From "What is Reading?" to What is Literacy?

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ABSTRACT

In their 1985 report, *Becoming a Nation of Readers: The Report of the Commission on Reading*, Anderson, Hiebert, Scott, and Wilkinson defined reading and proposed five principles that guide its successful enactment: (1) reading is a constructive process, (2) reading must be fluent, (3) reading must be strategic, (4) reading requires motivation, and (5) reading is a continuously developing skill. In this article we revise the definition from *reading* to *literacy* and rethink the principles in response to theoretical and empirical developments in the intervening years with regard to the processes of, and contexts for, reading. Our updated principles include: (1) literacy is a constructive, integrative, and critical process situated in social practices; (2) fluent reading is shaped by language processes and contexts; (3) literacy is strategic and disciplinary; (4) literacy entails motivation and engagement; and (5) literacy is a continuously developing set of practices. We redefine each principle and offer new explanations in light of what we now know.

In 1985, Richard C. Anderson, Elfrieda H. Hiebert, Judith A. Scott, and Ian A. G. Wilkinson began *Becoming a Nation of Readers: The Report of the Commission on Reading* (*BNR*) with a question: "What is reading?" Thirty-one years later, our task is to answer this question anew in light of the understandings about the processes of and contexts for reading that have emerged since then. In particular, we argue that significant developments in our understandings of the contexts in and through which reading occurs require us to revisit and refine the five principles originally proposed in *BNR*.

(RE)CONSTRUCTING QUESTIONS AND DEFINITIONS

In 1985, the *BNR* authors defined reading as "the process of constructing meaning from written texts," and noted that, "it is a complex skill requiring the coordination of a number of interrelated sources of information" (p. 7). As a partial conceptualization that emphasizes the role of the reader in reading, this definition is as true today as it has ever been. However, we propose that the original definition be expanded to encompass new developments in the field that emphasize (or more accurately, reemphasize) the important roles of texts and contexts in the construction of meaning (Pearson & Cervetti, 2015).

Reflective of renewed foci on texts and contexts, the RAND Reading Study Group (2002) defined reading as "the process of extracting and constructing meaning through interaction and involvement with written language" (p. 11). They proposed that reading comprehension occurs through interactions among the reader, the text, the activity, and the larger sociocultural context. The essential differences between this and the 1985 definition are: (a) a greater emphasis on the text and the activity, in addition to the reader and (b) more attention to the broader sociocultural contexts in and through which reading occurs.

More recently, Purcell-Gates, Duke, and Stouffer (2016) argued that definitions of reading must go further by attending to the process as it occurs in the context of "socioculturally constructed literacy practices" (p. 1218), including the values, beliefs, and power relations that characterize those practices, such as those related to language, gender, ethnicity, religion, economics, and geopolitics. We concur with this expanded definition and propose that such a perspective requires a shift in focus from *reading* to *literacy*.

From "What is Reading?" to What is Literacy?

We define literacy as *the process of using reading, writing, and oral language to extract, construct, integrate, and critique meaning through interaction and involvement with multimodal texts in the context of socially situated practices.* This definition emphasizes four key shifts in understandings of reading/literacy that have increased in salience over the past 30 years. First, literacy involves productive (e.g., writing, speaking) as well as receptive (e.g., reading, listening) processes that are more alike than different, especially in their inherently constructive, or transactive, character (Pearson & Tierney, 1984; Rosenblatt, 1978; Smagorinsky, 2001).

Second, reading happens in the context of social practices that involve writing, speaking, and listening, in addition to reading (Gee, 1999; Street, 2005), and activities that are socially, culturally, and historically rooted (Cole, 1996; Vygotsky, 1978). Our focus is on how individuals make meaning through interactions with texts. However, the reciprocal relationships among reading, writing, speaking, and listening, combined with expanded notions about what constitutes a "text" (Smagorinsky, 2001), make it virtually impossible to write about reading without accounting for these other components of literacy. We also emphasize the need to consider the contexts in and through which individuals make meaning of their worlds, including the texts that provide representations of, and mediate interactions in, those worlds.

Third, in school settings, some of the key contexts in which literacy is enacted are the disciplines of the humanities, social sciences, science, and mathematics. Literacy processes vary across disciplinary contexts and are informed by the epistemologies, inquiry practices, conceptual frameworks, texts, and language

structures of particular disciplines (Goldman et al., 2016). As we will argue throughout this article, conceptualizations of literacy as disciplinary have implications for how students and teachers participate in literacy practices, including how teachers teach, how students learn, and what it means to "read" in school. From a disciplinary literacy perspective, the age-old distinction between "learning to read" and "reading to learn"— a distinction that the *BNR* authors first questioned in 1985—becomes increasingly problematic because teaching reading as a set of generalizable skills and strategies does not equip readers to cope with the demands of disciplinary-specific texts and contexts as they progress through school and into the workforce (Pearson & Cervetti, 2013). Moreover, the idea that reading ever happens in the absence of a broader purpose or goal (e.g., to learn something new) is antithetical to the nature of reading as it occurs in the context of social practices, including school-based disciplinary practices.

Finally, modalities beyond written language bring unique complications and possibilities to the practice of literacy. For example, the meaning that comes from the juxtaposition of modes (e.g., image, sound, gesture) in a multimodal text may differ from the meaning that comes from simply reading the written words (Kress, 2003). As another example, the meaning that an individual constructs, integrates, and critiques while navigating online from hyperlink to hyperlink compels us to rethink notions of what it means to make meaning in the context of rapidly changing literacy practices (Leu, Kinzer, Coiro, Castek, & Henry, 2013). As we discuss below, when questions and definitions shift, so too do the metaphors and exemplars that illuminate their meaning.

EXPANDING METAPHORS

The *BNR* authors compared reading to the performance of a symphony orchestra. In this metaphor, the instruments represented different reading skills; the performance represented the holistic act of reading, the success of which came from extensive practice over time; and the interpretation of the score that occurs during a particular performance represented one of the many ways a text may be interpreted during reading.

In light of our reconstructed definition of literacy, we propose some extensions to the orchestra metaphor. First, certain types of performances occur in the context of particular social practices, each with its own implicit conventions and codes of conduct. For example, the expectations during a rehearsal (e.g., purpose of the performance, interactions between musicians) are different from the expectations during a performance in a concert hall. A "successful" act of reading requires that the reader understand the particular expectations of the act as part of a social practice. As with a rehearsal versus a formal performance, an acceptable interpretation in one context may be entirely inappropriate in another. Second, an interpretation of a text may be realized through social interaction and dialogue with others, just as an interpretation of the score by an orchestra depends to some extent on anticipated or realized feedback or direction from the conductor or the audience. For example,

the performance time for Beethoven's Ninth Symphony varies by 15 minutes depending on the conductor (Guttman, 2008). Finally, some interpretations of a musical score have more credibility than others—and even demand different prices in the music market.

INTERROGATING SCRIPTS

In order to further illuminate reading as "a process in which information from the text and the knowledge possessed by the reader act together to produce meaning" (p. 8), the *BNR* authors used the following example, adapted from Schallert (1982):

> When Mary arrived at the restaurant, the woman at the door greeted her and checked for her name. A few minutes later, Mary was escorted to her chair and was shown the day's menu. The attendant was helpful but brusque, almost to the point of being rude. Later, she paid the woman at the door and left. (p. 8)

The original discussion called attention to two potential difficulties with this passage: (a) that a reader may focus too much on saying the words correctly at the expense of making meaning and (b) that a reader may depend too much on knowledge of the topic, not on what the text says. Indeed, these difficulties are important to consider, however, our reconstructed definition of literacy illuminates several other potential sources of difficulty.

As the *BNR* authors noted, reading the above passage depends on one's ability to make inferences based on prior exposure to a restaurant schema, or script (Pearson & Johnson, 1978). If reading is a process of connecting the known with the new, then a sociocultural perspective requires that we consider existing assumptions about the types of knowledge a reader possesses. For example, to comprehend this passage the reader is required to know what happens at a sit-down restaurant (as opposed to a take-out or fast-food restaurant). Reading is about more than combining information from the text with a reader's prior knowledge. It is also about the kind of knowledge that reader possesses based on prior experiences and relationships—the discourses with which the reader is familiar (Gee, 1996), the relative power of those discourses, and how they shape that reader's view of the world. If a reader does not have knowledge of the particular restaurant script implied in the passage, then making the appropriate inferences (e.g., that "woman" refers to the hostess and "attendant" to the waiter/waitress) and, in turn, arriving at an interpretation that is consistent with expectations becomes much more difficult. Framed by this reconstructed definition of reading, we now turn to a discussion, and an expansion, of the five principles of reading originally articulated in 1985.

PRINCIPLE #1: Literacy Is a Constructive, Integrative, and Critical Process Situated in Social Practices

BNR's first principle stated that *reading is a constructive process*. Here, we add the integrative and critical nature of literacy within social and cultural practices. We argue that comprehension involves

interactions between the information in a text and a reader's knowledge about the world, as well as the context in and through which that reading occurs.

From *Construction* to *Construction + Integration*

Kintsch's (1998) Construction-Integration Model of Text Comprehension laid the theoretical and empirical groundwork for the first part of our expansion by proposing a more nuanced view of the role the text and the reader (and, to a lesser extent, the context) play in reading (Pearson & Cervetti, 2015). In Kintsch's model, the text plays a key role in comprehension and is conceptualized at two levels: the sentence-level ideas (microstructure) and the discourse-level organization (macrostructure). Together, the microstructure and macrostructure comprise the textbase, or what the text actually says. However, the construction of the text-base accounts for only one aspect of reading. The other aspect is the situation model, or what the text means, which requires integration of the information in the text (textbase) with background information originating with the reader, including goals, interests, and prior knowledge about the content of the text as well as about reading itself.

Critically Situating Literacy in Social and Cultural Practices

Scholars working from sociocultural perspectives laid the theoretical and empirical groundwork for the second part of the expanded principle. Smagorinsky's (2001) cultural theory of reading, which draws on the work of Bakhtin (1981) and Vygotsky (1978), is one example of what we mean by a sociocultural model of reading. In his theory, Smagorinsky (2001) argued that meaning is constructed in a transactional zone (Rosenblatt, 1978), as a relational and dialogic "joint accomplishment" (p. 141) of readers, texts, and cultural practices. Because a reader's access to and understanding of a particular "reading" of a text is informed by social and cultural experiences and relationships, that reading is a function of participation in cultural practices.

Operating from what is now known as the 'new literacies' perspective, Street (1984) made a similar argument when he distinguished between the dominant, autonomous model of literacy, in which literacy had been operationalized as a neutral skill, and the ideological model, in which literacy constitutes purposeful social action occurring within social practices. Building from Street's ideological model, Gee (1999) argued that literacy is multiple, purposeful, and situated in language; that is, literacy is "inextricable" (p. 356) from the social, cultural, institutional, and political practices in and through which individuals read, write, speak, and listen. Literacy is political in that some ways of enacting it count more than others. Therefore, learning to read involves more than learning skills and strategies. It also involves becoming socialized into particular literacy practices in order to participate in them (Gee, 2001).

Situating reading in social and cultural practices provides a different framework for understanding the observation made in the original chapter that, "research reveals that children are not good at drawing on their prior knowledge, especially in school settings" (p. 10). Drawing on social, cultural, and historical understandings of literacy, we can better articulate *why* this may be the case for some children and youth. Indeed, scholars adopting this lens (e.g., Heath, 1983; Moje, Overby, Tysvaer, & Morris, 2008) have found a disconnect between the literacy practices in which children and youth engage out of school and the practices in which they are expected to engage in school. This phenomenon is particularly striking for students from nondominant communities (Gutiérrez, Morales, & Martinez, 2009). For example, students who have been socialized into a set of literacy practices that are not privileged in school settings (e.g., oral storytelling practices that differ from school-based practices in terms of chronology and focus) may appear to not know enough about literacy, when, in reality, they know a lot about different kinds of literacy practices that are not recognized as valid in school.

These issues extend into the digital world as well, where researchers have found that the Internet provides opportunities for new social practices and expanded modalities. For example, citing emerging research on the practices of online research and comprehension, Leu and colleagues (2013) proposed that individuals engage in unique literacy practices online, including reading to define important questions and to locate, critically evaluate, synthesize, and communicate information. These online practices involve more than interpreting written language and more than doing with digital representations what might be done with print-on-paper representations. They require individuals to make meaning within (transformation) and across (transduction) modes (Kress, 2003). In summary, the theory and research over the past 30 years compels us to revise the first principle to account for new theoretical perspectives and empirical findings: (a) that reading is a process of integration as well as construction and (b) that it is situated in social, cultural, and historical practices, including disciplinary practices.

PRINCIPLE #2: Fluent Reading Is Shaped by Language Processes and Contexts

BNR's second principle—*reading must be fluent*—characterized reading fluency as accurate and rapid word identification that, when achieved, frees the reader to focus attention on comprehending the text. The authors contrasted reading rate and decoding ability between beginning or struggling readers and more proficient readers to demonstrate the negative impact of dysfluent reading on comprehension. Here, we offer a view of reading fluency that builds upon the original account by: (a) expanding how we define fluency by including prosody; (b) elevating the role of writing, speaking, and listening in building reading fluency; and (c) reexamining the relationship between fluency and comprehension.

An Expanded Definition of Fluency

While there is no single accepted definition of reading fluency, many consider fluency to have three related yet distinct

components: (a) speed, (b) automatic and accurate word reading, and (c) prosody (Rasinksi, 2006). Prosody is sometimes explained by the catch-all term "expression," but an in-depth analysis of the natural patterns and rhythms of speech reveals intonation, phrasing, stress, and volume as discrete facets of prosody. The prosodic elements of spoken language that are employed naturally in speech are important to consider in an examination of reading fluency because they provide insight into the reader's processing of syntax and meaning at the phrase and passage levels. Imagine listening to a child read aloud capably with appropriate prosody, her unique voice imbued with her interpretation of the meaning of the text. As she reads, parsing each line of text and continually anticipating the language she will encounter, you can hear her pause slightly at phrase boundaries, observe punctuation marks, and alter her pitch, pace, and volume to fit the meaning of the message she is working through. Can you safely assume that the comprehending process is successfully underway from the sound of her voice? No, but the chances that she is constructing a reasonable version of the text are better than if she were reading excessively slow or fast, in short, choppy phrases with a monotone voice. In fact, some linguists (e.g., Schreiber, 1980) have argued that a reader who can assign appropriate prosodic features to a text has provided prima facie evidence that she has built both a valid textbase and a situation model (Kintsch, 1998).

The imagined scenario of listening to a child read aloud brings us to consider the distinct yet related processes of reading audibly versus reading silently. The majority of the reading a person will do in a lifetime will take place silently. So why attend to oral reading fluency? Because, when we listen to children read aloud, it serves as a misty window into their decoding, fluency, and comprehension (Goodman, 1965; Pikulski, 2006). In addition, and as we discuss further below, many studies have found correlations between children's oral reading fluency and measures of silent reading comprehension (Daane, Campbell, Grigg, Goodman, & Oranje, 2005; Fuchs, Fuchs, & Maxwell, 1988; Pinnell et al., 1995).

Before we turn to what we have learned since 1985 about the language, lexical, and sublexical processes that undergird fluency, it is important to point out that fluent reading is not a permanent state of being. Rather, it is significantly influenced by the degree of alignment between the text's content and readability level and the reader's prior knowledge and skillfulness (Samuels, 2006). As is often stated, anyone can be made to appear to be reading fluently or dysfluently depending on the nature of the reading material provided. Furthermore, reading fluency is not an all-or-none phenomenon. It is quite possible, as is often observed in younger readers, to read a text with some phrasing and intonation, an uneven pace, and/or with variable ease and accuracy in word identification. In short, reading fluency, like other reading processes, is situated within interactions involving particular readers, texts, and tasks in specific sociocultural contexts (RAND Reading Study Group, 2002).

Contributions of Writing, Speaking, and Listening to Fluency

So how do beginning and older readers experiencing difficulty learning to read gain the ability to integrate all the strategic actions necessary to maintain fluent reading? As with other learned capacities, it appears that reading fluency requires large volumes of effective practice. In a seminal paper, Stanovich (1986) argued that individual differences in reading can be attributed to reciprocal causation, whereby high-progress readers read a great deal and encounter a wide range of written language structures, learn more vocabulary, and strengthen their decoding skills in the process. As a result, such readers continually improve in their reading abilities; just the opposite is the case for low-progress readers.

Stanovich (1986) also pointed to a large body of evidence that identified phonological awareness as the "most potent predictor of reading acquisition" (p. 362). The critical role of phonological awareness and its key subcategory, phonemic awareness, in learning to read has been reinforced over the past 30 years in many large-scale literature reviews (National Early Literacy Panel, 2008; National Institute of Child Health and Human Development, 2000; Snow, Burns, & Griffin, 1998). The principle of reciprocal causation also applies to phonological awareness: children who can manipulate both large and small units of spoken language typically begin to read more easily than peers with less developed phonological awareness. At the same time, children strengthen their phonological awareness through the very act of reading (Allington & Woodside-Jiron, 1999; Stanovich, 1986).

Consistent with our broader definitional preference for literacy over reading, we acknowledge the significant role that early writing plays in supporting early reading, and therefore, in the development of reading fluency. All the foundational capacities that support reading development, including language, visual perception, and memory, are drawn upon and exercised in a reciprocal manner when a young child engages in the task of writing messages. The benefits of writing for developing the ability to segment and blend sounds in words is sometimes neglected in discussions of how best to promote phonological awareness and, more specifically, phonemic awareness (Chapman, 2003; Vernon & Ferreiro, 1999). The slow, fine-grained analysis of sounds, letter features, letters, and words that is required of beginning writers serves to sharpen their focus on the details of print (Clay, 2001; Kamii & Manning, 2002). This, in turn, supports their attention to and visual perception of lexical and sub-lexical features while reading and ultimately, supports reading fluency. Consistent with these findings are studies showing the influence of invented spelling during writing on children's phonemic awareness and phonics development (Clarke, 1988; Winsor & Pearson, 1992).

Our understandings of how spoken language serves as the foundation for written language have deepened over the last three decades as a result of research on child language acquisition. Due to the importance of child-directed speech in promoting children's language and cognitive skills, much attention has been paid to the variation in parent-child communication and interactional

styles (e.g., Burchinal & Forestieri, 2011; Fernald & Weisleder, 2013; Hart & Risley, 1995). Growth in vocabulary is often measured as a proxy for the larger construct of language in studies of the impact of child-directed speech on language development. Fernald, Marchman, and Weisleder (2013), for example, found that the quantity and quality of parental language input provided to very young children was correlated with vocabulary acquisition and language processing speed, with consequential distinctions among socioeconomic status (SES) groups seen as early as 18 months.

Turning from vocabulary to the syntactic elements of language development, Huttenlocher, Waterfall, Vasilyeva, Vevea, and Hedges (2010) found that the syntactic diversity and quantity of parents' speech predicted the structural complexity of their children's speech. SES was a moderating factor in the quality and quantity of parents' verbal interactions with their children. However, there was significant individual variation in parents' language practices not only across but also within SES groups, further underscoring the substantial impact of parental speech on children's linguistic and cognitive development. Taken together, these findings from studies of child language acquisition and early writing support our stance that the ability to read fluently is situated within a broader context of language development.

The Relationship Between Reading Fluency and Reading Comprehension

Reading fluency is typically regarded as the bridge between accurate word identification and comprehension (Pikulski & Chard, 2005). Consider the three components of reading fluency in our earlier definition (speed, automatic and accurate word reading, and prosody). In analyzing the association between fluency and comprehension, Rasinski, Paige, and Nageldinger (2015) argued that speed and accuracy of word reading tie fluency to word identification, and prosody ties fluency to comprehension. Once again, we see a reciprocal process whereby employing prosody supports comprehension, and comprehension supports prosody. The reader's ability to project appropriate prosody onto the text assists in constructing a meaningful message. In turn, strategic construction and integration (Kintsch, 1998) of textual information with prior knowledge enables the assignment of appropriate prosodic markers to the stream of speech produced in oral reading. Two recent studies in which teachers rated students' use of prosody while listening to them read aloud found correlations between skill in employing prosody and measures of silent reading comprehension (Paige, Rasinski, & Magpuri-Lavell, 2012; Rasinski, Rikli, & Johnston, 2009). It appears that parsing the syntactic structures of the phrases and sentences that make up a text is the underlying linguistic capacity necessary for prosodic, meaningful reading (Schreiber, 1980). In summary, recent research on reading fluency has contributed to a more expansive understanding of fluency, particularly its relationship to other language and literacy processes including writing and comprehension.

PRINCIPLE #3: Literacy Is Strategic and Disciplinary

The third principle stated that *reading is strategic*. The authors asserted that, as they read, skilled readers, in contrast to poor readers, are able to assess their prior knowledge about a text's topic and apply reading strategies to build, monitor, and repair comprehension, employing different strategies for different purposes, texts, and problems. Here, we extend this principle to emphasize that reading is both strategic and disciplinary.

Literacy Is Disciplinary

Disciplinary literacy draws strategies from the disciplines themselves in order to highlight how language (especially technical vocabulary) is used, arguments are built, texts are organized, and deliberations (both internal and external conversations to monitor and extend meaning-making) are enacted (Educational Testing Service, 2012). In contrast to content-area reading (which primarily focuses on how to read content-area texts), disciplinary literacy teaches students salient, field-specific features of texts, discourse patterns, and argument structures, and apprentices students into fields by highlighting how knowledge is constructed and applied within them (e.g., Shanahan & Shanahan, 2012, 2014). In this sense, literacy is a set of practices that develop over time in particular disciplines. Therefore, explicitly teaching reading strategies in the context of those disciplines is more effective than teaching decontextualized reading strategies in isolation (Guthrie et al., 2004; Pearson, Moje, & Greenleaf, 2010), which risks framing a strategy itself as the end goal, rather than focusing on the learning goals that the strategy is meant to aid (Pearson, 2011; Pearson & Fielding, 1991). Thus, scholars now support integrating literacy and disciplinary instruction across all grade levels to foster discipline-specific, strategic literacy development for all readers (e.g., Goldman et al., 2016).

Integrating Literacy in the Disciplines

Recently, important work has infused literacy in disciplinary settings from the elementary grades through college. For example, scholars have explored the efficacy of integrating literacy into social studies/history lessons (e.g., Greenleaf et al., 2011; Guthrie & Klauda, 2014; Halvorsen et al., 2012; Reisman, 2012; Wissinger & De La Paz, 2016). Scholars also have explored math-literacy integration (e.g., Schoenbach, Greenleaf, & Murphy, 2012; Shanahan & Shanahan, 2008). These efforts have yielded positive results for both literacy and disciplinary learning. Science-literacy integration also has been explored extensively across grade levels (e.g., Cervetti, Barber, Dorph, Pearson, & Goldschmidt, 2012; Duke, Pearson, Strachan, & Billman, 2011; Guthrie et al., 2009; Pearson, Moje, & Greenleaf, 2010). Literacy is integral to both firsthand (hands-on) and secondhand (reading about others' hands-on) scientific investigations. There is a natural symbiosis between science and literacy because both seek to foster similar skills. For example, as Pearson and colleagues (2010) argue, science requires students to "make sense

of data, draw inferences, construct arguments based on evidence, infer word meanings, and of course, construct meanings for text—the very dispositions required as good readers and writers" (p. 460). Recent endeavors integrating literacy and science include programs such as Concept-Oriented Reading Instruction (Guthrie et al., 2004; Guthrie et al., 2009), Guided Inquiry Supporting Multiple Literacies (Magnusson & Palincsar, 2001), In-depth Expanded Applications of Science (Romance & Vitale, 2012; Vitale & Romance, 2012), Reading Apprenticeship (Greenleaf et al., 2009; 2011), and Seeds of Science/Roots of Reading (Cervetti et al., 2006). These approaches incorporate many literacy practices, such as reviewing previous findings, hypothesizing, scientific journaling, reading and interpreting evidence, drawing conclusions, concept mapping, and reporting findings. These processes are woven throughout lessons and combined with hands-on experimentation to emulate the role of discipline-specific literacy strategies within science. Each study reports positive results, including increased use of reading strategies, heightened student motivation, and improved scores on reading comprehension, science, and topical vocabulary assessments (e.g., Cervetti et al., 2012; Duke et al., 2011; Goldschmidt, 2010; Guthrie et al., 2009; Magnusson & Palincsar, 2001; Vitale & Romance, 2012). However, although studies increasingly support science-literacy integration, this field is young, and more research is needed to discern which features are the active ingredients for improved learning in both science and literacy (Pearson et al., 2010).

In summary, the consensus in the field now holds that, not only is reading strategic, but it necessitates different strategies depending on discipline, purpose, and text. Strategic reading, like all literacy processes, is highly contextualized within particular settings. In school settings, disciplinary contexts strongly influence strategic practices. Furthermore, it is never too soon to start teaching students how, when, and why to be strategic. This recent work on disciplinary literacy represents significant strides in understandings of literacy as a set of strategic practices.

PRINCIPLE #4: Literacy Entails Motivation and Engagement

BNR's fourth principle stated that *reading requires motivation*. We add that reading also requires engagement. As with the previous three principles, we further argue that motivation and engagement in reading are best understood in context.

The Relationship Between Motivation, Engagement, and Reading

Consistent with the original articulation of the fourth principle, extensive research over the past several decades supports the claim that motivation (defined as a reader's reasons for reading) and reading itself are interrelated and reciprocal. That is, motivation for reading increases a reader's breadth and depth of reading and comprehension and in turn, contributes to increased motivation (Guthrie, 2015).

Building from this foundation, we now know more about what motivation actually entails, its relationship to engagement (i.e., the capacity to devote time and energy to a task), and the developmental nature of that relationship. Recently, Guthrie (2015) discussed motivation in terms of three facets: self-efficacy (i.e., a belief in one's ability to read), intrinsic motivation (i.e., enjoyment of reading for the sake of reading), and valuing reading (i.e., a belief that reading is important, useful, and beneficial). Each of these motivational factors predicts reading achievement in the early grades, but, as we discuss below, these relationships become more complex as students move from elementary to middle school (Guthrie & Davis, 2003). Moreover, recent research suggests that some of the effects of these factors on reading are mediated by engagement, and that engagement predicts both reading achievement and reading growth over time. For example, Guthrie, Klauda, and Ho (2013) found that behavioral engagement either in the form of dedication (i.e., extended, positive interactions with texts) or avoidance partially mediated comprehension. In other words, motivation on its own does not always result in improved comprehension "unless such motivation translates into engagement in the form of time and energy spent reading challenging text" (Guthrie, 2015, p. 113).

The Contextual and Developmental Nature of Motivation and Engagement

The nature of, and relationship between, motivation and engagement changes as readers move through school. Self-efficacy, intrinsic motivation, and valuing reading—all motivational factors that lead to increased engagement—tend to decline as students transition from elementary to middle school (Guthrie, 2015). Specifically, the perception that reading is difficult and the belief that reading is not beneficial become more salient predictors of reading achievement as students move through middle school. Both beliefs lead to decreased engagement (e.g., avoidance). Moreover, as readers enter middle school, intrinsic motivation becomes more nuanced and contextually dependent and may be different depending on the type of text and context (e.g., literary texts in English versus informational texts in history or science) (Guthrie, 2015).

Hall's (2010, 2016) research on reading identity and its relationship to reading comprehension has added another consideration to the contextual nature of motivation and engagement, as well as understandings about the situated nature of literacy practices. This research has called attention to individuals' reading histories and how those histories contribute to "what it means to be a certain type of reader," how readers "understand themselves in relation to those norms" (Hall, 2016, p. 58) and, in turn, how that influences their understandings of what it means to read and how they read (Hall, 2012). In this sense, reading requires motivation and engagement, but it is also influenced by readers' experiences with reading over time, the norms for reading that shape those experiences, and the reading identities that develop in and through those experiences. Thus, literacy practices and motivations are not only contextualized socially and culturally but also historically.

In addition, Ivey and Johnston (2013, 2015) have focused their recent empirical work on the dialogic and social nature of engagement as it happens in and through community activities. They found that secondary classroom structures and activities that support engaged reading as part of social practices had transformative effects for both teachers and students (Ivey & Johnston, 2015), with students reporting a range of positive outcomes related to reading (e.g., talk about books, knowledge about books), as well as outcomes related to their social, cultural, and emotional lives (Ivey & Johnston, 2013).

Since *BNR* was published, new research has expanded our understanding of motivation as a requirement of reading in terms of what it entails (e.g., self-efficacy, intrinsic motivation, interest) as well as its relationship to engagement and to reading itself. Recent research also compels us to take into account the contextualized and developmental nature of motivation and engagement, including readers' experiences over time that contribute to their reading identities as well as the inherently social nature of reading as fostered through social collaboration.

PRINCIPLE #5: Literacy Is a Continuously Developing Set of Practices

The fifth principle states that *reading is a continuously developing skill*. Given the contextual changes we have noted in our discussion of the previous four principles, it should come as no surprise that we think the biggest change in thinking about reading as a continuously developing "skill" (the 1985 term) stems from refiguring literacy as social practice as well as cognitive skill, especially the new-found salience of disciplinary literacy as an important school-based set of social practices. Therefore, in reframing this principle, the first change we make is to label it a "practice" (maybe a collection of practices) rather than a "skill," to emphasize the need to understand its enactment within particular contexts.

The fifth principle appears to require a lifelong view of reading development: "The process begins with a person's first exposure to text and a literate culture and continues throughout life" (p. 17). On the face of it, the final principle would seem to provide the rationale for an account of both early reading development (in PreK-1) and the later development of reading skills and strategies that might characterize what goes on in middle school, high school, or even in college and the workplace. However, as this developmental principle is unpacked in the original chapter, it serves more as an explanation of what we do in schools in the early stages of beginning reading instruction. Thus, the original account emphasizes the accommodations and scaffolds we provide to overcome a basic paradox for the early reader. After noting that the best practice for improving reading seems to involve real reading—doing the "whole skill" (p. 17) of reading—rather than a focus on component skills, the *BNR* authors point to the paradox: "This fact poses a problem for the beginner. How can a child practice reading without already being able to read?" (p. 17). Their answer is that we, as educators, provide scaffolds to

overcome the paradox and render early reading possible: (a) using narrative texts based on familiar topics (e.g., everyday family crises), themes (e.g., friendship), and settings (e.g., the local neighborhood) to make it easier for students to use their prior knowledge to render text sensible (e.g., the approach represented by the classic Dick and Jane primers of Elson & Gray, 1936) and (b) code-emphasis approaches represented by intensive early phonics instruction (McCracken & Walcutt, 1963) and/or texts that contain words with highly predictable letter-sound correspondences to ease the decoding burden, e.g., "Dan can fan Nan." (Bloomfield & Barnhart, 1961).

However, the social practices frame, especially when instantiated in disciplinary literacy practices, requires a longer view of development. If, as we have argued, literacy practices vary across the disciplinary frames of the humanities, social sciences, science, and mathematics, then there is no possibility that the development of literacy skills and practices could be complete during the school years, let alone during the primary grades. Since disciplinary knowledge continues to expand and deepen throughout our lives, so too must literacy development. Even if we have mastered the so-called foundational skills (phonological awareness, phonics, and fluency) early on, we must learn to read all over again each time we take on a new, and often narrower, discipline (e.g., moving from science to biology to micro-biology) because we will encounter new genres, text structures, discourse practices, and explanatory practices (Alexander, 2005). Hence, as we have noted earlier, the distinction between learning to read and reading to learn becomes moot, if not misguided.

The frame of literacy as social practice requires close attention to the tasks we ask students to do in the name of literacy learning. If literacy is social practice, then its value is indexed by the authenticity and utility of the tasks students perform in schools. Specifically, tasks will be valued to the degree they engage students in practices that are authentic to life beyond school—in workplace, community, neighborhood, and home settings. Do they help students gain insights about the lives they live, acquire knowledge that leads to a sense of mastery over the world around them, and develop independent learning dispositions? The ultimate measure of the quality of a curriculum is whether it allows students to develop the interpretive, expressive, and reflective skills to be genuine learners who can acquire, interpret, critique, construct, and communicate ideas and insights within all the communities of practice in which they live and work.

Over the past decade, we have experienced a convergence of studies documenting the validity of framing literacy skills and strategies as tools for knowledge acquisition across the span of schooling (Halvorsen et al., 2012; Pearson et al., 2010), from the earliest stages (Cervetti & Hiebert, 2015; Pearson & Billman, 2016; Romance & Vitale, 2012) to the pre-school years (Neuman, Kaefer, & Pinkham, 2016; Neuman & Roskos, 2012). As participants in communities of practice, in and out of school, we are always reading to learn, even as we are learning to read—to gain insight, knowledge, and the skills of critical inquiry.

CODA

Comparing the original chapter, "What is Reading?" to our revisionist treatment, the differences are both transparent and significant. *BNR* is largely a cognitive treatise, reflecting views of reading in 1985, just after the apex of the cognitive revolution of the 1970s and the demise of the behaviorist tradition in psychology (Gardner, 1985). Since that time, there have been several important theoretical developments, each accompanied by related empirical movements, namely: construction-integration models of reading, sociocultural and critical theories of literacy and learning, multimodality, and disciplinary literacy. Each of these theoretical-empirical movements has shaped how we think about reading as a fundamental human experience and, as such, prompted us to broaden our perspective from a focus on reading to a discussion of literacy. Most salient among the shifts that accompany this transition are the four we outlined at the outset of this article: (a) literacy as productive and receptive processes, including but not limited to reading itself; (b) literacy as social and cultural practice; (c) disciplinary literacy as the key school-based enactment of literacy as social practice; and (d) literacy as multimodal.

These shifts invite, perhaps require, us to rethink what reading is and how it works, both in and beyond school. So, in one way, this article is a reflection on how our definition of reading/literacy is different as a result of that rethinking. What is remarkable, however, is the enduring relevance of the five principles put forth in the original chapter. They require only minor shifts in focus to retain their relevance and represent the nature of reading as we conceive of it today. We close, then, as the original chapter closed, with a summary of the five revised principles:

- **Literacy is a constructive, integrative, and critical process situated in social practices.** It involves complex, multimodal transactions between readers, texts, activities, and sociocultural contexts.
- **Fluent reading is shaped by language processes and contexts.** It develops alongside other literacy processes (i.e., writing, speaking, listening) and involves prosody as well as speed and automatic, accurate word reading.
- **Literacy is strategic and disciplinary.** It involves the use of contextualized comprehension strategies embedded in disciplinary practices; this principle is especially critical for the reading that happens in school.
- **Literacy entails motivation and engagement.** It includes motivational factors such as self-efficacy, intrinsic motivation, and interest, as well as the mediating effects of engagement on reading. It requires attention to how relationships between readers and texts may change over time and in and through particular socioculturally-situated contexts.
- **Literacy is a continuously developing set of practices.** It develops throughout a reader's lifetime in the context of authentic tasks with real-world purposes and motivations, and this holds true for the reading that happens within as well as beyond school.

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