

Theories and Practices of Multimodal Education: The Instructional Dynamics of Picture Books and Primary Classrooms

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Teachers must do more than simply use current theories of reading to engage with new forms of texts—they must understand how multimodal texts engender new roles for the reader, as well as new roles for the teacher.

In today's primary classrooms, the definition of "text" has expanded to include multiple modes of representation, with combined elements of print, visual images, and design. Emergent research on literacy highlights the imaginative, interpretive, non-linear, interactive, dynamic, visual, and mobile features of communication (Coiro, Knobel, Lankshear, & Leu, 2008). Although these interactive features of text are evident in many educational technologies, such as computers or SMART boards, they also are present in recently published children's books. Long a staple of primary classrooms, current children's literature embodies an expanded definition of text with multiple forms of representation beyond print. As Siegel (2006) noted, "language arts education can no longer ignore the way that our social, cultural, and economic worlds now require facility with texts and practices involving the full range of representational modes" (p. 65). It is our premise that teachers' and students' interactions with the characters, plots, and visuals of interactive children's books can highlight new shifts in literacy learning.

Our focus in this article is to describe multimodal education in terms of the theories and practices that

make it feasible, even within the confines of standardized education today. In the first section, we lay the theoretical groundwork that helps us to explore multimodal aspects of texts and sociocognitive aspects of literacy learning. Next, we discuss an ongoing research project in which elementary school teachers (grades kindergarten, 1–2, and 2–3) collaborated with us to design and teach literacy curricula that uses children's picture books with highly visual and interactive textual elements. We provide examples from two of these teachers' classrooms to illustrate the ways in which (a) the multimodal aspects of texts set forth new roles for the reader/writer and (b) the sociocognitive aspects of multimodal education set forth new roles for the teacher. In the end, we discuss the instructional dynamics necessary for multimodal education via a pedagogy of multiliteracies (New London Group, 2000) that the teachers take up in their instructional design and pedagogic practice.

Instructional Dynamics in Picture Books: Theories of Multimodality

A transition from print-based education to multimodal education indicates a profound shift in the notion of reading as a whole. Although possessing traditional print literacy skills continues to be sufficient for many communication tasks, the demands of digital media and visual texts within a multimodal culture require complex new ways of coding and decoding image–text relations.

In many ways, as Burbules (1998) noted, this is not a matter of whether a new form of reading will

displace an old form of reading. Rather, it is because the practice of reading always takes place “within contexts and social relations...[and] significant differences in those contexts and relations alter the practice” (p. 102). One significant difference in the social context of communication today is that print itself can take on many forms through visual design and synergy with images (Dresang, 1999; Hammerberg [Hassett], 2001; Hassett, 2006a; Sipe, 1998, 2001), until it is literally pushed off the page (Kress, 1998). Therefore, if we are to talk about reading instruction within this new context, we need “to realize that written language is being displaced from its hitherto unchallenged central position” (Kress, 1999, p. 68).

In many children’s books today, written language is indeed no longer central. Print represents only one mode of communication, and it is not always the most important focus. When reading these books in the classroom, students and teachers alike need to focus on all of the various textual elements (e.g., print, images, graphics) as well as other modes of communication that can occur within the social context of the classroom, such as the interactive and playful conversations that can happen around the text as meaning is being made. Theoretically, then, we see multimodal literacy instruction as combining the modes available in a text with the modes available through sociocognitive reading processes, described in the next sections.

Multimodal Aspects of Texts

Bezemer and Kress (2008) defined a *mode* as a “socially and culturally shaped resource for meaning making” (p. 171). We note, as Siegel (2006) did, that children have always been multimodal; their social and cultural resources for making meaning include talk, gesture, drama, drawing, and ways of incorporating, integrating, and extending linguistic signs. In a digital culture, books have become multimodal as well, containing multiple forms of symbolic representations (diSessa, 2000). Hassett and Schieble (2007) pointed out that the use of computerized type design and photomechanical printing technologies create visual texts with various levels of meaning.

In many books written for children, the socially and culturally shaped resources for making meaning (i.e., modes) can take various forms. For example, words can express meaning through typesetting, such as in *Sweet Corn: Poems* (Stevenson, 1995), where the

symbols and sizes of the fonts are carefully chosen to represent a sense of feeling and connotation over denotation. Likewise, the children’s book *Meow Ruff: A Story in Concrete Poetry* (Sidman, 2006) is a story where every object on the page (e.g., the picnic table, the clouds, the house, the pavement) is shaped from words that “speak for” the object, giving a sense of descriptive agency to the multiple “characters” in the book. In *Froggy Gets Dressed* (London, 1994), words express meaning through color changes. As the story goes on, Froggy’s mom yells his name on every other page in large font. One kindergartner once said, “Mom is getting more and more mad!” “How do you know?” one of us asked. “Well, here she’s yelling in blue, then here in orange, then red,” the student replied.

To this day, we don’t know whether the author intended for the reader to infer Froggy’s mom’s progressive anger through font color choices. Indeed, his mom seems to be smiling exactly the same on every page. Yet regardless of the author’s intended meaning, it was a meaning gleaned by this kindergartner, who gave significance to color changes—blue, orange, red—and who used those socially and culturally situated color resources as modes for making meaning.

Lankshear and Knobel (2003) called these kinds of structural changes to text *ontological*, meaning that there are very real and concrete differences to see in these books when compared with traditional linear texts. Multimodal texts include various pathways to follow, parallel displays of information, extensive cross-referencing elements, evocative graphics and images that extend, and often replace, the printed word as the primary carrier of meaning (Bolter, 1991; Burbules & Callister, 1996; Dresang, 1999; Kress, 2003; Landow, 1992; Lanham, 2001; Snyder, 1997). Rather than having simple, static images paired with standardized alphabetic print, multimodal texts take on dynamically interactive elements, as readers (not authors) choose where to look and how to engage with certain aspects of the text.

For example, in *Follow the Line Through the House* (Ljungkvist, 2007), readers are encouraged to search through refrigerators, medicine cabinets, and closets to find answers to questions posed nonlinearly on the page. In the book *What James Likes Best* (Schwartz, 2003), readers are asked direct questions about what they think James liked best about his day. There is no one right answer; just our own thoughts

and our interactive conversations with one another on the matter.

Thus, meaning no longer lies in the text itself because there are many possible meanings, which change according to who the reader is, and how he or she relates to, negotiates, and makes connections across various textual elements (or modes) through an array of techniques for making sense (Hassett, 2006b). Consequently, being able to navigate the Internet, use digital media, or read a children's book involves being able to decode and comprehend alphabetic print in conjunction with other socially and culturally shaped forms of representation, that is, in conjunction with multiple modes.

In this rather broad brushstroke of what it means to "read multimodally," we wish to emphasize that the modes available for making sense of any text are as numerous as design choices will allow. As a result, traditional design elements, such as color, line, shape, or texture, can be thought of as modes because each design element expresses a level of meaning and a resource for interpretation. For example, Sipe (2001) discussed "shape," using Bang's (1991) book *Picture This: Perception & Composition*:

Bang suggests that horizontal shapes give us a sense of "stability and calm" ...while vertical shapes are more exciting and suggest energy. Diagonal shapes are the most dynamic of all, evoking a sense of motion or tension. Pointed shapes create more anxiety or fear because of their association with sharp objects, while rounded, curved shapes make us feel more comfortable and safe. (p. 29)

In his article, Sipe (2001) goes on to discuss other aesthetic aspects present in picture books: the choice of paper, size of the page, point of view, framing, arrangement, and the medium or media used (see also Marsh & White, 2003; Nikolajeva & Scott, 2000). Each element of a picture book, then, is a mode of sorts, because all of these features are socially and culturally shaped resources that signify *something*. So, when Kress (2003) raised the question, "Is 'font' also a mode?" (p. 139), we answer him with an enthusiastic, though somewhat louder than usual [font change to 14 point cherry-blossom Delaney], "Yes!"

Sociocognitive Aspects of Literacy Learning

Font is a mode of communication because the way in which a word is represented on a page or a screen,

in what color, size, and shape, contains meaning beyond the word itself. For example, Times New Roman, as a font, represents "the safety of tradition" (Kress, 2003, p. 139), whereas Jokerman or Blacklabel fonts can be used as a way to personalize a MySpace page or blog—a way of representing an identity "on the screen" (Turkle, 1995). However, it only is possible to assign meaning to a particular font because of the social genres and conventions in use in a given discourse and time.

Above and beyond font, we can think of the representational modes available in a text as cultural artifacts that readers can use as tools for interpretation and meaning production. In this case, reading, as an interaction between a reader and a text, involves the *social use* of these representational tools (or modes) as part and parcel of conceptual thinking, in a given social realm. This understanding of reading as a sociocognitive process is meant to highlight the ways in which complex cognitive actions and various social resources are reciprocally and inextricably coupled.

In today's world, sociocognitive processes of making meaning out of text are constantly informed by—and altered through—the use of digital media and multiple modes of representation. New technologies transform literacy practices, but new literacy practices transform the ways we use the tools before us in ongoing moment-to-moment social contexts (Leu, 2000). In other words, as children learn from various modes of representation in texts, they also shape the ways in which those tools are taken up in the social construction of meaning in their own social spaces.

This has vast implications for teachers regarding ways of modeling and scaffolding meaning-making practices out of design elements. Marsh (2004, 2006), for example, has demonstrated the processes and supports very young children use to design multimodal and digital texts. In this frame of mind, the sociocognitive processes of reading and writing involve not only the tools of the text (namely, the modes of representation), but also the social practices of instruction that allow us to recognize and interpret various signs and modal genres as meaningful in the first place (Dyson, 1993, 1997).

In the classroom, this means that the instructional and conversational practices at play during a lesson—how the teacher models, how the teacher explains, how the teacher scaffolds—all serve as additional types of cultural tools (or additional modes) that children use to support their conceptual

thinking. These instructional practices within the learning environment form a part of the “experiential space” (Smagorinsky, 2001, p. 141) in which meaning is produced. For Smagorinsky, it is an experiential space rather than just a social space because the tools for reading (e.g., signs, symbols, texts, images) exist within a social space (accepted genre conventions, the pragmatics of the activity), which in turn exists in reciprocal relation to the reader’s “head” (e.g., cognition, skills, knowledge, identity, abilities) (Hammerberg [Hassett], 2004; Shaffer & Clinton, 2005). Furthermore, the “experiential space” of reading—even if the child is reading alone with no one else nearby—consists of the social customs and cultural habits of reading itself.

This is a theory of social practice that, according to Lave (1991), “emphasizes the inherently socially negotiated character of meaning and the interested, concerned character of thought and action of persons-in-activity” (p. 50). As Lewis (2007) noted, “new technologies afford new practices, but it is the practices themselves, and the local and global contexts within which they are situated, that are central to new literacies” (p. 230). As a result, it is less about the tool per se and more about the social practices of tool use, including the mechanisms that teachers can use to maximize the inextricable connections of a child’s mind with the world of social activity, the world of the text, and the world of meaning making.

Research Framework

Although it is clear that literacy pedagogy must account for “text forms associated with information and multimedia technologies” (New London Group, 2000, p. 9), it is less clear how the multimodal theories described earlier function in public school classrooms. As a way to reconceptualize traditional models of reading instruction, where the printed word is assumed to be the primary source of meaning in text, we developed a research study designed to examine children’s engagement with highly interactive and visual texts (Hammerberg [Hassett], 2001; Hassett, 2006a, 2006b). We decided to focus exclusively on contemporary children’s literature as a springboard for multimodal literacy instruction to make it explicitly clear that new forms of reading have less to do with a “new” medium and more to do with the way that alphabetic print is no longer the only carrier

of meaning and representation, even in books with actual covers and actual pages (Kress, 2003).

In our research study, we wanted to know how children’s engagement with multimodal texts can shape their literacy learning, and we wanted to determine the places where early literacy instruction can be easily modified to include texts with multiple modes of representation. To this end, we gathered together elementary teachers with master’s degrees in literacy to design literacy lessons using visual and interactive texts. Three teachers were selected from a pool of 32 potential candidates because of their philosophies of education, their knowledge of literacy research, and their willingness to coplan and coteach.

We began by reviewing (together) more than 100 children’s books that are sometimes referred to as postmodern picture books (Anstey, 2002; Goldstone, 2002, 2004; Sipe, 1998, 2001). We loosely categorized our favorites into four multimodal characteristics of texts: (1) words express meaning through typesetting (e.g., the way the word is printed on the page carries more information about the word than the graphemes themselves), (2) interactive narration (e.g., overt expectations to play with the book, direct address to reader), (3) images expand meaning (e.g., pictures carry more information pertinent to the story than the printed text), and (4) multiple perspectives (e.g., nonlinear formats, multilayered plots). Table 1 lists a few examples of different children’s books with these characteristics.

Then, we worked together to design lessons around the books that resonated particularly well with each teacher based on each teacher’s knowledge of her students and their interests, the curricular standards, and her classroom goals. The coplanned literacy lessons lasted approximately two hours each and have taken place over three to six sessions in each classroom thus far, with the researchers working as

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Table 1
Examples of Children’s Literature With Multimodal Characteristics

Multimodal characteristics	Literature titles
Words express meaning through typesetting	<i>Meanwhile</i> (Feiffer, 1997) <i>Froggy Gets Dressed</i> (London, 1994) <i>Charlie Parker Played Be Bop</i> (Raschka, 1992) <i>Sweet Corn: Poems</i> (Stevenson, 1995) <i>Arnie the Doughnut</i> (Keller, 2003)
Interactive narration	<i>The Stinky Cheese Man and Other Fairly Stupid Tales</i> (Scieszka & Smith, 2002) [dedication page] <i>A Street Called Home</i> (Robinson, 1997) <i>Don’t Let the Pigeon Drive the Bus!</i> (Willems, 2003) <i>What James Likes Best</i> (Schwartz, 2003) <i>Follow the Line Through the House</i> (Ljungkvist, 2007)
Images expand meaning	<i>Casey at the Bat</i> (Bing & Thayer 2000) <i>Chester</i> (Watt, 2007) <i>Starry Messenger</i> (Sís, 1996) <i>Flicker Flash</i> (Graham, 1999) <i>Meow Ruff: A Story in Concrete Poetry</i> (Sidman, 2006)
Multiple perspectives	<i>Black and White</i> (Macaulay, 1990) <i>Throw Your Tooth on the Roof</i> (Beeler, 1998) <i>The Stinky Cheese Man and Other Fairly Stupid Tales</i> (Scieszka & Smith, 2002) [The Very Ugly Duckling] <i>Loki & Alex: The Adventures of a Dog and His Best Friend</i> (Smith, 2001) <i>Voices in the Park</i> (Browne, 1998)

participant–observers. Data included observational field notes that detailed the physical environments, instructional activities, and interactions among students and teachers, as well as semistructured teacher interviews and artifacts such as lesson plans, teacher models, and student work. Our analysis of the data involved transcribing and coding aspects of the reading/writing process, as we documented the interactions among the students and teachers around the texts, as situated within the sociocultural context of the classroom.

Instructional Dynamics in Primary Classrooms

In the following sections, we provide two examples from this study. The first uses multiple modes within a text as springboards for a student writing activity; the second demonstrates the socially negotiated character of meaning making during a read-aloud. All names of students, teachers, schools, and so forth have been changed.

Multimodal Aspects of Texts: Noticing and Using Available Designs

Arnie is a doughnut cooked up by Laurie Keller (2003) in the children’s book, *Arnie the Doughnut*. The fact that, on the cover, the book states it is “cooked up by,” as opposed to merely “by,” Keller speaks volumes about the book’s humor and design. But more than this, the humor and design continue on the next page (dedications), where bakers are vigorously pouring baking soda and flour into bowls in such a way that the thank-yous and copyrights are written upside-down on the boxes, and where, on the same page, another dedication to Keller’s editor is meant to be sung “to the tune of Rick James.” Reading this book out loud to children means of course you sing the song (as we did) and of course you turn the book upside down (as you will), as we go on to the next page and the next page and the next: images of the bakery in the darkened morning with tiny illustrations of people vacuuming inside; full-spread canvas “shots” of every type of fried pastry imaginable

speaking to one another and over one another; wide-angle views of the bakery at the 6 a.m. opening, with each customer speaking from his or her own particular perspective (e.g., a woman half-asleep saying, “must have doughnuts, must have doughnuts”; a bride promising to love, honor, and cherish her doughnut until the last bite; an alien who came from afar for the “tasty fried sweet crystal coated cake disks”; a cave-man grunting “doughnut make good wheel”).

The book itself, in literal terms, is about a doughnut that goes home with Mr. Bing, and then, after some negotiations, becomes his pet instead of being eaten. And yet, this brief summary of the plot does not describe the book at all, as only glimpsed earlier. Throughout the entire book, Keller writes and designs specific meanings into the story she wants to tell through words, images, and multiple perspectives that in effect are resources for producing meaning (Bezemer & Kress, 2008) and become available designs (New London Group, 2000) for students to use. For example, after Arnie is purchased by Mr. Bing, they drive home over a bumpy road passing many fascinating sights. To depict the bumpiness, the words on the page ramble and roll and curve up and down, while the sights a reader might view (nonlinearly) include smaller illustrations of people talking or roadside attractions with tiny printed signs.

Tess Theobald is a second- and third-grade teacher in our study. Tess was interested in using interactive children’s literature as springboards for writing instruction because she felt her students would be inspired to think about ideas for writing, as well as various word choices, characters, and perspectives, by reading nontraditional, fun, and engaging books. Writing instruction is very important to Tess: all of her students have “draft books” in which they keep ongoing ideas for writing as well as drafts of work in progress; up and around her room are class-brainstormed charts of “writer’s tools”; and she sets aside at least one hour per day for writing. We chose to use *Arnie the Doughnut* (Keller, 2003) as a read-aloud and as a precursor to a writing activity because she felt it would encourage the students to think “multidimensionally” (Bearne, 2005, p. 22), that is, to represent their own meanings in multiple ways.

Day 1 of our lesson involved reading the book to the whole class while pointing out all of the intricate details and visual–textual elements, followed by a brainstorming session where the children listed all of their own favorite foods in their draft books. The

purpose of the brainstorming session, as explained to the students, was because eventually each child would have an illustrated page about his or her own favorite food in a whole-class book.

Day 2 of the lesson involved revisiting portions of *Arnie the Doughnut* with the whole class for the purpose of creating a student-generated list of how Keller designed this book to communicate specific meanings. We spoke of Keller’s work as “design,” and the students came up with a number of ways that *Arnie the Doughnut* was designed to create certain meanings, as recorded by Tess (see Table 2).

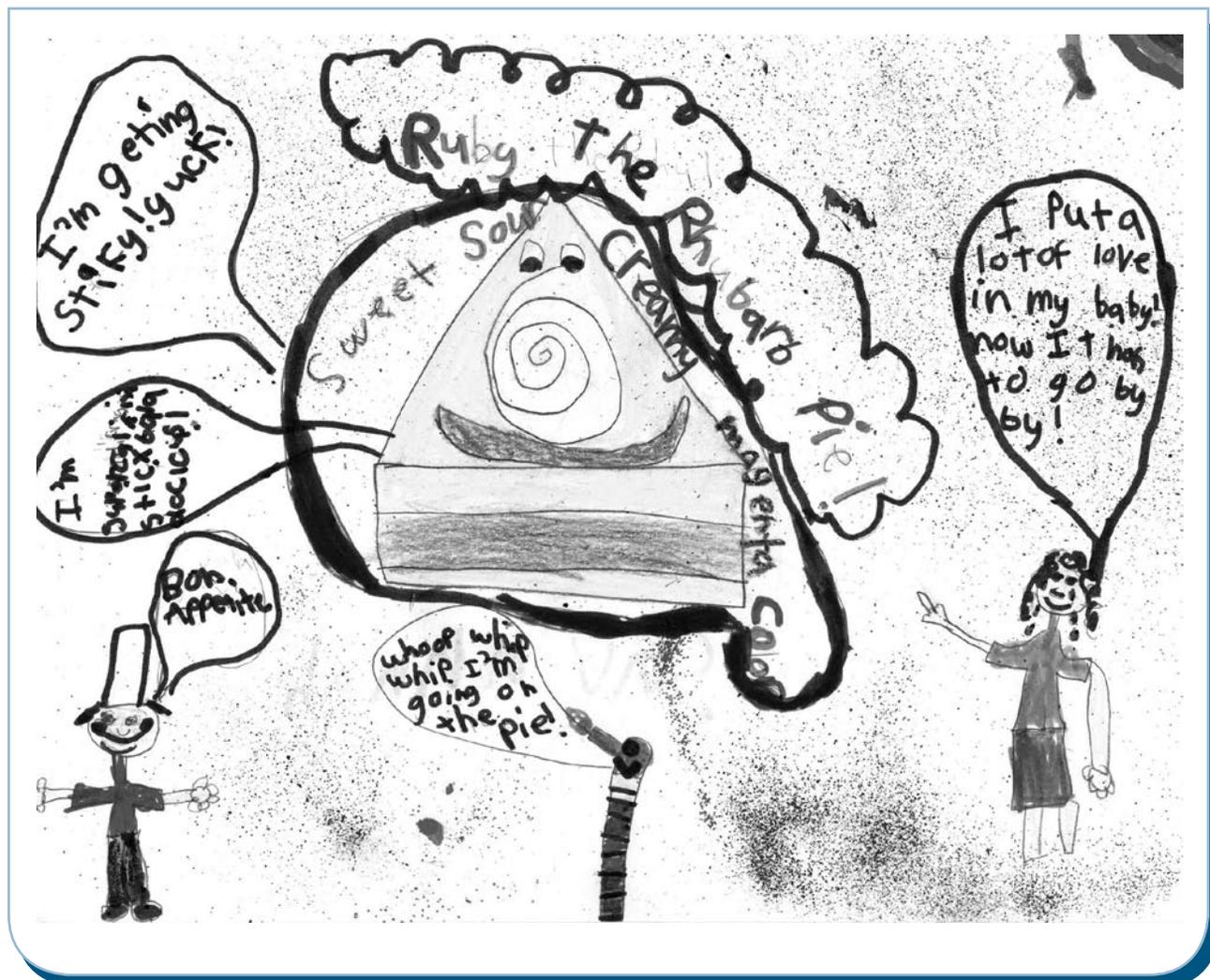
After our large group brainstorming session on Day 2, we then asked the students to fill out a prewriting sheet designed to help them think about specific words to describe their own favorite food, other characters involved in the production or consumption of their favorite food, and how they might represent their food visually.

Day 3 of the lesson involved revisiting all that had been discussed before (the book and its design characteristics, our planning sheets), and Tess created a model page about her own favorite food (cheese). In her modeling, Tess often referred to the brainstormed list of the textual characteristics used in Keller’s book, and overtly “thought out loud” as she chose the design features that best represented her own thoughts. After this, the students designed their own pages for a whole-class book—where they could use the various “writer’s tools” we found in Keller’s book.

Table 2
How *Arnie the Doughnut* Communicates Meaning

- Colored words
- Bold words
- Highly detailed pictures
- Words in different languages
- More than one color
- Emotions in color choices
- Bumpy writing
- Changes in size in the writing
- Little things to look at—words written in tiny places
- Sometimes things in ordered steps
- Sometimes things all over the page
- Many different characters talking at once—multiple perspectives
- Speech bubbles—dialogue bubbles—thought bubbles

Figure 1
"Ruby the Rhubarb Pie" Final Page



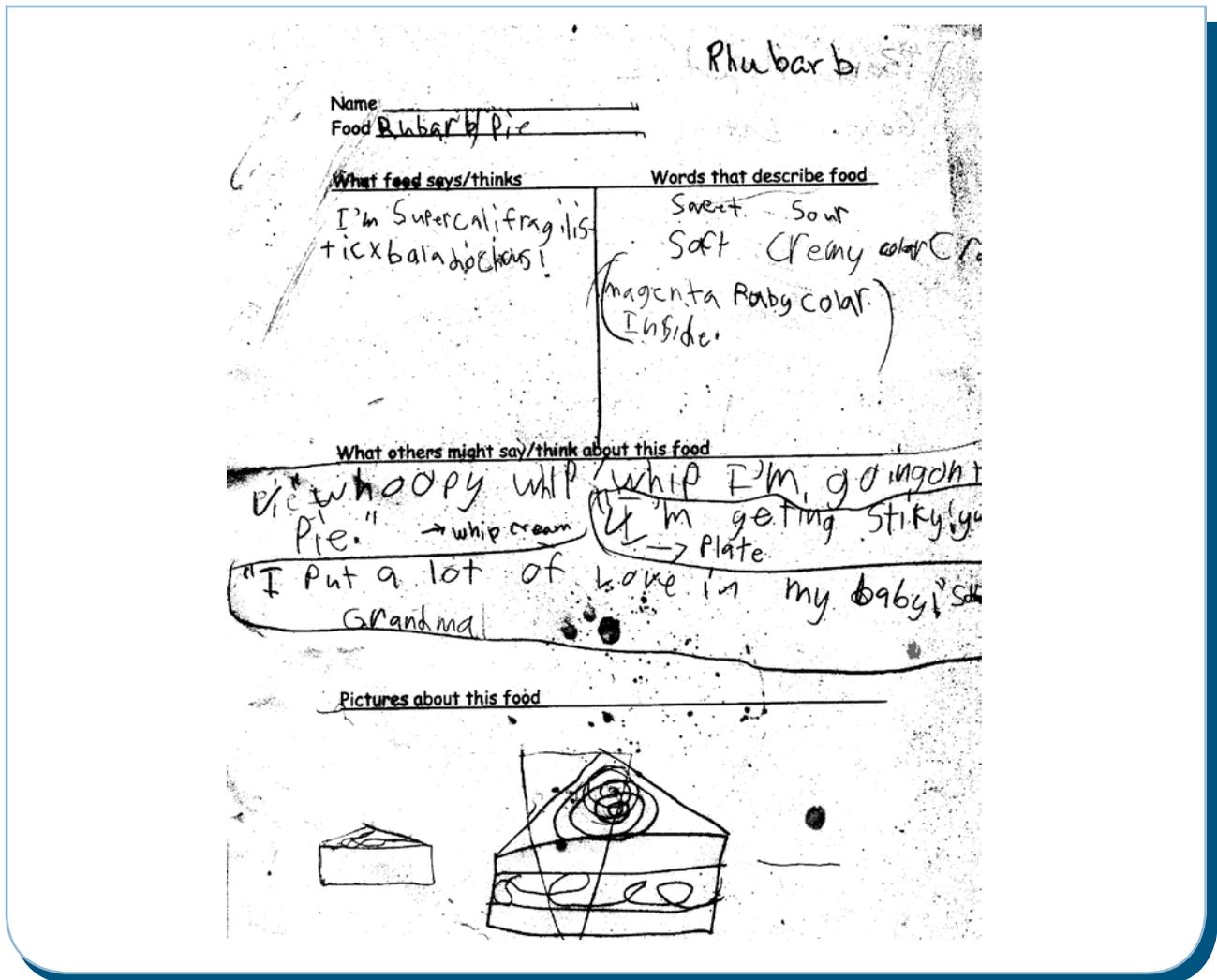
In Vanessa's book page about "Ruby the Rhubarb Pie" (Figure 1), she creatively chose to represent several different characters speaking at once from various perspectives: her grandma, who makes the rhubarb pie with a whole lot of love; a whipped cream dispenser; a French chef; and the rhubarb pie itself, who's getting sticky from her whipped cream nose. Vanessa also chose to design her page using color in her "font" and decorative word placement. These visual modes for making meaning extend, yet incorporate, linguistic modes—and Vanessa had them available to her because she was living and acting and being and thinking within the realm of possibilities as discussed in the classroom and as outlined by Keller's own design choices.

Vanessa's preplanning sheet (Figure 2), conveyed many of these elements, and yet, it wasn't until the final design of her page (Figure 1) that the different modes available in Keller's book could shine through and publicize Vanessa's intended meanings.

Likewise, Peter's planning sheet for his favorite food, a milkshake (Figure 3), takes on additional levels of meaning in his final page (Figure 4), in which he dynamically represents a festival-feeling through design elements such as color, line, size, and shape.

As the New London Group (2000) pointed out, our designs of meanings, and the designs we have available to us, are shaped by the grammars of various discourses. In this classroom, we had Keller's designs (and multiple modes) available to us, through

Figure 2
 "Ruby the Rhubarb Pie" Planning Sheet



teacher modeling and sharing, which shaped how the children could order and organize their own pages.

Although each student's page was not done digitally (e.g., by using computer publishing tools or digital movie software), each student's page contained an assortment of socially and culturally shaped resources for meaning making—the definition of “mode” set forth by Bezemer and Kress (2008): (1) images/drawings, (2) writing, (3) font design and placement, (4) familial and cultural connections to students' lives, (5) relative size of images/writing, and (6) use of color to express meaning. In other words, each student's page was “multimodal,” demonstrating more ways of

representing thought than their planning sheets or traditional linear writing could allow.

Sociocognitive Aspects of Literacy Learning: New Roles for the Teacher

In Willa Taylor's first- and second-grade classroom, the children are always allowed to interact when Willa reads a book out loud. The children feel comfortable to interject their thoughts as the book is being read, and Willa herself noted during a teacher interview that if the children are not allowed to speak or interact during a book's reading, then they are less able to pick up all the different elements of the story. Watching Willa read *The Pigeon Finds a Hot Dog!*

Figure 3
"Mikle the Milk Shake" Planning Sheet

Name _____
 Food milk shake

What food says/thinks	Words that describe food
"I'm liquidy"	liquidy
"I taste like ice cream"	milky cold
I feel dizzy	Sweat I'm droopy

What others might say/think about this food

(cow) did I make you
do you have bones

(banana split) can I see your straw

(hamburger) don't touch me!

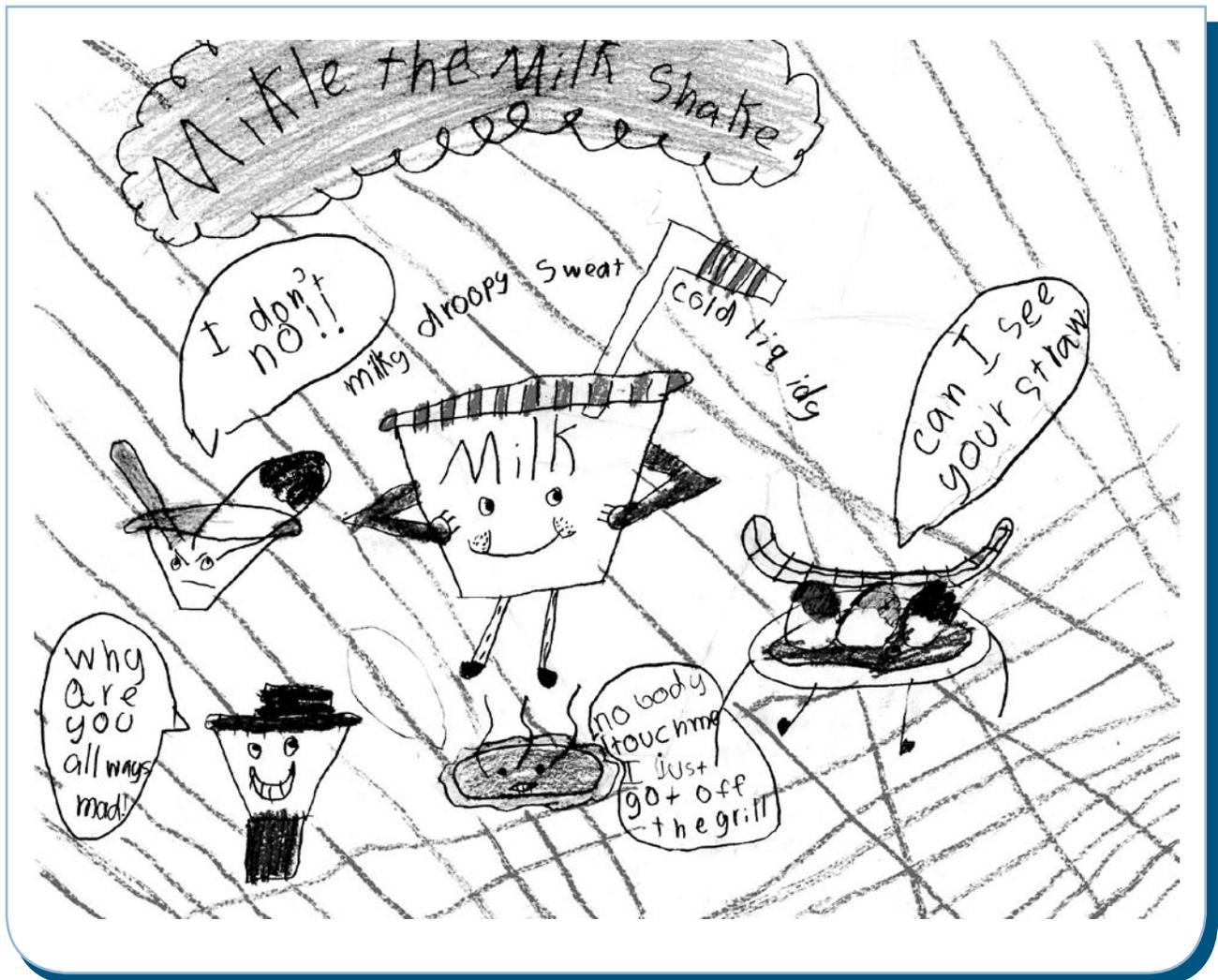
Pictures about this food

(Willems, 2004) to her class of 18 students is akin to watching art in motion. The motion comes from the students; the art comes from Willa—and yet, in sociocognitive terms, the students' movements and wiggles are synchronous with their thinking and talk, which are inextricably linked to the social activity of the read-aloud. As we noted earlier, this type of interaction is representative of the socially negotiated construction of meaning within an experiential space (Smagorinsky, 2001), where the elements of multimodal texts become tools for the students' cognitive activity within a social realm.

Willa read *The Pigeon Finds a Hot Dog!* (Willems, 2004) to her class because she wanted them to notice how Mo Willems, an author they read frequently,

creates humor and represents feeling through his very simple drawings. The main character of this story, Pigeon, is a favorite from other books, most notably *Don't Let the Pigeon Drive the Bus!* (Willems, 2003), in which Pigeon speaks directly to the children, begging them to let him drive a bus. In *The Pigeon Finds a Hot Dog!* Pigeon speaks directly to a duckling that infuriates Pigeon throughout the story by wanting to eat his hot dog. Willa gets her class ready for the story: "Give me a thumbs-up if you like hot dogs; give me a thumbs-down if you don't like hot dogs; and give me a thumbs-in-the-middle if...[giggles and responses].... Is it making you hungry? I hope you all had breakfast!" Willa takes her time reading the book, focusing on all aspects of every page, from the size of the

Figure 4
 "Mikle the Milk Shake" Final Page



print in the speech bubbles (which are smaller for the duckling) to the shapes of the characters' eyes. This unhurried and deliberate way of reading focuses the children on artistic design as a mode of representation, as they think and question what Willems as an author/designer might mean. For example, Willems portrays the Pigeon's eyes as simple circles, but his depictions of the eyelids (a simple line through the eyeball circle) represent various emotions depending upon the line placement, from frustration to skepticism to surprise.

At many points in the book, Pigeon becomes exasperated with the duckling. At one point, Willems expresses Pigeon's feelings through font, color, and size through a huge two-page spread where Pigeon

exclaims in frustration: "***It just tastes like a hot dog okay!?***" Then, on the next page, Pigeon isn't speaking at all, but instead, there is a dark charcoal scribble above his head, his feathers are flying about, and his eyelids are low.

Willa: How do you think the pigeon is feeling?

Students: Angry!

Willa: Why do you think that?

Students: Frustrated!

Willa: How can you tell by looking at this page that the pigeon is frustrated?

Students: Because he's freaking out!

Willa: How do you know he's freaking out?

[Students give various answers.]

Willa: I'm hearing because of exclamation points, feathers flying all over, the marks, and he's freaking out!

In this instance, Willa's oral literacy instruction fosters metacognition in her students. By drawing explicit attention to the multiple ways in which visual images and text function in the picture book, her students are encouraged to consider both *what they know* and *how they know it*. Willa is also pointing out representational modes available in this text

These social activities are at the core of new literacies—in theory and in practice—and they can readily occur in all classrooms today.

as a way to form an experiential cognitive space that the students can draw upon later when they engage in their own textual designs. Accordingly, this shared experience of reading a book out loud provided not only a space for joy and laughter, but also the conceptual tools that Willa wanted the students to acquire. By situating these conceptual tools in concrete social practice,

Willa is effectively able to integrate new literacy practices into her curriculum, even during the traditional practice of reading a book out loud.

It is critical to note that the social activity and meaning making are inextricably linked in this process, and that the social activity was one designed by Willa through her student-centered philosophy of teaching as joint exploration. Through this approach, Willa is also borrowing a page from Siegel (2006) because she supports her students' ongoing reflections on the multimodal tools available, and she acknowledges how children are able to make meaning through their "powers of imagination and generativity" (p. 71).

Implications for Literacy Instruction: Pedagogies of Multiliteracies

The purpose of this analysis has been to consider the educational implications of using multimodal texts in early literacy instruction. Beyond simply

using current theories of reading to engage with new forms of texts, our hope is that teachers and literacy scholars can come away with a better understanding of how multimodal texts engender new roles for the reader/writer as well as new roles for the teacher. We propose that literacy instruction, situated in such a socially dynamic and multimodal context, is marked by the collaborative nature of textual production and interpretation.

Larson and Marsh (2005) explained that many traditional roles for teachers remain necessary in a "new media age": teacher as facilitator, teacher as instructor, teacher as model, and so on. They also suggest that there are "three additional roles teachers need to adopt in order to facilitate children's navigation of complex, multimodal, electronic worlds" (p. 73):

1. Teacher as resource manager—Teacher manages a range of resources—print-based and otherwise—that he or she knows will enable the students to develop the skills and critical abilities needed to navigate new texts and/or complete their purpose
2. Teacher as coconstructor of knowledge—Teacher and students explore and learn together because the teacher acknowledges that students sometimes know as much, if not more about certain things
3. Teacher as design consultant—Teacher provides feedback and advice on the texts students design, with curricular and assessment goals in mind

These new roles for the teacher were clearly apparent in both classrooms explored here. Both teachers pointed out the multimodal aspects of texts on which students could hang their imaginative hats. They managed the resources in the book by asking students pointed questions to help them focus on various textual modes. They helped them to construct their knowledge jointly through conversation. And they provided feedback and support in line with their own classroom goals as students thought about authorship as design.

These social activities are at the core of new literacies—in theory and in practice—and they can readily occur in all classrooms today. Furthermore, when teachers initiate open-ended activities in response to multimodal texts, they create a space in which to honor the linguistic and cultural differences

among—and between—the students in their classroom (Hassett, 2008). Perhaps the use of multimodal tools in socially situated practice can be considered the heart of multiliteracies, in form and function (Anstey & Bull, 2006; Kalantzis & Cope, 1997; New London Group, 2000).

In that respect, we suggest that if a teacher operates within a pedagogy of multiliteracies by guiding and supporting students in their multimodal resource navigation, then the students can acquire the conceptual bases needed to interpret and produce complex text/image/design relationships. In other words, when students engage in multimodal and sociocognitive experiential spaces in the classroom, they become critically oriented to ever-evolving digital media and multimodal forms (Leu, 2000, 2002). As Kress (2003) noted, “[t]he world of communication is not standing still” (p. 16), and for teachers, this has profound implications for literacy instruction in a digital age. After all, if the world of communication is not standing still, why would our pedagogical practices?

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