Abstract

Classroom discussions of multimodal texts, in particular historical fiction picturebooks, offer an interpretive space where readers are positioned to construct meanings in transaction with the written language, visual images, and design elements created by authors, illustrators and publishers (Serafini & Ladd, 2008; Sipe, 1999). This study was designed to better understand how readers navigated the multimodal landscape of historical fiction picturebooks and constructed meanings in transaction with the various semiotic resources made available in these multimodal texts.

Because the texts readers encounter in and out of school settings incorporate visual images and design elements in addition to written language, the pedagogical framework for reading comprehension instruction must expand to include strategies for understanding visual modes of communication (Serafini, 2011). A lack of attention to visual images and other visual systems of meaning in the elementary literacy curriculum presents serious challenges to teachers at a time when image has begun to dominate the literate lives of their students (Fleckenstein, 2002; Kress, 2003).

Pedagogical approaches for comprehending multimodal texts continue to emerge and evolve (Albers, 2008; Anstey & Bull, 2006). Unsworth and Wheeler (2002) asserted that if children are to understand the meaning potentials of visual images, they need knowledge of the meaning-making systems used in their production and interpretation. The blending of visual images, design elements, and written language into multimodal ensembles presents readers with new challenges, and requires an expansion of the resources and interpretive practices readers draw upon to make sense of these complex texts (Serafini, 2012).

Multimodal texts draw on a variety of semiotic resources in addition to written language, and carry with them different potentials for making meaning (Kress, 2010). In order to expand students’ interpretive repertoires, teachers need to deepen their own understandings of the visual images and design elements used in multimodal texts (Youngs & Serafini, 2011). Contemporary picturebooks present numerous opportunities for teachers to support students’ understandings of the visual and design elements in multimodal texts. A shift from a focus on print-based texts dominated by written language to multimodal ensembles requires readers to navigate, design, interpret and interrogate texts in new and more interactive ways (Serafini, 2009). Analyses of multimodal ensembles require readers to synthesize perceptual abilities with ideological perspectives, including theories of visual grammar, semiotic resources, critical theories, and socio-cultural perspectives (Kress & van Leeuwen, 1996; van Leeuwen, 2005). Aiello (2006) stated, “In analyzing images, then, it is necessary to account not only for their cultural norms, but also for their perceptual qualities” (pp.89-90).

Analytical frameworks for attending to the various elements in multimodal ensembles have been offered by various theorists working in diverse fields of inquiry (Albers, 2007; Bateman, 2008; Beach et al., 2009; Rose, 2001). For the purposes of this study, the analytical framework created by one of the authors was used to organize the data analysis and allowed the researchers to look at the data across three analytical perspectives, namely the perceptual, structural and ideological (Serafini, 2010). The analytical framework presented here merges various perspectives into one comprehensive framework to address the various approaches offered for interpreting elements of multimodal texts. Reception and interpretation are not separate mental operations, rather they are thoroughly interconnected processes, and any approach to understanding visual images or multimodal texts must acknowledge this interconnection. However, bypassing the forms, visual structures, design elements, and objects rendered in an image or multimodal text to consider the socio-cultural influences and contexts of production and reception may mistakenly overlook the interpretive possibilities other analytical tools and approaches make available.

Various researchers and theorists have constructed similar frameworks for analyzing images across a variety of theoretical perspectives. Barthes (1977) suggests that the viewer of an image
receives the denotative (perceptual) message and the connotative (ideological) message simultaneously, and that the denotative message is constituted by what remains when one removes mentally the connotative sign. Scholes (1985) draws a similar distinction, suggesting three dimensions of literary competence, namely, reading, interpretation, and criticism. Panofsky (1955), an art historian and critic, introduced iconological methods in artistic interpretation and distinguished three strata for interpreting Renaissance art. Panofsky’s three levels of meaning in art interpretation became the object of pre-iconographic, iconographic and iconological interpretative processes (Hassenmuller, 1987). In similar fashion, the analytical framework offered here is a tripartite framework, addressing perceptual aspects of visual images and their ideological contexts.

The perceptual perspective focuses on the literal or denotative (Barthes, 1977) qualities of an image or multimodal ensemble. The structural perspective focuses on the visual structures or grammar of visual design, and the ideological perspective focuses on the socio-cultural, political and historical aspects of visual and textual elements. These analytical perspectives should be considered necessary, but insufficient in and of themselves to render a comprehensive or viable interpretation of any particular multimodal ensemble. No single analytical perspective can offer a value-free, universal depiction of reality; rather each perspective offers a distinct lens for investigating multimodal texts and students’ responses to these multimodal elements.

This study was designed to examine how students in a fifth grade classroom navigated the textual, visual, and design elements of multimodal texts, in particular historical fiction picturebooks, and how they responded to the various semiotic resources available in the picturebooks shared during interactive read alouds in whole class and small group settings across the three analytical perspectives discussed previously.

Theoretical Framework

The theoretical framework for this study drew upon picturebook theories (Moebuis, 1986; Nodelman, 1984), reader response theories (Beach, 1993; Tompkins, 1980), theories of visual grammar and design (Kress & van Leeuwen, 1996), and theories of visual literacy and multimodality (Elkins, 2008; Kress, 2010). As Kress (2003) asserts, we can no longer treat language as the sole or major means for representation or communication, and proficiency with written language alone cannot provide access to the meaning potential of the multimodally constructed text. This assertion has important implications for literacy education. As literacy educators, we need to expand our knowledge of the semiotic resources and meaning potentials of multimodal texts, how these texts are constituted, and how meaning is articulated and interpreted within and across the various modalities used in their creation.

A multimodal text or ensemble is a text that draws on a variety or multiplicity of modes. Modes are socioculturally shaped resources for realizing, representing, interpreting and communicating meanings (Kress, 2010). Modes have material, technological, and social aspects and are used for specific social purposes, in specific social contexts. Each mode is capable of representing meanings in different ways for different purposes. Picturebooks are a type of print-based, multimodal text using a variety of modes, in particular visual images, written language, and design elements, to offer potential meanings to the reader during transactions with these texts
(Lewis, 2001). Picturebook reading is a complex process (Kiefer, 1995; Moebuis, 1986; Nodelman, 1984). Careful inspection of written language, visual images, and design elements yields a greater understanding of the whole than these elements yield independently.

Readers of picturebooks are required to attend to visual images, design elements, written language, and the synergistic relationships among these features (Sipe, 1998). Sipe drew upon a semiotic theoretical perspective to describe how readers work back and forth among text, images, and design elements to make sense of picturebooks. Readers interpret the written text in terms of the visual images, and the visual images in terms of the written text, and subsequently both visual images and written text in terms of the overall design. Sipe described this interpretive process as oscillation, the continual recursive nature between text, images and design elements as meanings are constructed in conjunction with the various semiotic resources available.

Historical fiction poses many challenges for young readers attempting to understand the complexity of historical events, distinguish facts from fiction, and relate to historical events far removed from their own experiences. To enhance young readers’ understandings of historical events, teachers need to introduce and support a variety of interpretive perspectives to the act of reading historical fiction picturebooks (Youngs, 2010, 2012). Readers must attend to cues provided by the author, illustrator and publisher to help distinguish between historical and fictional elements, as well as go beyond the written text to consider primary and secondary sources of information. In addition, the peritextual elements (Genette, 1997) offer meaning potentials to the reader as they attend to various motifs, symbols and graphic designs embedded throughout these multimodal ensembles. Classroom discussions of multimodal texts, in particular historical fiction picturebooks, offer an interpretive space where readers are positioned to construct meanings in transaction with the written language, visual images, and design elements created by authors, illustrators and publishers (Serafini & Ladd, 2008; Sipe, 1999).

**Methods**

This interpretive study (Erickson, 1986) was conducted over the course of four months in a fifth grade classroom at Fredrickson Elementary School (pseudonyms are used throughout), located in a suburban area of a mid-sized city in the Western United States. Reports from the school district indicated the following demographic information for the school: 64% Caucasian, 20% Hispanic, 5% African American, 8% Asian/Pacific Islander, and 2% American Indian/Alaskan Native. Twenty-two percent of the student population qualified for free and reduced lunch, and eight percent of the population was students with limited English proficiency. There were 26 students in the class at the time of the study. The ethnicity makeup of this class consisted of: Anglo European—20 students; African American—2 students; and Hispanic—4 students. This class had 2 students with an Individualized Education Plan, 1 receiving English Language Learners (ELL) services, 5 students who were reading below grade level, 18 who were at grade level, and 3 who were reading above grade level.

Emily, the classroom teacher, was in her third year of teaching at the time of the study and was selected to participate because children’s literature was used as part of her reading curriculum. In addition to the required core program, Emily included historical fiction picturebooks as a resource throughout her social studies curriculum. One of the authors conducted the read alouds
presented here and designed various lessons on visual grammar that are reported throughout this paper while the classroom teacher served as observer. Further analysis of the interactions between researcher and teacher, the lessons developed, and the influence these lessons had on students’ responses are ongoing, but are not included in this analysis.

This genre study of historical fiction picturebooks was designed to help readers attend to the multimodal nature of these books to enhance their comprehension of literature and historical information. During this study students listened to ten selected historical fiction picturebooks read alouds with lessons in genre, visual literacy, and history. The books were selected because of their potential for provoking discussion, the extensive amount of peritextual design elements, and the focus on internment suggested by the classroom teacher. Students engaged in whole group and small group discussions. The focus of this study is on the discussions that were recorded during the whole group and small group read alouds.

Guiding questions for this study included: 1) What visual, textual and design resources did readers attend to in making meanings in transactions with selected historical fiction picturebooks?; 2) What types of responses did students construct while attending to the multimodal features of historical fiction picturebooks?; and 3) How did students’ responses vary across perceptual, structural and ideological perspectives in their discussions of historical fiction picturebooks?

The study was conducted in three phases: 1) an initial observation of the literacy instructional block lasting for several weeks, 2) a series of ten whole class interactive read alouds conducted by one of the researchers (Barrentine, 1996), and 3) a series of small group read alouds with one of the researchers focusing on a particular historical fiction picturebook. Field notes and transcripts of audio recordings made during whole and small group classroom discussions were the primary data sources. In addition, weekly interviews with the teacher and selected students, copies of student reading response notebooks, and classroom charts generated during the instructional experiences and read alouds were gathered and used in subsequent analyses not reported here.

Data Analysis

The initial analysis of the data consisted of a chronological reading of the entire data corpus (Erickson, 1986); however, the focus of data analysis was the discussion transcripts and researcher field notes. Subsequently, the conversational turn was used as the unit of analysis (Sinclair & Coulthard, 1975) and 5,285 student initiated conversational turns were coded and analyzed. Conversational turns were identified each time a different student offered a response in a particular discussion. Each transcript was read, and an initial line-by-line analysis was completed (Strauss & Corbin, 1998). Two broad categories, namely literal and interpretive responses, were constructed to differentiate between two general types of responses students offered.

If the reader named or identified a textual or visual element that was visually depicted or included in the written text, it was identified as a literal response. In other words, responses were coded as literal if a student could point directly to the written text or visual image to which she or
he was referring. Responses were coded as interpretive if the comments referred to phenomena not directly stated in the written text or depicted in the visual images. These responses were considered connotative (Barthes, 1977) responses, an interpretation layered upon a denotative or literal aspect of the picturebook. Literal responses (denotative) comprised 35% of the data corpus, and interpretive (connotative) responses comprised 65%.

Each response was further analyzed across the perceptual, structural or ideological perspectives associated with the analytical framework constructed through previous research (Serafini, 2010). The data initially identified as literal responses was included in the category of the perceptual perspective. The data initially identified as interpretive was further categorized into the structural perspective, approximately 57% of the original data set, and the ideological perspective, approximately 8% of the original data set. The responses identified with the structural perspective included naming an element of visual grammar or structure, for example salience, compositional or framing devices (Kress and van Leeuwen, 1996), while the responses associated with the ideological perspective included thematic interpretations of the book as a complete entity, or ideological interpretations referencing visual and textual elements in a particular page opening.

During the read aloud sessions, each discussion began with the question, “What do you notice?” The students shared what they noticed in one of two ways. First, noticing was articulated by actually using the words “I notice.” Students would say, “In the illustration, I noticed…,” or “On the jacket cover I noticed….” Second, students’ noticings were not directly articulated but inferred by the researchers from their comments and responses. When a student said, “Henry is looking directly at us,” it was inferred that the reader was attending to the character named Henry looking directly at the viewer.

Responses coded within the structural perspective included comments that referred to the analysis of visual images and design elements. Using terms presented in the lessons associated with the unit of study on historical fiction, students discussed such visual devices as framing, demand and offer, composition, and salience. Students further analyzed the visual images and design elements within any given page spread using elements associated with the structural
perspective. In the following example, when discussing *Henry’s Freedom Box* (Levine, 2007), students attended to the trees and colors Kadir Nelson used to create the various settings contained in the book.

**Craig:** The color of the tree. I think it’s an attention getting compared to words because if you look at the trees in the background all the rest is faded.

**Researcher:** And our eyes are drawn there.

**Nick:** I was gonna say that the yellow on the trees could mean caution because they have to be careful because they [slaves] could be separated easily.

These responses indicated an interpretive process that extended beyond the recall and declaration of literal visual and textual elements. These responses suggested students were moving from what was included in the text and image to what these things might mean within the context of the story itself.

Responses coded within the ideological perspective went beyond the perceptual and structural perspectives and helped students to attend to the socio-cultural and historical contexts of the stories presented. Students made broad historical connections to understand an historic era or figure, or related to particular individual characters and the conditions of these characters. For example, when discussing *Home of the Brave* (Say, 2002), students struggled to get past how the character traveled back in time. Numerous conversational turns were spent speculating whether the character was dreaming or in a time travel sequence. In a subsequent reading of this text, students made historical connections as evident in the following responses:

**Kali:** I think the reason it shows an Indian Reservation is so it could show you how the government is separating people.

**Kyle:** Allen Say might have tried to show that the Native Americans were also taken from their home.

It was evident in the data that students used the literal or denotative qualities of the visual images and multimodal elements to move into interpretive and ideological perspectives.
Results

The results of the data analysis suggested students focused on the perceptual perspective to initiate their interpretive processes and offered literal responses before transitioning across structural and ideological perspectives. The analysis of students’ responses suggested readers initially focused on literal elements in the written narrative and visual images, many of which led to the use of structural and ideological perspectives. The responses offered by students ranged across the three analytical perspectives, with each perspective providing support for students’ further interpretations. The discussions that occurred during each interactive read aloud session were influenced by: 1) readers’ consideration of design elements as semiotic resources; 2) time to progress from literal perceptions to interpretations; and 3) revisiting students’ initial noticings through discussion.

Considering Visual Design Elements as Semiotic Resources

In creating historical fiction picturebooks, illustrators, authors and publishers include an assortment of textual and visual design elements that offer meaning potentials for the reader. These elements of historical fiction picturebooks serve as semiotic resources (Kress, 2010) that provide opportunities for creators and readers to represent and construct meanings across visual and textual elements. Creators of historical fiction picturebooks have limited space to deliver a complex historical narrative and often rely on visual images and design elements in both the story proper and the peritext to extend the textual narrative and offer the reader various historical motifs and symbolic meaning potentials (Authors, 2011). Rather than seeing these elements as simply graphic designs, readers considered them meaningful and therefore signs to be interpreted (Fish, 1980).

In the following vignette, students made connections across the written narrative and visual design elements to interpret a particular image within the picturebook Angel Girl (Freidman, 2007). Students discussed the meaning potentials of a particular visual image presented in the story and how this image compared to a similar image on the cover. Their responses began with attention to the visual and textual elements depicted in the picturebook before progressing to structural and ideological considerations. The role of the teacher was to initiate the interpretive
process by suggesting literal elements could be interpreted and offered meaning potentials beyond their literal details.

**Denise:** That’s the same picture from the front.
**Braden:** There’s no tear here though.
**Ellen:** I can see a tear there, but I don’t see a tear on the front.
**Researcher:** So what do you think? Why the difference?
**Brittany:** Maybe she’s like happy and sad because she helped him live but then she’s sad because she could’ve died.
**Researcher:** It’s kind of emotional.
**Samantha:** I think that maybe she’s happy because she fed him and stuff, but at the same time, she’s sad because they’re free, and she might not get to see him ever again, and she’s sad that others died of starvation.

In this vignette, students made connections between the cover image and an image found in the book. During these discussions, students constructed interpretations focusing on the possible emotions of the central character. Using the image itself as a basis for further interpretation, students drew upon the structural perspective to infer meaning potentials offered in the literal image. Student responses suggested the image of *Angel Girl* was meaningful beyond its literal qualities and related to specific events in the written narrative. In particular, the cover image and the changes perceived in the visual image found later in the text served as semiotic resources offering potential meanings about the emotional state of the central character in the story.

### Time to Progress from Perceptions to Interpretations

What became apparent during data analysis was an increase in students’ attention to the structural and ideological perspectives as they revisited the picturebooks on multiple occasions. Initial responses were heavily weighted toward the perceptual perspective as students dealt with literal elements in the visual narrative. It became evident that students needed more time and support with each of these complex picturebooks to move from literal meanings to structural and ideological considerations. In subsequent readings of the same picturebook, students’ attention to ideological perspectives occurred earlier in the discussions due to their familiarity with the story and attention paid previously to various images and textual features.

In the following vignette, students focused on the cover of *Henry’s Freedom Box* (Levine, 2007) and reconsidered the images presented after having read the story for a second time. By paying close attention to the literal details in the visual images students used their perceptions as the foundation for subsequent structural and ideological interpretations.

**Stevie:** The bird, three birds on one side of the ear and three other birds out of another ear…
**Researcher:** Okay. And what do you notice about that?
**Stevie:** Freedom.
**Researcher:** Freedom? Why do you say freedom? Tell me a little more.
Stevie: Because in the story, he’s like a slave, and his master died and he wants to be freed, but he has to go to another master, so he, he got a box and shipped himself to freedom.

Researcher: Okay. Why might the birds symbolize freedom? You’ve all said that, quite a few of you.

Jaime: Because they’re free

Sara: They’re free and can do whatever they want

Researcher: Okay. Can anybody else add to the bird idea a little bit?

Sara: I think the birds represent freedom, and that since it looks dark because he’s outside, it doesn’t look like any buildings or farmers or anybody else but him is out there, and in the book, he’s like sitting on a box. But behind him, instead of all this wilderness, he’s behind a couple of bricks, a brick wall, it looks kind of dark in there, so I think he’s even more trapped than ever.

In this vignette, students’ revisiting of the images from Henry’s Freedom Box allowed them to consider ideological perspectives as the images were no longer seen as literal representations, rather students were concerned with the meaning potentials offered through the cover art and other visual images. The images were no longer considered literal denotations, but were infused with additional meanings or connotations suggested during the discussions across the range of literary discussions.

Revisiting Students’ Initial Noticings through Discussion

The researcher initiated each interactive read aloud and discussion by focusing students’ attention on what they noticed. This instructional move provided space for all students to share ideas about what they noticed, regardless of their individual reading abilities. Helping students learn to notice what is in an image and consider the meaning potentials inherent in these images grounds students’ interpretations in the perceptual perspective. After students shared what they noticed, the researcher often followed up by asking, “Can you tell me more about that?” or “What might that mean?” These questions offered a space for students to further expand on what was denoted in the visual images to consider possible interpretations of the visual images from structural and ideological perspectives.

In the following vignette, students built upon the ideas presented by other students as they discussed the possible symbolic meanings for various aspects of the visual images presented in Henry’s Freedom Box.

John: The tree in the background, I think that means anger.

Researcher: Anger? Whose anger is that representing, do you think?

John: The slaves.

Researcher: Keep going with that.

John: Because I think they’re angry because they’re being separated from their families.

Alisha: They’re getting separated from their families, and they’re all working harder.

Emily: Yeah. And in fall, too, the leaves change, and so I think they’re also trying to show that change is going to happen.
Anthony: I think the leaves symbolize the same things as the birds. Because the leaves, they’re blowing in the air, and so are the birds. This shows they’re free, and they’re torn away from their families also.

Researcher: Hmmm. That’s interesting to compare the leaves and the birds. What’s similar and what’s different about the leaves and the birds?

Anthony: They’re similar because they’re in the air, and in the air something can be free, and you can do what you want.

Researcher: Uh huh. And what about, is there a difference between the leaves and the birds?

Peyton: The birds, when they’re in the sky, they’re sometimes in a group. They’re like really not separated sometimes and on a tree, they’re in a group, but when fall comes, they all separate.

In the preceding vignette, students built upon each other’s ideas and expanded on their own interpretations in response to other students’ ideas. The comments made by the students and the questions asked by the researcher focused on responses offered previously by students. Sometimes referred to as uptake (Alexander, 2006; Myhill & Dunkin, 2005), students and teachers referred to what had previously been offered in order to build on the meaning potentials of the responses offered during literary discussions. As the study progressed, it became apparent that students felt safe to expand on each other’s ideas and to offer differing perspectives. Creating a safe environment for students to offer their ideas and comment respectfully on one another’s ideas is an important consideration that arose in this study and is worthy of further investigation.

Discussion

The data in this study suggested fifth graders were capable of constructing responses to historical fiction using the denotative elements of the visual images as a foundation to offer viable interpretations from the perceptual, structural, and ideological aspects of historical fiction picturebooks. Readers progressed back and forth among perceptual, structural, and ideological perspectives by calling attention to the design elements as semiotic resources, providing multiple opportunities to revisit picturebooks, and by revisiting and building on students’ initial interpretations. Analyzing the discussions along perceptual, structural, and ideological dimensions offered the researchers an analytical framework for considering the various comments that were generated in response to historical fiction picturebooks.

All three analytical perspectives were drawn upon during students’ construction of meaning in transactions with historical fiction picturebooks. Students’ interpretations began with what they noticed, or their literal perceptions, and progressed across structural and ideological perspectives. A shift in attention from the basic design elements, objects, and semiotic resources used in creating visual images and multimodal texts to the socio-cultural contexts of production and reception is necessary, but should not abandon the analytical approaches put forth by perceptual psychology (Arnheim, 1986; Seward Barry, 1997), visual grammar and semiotics (Kress & van Leeuwen, 1996; van Leeuwen & Jewitt, 2001), visual communications (Leeds-Hurwitz, 1993; Smith-Shank, 2004), and visual literacy (Duncum, 2004; Elkins, 2008). To ignore the perceptual and structural aspects of visual images and multimodal texts in favor of a socio-cultural
perspective would limit readers’ interpretive repertoire and forego relevant perspectives for making sense of images and multimodal texts.

Doonan (1993), referring to exemplifying symbols and the process of symbolization states, “Meanings do not come attached as they do to symbols that denote. You have to select your meaning from a variety of possibilities and apply those which best suit the image[s] and the context” (p. 15). Students attended to a variety of visual images presented in the selected picturebooks, and through their discussions constructed deeper understandings of the meaning potentials in these elements. Since symbolic connections provide no essential or single objectivist meaning (Sturken & Cartwright, 2001), students were invited throughout the discussions to consider the meaning potentials of various textual and visual elements and to construct viable interpretations in response to these connections. Kress and van Leeuwen (1996) assert that signs are motivated and are selected for particular purposes. As students attended to the symbolic nature of the visual images and historical symbols embedded in the peritext, they considered possible meaning potentials from the literal details and constructed multiple interpretations.

Providing time for students to revisit these historical fiction picturebooks across the unit of study allowed students to construct more complex responses during subsequent readings of particular picturebooks. Initial discussions focused on literal details using the perceptual perspective, which laid the foundation for more inferential responses. As students revisited these picturebooks, they were able to move beyond the literal details to consider the connotative or symbolic aspects of visual design elements and images. The teacher and researcher supported students’ interpretations as they asked them to consider what the visual design elements might signify and what connections were made among these elements and the textual narrative. Considering all aspects of these picturebooks deepened students’ responses and interpretations.

Understandings are enhanced through participation in literary discussions, and students benefit from this participation (Nystrand, 1997). Not only did students benefit from their participation in these discussions, but the researchers benefited from their participation, as students helped us to see these complex books from new perspectives. Allowing students the freedom to explore the visual and textual elements was important, but it was just as important to remain open to the meaning potentials offered by students, avoiding too much control of the topics discussed to allow a variety of interpretations to be realized.
References


