The Multi-Dimensional Demands of Reading in the Disciplines

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In *The Book that Changed My Life* (Coady 2006), writers describe reading experiences that influenced their understandings of themselves and their worlds.

Poet Haki R. Madhubuti writes in *Yellow Black*, the memoir of his first 16 years of life, how his mother sent him to the public library at the age of 12 to get a copy of Richard Wright's book *Black Boy*. He goes on to describe how the reading of Wright's book opened a window into examining the challenges and possibilities of his own life as a young black boy living in extreme poverty. Madhubuti's story, reflected by many others and in the psychological literature and examinations of literary theory as well as the practices of reading in other domains, is evidence of the power of reading and writing as medium through which humans engage in making meaning of their experiences (Bruner, 1990; Turner, 1996). Beyond the calls for more rigorous literacy standards (e.g., Common Core State Standards, Next Generation Science Standards, etc.), the demands of active and engaged citizenship in the 21st century intensify the need for young people coming out of our educational institutions to be both able and disposed to read deeply, critically, and widely. And the availability of both materials to read

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and means for producing a wide of array of texts are expanded exponentially through the ubiquitous availability of digital media. With these commitments in mind, I will argue here for the need for us as literacy educators and researchers to engage a more comprehensive examination of what is entailed in deep and close reading across texts. In the context of schooling, I will argue for the essentiality of students learning to read closely and critically with disciplinary texts. I argue this point for several reasons. I believe schools offer unique opportunities for young people to learn skills they are not likely to learn in everyday life—to learn skills that embody capital they can navigate as they prepare for participation as adults in the workforce, and capital that can serve as resources for engaging in civic debate (Gutman, 1999). And while I believe these goals are important for all youths, they are especially crucial for young people who are living in poverty and who are positioned in our society in political, social, and economic statuses that require resistance in order to not remain in non-dominant hierarchies (e.g., race, ethnicity, immigrant status, gender, sexual or gender orientation, poverty, disability).

I will argue here four dimensions of learning to read rigorous texts in the disciplines that do not receive sufficient attention in our efforts to improve instruction and learning in K-12 schools: the role of culture in learning; the social and emotional dimensions of such learning; the complex, constructive, and iterative processes entailed in such reading; and the infrastructure

demands of teaching and learning required to provide such instruction routinely in all of our schools. I will briefly address each of these dimensions.

Role of Culture in Learning and Reading Especially

Culture is the primary medium through which humans learn (Cole, 1996; Rogoff, 2003; Lee, 2008). It is complex to understand because it is both stable and dynamic. It involves routine practices, belief systems, and material artifacts that embody the knowledge and values of a cultural community. These artifacts certainly include the stuff of literacy practices from ways of using language and a wide array of written and multimodal texts. Routine participation in cultural practices typically entails identity processes that engage one's perception of the self. In both educational practice and research, our conceptions of culture have been typically static and siloed, with a tendency to ascribe singular cultural identities to people (Gutierrez and Rogoff, 2003). In the real world, however, people embody multiple identities associated with their participation in cultural practices associated with their historic and inter-generational memberships in ethnic groups, nationalities, and family groups as well as micro-level practices from reading Harry Potter novels to blogging through social media.

What does all this mean for learning to engage in the close reading of disciplinary texts in schools for which I have called? Whether it's the kindergarten or first grade child learning both to decode and comprehend written texts or the high school student learning to wrestle with texts in literature, science, or history, the reader always brings prior knowledge to the enterprise (Bransford & Johnson, 1972; McNamara & Kintsch, 1996; Hirsch, 2003). That prior knowledge is drawn from the wide array of life experiences of the reader; and the challenge for the reader and for those supporting him or her in learning a new task is to figure out what prior knowledge is likely to be relevant to the task at hand. And it is precisely our value laden debates over both what counts as relevant prior knowledge of the

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learner and what counts as relevant knowledge to be taught in our curriculum that is where the rubber hits the road. Now and historically we have dismissed as irrelevant or disruptive knowledge accrued through participation in everyday practices of youths from non-dominant communities (e.g., African-American English or other so-called non-standard American English dialects; native languages other than English; life scripts that might inform interpretations of literature or historical questions; an assumed irrelevance to comprehension in the sciences and mathematics). And these dismissals remain entrenched despite research to the contrary (e.g., Heath's work on language practices in the Piedmonts; Lee's work on Cultural Modeling; Champion's work on African American narrative styles; Ball's work on preferred expository styles; Valdes and Orellana's work on children as para-translators; Nasir's work on everyday mathematics; Brown's work on scientific discourse in classrooms; and Warren and Roseberry's work on everyday knowledge in science classrooms, to name a few) (Heath, 1983; Ball, 1992; Lee, 1995; Lee, 1995; Valdes, 2002; Champion, 2003; Brown, 2004; Rosebery, Warren et al., 2005; Nasir, Hand et al., 2008; Orellana, 2009). The resistance is not based on an examination of what we know scientifically about the role of prior knowledge in reading comprehension either. The resistance is largely ideological and reified through institutional practices along all ladders of the system of education in the U.S. (e.g., curriculum, text book publishing, standards, assessments, teacher preparation and licensing, to the on the ground organization of schools) (Lee, 2009).

Social and Emotional Dimensions of Learning

Most of our efforts to enhance literacy learning in K-12 schools in the U.S. focus on the cognitive demands of reading and writing. We call for teaching strategies and content knowledge, admittedly essential, but rarely articulate the social and emotional demands of this work for youths. Emotional demands include a willingness to wrestle with uncertainty, wrestle with integrating one's own short- and long-term goals with the demands of such rigorous reading, and wrestle with the grit required to persist when the reading gets hard (Lee, 2007). These emotional demands can be further complicated when there are overriding life challenges that also suck up emotional energy that must be simultaneously navigated (Spencer, Cole et al., 1997; Spencer, 2006). The

extent to which, then, the organization of classrooms and schools anticipate and are structured to respond adaptively to these challenges of young readers will influence the impact that these emotional wrestlings have on learning to read well and deeply.

Reading is also a social experience. If we take a Bakhtinian perspective (Bakhtin 1981), even if I am reading a book by myself, I am still in dialogue with the author and with the history of ideas that inform that text. In the context of K-12 schooling, reading is largely social because youths are interacting with one another and with teachers. As a consequence, students' perceptions of themselves along multiple dimensions influence their efforts and engagement (e.g., perceptions of intelligence, of themselves as readers, as social agents with perceived relationships with their peers and their teachers, of appropriate ways of interacting with others and of reading the internal states and goals of others) (Dweck, 1999; Dweck, 2002; Graham & Hudley, 2005; Guthrie, Hoa et al., 2007).

My point in this brief discussion is to highlight the fact that learning to read in the ways I will describe is not a purely cognitive, individual effort, but a highly social and emotional effort as well, and that such efforts are intertwined deeply with participation in cultural practices within and across settings.

Complexities of Close Reading in the Disciplines

The third pillar of my argument addresses the demands of close reading in the disciplines. Reading comprehension, we know, is a constructive and iterative process (Kintsch, 1994; Snow, 2002; Rapp & Taylor, 2004; Rapp & van den Broek, 2005). We are making, testing, and revising predictions as we read. We are drawing from multiple cues in the text, including making inferences about what is not explicitly stated. We are monitoring our comprehension and taking needed steps to repair our lack of understanding as we read. We are integrating what we already know with new information gleaned from the text and adjusting our attention and efforts in relation to our goals for reading. And ideally we are taking a critical stance toward the text, engaging in critical dialogue with the author. These strategies for comprehension problem solving are both generic and discipline specific. There is no apriori structuring of these strategies, and novice readers must learn to deploy this tool kit, if you will, strategically and dynamically. In addition, the level of detailed micro-level

knowledge required in order to use these strategies with complex, discipline specific texts are often not specified, even in the current CCSS. For example, finding the main idea as a generic goal of comprehension entails many integrative micro-level strategies—from constructing coherence within and across sentences and across paragraphs. Students are routinely asked to find or figure out main ideas, but rarely shown how nor how these strategies and meaning making processes will differ by kind of text.

This tool kit is deployed in response to the goals of the readers and the demands of the text. The demands of the text, or what is often referred to as text complexity, are deeply under conceptualized in education. While Lexiles and the lexile site have proven to be highly valuable (White & Clement, 2001), the lexile measures can grossly under estimate the conceptual complexity of texts. Coh-Metrix is another valuable tool, used largely by researchers, for analyzing text complexity with regard to coherence (Graesser, McNamara et al., 2004). Efforts are underway to simplify the Coh-Metrix analytic tools to be more user-friendly for teachers. However, both tools, including the array of readability formulas available, do not sufficiently make visible the conceptual and pragmatic sources of complexity of texts. This is particularly true with literary texts in which very simple language and syntax often embody complex pragmatic functions and figuration.

Putting It Altogether: A Cultural Modeling Example

I will attempt now to illustrate these overarching ideas as they play out in the demands of reading literature, examined through the instructional framework of Cultural Modeling. Cultural Modeling is a framework for the design of instruction that draws on knowledge and dispositions constructed out of everyday experience, especially from students from nondominant groups (Lee, 1995, 2007). Most of the empirical work in Cultural Modeling has focused on the interpretation of literature at the secondary level, working with African-American youths.

Culture comes into play in terms of both examining sense-making practices in cultural communities of practice as these relate to sense-making practices in the discipline of literary analyses. And we recognize the hybridity of sense-making practices in literature as reflecting both personal commitments, but also social and ideological commitments as reflected in the array of schools of critical theory (Black Aesthetic, Feminist,

Structuralist, Marxist, etc.) (Appleman, 2000). This latter point is important as a cultural lens because it implies the need to acknowledge the ways that ideological orientations and commitments also play out in the social sciences and in some ways in mathematics (e.g., the field of ethno-mathematics) and the sciences (e.g., note the work on indigenous knowledge systems in the sciences and science education) (Ascher, 1991; Bang, Medin et al., 2007). I make this point because, more often than not, discussions of reading in the disciplines, especially in K-12 education, rarely acknowledge the ideological and cultural dimensions of debates in the disciplines (e.g., similar to debates around what constitutes the canon to be taught in secondary schools and whether there should be any kind of canon) (Applebee, 1993; Applebee, 1996). Thus I would argue that to even consider how to connect sense-making from students' participation in everyday cultural practices requires (1) a careful and democratic understanding of reasoning in the discipline, (2) expanding the range of texts that should be considered worth teaching, and (3) recognizing that students indeed do belong to multiple cultural communities, and in so doing to also recognize the salience of the broad sweep of participation in inter-generational cultural practices informed by ethnicity and nationality (including transnational identities for youths who move between national borders and even within a nation participate in transcultural practices).

In our analyses of the demands of literary reasoning, we have tried to make explicit processes for detecting generative problems posed by such texts, processes for generating interpretations of such problems, and criteria for evaluating and debating the merits of argumentation around such interpretations (Lee, 2011). This latter goal is important because the degrees of freedom in the interpretation of literary works (sometimes even for what may be viewed as the most literal) are great, compared, for example, to the comprehension and interpretation of texts in science (including original source documents such as Darwin's *Origin of the Species*). Literary fiction can be interpreted at the level of

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basic story grammar (e.g. who are the characters, what are their internal states and goals, the sequence of events and their logical or causal relations, and the coda or so what of the narrative). However, in addition, authors consciously manipulate language and structure to convey feelings, point of view, and abstract propositions through the conventions of symbolism, irony, satire, other forms of figuration, and manipulations of point of view. Even the most stark and lean language, without apparent figuration, can convey a tone or point of view that is not literally stated but must be inferred. Authors also draw upon cultural conventions with regard to character types (e.g., the trickster, the mythic hero, etc.), plot configurations (e.g., allegory, fables, magical realism, etc.) and archetypal themes (e.g., coming of age, the epic quest, etc.). And it is important to note that these cultural conventions vary across national, ethnic, and religious traditions, again another reason to expand the scope of texts that students read in schools.

This scope of analyses of the demands of reading in a domain or discipline is necessary in order to conceptualize how to scaffold students' everyday funds of knowledge and associated dispositions.

With regard to literary reasoning, we have documented how youths engage in similar strategies and epistemological orientations as they interpret and evaluate an array of popular texts—from rap to videos to film and TV to cartoons and advertisements—in their everyday cultural practices. We have further documented how speakers of African-American English similarly engage with issues of figuration through inter-generational practices such as signifying (a form of ritual insult).

Through the use of what we call cultural data sets, students engage in constructing interpretations and evaluations of not only what they think is being conveyed in such popular texts, but how they know, to what did they attend while reading the text, and what strategies did they employ. Cultural data sets must be texts that demand the same kind of strategic processing that a set of targeted canonical texts requires (remembering the canon for our work is broad). The strategies youths employ in the everyday contexts are typically tacit. The purpose of what we call metacognitive instructional conversations around cultural data sets are intended to make public and conscious strategies that students use in one context in order to support the construction of or more generalizable deployment of such strategies.

The selection of text sets is important because it requires a careful analysis of the complexity demands of texts, such that students have opportunities to re-visit a problem set over time (e.g., problems of symbolism). At the same time, because theme is so central to the interpretation of literary works, our text sets typically entail a common interpretive problem (e.g., satire, irony, unreliable narration) as well as a common theme. Because we see reading and especially reading literature as an opportunity to wrestle with issues of identity and development, we typically select texts that provide complex windows into issues of power, morality, and resilience: how to understand Bigger Thomas in *Native Son* and then Raskolnikov in *Crime and Punishment*; how to understand the consequences of Sethe's unforgivable and yet compelling decision in *Beloved*.

These complex texts—connecting with the call in the CCSS for rigor in text selections—require both preparation with regard to the tools employed by authors and the strategies readers need to detect these tools and make inferences about their functions, but also preparation with regard to background knowledge that the author assumes the reader brings to the text. This building of background knowledge invites expository readings from other disciplines, such as history and other social sciences, as part of preparing students to be able to engage with such texts.

In this work, we have found evidence of how students' perceptions of themselves as readers and as active participants in the public meaning making in classrooms evolve, how students wrestle with identity challenges in their lives, and how their social interactions with peers and the teacher within classrooms expand. We think this is because (1) with the use of cultural data sets, they are positioned as competent contributors from the beginning of instruction, (2) making problem solving processes explicit and building requisite background knowledge makes how to be competent public and increases the likelihood of experiencing success, and (3) students come to view the practice as relevant and doable (Nasir, Rosebery et al., 2006).

Infrastructure Needed

I have tried to illustrate briefly through the work of Cultural Modeling how we can tackle the goals of close reading in the disciplines and argumentation called for in the CCSS and to make an abbreviated argument for why such reading is a laudable goal for schooling. However, the challenges to achieving these goals are substantive.

First, we do not have sufficient synthesis and synthesis available in venues easily accessible by practitioners of full explications of the demands of such reading. The levels of sense-making are multiple, generic, and discipline specific. The scope of language demands include not only the broad category of academic language, but equally the specialized language registers and text genres of the disciplines. The genre differences go beyond the distinction between primary and secondary sources, for example, in history; or the broad categories of short stories, novels, plays, and poetry in literature. Because this kind of text comprehension is not linear, but dynamic, those teaching reading and reading in the disciplines must experience real cases of learning and not just broad admonitions of what we should do. We do not have easily accessible cases of such instances of the iterative, building up of understandings of texts, especially texts within the disciplines.

Second, we do not have assessments readily available to document these sense-making comprehension processes, especially in the middle and high school grades and particularly not regarding reading in the disciplines. While we have a breadth of instruments available to assess formatively decoding and some basic comprehension in the early grades, we do not have such parallels for older students. The assessments we have typically measure the outcomes of comprehension, but not the processes through which comprehension occurs, and certainly not in the disciplines.

Third, while we have powerful exemplars of teaching and learning problem solving in mathematics, we have fewer exemplars of reading in the disciplines. It would be interesting to develop a library similar to the TIMMS database (Stigler and Hiebert, 1999). We need routine practices around examining teaching and learning on the ground as part of professional learning communities in schools and as part of the formal preparation of teachers, in ways that go beyond the standard student teaching (Lewis, Perry et al., 2006).

Finally, we need venues through which to wrestle with the multiple demands of complex learning and how these are entailed in close reading in the disciplines. These include the essentiality of understanding youths' participation in cultural practices within and across settings and their relevance for our teaching goals, including our goals for close reading in the disciplines as well as the role that identity, perceptions, and social and emotional states play in learning. These are not peripheral to our goals, and

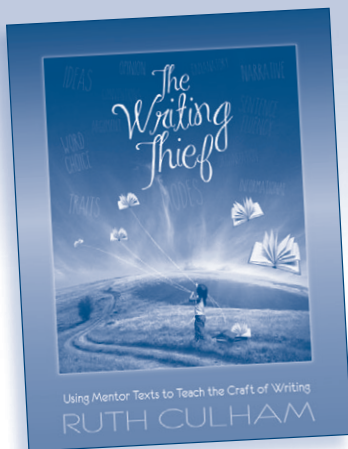we must understand them, including their wide variation, and plan for them.

Note

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