996, 1999). They contain many parts that bear important relations between one another. In the section below, I consider two major parts of the agenda. I begin with the second part of the agenda first, with what has to do with the setting of goals, the identification problems, and the realization of the solution, as well as consideration of goal set ups, problem set ups and solution set ups. I then turn to the most important issue that should be considered first in agenda setting: Who should set the agenda? and Who should benefit from the agenda? (that is, Whose goals should be addressed?) As I argue in the discussion section, these last two dimensions should be the first consid-

erations before setting any literacy agenda. With this overview in mind consider the following agenda parts.

Goals. First, agendas are always designed to achieve a goal. Goals are not neutral; they represent desired outcomes or conditions. As such, goals are associated with the question in art of "What should be?" In brief, they are ideal outcomes that we want to achieve. As shown in Table 1, goals can always be signaled by the word want. In pursuing goals (be they in research, policy, practice, narrative writing, or daily life), we can frame our wants in three ways: to achieve a thing (e.g., want a book), to engage in an action (e.g., read a book), or to achieve a condition (e.g., "be a good reader").

In quantitative research, a goal is usually associated with the dependent variable. For example, imagine a study in which researchers wanted to study school personnel's perceptions of effective programs that minimized the challenges of school mobility, as for example, a study by Fisher, Matthews, Stafford, Nakagawa, and Durante, 2002. In this case, the goal (and dependent variable) would be: want to minimize the challenges of school mobility.

Solutions. In an agenda, the solution is said to be the achieved goal. As shown in Table 1, the solution can be identified by transforming any goal, substituting the words did get for want. Hence, the solution for the above-mentioned study on challenges of school mobility would be: did get to minimize the challenges of school mobility.

Problems. Just as the solution of an agenda can be predicted from an agenda's goal statement, so can the problem (see Table 1). A problem represents a block to a goal. Note that, in this sense, a problem is more than a negative condition; it is a condition wherein one wants to pursue a goal but is unable to do so. In this sense, negative conditions become problems when they become so significant that an individual (or group) takes on the goal of correcting the problem. A problem in an agenda can be identified by substituting the words "could not" for the word "want" in the goal. Hence, in the mobility study mentioned above, the problem can be simply stated as: "could not minimize the challenges of school mobility."

Goal set ups. In setting a research agenda, researchers usually begin their studies with an "argument of importance." This argument serves as the "goal set up." In short, this argument details the "disabling conditions" that are likely to transpire in the event that a goal is not obtained. In other cases, the problem set up may detail the "enabling conditions" that are likely to take place in the event that a goal is obtained. In still other cases, the goal set up identifies the pervasiveness of the disabling conditions.

For example, in their study of mobility, Fisher et al. (2002) identify the disabling conditions of mobility as follows: "... for many students, higher rates of mobility are related to lower achievement ... behavioral problems, and greater grade retention and dropout rates" (p. 315). They also include several other disabling conditions, such as the following:

Student mobility can present multiple challenges for teachers, administrators and school districts; in sum, school processes are affected. Consistent teach-

ing approaches are disrupted when teachers must accommodate new pupils with little or no notice. This concern is further affected by the lack of consistent curricula within and across school districts. As new students enroll, teachers often must resort to review strategies in lieu of more creative and innovative instructional approaches . . . High student mobility also affects school functioning with regard to assessment/placement and record-keeping. . . (p. 320)

In addition to identifying just the disabling conditions themselves, Fisher et al. (2002) establish the prevalence of the disabling conditions as follows:

...the phenomenon [of student mobility] has been characterized as an inconsistency or interruption in the educational experience of a student . . . In a study of Chicago public elementary schools, Kerbow (1996) examined patterns of student mobility in urban areas. He reported that only 38% of sixth graders had attended the same school throughout elementary school. Furthermore, an examination of enrollment patterns over 2 years revealed that more than 36% had attended three or more schools. Similar findings of high student mobility have been reported in investigations of other geographical regions as well as the nation at large . . . (p. 318)

Problem and solution set ups. In addition to having goal set ups, agendas have problem and solution set ups (see Table 1). The problem set up has two important aspects to it. First, in the problem set up, researchers argue that the reason why a particular goal has not been achieved is because of the lack of sufficient research in the area, establishing what is called the argument of little understood. These are usually identifiable in a study as they are marked by such concessives as however and although.

For example, in their study, Fisher et al. (2002) proposed several arguments that explained why educators have not been able to minimize the challenges of school mobility. These arguments are part of their agenda's problem set up and include such statements as:

Although interventions that address the processes and consequences of mobility may lead to more student stability, rarely are antecedents a focus of school-level interventions. Instead, interventions that address the antecedents of mobility have more often been at the community level . . .

Table 1
The parts of a research agenda for all disciplines

Who sets the agenda	Primary, secondary, and third level observers
Who benefits	Special characteristics of participants in a study's Methods section
Level	Individual, small group, classroom, district, state, national, society, cultural, multicultural, international
Goal set up	Enabling and disabling conditions; pervasiveness of the disabling conditions
Goal	Wants {to} {be}: thing, action, condition
Problem set up	Reason for the problem; conditions that do not directly bring about the solution
Problem	Could not {get} {be}: thing, action, condition
Solution set up	Actions and conditions that directly (or indirectly) bring about the solution
Solution	Did get {to} {be}: thing, action, condition

Despite these existing studies, few researchers have focused on the antecedents, processes, and consequences in their investigations of school programs and/or interventions addressing the problem of student mobility. (p. 322)

In addition to including the argument of little understood in the problem set up, agendas have a second important aspect. Variables are included in this part of the agenda if (a) these variables are shown directly to bring about the problem condition, or (b) these variables do not significantly contribute to the attainment of the solution. In the latter case, variables are identified as not having a significant effect in producing the solution. In the case in which variables are shown to contribute significantly to bringing about an agenda's solution, they get added to the solution set up category. (One of the advantages of using tests of statistical difference is that they provide a concise operational definition that enables one to decide whether to place a variable in the problem set up or the solution set up category based on the variable's alpha level).

In well-written quantitative studies, one has only to turn to the contingency table to determine which variables should be placed in the problem set up category and which should be placed in the solution set up category. For example, in Fisher et al.'s (2002) study, their contingency table reported the percentages of personnel sharing a particular perception of what would constitute an effective means for addressing the challenge of school mobility. These means ranged in agreement from 94% to 5% (based on interviews with 18 respondents). The data revealed a bimodal distribution with means being viewed as effective by most respondents or being viewed as effective by few respondents. In this regard, means with 80% to 90% agreement (e.g., before-and after-school programs (94%), personal/family counseling (89%), food and clothing bank (83%), intensive schoolwide academic programs (89%), and before-after-school clubs (83%)) would be placed in the solution set up. In contrast, means with 5% to 44% agreement would likely be placed in the problem set up with the view that they were not particularly effective in addressing challenges of school mobility. Included here would be such variables as: shelter relocation service (5%), Saturday school (11%), Welcome classrooms (11%), faculty/staff development (11%), and assigned mentors (5%) (p. 325).

In the Discussion section of a research article, we usually find implications; seldom do we find limitations (the latter being more commonly found in dissertations). As one might expect, limitations of a study would be listed in the problem set up category, implications (consisting of the next steps for furthering the solution) would be listed in the solution set up. In terms of the latter, solution set up statements in the implication section are usually easy to spot as they include such terms as *should*, *must*, *could*, and *would*. This is indeed the case in Fisher et al.'s (2002) study:

The present study identifies program components that demonstrate promise of increasing stability in high mobile schools. They emphasize the need for educators who can establish positive relationships with students and parents and maintain high expectations for students. It is therefore imperative that teacher/administrator training programs prepare educators to deal with tran-

sient populations. Training should [italics added] encompass knowledge of the curricula that teachers in other schools use, flexible instructional strategies, multiple methods of assessing students' learning needs, and the unique challenges facing mobile families Educators must [italics added] also learn how to become 'recharged' after they have spent hours helping children adjust, only to have them leave without notice. (p. 331)

Who benefits and who sets the agenda. In addition to the above categories, agendas also consist of the categories who is the intended beneficiary of the agenda (once it has been implemented) and who sets the agenda. Both of these categories serve as ethical and moral, as well as political questions. In addressing the question of who is the intended beneficiary of an agenda, Wollman-Bonilla (2002) addressed this concern head on in her article, "Does anybody really care?" Among her points:

...as researchers we are enmeshed in political and ethical issues. Even though we cannot control how it is used, because research is used by politicians, policy makers, and educators, I think we must consciously consider how we design research projects and how we represent our participants on the basis of a vision of an equitable, just, and caring society. This vision can shape not only the ends of our work but also how we engage in doing research. Noddings (1986) asserts that rather than make teachers, students, and families

the objects of our research, we ought to select research problems 'that interest and concern . . . students and teachers' as well as researchers. . .

... the idea that I must use my influence as a researcher to serve others and their goals is a relatively new realization for me. I have a growing appreciation for my responsibility to value and help others value the work (and the questions) of teachers, children, and families. (p. 320)

Wollman-Bonilla (2002) concluded her article with the vision:

the goal of praxis for Freire (1993) is to transform an oppressive society. With research as praxis we may have some hope of transforming education and through it our society because society is what we are daily recreating as teachers and researchers. Rather than helping to reproduce social problems that classrooms mirror, research may serve the goal of slowly overcoming these problems to achieve academic and social equity, true community, and a heightened sense of personal and social responsibility for researcher producers, participants, and consumers. Do we care? (p. 324)

Note that the question of who benefits? falls apart when a researcher elegantly argues for a special group or population to be served by a research agenda in the rationale section of an article, and then the researcher uses only European-descent, male, college sophomores in psychology classes as participants in the Methods section. Fisher and his colleagues (2002) were careful to avoid such traps by selecting schools in which the interests of mobile students were a concern of the principals, counselors, and social work-

The 18 schools represented seven urban-metropolitan districts. According to their responses on the survey, participating schools had a 30% or higher mobility rate, indicating that each year 30% of their student body enrolled 2 weeks or more after school started and/or withdrew before the end of the school year. This rate was determined by one of the nationally recognized formulas typically used for calculating student mobility . . . (pp. 322-323).

In terms of the category who sets the agenda, research usually includes three sets of agenda setters. The first, of course, are the authors who design the study, carry it out, and make recommendations of what should be based on their findings. These are the primary observers. Next, the primary observers quote third level observers to establish the fact that the phenomenon of the primary observers has also been of interest to other observers who have attempted to define it. In between these observers are the secondary observers. Primary observers often cite secondary observers' works as bridge studies. Primary observers usually replicate (or borrow) secondary observers' operational conditions so that a new study has continuity with previous studies. Of course, primary level observers are listed as authors of studies, secondary and third level observers are listed in the Reference section.

In many instances, secondary observers (and their concomitant bridge studies) are usually embedded in the argument of little understood. An example from Fisher et al.'s (2002) study is as follows:

With respect to less predictable patterns of mobility, research has uncovered few systematic interventions. An exception to this is the study by Beck, Kratzer, and Isken (1997) of a Los Angeles area elementary school. In this study, the staff position of 'full-time curriculum resource teacher' helped to address some of the issues related to student mobility. The curriculum resource teacher served as a testing coordinator, reading specialist, and tutoring supervisor for new students who entered below grade level; this helped to alleviate some of the school functioning problems. The resource teacher was also a member of a team consisting of teachers, the school counselor, and the principal; this team worked with mobile or transient student to address the consequences of mobility for students. The team focused on specific student issues and worked together to determine appropriate interventions for struggling students. (p. 321)

Levels. The final agenda category is the level at which the agenda plays out. In certain cases, a study might include a single case study or a single classroom. At the other extreme, the agenda of a study may include data from several school districts, a state, or even be culled from national or international samples. In the case of Fisher et al.'s (2002) study, they had a sample of only 18 respondents consisting of five principals, ten counselors, and three social workers. However, this did not prevent them from generalizing their findings as if they were representative of a population (Then again, this is common to even some qualitative studies!):

Future research that expands on this present study is needed. Now that perceptions of effective programs have been identified [italics added], efforts must be directed toward verifying if these programs reduce mobility and/or help families and schools to better handle the effects of mobility. Findings from this and other research can be instrumental in the design of interventions that reduce the negative consequences of high mobility for students, families, and schools. (p. 331)

Science and Art

Discussion and Implications

In our attempts to define reading, we have the option of choosing from many academic disciplines. Some of these disciplines reside in the sciences, such as in neurology, psychology, sociology, anthropology, and linguistics. Others reside in the humanities (such as in philosophy and literature studies), as well as in the arts (e.g., creative writing and the representational arts). Although attempts have been made to characterize the general nature of these disciplines (e.g., Becher, 1989/1996; Labaree, 1998), such attempts to present have not provided any systematic way for identifying the underlying structure of these disciplines, especially as they relate to the construction and validation of definitions in research articles. In the absence of such a structure, there has been no real basis for systematically conducting conceptual meta-analyses within and especially between disciplines. Moreover, there has been no common structure that can be used to produce a coherent body of knowledge that can be structured similarly in practice and policy as in research. Kennedy (1997) has described the problem set ups associated with this problem as follows:

The constant conflict over goals and directions for education spills over into research agendas [italics added]. Educational research, or funding for education research has been characterized as fragmented, unstable, and subject to repeated shifts in foci... in part because of disputes over what the terrain consists of and who is in charge The central federal agency for educational research, the U. S. Department of Education's Office of Educational Research and Improvement, has been found on more than one occasion to be lacking both focus and continuity . . . and federal funding for educational research has been constantly threatened since the federal-funding heyday of the 1960's. Disputes among researchers, combined with political and public disputes about education itself, make it difficult for the sponsors of educational research to forge and sustain focused research agendas. . . [italics added]

It might be tempting to think that we would make more progress if we concentrated on conceptual contributions to practice rather than on discrete innovations, perhaps giving people new ways to think about old problems or perhaps focusing on ideas that are large enough to encompass many aspects of practice... Historically, though, we have tended to shift our central concepts almost as often as we shift our attention to specific practices. We have embraced behaviorism, task analysis, cognitive development and, most recently, social constructivism, each in the hope of finding a single guiding metaphor that captures the essence of teaching and learning. But as theoretical ideas gain popularity, they also lose their precise meaning and consequently lose their explanatory power... Before educational ideas have time to be systematically developed and refined, their critics become so numerous that the ideas are replaced by other ideas. (p. 9)

As Kennedy implicitly noted, the underlying structure of educational research is that of agendas. However, without making this structure explicit and by focusing only on the different discipline's contents that get placed in these agendas, researchers, policy makers, and teachers have had no systematic way for consistently advancing agendas. Content

as ideas at the surface structure continually gets replaced as different disciplines rise and fall in their legitimacy; issues of who should set agendas continually change. Little, if any, attention is given to setting goals; solution set ups (vis-a-vis instructional methods) are debated in the absence of considerations of what should be the goals and what constitutes viable problem set ups that block these goals. Moreover, without an understanding of the structure of agendas, there are no common reference points for understanding how to translate agendas of research into agendas of practice and policy.

As this paper would suggest, setting a research agenda should not begin with the precipitous plunge into a discipline in order to answer the questions: What is reading? and What are the conditions under which we can predict reading behavior? Rather, we need to consider first the art questions: What should be the goal of reading? Who should benefit the most from a reading agenda? and How are these persons' interests best served, at the individual, group, and societal level? From here, we can forecast the problem and the solution. Depending on the nature of our goal and what we are attempting to optimize as an outcome, we can then choose the discipline whose core constructs most closely mirror this goal. Ideally, in the process, not only would we identify the advantages of our agenda, but we would also delineate what we would consider to be the tradeoffs of having chosen to set our agenda one way instead of another (Mosenthal, 1998). This would ensure that we would make public the disabling conditions (as well as the enabling conditions) that might result based on how we set and implement our agenda.

Coda

A college professor recently brought to his class a book of two thousand pages. "I want to impress on you in this way," he said in effect, "the sheer weight of time. If this book represents the universe, then the total time of wo/mankind as part of that is but the last page of the two thousand, and recorded history but the last three words of the page." For us, those last three words are worth all the other words printed on the two thousand pages. They represent that conviction that we, as educators, are given the responsibility to shape the agendas that will underlie what those next three words will be. By understanding the structure of agendas, we know the broad commonalities that tie all coastlines together, all disciplines for defining reading. Within these commonalities, we now need to explore the full range of what is possible and, from these possibilities, decide what ought to be course. For after all, we have freedom of choice but not freedom from choice. May we, as individuals and a collective community, work together from a common view to set an educational agenda today that creates a better world for tomorrow.

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