



# Kindergarten Children's Talk About Illustration Techniques in an Almost Wordless Picturebook

Sylvia Pantaleo<sup>1</sup>

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## Abstract

During a classroom-based study that featured wordless and almost wordless picturebooks, instruction and adult mediation communicated to Kindergarten children that elements of visual art, design, and layout are fundamental to meaning-making when transacting with this format of literature. The illustration techniques described by Ray (2010) were used as an analytical lens to analyze the transcripts from the small group interactive sessions of an almost wordless picturebook featured during the research. The descriptive analyses of the transcripts reveal the rich viewing and talking opportunities that can be afforded during children's transactions with almost wordless picturebooks when these selections of literature are situated as aesthetic objects, and when children and adult mediators understand and appreciate how meaning is individually and synergistically represented by elements of visual art, design and layout. The findings are discussed in relation to the literature reviewed, and the theoretical frameworks of social semiotics and sociocultural theory.

**Keywords** Almost wordless picturebooks · Kindergarten children · Discussion · Elements of visual art and design · Social semiotics · Classroom-based research

Researchers and practitioners have explored the development of children's awareness of and understanding about the individual and combined meaning-making potentials of written language, and elements of visual art, design, and layout in picturebooks. Notwithstanding the fundamental meaning-making synergy among the modes in picturebooks, some researchers, as described below, have focused specifically on developing student knowledge about the affordances and meaning potentials of elements of visual art and design in picturebook artwork. Indeed, with wordless picturebooks, readers must engage in "a productive dialogue" with the overall design, layout and artwork, without words to suggest an initial literal layer of meaning (Ramos & Ramos, 2011, p. 327). Although almost wordless picturebooks include some written text, such as words as part of a portrayed item (e.g., signs and labels) and/or "words that form part of the narrative" (Bosch, 2014, p. 74), the visual

representation of the narrative assumes the dominant communicative role.

Ray (2010) describes an approach to studying the artwork in picturebooks that simultaneously teaches students about the qualities of good writing. According to Ray (2010), "helping children focus on the decisions illustrators have made in picture books can greatly expand their potential for decisive, purposeful action when they do their own composing" (p. 43). Ray's (2010) approach involves teaching children to "read like writers in the context of illustration study" (p. vii). She identifies 50 illustration techniques to help teachers and students look at picturebook artwork with "new eyes" (Ray, 2010, p. 90), and provides a general description of each technique that is "untied from any specific illustration context" (p. 91), reinforcing that each technique could be found in any book. Ray's techniques feature elements of visual art and principles of art and design but these concepts are situated within general writing characteristics (e.g., crafting a plot, developing setting, revealing character, creating tone/mood).

Although during the study featured in this article no purposeful attention was directed to discussing the similarities between illustrators' "decisions about pictures" and writers' "decisions about words" (Ray, 2010, p. 15), the research

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✉ Sylvia Pantaleo  
pantaleo@uvic.ca

<sup>1</sup> Faculty of Education, Department of Curriculum and Instruction, University of Victoria, Box 1700 STN CSC, V8W 2Y2 Victoria, BC, Canada

objective of developing Kindergarten children's understanding about how and why elements of visual art and design are used to make meaning by creators of wordless and almost wordless picturebooks is philosophically and pedagogically aligned with Ray's stance about "teaching into illustrations" (p. 15) and studying "composition and decision-making" (p. 87) in picturebook artwork. Indeed, throughout the research, the stance of, and instruction and mediation by Mrs. P., the classroom teacher, and myself conveyed to the children that wordless and almost wordless picturebooks are aesthetic objects that reward slow looking (Tishman, 2018) and require engagement in significant semiotic work, and that elements of visual art, design and layout in the artwork are fundamental to meaning-making.

Using Ray's (2010) illustration techniques as an analytical lens, I present descriptive analyses of transcript excerpts from *Wolf in the Snow* (Cordell, 2017), one of the picturebooks discussed by the Kindergarten children during small group interactive sessions. I discuss how even though during the research the children received no instruction about specific illustration techniques, their discourse included attention to 26 techniques described by Ray. The findings reveal the rich viewing and talking opportunities afforded during transactions with almost wordless picturebooks when these selections of literature are situated as aesthetic objects, and when adult mediators understand and appreciate how the artwork, "the design and composition of the page, and the relationship of all these elements" achieve meaning (Considine et al., 1994, p. 29).

An important caveat – I am not advocating for practitioners to talk about or teach as many as possible of Ray's illustration techniques during one read-aloud session or lesson with a picturebook. A particular picturebook can be positioned as a mentor text that is explored on numerous occasions to study illustration techniques. Furthermore, if teachers choose to implement Ray's approach of using illustration study to teach qualities of good writing, it is critical they develop their own understanding of the techniques in order to thoughtfully develop an instructional sequence. Many of the techniques are interconnected and it seems logical to group them for pedagogical purposes.

A review of relevant literature, which features research conducted with preschool to Grade 4 students, is followed by an overview of the interrelated theoretical frameworks of the study: social semiotics and sociocultural theory. Details about the research context and methods are followed by descriptions of the analysis procedures and the findings, and a discussion of the findings.

## Instruction About Elements of Visual Art and Design in Picturebooks

Some researchers have explored student response about picturebook artwork *without* providing explicit instruction about elements of visual art and design to students (e.g., Acer & Gözen, 2020; Sipe, 2008). In other investigations, individuals have reported how intentionally designed pedagogy about elements of visual art and design affected students' experiences with and responses about picturebooks (e.g., Kesler et al., 2021; Villarreal et al., 2015). Irrespective of approach, researchers have identified teacher awareness and understanding of 'what' to look for in picturebook artwork as central to deepening students' experiences of and visual semiotic work with this format of literature.

Reporting on their findings from two studies with primary grades teachers and children, Martens et al. (2012/2013, 2018) described how instruction about various elements of visual art and principles of design affected children's knowledge and viewing of and thinking about the concepts under study, as well as students' use of "writing and art to tell their stories" (Martens et al., 2018, p. 672). I (Pantaleo, 2016, 2017) also worked with primary grade students during two classroom-based projects and explored how explicit pedagogy about elements of visual art and design affected students' perception, understanding and appreciation of the artwork in picturebooks, as well as their subsequent application of the same foci elements when they created their own multimodal texts. Analysis of Grades 2 and 3 students' written responses about two foci picturebooks revealed how students' observations, inferences and judgments reflected attention to the artists' craft, recognition of the meaning-making potentials of specific elements of visual art and design, and a growing understanding about the intentionality of design in images (Pantaleo, 2016, 2017).

## Meaning-Making of and with Wordless and Almost Wordless Picturebooks

When reading the artwork of all picturebooks, readers' generation of inferences and interpretation of meaning must be informed by consideration of the what, how and why of art, design and layout features. However, as detailed by Arizpe (2014), the complex and multiple demands of such visual semiotic work are amplified in wordless and almost wordless picturebooks.

Research findings have indicated that student engagement with wordless picturebooks can develop an array of student abilities including oral language, vocabulary, comprehension, sense of story, book handling, book conventions, writing, drama, and visual literacy (e.g., Arizpe,

2013, 2014; Collins, 2016; Crawford & Hade, 2000; Flint & Adams, 2018; Gibson, 2016; Lysaker et al., 2021; Pantaleo, 2007). Yet, some teachers and a “majority of parents are unsure about wordless picturebooks” (Arizpe, 2014, p. 102) – how to read the books with children and/or youth, the benefits of the format, and the appropriate audiences for the books. Furthermore, many researchers (e.g., Lysaker, 2019), teachers and parents/guardians have focused on children verbalizing ‘the story’ when transacting with wordless picturebooks (Arizpe, 2014). Although “the wordless picture narrative demands and encourages verbalization” this type of interaction with the text “is not the same as the requirement to mould it into a story” (Arizpe, 2014, p. 103). Indeed, researchers have reported on the nature and effects of various types of adult mediation with wordless picturebooks (e.g., Collins, 2016; Chaparro-Moreno et al., 2017; Grolig et al., 2020; Pantaleo, 2007). As noted by Arizpe (2014), during their mediation with wordless and almost wordless picturebooks, adults can position these selections of literature as “instrumental objects for developing literacy” or “aesthetic creations that can be read for pleasure” (p. 98) or a combination of such stances.

During the research with the Kindergarten children, I was interested in developing their understanding about how wordless and almost wordless “picturebooks work from an aesthetic and visual perspective” (Arizpe, 2014, p. 99). Below, the transcript excerpts reveal that my discourse and feedback fostered student language production and inferential thinking about Cordell’s almost wordless picturebook. Indeed, in the research reviewed above that featured the teaching of elements of visual art and design in picturebooks, engagement in inferencing was fundamental to students’ analysis, understanding and interpretations of the picturebook artwork. According to Kendeou et al. (2016), the ability to generate inferences, “is a *general skill* – that is, it is not specific to reading” (p. 64). Instructional approaches and activities that support the development of inference skills “in the context of language comprehension” (Kendeou et al., 2016, p. 64), such as discussing wordless and almost wordless picturebooks, are rich sites for developing students’ inferences abilities.

## Theoretical Frameworks – Social Semiotics and Sociocultural Theory

Picturebooks are multimodal ensembles. The term multimodality is defined and used differently within scholarly literature. I hold a “theory-based position” (Kress, 2015, p. 53), integrating the domain of multimodality “into the theoretical framework(s)” (p. 53) of the research: social semiotics and sociocultural theory. Consistent with matters of central

importance to those who adopt a social semiotics lens to multimodality, the research with the Kindergarten children explored questions about meaning, meaning-making, “the *resources* for making meaning,” the meaning-makers, agency, and the social context (Bezemer & Kress, 2016, p. 16).

Bezemer and Kress (2008) describe how potentials for learning include “the ensemble of semiotic features of a text or of an environment—objects, texts, people—that provides the ground for learning and in that way may shape what learning is and how it may take place” (p. 168). Throughout the study, the children’s learning was shaped by numerous factors, including the nature of the picturebooks. Each mode used for making meaning in picturebooks has distinct semiotic resources that have different affordances and constraints for meaning-making. Within the research classroom, the children, Mrs. P., the teacher, and I considered “the *shape* of texts” (Bezemer & Kress, 2008, p. 168), by examining how sign-makers of wordless and almost wordless picturebooks use an array of available semiotic resources to design their work to realize desired meanings.

Like social semiotics, a sociocultural perspective on learning and teaching highlights the socially situated and mediated nature of resources, meaning-makers and meaning-making. When embracing a sociocultural lens, researchers attend to the broader social system in which the learning is occurring, and consider how the cognitive development of individuals is affected by their agency, their social interactions with others, their participation in activities, and their use of particular cultural tools (Vygotsky, 1978). Within the social context of the research classroom, the students’ learning was affected by their agency, participation and discourse, and the ideological beliefs of Mrs. P. and myself about wordless and almost wordless picturebooks, and teaching and learning in general, as well as the nature of our instruction and social discourse surrounding the picturebooks.

## Contextualizing the Research

The research site, a Kindergarten – Grade 5 dual track English and French Immersion Public Elementary School, is located in a middle/upper income area in a city in western British Columbia, Canada. Of the approximately 460 students who attend the school, most are of European-Canadian heritage. The Kindergarten classroom of Mrs. P. was selected purposefully as an “information-rich” case for in-depth study (Patton, 2002).

When the research began, all of the students were 5 years of age. The ethnic heritage of the 6 girls and 11 boys is as follows: European-Canadian (12); Biracial (3 – South Asian/European-Canadian; Iranian/European-Canadian;

Indigenous/Filipino); Filipino (1); and Serbian (1). One student is a dual language learner and one student had a full time Educational Assistant. Informed consent was granted by all of the Kindergarten children's parents/guardians.

Mrs. P. explained the need for significant differentiation in literacy and numeracy to address the students' diverse levels. The provincial proficiency scale is an assessment tool used for describing students' "understanding of the concepts and competencies relevant to the expected learning" at four levels (Emerging, Developing, Proficient, Extending) (British Columbia Ministry of Education, n.d., p. 10). In mid-March, using the proficiency scale and her assessment data, Mrs. P. assessed 4 children as Emerging, 9 as Developing, and 4 as Proficient in Reading, and 4 children as Emerging and 13 as Developing in Writing.

From November 2021 to March 2022, I worked collaboratively with Mrs. P. as both a teacher and the researcher for approximately 60–70 min/day for 3–5 days per week. Of the 48 days of the research, 18 days occurred in November and December. Throughout the study, COVID-19 adversely affected student attendance and my access to the research site.

The specific research objectives focused on developing Kindergarten students' knowledge and understanding about how and why elements of visual art and design are used by creators of wordless and almost wordless picturebooks, and exploring students' application of learning about the concepts under study when they created their own print artwork and visual texts. The embedded and overarching goals of the research, to provide the children with opportunities to develop their visual meaning-making competences, their aesthetic understanding, and their communication and higher-order thinking skills, are evident in the descriptions of the research procedures.

## Elements of Visual Art and Design

Mrs. P. and I delivered intentionally designed pedagogy on a selection of elements of visual art and design. The foci elements and processes taught and emphasized throughout the study addressed several learning standards in the Kindergarten *Arts Education* provincial curriculum (British Columbia Ministry of Education, 2016). A few key aspects of the instruction are described below.

Throughout the research, the children identified and discussed different concepts and features associated with each of the five focus elements under study (i.e., color, line, visual point of view, framing, and visual perspective) in selected images from sources such as picturebooks, photographs, replicas of artwork, and the Internet. With respect to color, instructional emphasis was devoted to developing

student understanding about specific concepts and terminology that were referred to throughout the research (i.e., primary, secondary, complementary, value, shade, and tint). Using real life and picturebook artwork examples, Mrs. P. and I engaged the students in conversations about potential symbolic meanings of colors. For the element of line, the children were introduced to vocabulary to describe different types of lines. With guidance and using concrete examples, the children considered possible meanings associated with the use of specific kinds of lines. The what, why and how of examples of implied line were discussed through examples of physical actions and picturebook artwork. The children were introduced to terms to describe various visual points of view (e.g., front, back, side, worm's eye, bird's eye, close-up). Mrs. P. and I talked with the children about the potential meanings of different visual points of view used by picturebook artists or photographers or film directors. For the design element of framing, the children considered different types of frames (e.g., lines, borders, colors, objects) and the effect or possible intention of framing (e.g., focus, inclusion, exclusion, organization, enhancement of appearance). For visual perspective, the children were introduced to the concepts of two-dimensionality and three-dimensionality, and to various techniques to make two-dimensional art appear three-dimensional, thereby creating the sense of space.

The students also engaged in multiple experiential activities that afforded them with opportunities to concretely explore the focus elements of visual art and design. Importantly, the foci concepts were constantly reviewed beyond the core lessons. The opportunities provided for student talk during small group and whole class discussions were essential to each student's construction of knowledge about the concepts under study.

## Interactive Picturebook Sessions

Student introduction to terminology for some peritextual features (e.g., dust jacket, endpages) and layout characteristics (e.g., double-page spread, full bleed) occurred primarily during the instruction of the focus elements of visual art and design. However, during both whole class read-aloud sessions and the small group interactive picturebook sessions, the peritextual and layout features were reviewed with the children.

Subsequent to the pedagogy on the elements of visual art and design, I began the interactive picturebook sessions. The six almost wordless picturebooks were chosen for several reasons including the range of artwork styles, the nature and complexity of the plot, and the appeal to 5-year-old children. The focus picturebooks were discussed in the

following order: *Float* (Miyares, 2015), *Nope! A Tale of First Flight* (Sheneman, 2017), *Tuesday* (Wiesner, 1991), *Draw!* (Colón, 2014), *Wolf in the Snow* (Cordell, 2017) and *Polo and the Dragon* (Faller, 2003). The small group picturebook discussion sessions occurred at a table outside of the classroom. In general, the children were organized into triads, although occasionally student absences resulted in dyads. The duration of each small group discussion was affected by the membership of the group, which varied across the study, the nature of the focus picturebook, as well as other contextual factors. Generally, the picturebook discussions were 25–30 min in length.

No predetermined list of questions or elements for discussion was generated for each picturebook. Although I identified aspects to talk about in each book, each interactive session varied with respect to the nature and extent particular elements of visual art and design were discussed by the children and myself. The Kindergarten students were not instructed to ‘tell the story’ of the picturebooks. During the sessions, the students were encouraged and/or prompted to: talk about their thoughts and feelings about narrative events and characters; provide evidence in the artwork and/or layout that supported their thinking; imagine the thoughts, feelings and goals of characters; generate ideas to fill in gaps; contemplate future narrative events; and reflect on their speculations. As well, the students were guided to consider the effects and purposes of the elements of visual art and design they had learned about during the research.

I acknowledge how the content of the small group discussions was affected by my ideological and pedagogical beliefs, as well as my research purposes. In addition to modeling a variety of cognitive and oral discourse skills fundamental to meaning-making with multimodal texts, I engaged in the following discourse moves with the children: asked a range of questions, nurtured emerging evidentiary reasoning abilities, prompted for the use of ‘words’ to communicate ideas (vs using only gestures and facial expressions), revoiced ideas, furthered contributions by expanding on input, redirected attention to the picturebook, offered feedback, encouraged student engagement in slow looking, and directed attention to particular semiotic resources of elements of visual art and design in the picturebook artwork.

## Visual Compositions

Following the small group discussion sessions of all but the last focus picturebook, the children participated in a whole class visual arts activity related to the selection of literature. The children also completed a culminating application of learning assignment (Pantaleo, *in press*). Due to the focus

of this article, no further information is provided about the students’ visual art composition work.

## Illustration Techniques Talked About During Discussions of *Wolf in the Snow*

To reiterate, during the case study research, student attention was not directed to making connections between illustration techniques and “important qualities of good writing” (Ray, 2010, p. 18). However, the research objective of developing the children’s understanding about how and why elements of visual art and design are used by creators of wordless and almost wordless picturebooks was consistent with Ray’s approach to teaching about the meaningfulness of picturebook artwork. Therefore, I explored to what extent, if any, the children’s discourse during small group discussions included attention to the illustration techniques described by Ray.

*Wolf in the Snow*, the 2018 Randolph Caldecott Medal Award recipient, was the fifth book discussed by the students. The average length of the six small group discussions was 32:26 min (range from 27:02 to 39:17). In three groups, I ‘hurried’ the conversation near the end because of the duration the children had been talking about the book and their diminishing attention spans.

A table featuring Ray’s (2010) 50 illustration techniques was generated and used to identify those techniques evident in every small group discussion of *Wolf in the Snow*. Although many of Ray’s illustration techniques are evident in Cordell’s artwork, some of these were talked about by only a few groups of children. For example, three groups talked about how the color of the characters’ coats conveyed information about their identity (technique #14). Three separate analyses of each transcript revealed 26 illustration techniques were discussed by each group of children (see Table 1). The nature of the discourse about each of the 26 techniques varied in explicitness and duration across the groups. Indeed, some of the illustration techniques were talked about briefly during the sessions but as noted previously, the techniques were not the focus of the research and the intersection of several contextual factors affected the duration of the small group discussions.

Below, a representative sample of transcript excerpts from the interactive picturebook sessions of *Wolf in the Snow* conveys the nature of the discourse about the 26 illustration techniques (Ray, 2010) evident during the discussions (all student names are pseudonyms). The excerpts and descriptive analyses are presented according to the pagination sequence of the book because they are woven into the narrative synopsis of Cordell’s picturebook. The numeral of each illustration technique, as listed by Ray, appears in

**Table 1** Illustration techniques referred to during the interactive picturebook sessions of *Wolf in the Snow*

Name of Illustration Technique	Description of Illustration Technique
#1 Crafting with Distance Perspective	The size of an object or person is affected by how far away or close it appears to readers.
#2 Crafting with Positioning Perspective	Artists' use of visual points of view position readers to view a scene in a particular way.
#4 Showing Two Sides of a Physical Space	The meaningfulness of "showing two sides of a physical space" (Ray, 2010, p. 108).
#5 Using Scenes to Show Different Actions	The featuring of small separate scenes can be included to show: different actions or one action at different times; events happening over time; and/or movement through different locations or places and consequently through time.
#6 Using Scenes to Capture the Passage of Time	
#7 Using Scenes to Show Movement Through Different Spaces	
#13 Crafting Details of Expression and Gesture	Characters' gestures, expressions and postures are intentionally designed to convey meaning.
#15 Revealing Character with Background Details	Characters and their lives can be shown through details in surrounding scenes/background.
#16 Crafting Details from the World of Nature	The inclusion of details of nature brings authenticity to scenes/settings.
#17 Showing the Effects of Weather on a Scene	Realism is enhanced by details of a weather event or its effects. Weather details can set the mood or foreshadow events.
#18 Crafting Details from the World of People	The inclusion of details from the human world enhances the realism of settings/scenes.
#20 Creating the Illusion of Motion with Detail	Drawing lines around an action or repeating an action can create the illusion of motion.
#21 Creating the Illusion of Sound with Details	Showing open mouths or an action that would produce sound or a physical impact can create the illusion of sound.
#25 Building Meaning from One Idea to the Next	Details in the artwork connect the narrative and suggest the content of subsequent illustrations.
#26 Crafting an Ending that Returns to the Lead	Repeating of beginning artwork at end but with some meaningful changes.
#30 Using Details of Light to Show the Passage of Time	Changing light, natural and artificial, in pictures can show events across time.
#31 Using Details of Weather to Show the Passage of Time	Changes in interior or exterior landscapes caused by weather can show elapsing of time.
#32 Crafting Tone with Color	Purposefulness of color choices to symbolize meaning, to influence a book's tone, and to affect readers' emotional responses. Consideration of medium used to create colors.
#33 Shifting Tone by Shifting Color	The size of objects and characters and their relative size to one another affects tone.
#35 Crafting Tone with Size	Physical distance between figures is intentional and can convey emotional relationships.
#36 Crafting Tone with Physical Space	Intentionality of location and direction of placement of words on page impacts meaning and aesthetics. Make connections "between what the words say and the shape of their design" (Ray, 2010, p. 232). Purposeful design of color and size of print conveys meaning.
#40 Designing the Placement of Words and Pictures	Design of appearance of letters and words is intentionally created for meaningful effect.
#41 Using Word Layout to Convey Meaning	Covers serve a variety of purposes and multiple design options are available to creators.
#42 Using Size and Color to Convey Meaning	Design choices about the endpages (e.g., color, illustrations) are often significant in meaning.
#43 Designing Print to Convey Meaning	
#44 Designing a Cover	
#45 Designing End Pages to Convey Meaning	

parentheses. Finally, the discussions of the illustration techniques evident in the excerpts are not exhaustive.

## Descriptive Analysis of Transcript Excerpts of *Wolf in the Snow*

### Peritextual Elements

The front of the dust jacket or case cover of *Wolf in the Snow* features the title of book, in large black capital letters, and an image of a girl in a red jacket on a snowy hill, crouching and extending her arms toward a wolf pup. A lone howling wolf, positioned on another snowy hill, is portrayed on the back of the dust jacket. The artwork in the five similarly designed panels on both the front and back cover or case provide readers with information about the characters and the setting, and foreshadow the interaction of the humans and wolves. The front and back endpapers are plain and pastel baby blue in color. Numerous symbolic meanings associated with the color of blue are pertinent to the narrative (e.g., harmony, trustworthy, loyalty, coldness). I acknowledge more time could have been devoted to talking about the peritextual elements.

### Excerpt #1 – The Dust Jacket

Zantina: The front cover has the person trying to get the wolf. (Zantina is talking about the front of the dust jacket and not the cover.)

S: Ah, what's she doing here with her arms?

Zantina: She's trying to ... she's telling the wolf to come on to her.

S: Yes. So, they're looking at each other, right?

Esabella: Wolfie.

S: Wolfie. Does he look like a grown-up wolf or a little wolf?

Esabella: Little wolf.

S: And then what about this wolf on the back of the dust jacket?

Zantina and Esabella: That's a big wolf.

S: What's the big wolf doing over here?

Zantina and Anya: Howling.

S: What makes you think she is howling?

Anya: Look. Her head and mouth are up.

Esabella: She's howling to her baby.

S: You think so, Esabella? Do you think that this wolf [on front dust jacket] is the baby of this one [on back dust jacket]?

Esabella: Yeah.

Zantina: Yeah.

Ray's (2010) list of illustration techniques does not include the dust jacket as an element of "layout and design" (p. 226). However, this peritextual feature conveys important ideas and content, and is indeed intentionally designed by illustrators (and/or publishers). Therefore, I considered the children's discussion of the dust jacket artwork as an example of the purposeful design of a cover (#44). Zantina describes the character's gesture toward the wolf pup and infers the meaningfulness of this action (#13). The children note the size difference between the two wolves featured on the dust jacket. Esabella interprets this relative size difference (#35) to indicate a specific relationship between the wolves – an affiliation that creates a certain tone (i.e., evokes a particular emotional response). Zantina and Anya infer the larger wolf to be howling and support their opinion by noting the details of the wolf's posture (#21). According to Ray (2010), showing open mouths is one way artists can create "the illusion of sound with details" (p. 160).

### Excerpt #2 – Front and Back Cover

S: What do we have on the cover?

Jayco: She went for a walk.

S: Do you want to talk about the girl first or the wolves?

Felix: Wolves.

S: Okay, let's look at the wolves on the back cover. What do you notice here? We've got 1, 2, 3, 4, 5 frames.

Jayco: (points to each frame as he talks) I think this was the first one. They were running in packs and then and they howled and then the mother and pup both sat. And then they licked and then the pack is just sitting.

S: Good describing, Jayco! What do you notice here in the long panel where the mother and pup are sitting? What do you see here in the background? What is this? (I point to the smoke.)

Jayco: Um, a house.

S: Right. Okay and then what's this coming up here?

Felix and Jayco: Um, smoke.

S: Smoke. That's right. So, they're seeing the human's house. So, on the back cover we see the wolf pack as you said, Jayco, and then who do we meet on the front cover?

Jayco: Humans.

Felix: The girl and her mom and her dad and her dog.

The design of both the front and back cover (#44) features small separate scenes of the humans and the wolves that "show different actions" (Ray, 2010, p. 110) (#5), "capture what happens over time" (p. 113) (#6), and "show movement through different places" (p. 116) (#7). Jayco's sequential description of each panel reveals his understanding of these aspects. When Jayco points to the second panel, he uses the image of the wolves with open mouths and heads pointing upwards to inform his conjecture that the wolves

are howling (#21). Furthermore, the details in each separate scene reveal information about the wolf characters and their lives (#15), as described by Jayco.

### Excerpt #3a and #3b – Endpages

In general, the colors of, and designs and/or images on picturebook endpages or endpapers are significant in meaning with respect to suggesting information about the plot, characters, setting, themes and/or mood. In the two excerpts below, one group of students talks about the significance of the color of the endpages at the beginning of the book and in the second excerpt, I ask another group of children to revisit the meaningfulness of the endpages at the end of the picturebook discussion.

S: All right, so these are ....

Emeree: Endpages.

S: Good for you, Emeree. These are the front endpages and these are ....

Amelia: Back endpages.

S: What can blue mean?

All: Cold.

S: Right, blue can mean cold. So, think about how that will fit with the story.

Bailee: Because it's snowing.

Emeree: Because there's snow here on the cover and here (pointing to another location).

S: Right. Remember blue can also mean sad. So, let's see if anybody in this book is sad.

S: Let's go back to the endpages. Remember we said that blue can mean cold. Was it cold in this book?

Both: Yes.

Mason: There was snow and a blizzard.

S: Right. And you said blue can also mean sad. Was anybody sad? Who was sad?

Hugo: The baby wolf.

S: Yes. Who else was sad?

Mason: The kid.

S: Yes. I bet the mom and dad were sad too when the girl didn't come home. Just like the wolves would be sad when their baby was lost.

As indicated previously, during the study, Mrs. P. and I discussed potential symbolic meanings of colors with the children. Ray (2010) describes how artists' intentional use of color can influence a book's tone (#32) and affect reader emotional response. The children note how blue can represent coldness and sadness and provide evidence from the picturebook to support their inferences about the significance of the meanings of the color of the endpages (#32 and #45).

### Frontispieces

*Wolf in the Snow* has five frontispieces, an illustration on the page that faces or immediately precedes the title page of a book. On the first frontispiece, readers are positioned as looking through a window and viewing the girl, her dog and parents in their house on a snowy morning. The next double-page spread shows the girl, bundled in her red hooded coat, leaving her home and dog, and walking to her destination. Each of the next two frontispieces features a viewing experience similar to one created by looking through binoculars. However, each spherical frame features a different image: the girl is in the verso frame (left-hand side of the opening) and the wolf pack is in the recto frame (right-hand side of the opening).

### Excerpts #4 – First, Second and Third Frontispiece

S: So, we're outside and we're looking in ....

Amelia: Their window.

S: That's right and we see ....

Amelia: The family.

Emeree: It looks like that's a wolf (points to statue on fireplace mantelpiece).

S: It does. Look up here on the mantelpiece of the fireplace. Doesn't it look like a wolf?

All: Yeah.

S: So, this is in the morning. And we see her mom and dad and the girl. Do you notice anything about framing? What are the mom and dad doing?

Amelia: Drinking coffee.

Emeree: Drinking hot chocolate.

S: Right, they're drinking something. Also, they're framing ....

Bailee: The girl.

S: Okay. And why would that be important or what might that show us?

Amelia: That they're watching over their daughter.

S: That they're watching over the daughter. That's right Amelia. They're protecting her. Okay. (Turn to second and third frontispiece.)

Bailee: Well what does that even say?

S: Well look where the words are on the page. They're coming from ....

Emeree: The dog.

S: Right, so it says, "Bark! Bark! Bark!" And what do you notice happens to the word? To the three words that say bark? What happens to them?

Bailee: They get bigger.

S: Okay. So, what does that mean if they get bigger?



Amelia: He's roughing louder, louder, louder. (Points to each word as she says "louder", each time progressively louder.)

Often on the other side of a physical space (#4), artists include details that are meaningful to the unfolding main scene or the overall narrative. When looking inside the family's window, the children identify the characters and some details from their world (#18) (e.g., drinking a beverage). Emeree notices a significant foreshadowing detail in the human's physical space – the wolf statue on the mantelpiece. When asked, Amelia shares her interpretation of the meaning and emotional tone created by the parents framing the girl in the physical space (#36). At the end of the transcript, the children show awareness of two other inter-related illustration techniques: "using word layout to convey meaning" (Ray, 2010, p. 233) (#41), and using size of print "to convey meaning" (p. 235) (#42). As indicated by their comments, the students recognize the meaningfulness of the placement and size of each "bark" on the double-page spread frontispiece.

### Openings 1–4

The imprint page and the title page follow the five frontispieces. On the first opening of the picturebook, snow continues to fall as the girl departs from school. Opening 2 reveals the wolf pack, moving right to left on the double-page spread. Cordell's artwork on opening 3 communicates an intensification of the falling snow as well as the blowing of strong winds as the girl journeys home. On opening 4, the wolf pack is positioned in the top left-hand corner of the verso but on the recto, the wolf pup is alone in the snowstorm.

### Excerpt #5 – Opening 1

S: Okay, so where did she go?

Jayco and Felix: School.

S: She went to school. And now what's she doing?

Felix: Going back home.

Jayco: And the dog must be happy.

S: That she'll be coming home?

Jayco: Yeah.

S: For sure. And who do you think these colored things are? What are these?

Jayco: The other children.

S: Okay, but why is she so big? And then look at this one (points to one of children on the verso).

Felix: It's cause she's far away.

Jayco: She's far away from the girl.

S: Right, so she is smaller and we don't see the details on these children.

The children's discourse in this excerpt is typical of every group's conversations about the distance perspective (#1) created by the size differential of the girl and her peers on opening 1. Reflecting Ray's (2010) opinion that educators need to help children realize that size of object or person "matters to how close or far away it seems to the reader" (p. 100), during the research, as described previously, the children received instruction about techniques that can be used to create the illusion of depth and distance (three-dimensionality) in two-dimensional images.

### Excerpt #6 – Openings 3 and 4

Zantina: It's a blizzard.

Esabella: (Making noises like wind.)

S: What's going on?

Esabella: She's cold.

S: How do you know she's cold?

Esabella: Because of her face [referring to the expression on her face].

S: And why did you say it looks like a blizzard, Zantina?

Zantina: Because there's a lot of snow going on.

S: And look at the trees, Anya.

Zantina: It's like they're going (makes gestures with her hands).

S: What are the trees doing?

Zantina: They're going sideways.

S: Why are the trees going sideways?

Esabella: Because there's so much snow.

Anya: Because the wind is going so strong.

S: Oh, the wind is so strong. Like the wind this morning was strong and also ....

Zantina: It's a blizzard.

S: That's a great word. (turn to opening 4)

Zantina: It's still a blizzard.

S: Okay, it's still a blizzard! So, she's out in the blizzard.

And who else is in the blizzard?

Zantina: The wolf.

Esabella: Oh, oh.

S: Why are you saying, "Oh, oh."?

Esabella: Because of the baby wolf.

S: What's happening to him on the recto?

Anya: He's so far away.

Esabella: This baby wolf, he's going to get lost.

S: So, on the verso the parents and the other adult wolves are walking away and he's all by himself on the recto and look at him. He can't keep up and Esabella thinks he's going to get lost. And it's snowing, snowing, snowing, snowing.

Zantina: It's a blizzard!

In this transcript extract, the children note many illustration techniques and talk about their significance to the

unfolding narrative. The children convey that the girl's facial expressions (#13) communicate meaning, and that details in the background (#15) provide information about her life at this point in the narrative. The children talk about examples of details from nature (#16) and "the effects of weather on a scene" (Ray, 2010, p. 149) (#17) (i.e., the snow blizzard, the wind and the bending trees). On opening 4, the children's observation about and emotional response to the distance between the wolf pup and the pack reveal awareness of how tone can be impacted by manipulating "the physical distance between animals, people, and objects" (Ray, 2010, p. 212) (#36). Two examples that show student understanding of how details in illustrations connect narrative illustrations across pages and openings, and suggest or intimate "what might be pictured in later illustrations" (Ray, 2010, p. 176) (#25) are Zantina's comment about the continuation of the blizzard from opening 3 to opening 4, and Esabella's prediction of the wolf pup's imminent circumstances. Awareness of how the weather details (#17) on this double-page spread set the "mood or feeling" (Ray, 2010, p. 150) and foreshadow events in the text are conveyed by the children's discourse.

### Openings 5–11

Opening 5 features the same circular framing layout as on the fourth and fifth frontispieces. Readers are positioned from a bird's eye view looking at the girl on the verso and at the wolf pup on the recto; both characters struggle to move forward in the winter storm. On opening 6, the girl and wolf pup move toward each other, each propelled by cold winds. The verso of opening 7 is nearly filled with an image of the girl, crouched with arms extended to the wolf pup, who is featured on the recto. The characters are surrounded by white space – no forest, no snow – time seems to be stopped at this pivotal moment in the narrative. On the verso of opening 8, three horizontal action sequences depict the pup sinking in the deep snow and subsequently being picked up by the girl. On the recto, the wolves' howls signal the direction for the girl to proceed to return the pup to its pack. Carrying the wolf pup, the girl continues her journey on openings 9 and 10. Her numerous footprints represent the distance of her travels as she climbs snowy hills, traverses a creek, confronts a raccoon and encounters a screech owl. On opening 11, the darkening sky communicates the passage of time but the typographical appearance of the word 'howl' conveys the girl is nearing her destination.

### Excerpt #7 – Opening 6

S: What's behind each one of the characters? What do you see?

Zdenko: That it's the exact same.

S: It is the exact same.

Zdenko: Yeah and the trees are framing both of them.

S: They are! Look at that. Zdenko, you're so great at framing. The trees are framing both of them.

Torin: And these (points to the lines) tell us that is very windy out.

S: Torin, one more time. Great thinking.

Torin: The lines tell us that it is very windy.

S: Great. Why do you think they're blue lines?

Jashik: Because it's windy.

S: And what else?

Jashik and Zdenko: And snowy.

S: And what's the temperature like?

Zdenko: It's freezing.

S: It's very cold, right? It's very cold. And remember when we talked about the endpages and we said that blue can mean cold?

All: Yeah.

In the above excerpt, the children comment on two illustrative techniques that are related in intention and effect: "crafting details from the world of nature" (Ray, 2010, p. 146) (#16) and "showing the effects of weather on a scene" (p. 149) (#17). The presence of details of nature (snow, trees and wind) "lends authenticity to the scene" (Ray, 2010, p. 146). Similarly, Ray describes how the inclusion of details about the impact of weather events on the landscape can enhance realism, as well as establish feeling and ambiance. The children note the freezing temperature, which is a fundamental factor to creating the atmosphere on this double-page spread. Torin identifies how Cordell created the illusion of moving wind with lines (#20) and when prompted, the children recognize the symbolic meaning of the color of the lines (#32) and how it affects the tone.

### Excerpt #8 – Recto Opening 8

S: So, let's look at the recto. This is howl (I point to the word) and it goes like this (I howl and make it sound the way it appears on the page).

Jashik: Why does it go this way? (He is referring to the spelling of the word.)

S: Why do you think it goes that way or looks that way?

Jashik: He howls and extends the oooo sound.

S: That's right. It's suppose to sound like that. Howl actually has only four letters H, O, W and L. But it has more letters here because it's making the sound longer (Torin howls again). Now, Zdenko pointed to this question mark above the girl's head. What does that mean do you think?

Zdenko: That she doesn't know where she's going.

S: Maybe. What else?

Zdenko: And also, I said that the trees are framing her.

S: Yes, they are.

Torin: And also, she doesn't know what's up there [in the hills] and she wonders and she might think that's his family and take the wolf pup back.

S: Okay, let's see ....

Fundamental to wordless picturebooks and almost wordless picturebooks is artists' "building [of] meaning from one idea to the next" (Ray, 2010, p. 176) (#25). In the above excerpt, the children use details in the artwork to suggest or intimate "what might be pictured in later illustrations" (Ray, 2010, p. 176) – the girl's journey to return to the wolf pup to its pack. The children's discourse reveals their awareness of the following two connected illustration techniques: "using word layout to convey meaning" (Ray, 2010, p. 233) (#41), and "designing print to convey meaning" (p. 237) (#43). The word *howl*, placed above the hills where the girl needs to travel to, is spelled purposefully by Cordell to represent a particular sound. As explained by Torin, the placement of the question mark above the girl's head conveys a specific meaning and foreshadows her future actions.

### Excerpt #9 – Opening 9

S: So, what's she doing on this opening?

Judson: She's walking to the howl.

S: She's walking to the howl. That's a great way to describe it, Judson! Has she walked a long way?

Jari: Yeah, look at how many footprints.

S: How are we able to see her footprints?

Judson: Because it's not snowing anymore.

S: Right. And to be able to see her footprints, what kind of point of view is this? Where are we to be able to see her footprints?

Judson: We are ... we're above.

S: That's right. So, what kind of point of view is that?

Judson and Jari: A bird's eye view.

At the beginning of this brief excerpt, the significance of the placement of the word of "howl" (#40) in the top right-hand corner on the recto is communicated by Judson's comment that the girl is "walking to the howl." The students show awareness of how changes in the weather (#17), in this case the stoppage of snow, affects landscape details (i.e., being able to see the girl's footprints) and simultaneously shows "the passage of time" (Ray, 2010, p. 192) (#31). Such detail showing the effect of a change in weather enhances the realism and contributes to the ambiance of the scene as the numerous footprints reveal the magnitude of the girl's journey. Furthermore, Judson and Jari recognize that Cordell's purposeful use of a bird's eye view (#2) enables readers to appreciate the distance the girl has walked across the snow-covered terrain.

### Excerpt #10 – Opening 10

S: Oh, look what she has to do first.

Jayco: Go up a big hill.

S: Go up a big hill and this says ....

Felix: Hooowwll.

S: And then what's she doing here?

Jayco: Going through a whole bunch of bushes. No, that's the water.

S: And what are these?

Jayco: Logs. She has to step on the logs.

S: Good guess but they're ....

Felix: Rocks.

S: Right. She has to step on the rocks.

Jayco: And that's kind of hard to do with a little dog.

S: For sure! And look ... why does she have her hand out like that?

Jayco: Because she's wobbly.

S: That's right. She's wobbly. You know when you don't have your balance?

Jayco: She's trying to keep her balance.

S: That's right. Well said, Jayco. Then who does she encounter? What's this?

Felix: A raccoon.

S: And he says ....

Felix: Growwll.

S: That's exactly what he says. So, what does she have out here?

Jayco: A stick.

S: Is she moving the stick?

Felix: Yeah.

S: How do you know?

Felix: Because of the lines.

S: Excellent. And so, does he look like he's very friendly?

Jayco: No, he looks like he's hungry!

The children note the sequence of the three individual scenes on opening 10 that chronologically depict the events the girl and wolf pup experience on their journey (#5 and #7). Details in the different vignettes reveal the varying locations the girl moves through over time (#6), and contribute to readers' understanding of her long and arduous trek and the nature of her character as she is committed (#15) to return the wolf pup to its pack. The children also explain the significance of: the girl's gestures (#13) (her extended hand, her brandishing of a stick), the expression on the raccoon's face (#13), and the lines drawn around the girl's stick (#20).

### Openings 12–21

Opening 12 features the girl holding the pup on the verso and the mother wolf on the recto. Cordell's circular framing design is repeated on opening 13: the wide-eyed girl holding

the howling wolf pup is on the verso, and the mother wolf, her yellow eyes wide open and intense, is on the recto. Similar to opening 8, the verso of opening 14 has three horizontal action sequences: the pup tries to walk in the deep snow, it sinks and its mother picks it up by the scruff of its neck. On the recto of opening 14, the girl's exhaustion is palpable as she falls to her knees in the snow. Like the artwork of opening 9, the girl's footprints convey her continued journey on opening 15.

The blue shade of the sky on opening 16 reveals the lateness of the day. Two shining lights above the trees and the sound effect of "Bark! Bark!" communicate the presence of searchers. However, the girl's energy is depleted and she collapses in the snow in a copse of trees. On opening 17, the wolf pack approaches the shivering girl while the searchlights and barks grow closer. On opening 18, the wolf pack surround the girl, the baby wolf licks her, and the wolves howl loudly, signaling the girl's location to the searchers. On the verso of opening 19, the girl is discovered by her mother and dog, and on the recto, the howling wolf pack on the hill is framed by the mother's dropped flashlight. The verso of opening 20 features the mother carrying her daughter. She and the dog run toward the father, who is shown on the recto shining his flashlight toward his wife and child. The image on the verso of the final opening replicates the first frontispiece as viewers look through the window of the family's house. Snow continues to fall as the three humans and dog snuggle together by the fire.

### Excerpt #11 – Opening 15

S: (Turns to opening 15) Oh, look at the sky!

Zantina: It's getting darker and darker.

S: So, from the very beginning when we had a very light blue (I turn back a few openings) and now we have ....

Zantina: A dark blue.

Anya: Because it's getting to be nighttime.

S: Yes, it is. So, we've got dark blue. Like black has been added to the blue.

Esabella: Danger.

Zantina: Danger's started.

Anya: Oh, oh.

Zantina: She's walking all the way back home and it might take one hour.

S: So, Esabella thinks there might be danger and Zantina said she's walking all the way back home.

The children note how the shifting color of the sky from previous openings, and hence the changing of light (the value of the blue), show the passage of time (#30). The students' discourse also reveals their perception of how Cordell's purposeful color choices symbolize meaning (#32) – the lateness of the day. Furthermore, Esabella expresses how the

shift to a darker shade of blue effects the tone of the narrative at this point in the story (#33).

### Excerpt #12 – Opening 21

As noted above, the image on the verso of the final opening replicates the first frontispiece as viewers once again look through a window of the family's house. However, some details about the physical space are different, as noted by Judson below.

S: And then what happens on the last opening?

Judson: It's like the other page [first frontispiece] ... except they're not drinking their tea and she's not petting the dog and her mom and dad are sitting on the rug.

S: So, it's like the very first frontispiece (I turn to it). This was in the morning, right? They are having their coffee or tea, she's getting ready to go to school. And then when is this [last opening]?

Judson: In the night.

S: Right. She's been gone all day ... all day. Look, they have a fire going in the fireplace.

Judson: There's their coats ....

Jari: They finally, they finally need some rest after their big trip.

S: They would need lots of rest being out in that snow.

Jari: Yeah.

S: Can you say anything about framing?

Judson and Jari: The window.

S: The window frame is framing the family.

Judson: And also the humans. The mom and dad and dog are framing her.

S: And why is that important?

Jari: Because they're making her warm because she was so cold in the snow.

S: And why else, Judson?

Judson: Because like, they're so glad to see her.

S: Oh, for sure! They're so happy they found her and she's safe because being out in that cold is very dangerous.

As well as recognizing the meaningfulness of "showing two sides of a physical space" (Ray, 2010, p. 108) (#4), the children note how details in the background of the scene provide information about the life and nature of the characters (#15). Inclusion of details from the human world enriches the realism of the setting (#18). The children note how Cordell crafts "an ending that returns to the lead" (Ray, 2010, p. 179) (#26) but identify some changes that have been "brought about from the meaning of the text" (p. 179). Judson infers that it is now "in the night" and the changing of details of light from the first frontispiece to the last opening show this passage of time (#30). Finally, the children note how the tone of the artwork is affected by the physical distance between the characters (#36). The proximity of the

characters to each other and Cordell's intentional framing of the girl by her parents, as stated by the children, can be interpreted as representing emotional closeness.

## Discussion

Acknowledging the various pragmatic constraints associated with the picturebook interactive sessions and the particularistic nature of case study research, both of which are limitations and realities of conducting classroom-based research, the discussion excerpts show the authentic nature of the discourse that featured attention to elements of visual art and design and illustration techniques, and the high-cognitive level of the Kindergarten children's thinking and discourse as they co-constructed a complex narrative. The use of Ray's (2010) illustration techniques as an analytical lens makes visible the multifaceted and rich nature of the discussions, and reveals that even though no instruction was devoted to the techniques, the children and I did talk about numerous illustration techniques in Cordell's picturebook. Overall, the nature of the discourse provides evidence of how naturally various illustration techniques in wordless and almost wordless picturebook could be discussed with and taught to children, ideally in concert with instruction about elements of visual art and design.

In accordance with beliefs associated with a social semiotics theoretical orientation, both the picturebook artists, the designers and producers of signs, and the children, the interpreters of signs, were recognized as sign-makers during the research. Reflecting Ray's (2010) emphasis on the intentionality of acts of composition, the nature of the classroom instruction and whole class and small group discourse communicated to the children that "text happens because someone makes it happen and decides it should be that way" (p. 43) for particular purposes. Similar to studies reviewed above (e.g., Kesler et al., 2021; Martens et al., 2012/2013, 2018; Pantaleo, 2016, 2017; Villarreal et al., 2015), during the research with the Kindergarten children, the picturebooks were featured as texts to develop student knowledge about the meaning affordances of particular semiotic resources and the purposeful design work by creators of picturebooks. Indeed, the students' discourse communicates an understanding of how elements of visual art and design are used purposefully by sign-makers to represent particular meanings to realize their interests.

As recognized by Lysaker (2019), perceiving and understanding "meanings in images and recasting them in oral language is complex work" (p. 19). Such semiotic work of remaking meaning across modes, referred to as transduction by Kress (2010), requires active student engagement in a productive and intellectually-challenging task. Consistent

with the tenets of social semiotics and sociocultural theory, I recognize the socially situated nature of the Kindergarten children's transduction work with the almost wordless picturebooks. The children's semiotic work was affected by the instruction about elements of visual art and design, by the nature of the literature selected for the research, and by my mediation during the interactive sessions.

Collins (2016) described how engagement in "high-cognitive demand talk draws on cognitive processes of analysis, reasoning, and inferential thinking and includes summarizing and explaining events .... [and] in school-age children, inference making is critical to understanding text" (p. 935). The transcripts show how the children's transactions with Cordell's picturebook involved significant engagement in high-level thinking, particularly the generation of various types of inferences (e.g., characters' goals, actions, states, emotions, activities and inner dialogue; causal antecedent and causal effect). Indeed, because of the nature of wordless and almost wordless picturebooks, reader engagement in inferencing is essential to meaning-making. However, with any text, the "cognitive challenge of adult mediation" (Collins, 2016, p. 950) is critical to student engagement in inferencing, as well as other higher-thinking processes such as analyzing, reasoning and explaining.

## Final Thoughts

As noted previously, researchers have reported on how teachers' mediation of picturebooks is affected by their awareness and understanding of 'what' to look for in picturebook artwork, and that such teacher knowledge is central to deepening students' experiences of and visual semiotic work with this format of literature (e.g., Kesler et al., 2021; Martens et al., 2012/2013, 2018; Pantaleo, 2016, 2017; Villarreal et al., 2015). According to Ray (2010), by studying illustrations in picturebooks with children, adults can enhance their own viewing experiences with respect to what they see in artwork, as well as their understanding and thinking about, and aesthetic awareness of the design decisions underlying the artwork (p. 93). Such knowledge and deeper appreciation can inform adults' conversations about picturebooks, helping children to develop their understanding of elements of visual art and design and illustration techniques, and hence their visual literacy competences, which can enhance their reading transactions and responses.

Prior to sharing wordless or almost wordless picturebooks with children, teachers should explore the books in order to develop their understanding of the craft of the artwork and design, and to consider aspects for discussion with students. Furthermore, as mediators of wordless and almost wordless picturebooks, it is essential that practitioners do

not misjudge young learners' abilities "to engage in cognitively challenging" discussions (Collins, 2016, p. 951). For those individuals who may be 'unsure' about how to mediate wordless and almost wordless picturebooks with students (Arizpe, 2014), the reviewed literature, the transcript excerpts, and the descriptive analyses provide information about the potentials for meaning-making when focusing on elements of visual art, layout and design in these types of picturebooks.

## References

- Acer, D., & Gözen, G. (2020). Art detectives: young children's behaviour in finding and interpreting art elements in picture books. *Education, 3–13*(6), 716–732.
- Arizpe, E. (2013). Meaning-making from wordless (or nearly wordless) picturebooks: what educational research expects and what readers have to say. *Cambridge Journal of Education, 43*(2), 163–176.
- Arizpe, E. (2014). Wordless picturebooks: critical and educational perspectives on meaning-making. In B. Kümmerling-Meibauer (Ed.), *Picturebooks: representation and narration* (pp. 91–106). Routledge.
- Bezemer, J., & Kress, G. (2008). Writing in multimodal texts: a social semiotic account of designs for learning. *Written Communication, 25*(2), 166–195.
- Bezemer, J., & Kress, G. (2016). *Multimodality, learning and communication: a social semiotic frame*. Routledge.
- Bosch, E. (2014). Texts and peritexts in wordless and almost wordless picturebooks. In B. Kümmerling-Meibauer (Ed.), *Picturebooks: representation and narration* (pp. 71–90). Routledge.
- British Columbia Ministry of Education. (2016). *Arts education*. Author.
- British Columbia Ministry of Education. (n.d.). *A framework for classroom assessment*. Author.
- Chaparro-Moreno, L. J., Reali, F., & Maldonado-Carreño, C. (2017). Wordless picture books boost preschoolers' language production during shared reading. *Early Childhood Research Quarterly, 40*, 52–62.
- Collins, M. F. (2016). Supporting inferential thinking in preschoolers: effects of discussion on children's story comprehension. *Early Education and Development, 27*(7), 932–956.
- Considine, D. M., Haley, G. E., & Lacy, L. E. (1994). *Imagine that: developing critical thinking and critical viewing through children's literature*. Teachers Ideas Press/ Libraries Unlimited.
- Crawford, P. A., & Hade, D. H. (2000). Inside the picture, outside the frame: semiotics and the reading of wordless picture books. *Journal of Research and Childhood Education, 15*(1), 66–80.
- Flint, T. K., & Adams, M. S. (2018). "It's like playing, but learning": supporting early literacy through responsive play with wordless picturebooks. *Language Arts, 96*(1), 21–36.
- Gibson, J. (2016). Text optional: visual storytelling with wordless picturebooks. *Children and Libraries, 14*(2), 3–5.
- Grolig, L., Cohrdes, C., Tiffin-Richards, S. P., & Schroeder, S. (2020). Narrative dialogic reading with wordless picture books: a cluster-randomized intervention study. *Early Childhood Research Quarterly, 51*, 191–203.
- Kendeou, P., McMaster, K. L., & Christ, T. J. (2016). Reading comprehension: core components and processes. *Behavioral and Brain Sciences, 3*(1), 62–69.
- Kesler, T., Darrell, K., Moss, Y., Pasternak, J., & Valco, A. (2021). Designing on the page: composing picturebooks in a Kevin Henkes author study. *Journal of Early Childhood Literacy Advance online publication*. <https://doi.org/10.1177/1468798421995527>.
- Kress, G. (2010). *Multimodality: a social semiotic approach to contemporary communication*. Routledge.
- Kress, G. (2015). Semiotic work: Applied linguistics and a social semiotic account of multimodality. *AILA Review, 28*(1), 49–71.
- Lysaker, J. T. (2019). *Before words: wordless picture books and the development of reading in young children*. Teachers College Press.
- Lysaker, J., Martin, K., & Xue, M. (2021). Wordless picturebooks as contexts for coauthoring. *Language Arts, 98*(5), 282–288.
- Martens, P., Martens, R., Doyle, M. H., Loomis, J., & Aghalarov, S. (2012/2013). Learning from picturebooks: reading and writing multimodally in first grade. *The Reading Teacher, 66*(4), 285–294.
- Martens, P., Martens, R., Doyle, M. H., Loomis, J., Fuhrman, L., Stout, R., & Soper, E. (2018). Painting writing, writing painting: thinking, seeing, and problem solving through story. *The Reading Teacher, 71*(6), 669–679.
- Pantaleo, S. (2007). "How could that be?": reading Banyai's *zoom* and *Re-Zoom*. *Language Arts, 84*(3), 222–233.
- Pantaleo, S. (2016). Primary students' understanding and appreciation of the artwork in picturebooks. *Journal of Early Childhood Literacy, 16*(2), 228–255.
- Pantaleo, S. (2017). Critical thinking and young children's exploration of picturebook artwork. *Language and Education, 32*(2), 152–168.
- Pantaleo, S. (in press). The meaning-making in kindergarten children's visual narrative compositions. *Journal of Early Childhood Literacy*.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Sage Publications.
- Ray, K. W. (2010). *Pictures and in words: teaching the qualities of good writing through illustration study*. Heinemann.
- Ramos, A. M., & Ramos, R. (2011). Ecoliteracy through imagery: a close reading of two wordless picture books. *Children's Literature in Education, 42*(4), 325–339.
- Sipe, L. (2008). *Storytime: young children's literary understanding in the classroom*. Teachers College Press.
- Tishman, S. (2018). *Slow looking: the art and practice of learning through observation*. Routledge.
- Villarreal, A., Minton, S., & Martinez, M. (2015). Child illustrators: making meaning through visual arts in picture books. *The Reading Teacher, 69*(3), 265–275.
- Vygotsky, L. (1978). *Mind in society*. Harvard University Press.

## Children's Literature References

- Colón, R. (2014). *Draw!* Simon & Schuster Books for Young Readers.
- Cordell, M. (2017). *Wolf in the snow*. Feiwel and Friends.
- Faller, R. (2003). *Polo and the dragon*. Roaring Book Press.
- Miyares, D. (2015). *Float*. Simon & Schuster Books for Young Readers.
- Sheneman, D. (2017). *Nope! A tale of first flight*. Viking.
- Wiesner, D. (1991). *Tuesday*. Clarion Books.

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