

4-2022

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Recommended Citation

Martin, N. M. (2022). Supporting Informational Text Comprehension: One Educator's Scaffolding During Instruction in Kindergarten. *Reading Horizons: A Journal of Literacy and Language Arts*, 61 (1). Retrieved from https://scholarworks.wmich.edu/reading_horizons/vol61/iss1/3

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Supporting Informational Text Comprehension: One Educator's Scaffolding During Instruction in Kindergarten

Nicole M. Martin, *Ball State University*

Abstract

Educators' support when using informational text in kindergarten is foundational to children's comprehension and future learning. Prior research has not offered clear insight into their help when children experience difficulties during informational text comprehension instruction. The current study examined one kindergarten educator's support. Mrs. Swanson's teaching was observed two to three times per week for 15 weeks, and lesson artifacts were collected. Discourse analytic coding procedures, constant comparison, and thematic analysis revealed that the educator consistently provided verbal scaffolding but inconsistently supported the individual children who were experiencing comprehension difficulty. An expanded focus on educators' scaffolding at children's points of difficulty when using informational text in kindergarten is required in future research and teacher education.

Keywords: comprehension, informational text, kindergarten, verbal scaffolding

"I think comprehension is important for [children] when they're reading because they need to know what they're reading—not just reading the words, but understanding the story, the information that they're getting. We do a lot of activities where they have to either retell or act out stories. We write about the information they have read about, discuss it, several different activities, but what's the point of reading if you're not going to gain knowledge from it hopefully."

In this quotation from our end-of-year interview, Mrs. Swanson (all names are pseudonyms) describes her goal for using informational text in kindergarten. She seeks to support children's comprehension, or understanding and recall, of the texts. Informational text consists of "biographies and autobiographies; books about history, social studies, science, and the arts; technical texts, including directions, forms, and information displayed in graphs, charts, or maps; and digital sources on a range of topics" (National Governors Association for Best Practices & Council of Chief State School Officers, 2010, p. 31). The texts are featured in kindergarten learning standards and curricula (e.g., Calkins et al., 2015; National Governors Association for Best Practices & Council of Chief State School Officers, 2010). Educators' support offers opportunities for children to become familiar with the texts' characteristics (Maloch & Bomer, 2013a). Informational text often focuses on topics not well known to children, is dense with information, includes abstract

and complex ideas outside of their life experiences, and relies on language and text structures not encountered elsewhere (e.g., Duke & Tower, 2004; Pappas, 2006). Also, educators' support enables children's access to knowledge and learning in science and social studies lessons (Cervetti & Hiebert, 2015; Strachan, 2015).

Educators' support of children's informational text comprehension in kindergarten is a long-standing but still urgently needed focus of study. Although children are capable of comprehending informational text prior to kindergarten, they often have minimal opportunities to benefit from educators' support and exhibit persistent difficulty comprehending the texts throughout their school careers (Dennis, 2013; Duke, 2000; Jeong et al., 2010; Meisinger et al., 2009; Tower, 2002). Researchers have claimed that poor comprehenders plateau in reading and, after third grade, struggle to cope with reading demands and achievement in school (e.g., Chall et al., 2009). In the last two decades, fourth-grade students' average scale scores for reading for information on the National Assessment of Educational Progress have fallen into the *Below Basic* and *Basic* achievement categories, and Black, Indigenous, and People of Color [BIPOC] students' average scale scores have remained 15–32 points lower than those of White students (National Center for Education Statistics, 2022). Historically, reading instruction in elementary school has included early emphasis on stories, questioning for assessment of children's understanding and recall, and/or scripted curricula lacking in support for comprehension (e.g., Dewitz et al., 2009; Duke & Block, 2012). Also, children experiencing comprehension difficulties continue to be offered little or low-quality instruction in elementary school classrooms and intervention settings (Allington & McGill-Franzen, 2017). As Duke and Carlisle (2011) argued,

We should be concerned about the development of reading comprehension from very early on, long before children can read text themselves. Because from very early on some children are not developing apace with their peers, we should be trying early on to intervene in such cases. Unfortunately, too often the development of comprehension isn't given instructional priority until students have become fluent readers. (p. 217)

Educators' support from kindergarten onward remains a pressing issue.

The current study extends what is known about educators' support of children's informational text comprehension in kindergarten by examining one educator's instruction. Educators' support of children's informational text comprehension when they are experiencing difficulty at the start of their school careers has been identified as a concerning and urgent gap in prior research (Allington & McGill-Franzen, 2017; Pearson & Cervetti, 2017). Also, educators' support at children's points of difficulty during reading lessons has been found to involve inequitable and circumscribed help (e.g., Hedin & Gaffney, 2013; Mertzman, 2008). Whether instruction includes the kinds of verbal support showcased in prior research and the extent to which the previously found lesson trends apply to kindergarten educators' support when children are experiencing difficulty and comprehending informational text remains unclear. The current study offers increased understanding of the help provided in kindergarten that may inform future efforts to address children's comprehension from the start of their school careers.

Educators' Support of Children's Informational Text Comprehension

Educators' support of children's informational text comprehension involves behaviors and language intended to help children set goals, make decisions, apply strategies, monitor and regulate comprehension, and develop and use mental representations when reading or listening to the texts being read aloud. From the start of school, children

are expected to pursue a range of reading goals and to seek to comprehend a variety of printed, digital, and multimodal texts (Fox & Alexander, 2017; National Governors Association for Best Practices & Council of Chief State School Officers, 2010). During instruction, children “now could be reading a primary historical source, doing close reading, evaluating bias, identifying argument, comparing different accounts or viewpoints on a controversial issue, reading a textbook, watching a video, and engaging in online research” (Fox & Alexander, 2017, pp. 342–343). Comprehension, which has been described as the end goal of reading (Duke & Carlisle, 2011), enables children’s access to the ideas represented by texts’ words, cognitive functioning, metacognition, motivation, and learning from text but also requires children to be knowledgeable and skilled in planning, decision-making, monitoring, and regulating reading behaviors (Almasi & Fullerton, 2012; Paris & Hamilton, 2009).

Children’s comprehension involves “simultaneously extracting and constructing meaning through interaction and involvement with written language” (RAND Reading Study Group, 2002, p. xiii) and is the product of a complex interaction among the text(s) being read, the reader(s), the meaning-making activity, and the setting. During comprehension, children apply reading strategies designed to make meaning of texts’ ideas, develop mental representations of the text, and use the representations to recall what has been read (Kintsch, 2013; Martin & Myers, 2018). However, texts’ characteristics (e.g., word usage, text structure), authors’ purposes, and the school setting—as well as children’s language (including their vocabularies), reading skills, knowledge (e.g., world knowledge, text knowledge), reading goals, and cognition—influence their applications, representations, and recall (e.g., RAND Reading Study Group, 2002). Moreover, children’s informational text comprehension contrasts with, and appears to lag behind, their comprehension of stories (Duke & Roberts, 2010). With stories, children use forward-looking strategies such as predicting, and with informational text, they rely on retrospective strategies such as relating (e.g., Kucan & Beck, 1996). Their recalls of stories, but not their recalls of informational text, are well developed by third grade (e.g., Langer, 1986). Historically, educators’ support for children’s comprehension of stories and informational text, as well as for their knowledge and vocabulary skills, has been expected during comprehension instruction (Pearson & Cervetti, 2017).

Educators’ support has shown potential for enabling children’s increased informational text comprehension in kindergarten (Al Otaiba et al., 2018; Wright & Gotwals, 2017). In prior research, children’s engagement in and benefiting from instruction have been attributed to what educators focus on and do when children are reading or listening to the texts being read aloud. For instance, Maloch and Bomer (2013b) identified four instructional imperatives: (1) “Make informational texts available and accessible,” (2) “create authentic opportunities for engagement,” (3) “engage students through interactive read-alouds and discussion,” and (4) “be explicit when necessary” (pp. 442–445). Also, Shanahan et al. (2010) highlighted educators’ selection of texts, establishment of contexts, teaching of reading strategies and text structure, and facilitating of discussions. More recently, Allington and McGill-Franzen (2017) showcased supports in interventions for children experiencing comprehension difficulties, such as educators’ teaching of reading strategies or text structure, writing activities, summaries, and text discussions. Lastly, Pearson and Cervetti’s (2017) synthesis of the research literature on comprehension instruction linked children’s comprehension to educators’ drawing attention to the structures of texts and knowledge domains, highlighting students’ relevant background knowledge, teaching strategies, and facilitating text discussions. The synthesis also

singled out educators' use of the gradual release of responsibility model (e.g., modeling, direct instruction, guided practice).

One support that recently has begun to be examined during educators' comprehension instruction is verbal scaffolding. Verbal scaffolding has been defined as the "process that enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his unassisted efforts" (Wood et al., 1976, p. 90). Originally applied in mother-child and tutor-tutee one-on-one interactions, the scaffolding represented customizable assistance that could offer more or less help as children encountered or overcame points of difficulty (Rodgers et al., 2016). Currently, educators' verbal scaffolding is believed to include planned and interactional scaffolding. Planned scaffolding is "determined before the student begins learning, such as lesson plans or curricular tools" (Reynolds, 2017, p. 136). Educators' planned scaffolding includes preselected supports such as explanations, think-alouds, and discussion prompts. In contrast, interactional scaffolding, "the responsive in-person support an expert reader provides to a novice" (Reynolds, 2017, p. 136), is unplanned and occurs in the moment when children experience difficulty. For example, educators may offer reminders about what readers do, summarize what has been read, or encourage use of reading strategies. The scaffolding is intended to provide additional assistance to individual children when needed. Both kinds of scaffolding (a) are temporary help that changes and/or disappears as children learn (fading) and (b) have the goal of enabling development of children's thinking (transfer of responsibility; van de Pol et al., 2010). However, interactional scaffolding also is contingent, or initiated and influenced by children's responses. Educators offer help and adjust the help that is provided (downward or upward scaffolding; Zucker et al., 2020) according to what children say during instruction. Educators make decisions about when help is needed (temporal contingency), the amount of help needed (instructional contingency), and the focus of the help (domain contingency; Wood, 2003). Their choices about the focus of the help have been linked to elementary students' improved outcomes in reading (Rodgers et al., 2016).

In the emerging corpus, educators' verbal scaffolding has been recognized as a promising support during comprehension instruction. In a seminal review of 57 studies, Reynolds (2017) concluded that "effective scaffolding can leverage students' existing knowledge toward sophisticated comprehension" (p. 144). To illustrate, in Ankrum et al.'s (2014) study, one exemplary kindergarten educator's verbal scaffolding during small-group teaching with unspecified kinds of text included direct explanation, explicit modeling, invitation to participate, clarification, verification, and telling (p. 43). By the end of the year, the study's 23 children had met their grade-level benchmarks in reading. Additionally, Wiseman (2011) found a kindergarten educator scaffolded children's comprehension of stories during interactive read-alouds by confirming children's responses, sharing her thinking through modeling, extending children's ideas, and orchestrating conversations. The educators' use of verbal scaffolding helped children engage in and benefit from instruction.

However, educators' verbal scaffolding of children's informational text comprehension in kindergarten urgently requires further investigation. The previous studies examined educators' use when children were reading or listening to stories or unspecified kinds of text being read aloud. In Reynolds's (2017) review, only seven studies included children in kindergarten, and text-specific instructional trends were beyond its scope. Also, Reynolds highlighted the need for an improved understanding of how educators use the scaffolding to support children's comprehension, establish intersubjectivity, and apply

scaffolds at different grade levels. Insight into kindergarten educators' use of scaffolding when children experience difficulties during informational text comprehension instruction remains needed.

Educators' Verbal Scaffolding and Informational Text Comprehension in Kindergarten

The current study examined one kindergarten educator's verbal scaffolding during informational text comprehension instruction. The goal was to investigate how educators' language was used to help children engage in and benefit from the lessons. The research question was: *How does one experienced educator use language to offer support for children's comprehension of informational text in kindergarten?* The educator, Mrs. Swanson, was expected to use informational text, to attend to children's comprehension, and to offer verbal support when they experienced points of difficulty during instruction.

In the study, educators' support was viewed as foundational to children's learning to comprehend informational text in kindergarten (Gavelek & Bresnahan, 2009; Gee, 2015; National Association for the Education of Young Children & International Reading Association, 1998; Vygotsky, 1993). The support may help children overcome their difficulties and develop new knowledge and skills. When educators demonstrate, explain, highlight, and offer feedback, their behaviors and ideas become available for children's use. The resources and structures (including educators' questions and prompts) in lessons offer information about and experience with the texts, reading strategies, and readers' construction and use of mental representations. Educators deploy these resources and structures, and they offer guidance in identifying, interpreting, taking up, and benefiting from the information and experience that has been made available. Also, educators correct mistakes, make in-the-moment adjustments, and offer additional help when needed. Trends in educators' support can inform informational text comprehension instruction, professional development, and addressing of the issue of children's persistent comprehension difficulty from the start of their school careers.

Methods

The current study was part of a larger research project featuring a multiple case study design (Merriam & Tisdell, 2016; Yin, 2013). Case studies are well suited to describing phenomena in naturalistic contexts. The larger project examined kindergarten through second-grade teachers' learning to teach and use of teaching practices. In contrast, the current study featured discourse analysis and focused on informational text comprehension, kindergarten, and verbal scaffolding. Below, the study's setting and participants, data sources and collection, and data analyses are described.

Setting and Participants

The study occurred in a large public school in a small midwestern U.S. town. The school served children in kindergarten through second grade, had recently experienced an influx of BIPOC students and children from low socioeconomic backgrounds, and had reported that more than 50% of the children were reading below grade level in August. The school was selected because it had featured comprehension in its school improvement plan and had adopted new reading curricula intended to address children's comprehension from kindergarten onward.

Purposeful sampling was used to find an experienced educator in a kindergarten classroom in which the majority of children consistently reached end-of-grade benchmarks in reading (Duke et al., 2018; Savin-Baden & Major, 2013). The focus was selected to increase the likelihood of observing instruction that both used informational

text and supported children's comprehension. The school's literacy specialist pointed out Mrs. Swanson, and informed consent was obtained from the educator as well as from children's families.

Participants included Mrs. Swanson and 26 (90%) of the children enrolled in her classroom. Mrs. Swanson self-identified as female, middle-class, and White. She had taught kindergarten in the same school for 23.5 years and had earned undergraduate and master's degrees in elementary education from her local public university. The children included 14 girls and 12 boys. Their families self-identified as White ($n = 24$) and Pacific Islander ($n = 2$). The children's reading levels varied, but the majority were considered by the school to be below to approaching grade level in reading at the beginning of the school year.

Before data collection began, I spent 6 months in Mrs. Swanson's classroom, visiting for 45–90 minutes two or three times per week, observing instruction, helping children, and teaching small-group word-reading lessons. The purpose of the visits was for me to become familiar with Mrs. Swanson's teaching and to support her learning of small-group word-reading instruction. Mrs. Swanson devoted a minimum of 90 minutes to teaching reading. She implemented the school's curricular mandates (e.g., Calkins et al., 2015). Her whole-group lessons typically included a minilesson, opportunities for children to read independently while she conferred with them, and children's end-of-lesson reflections. Also, Mrs. Swanson met with homogeneous small groups to support their word reading and oral reading fluency, and she facilitated word-reading lessons and literacy centers each day. Her teaching featured varied media (e.g., picture books, online videos) and included stories and informational text.

Data Sources and Collection

Observations

I observed Mrs. Swanson's reading instruction for a total of 750 minutes across 15 weeks (February to May). I conducted the observations with another researcher specializing in comprehension. Twenty-minute observations occurred two to four times per week, and once per month Mrs. Swanson's entire 90-minute reading instructional block was observed. Observations were limited to the time set aside for reading instruction because the educator reported children's science and social studies learning took place within this time rather than during a separate instructional block. During all observations, field notes were taken. The field notes contained verbatim recording of Mrs. Swanson's and children's words, descriptions of their actions and work, and connections to research and theory. Also, each 90-minute observation was videotaped and subsequently transcribed. Both researchers were present during the 90-minute observations, and I checked the sets of field notes and transcripts and confirmed their consistency.

Lesson Artifacts

During each observation, digital copies of teaching materials and children's work were collected for the purpose of contextualizing and interpreting instructional trends. The lesson artifacts included anchor charts; educator-created texts; and children's comprehensions, drawings, and notes.

Data Analyses

To analyze the collected data, discourse analytic coding procedures, constant comparison, and thematic analysis were used (Corbin & Strauss, 2014; Miles et al., 2020). First,

the beginning and ending of Mrs. Swanson's instructional segments and text use were marked, and the type of instructional segment (e.g., reading minilesson, reading conference) and text (e.g., story, informational text) were identified. Then, Mrs. Swanson's utterances on the transcripts and in the fieldnotes were divided into idea units (Chafe, 1985; Gee, 2015). Idea units were used because the educator's talk turns often included multiple discursive actions with differing functions. New idea units were begun whenever the function of her talk changed. Next, each idea unit's curricular focus (e.g., word reading, comprehension) was determined. Then three rounds of coding were completed. In the first round, the function of each comprehension-focused idea unit was coded. Through an iterative process of reading, coding, rereading, and revising, emergent descriptive codes were applied. Codes with fewer than three instances were combined, and all field notes and transcripts were recoded. The emergent coding ended when all idea units had been coded and a round of rereading yielded no further changes in coding. In the second and third rounds, Mrs. Swanson's verbal scaffolding was coded. van de Pol et al. (2010) argued for the value of distinguishing between the means ("how is scaffolding taking place") and the intentions ("what is scaffolded") of verbal scaffolding (p. 276). To identify the means, as Reynolds (2017) has called for, a priori codes drawn from previous scaffolding research in kindergarten were applied to each of the coded idea units (Ankrum et al., 2014, p. 43; i.e., direct explanation, explicit modeling, invitation to participate, clarification, verification, and telling). Whenever the idea unit did not fit an existing code, emergent descriptive codes were developed using the same procedures from the first coding round. To identify the intentions, a priori codes from van de Pol et al. were applied to the idea units. The final coding list, which is described in Table 1, included 33 codes.

Table 1

Definitions, Descriptions, and Examples of Selected Codes

Code	Definition	Examples
Code representing the curricular focus ($n = 4$)		
Comprehension	Attention to students' knowledge and skills related to understanding and remembering of texts' ideas	<p>Mrs. Swanson: "What do you think the story is about?"</p> <p>Jonathan: "Fish."</p> <p>Mrs. Swanson: "Fish. And what kind of fish do you think it is going to mainly be about?"</p> <p>Jonathan: "Different kinds."</p> <p>Mrs. Swanson: "Okay, different kinds. Let's see if we can look through the pictures and figure out anything more about this story."</p> <p>"I discovered when I was reading some stories that sometimes you have to think really hard and try to figure out what they are telling you. And sometimes you have to read it more than one time to figure it out. Sometimes you have to read it two times. Or five times."</p>

Code	Definition	Examples
Codes representing the functions of comprehension-focused instructional language (<i>n</i> = 13)		
Connecting to prior experience	Reference to texts, activities, and learning featured in previous lessons	<p>“You know that a little while ago I was taking some video pictures of you, and I had some of you tell me what was happening in the picture. It was all about what it was like to be in kindergarten. Do you remember when we did that?”</p> <p>“When we read <i>The Napping House</i> on Friday, what did the author do in this story? What kinds of things did she use in her writing?”</p>
Focusing on text structure	Statements and questions related to texts’ organization	<p>Mrs. Swanson: “What order did they put it in?”</p> <p>Sammy: “From the beginning.”</p> <p>Tina: “In order.”</p> <p>Mrs. Swanson: “From the beginning of the day to the end.”</p>
Making meaning of words	Statements and questions related to understanding and learning definitions	<p>[Field notes] She explains what a chariot is.</p> <p>“Do you know what [the word just read] means?”</p>
Telling readers text use	Reference to the task(s) that children need to complete while reading text, viewing text, or listening to text being read aloud	<p>“Now, what I want you to do is to read the blue one all by yourself in your mind. I want you to turn to your partner and whisper what you think that insect might be.”</p> <p>“Instead of concentrating right now on who you are seeing on the screen, I want you to really pay attention to what is being said and what activity is being talked about.”</p>

Code	Definition	Examples
Codes representing verbal scaffolding ($n = 11$)		
Extending of thinking	Statements of information related to, but not originally included in, children's thinking.	<p>"Do you know that there's another thing that might give you an idea? You're going to find out that a bee has like little hairs that sticks out on its body."</p> <p>[after child says that humans are mammals] "Yes, we are. We're mammals. You are so right. Do we have fur? We don't have fur but we have...hair. And we actually have hair all over our bodies. 'Cause we have hair—not like on your head, of course, but you do have little hairs on your arms and your legs."</p>
Focusing of attention	Statements or questions directing children to notice specific parts of the text or children's thinking.	<p>"The next one will give you a definite hint."</p> <p>"And we're gonna see how this kindergarten class is the same and then we wanna look for some way that it's different than our kindergarten class."</p>
Invitation to participate (Ankrum et al., 2014)	Statements or questions intended to encourage children to do, say, or think about something.	<p>"Do you know what that word means?"</p> <p>"Before we read, let's look at pictures."</p> <p>"So today, I invite you to look for new ideas that a writer has used in writing a story, so that you might be able to use it when you are doing your writing later today."</p>
Request for evidence or examples	Questions designed to elicit children's support of conclusions and claims.	<p>"What clues led you to know that it was this one?"</p> <p>"An egg. How did you know it was an egg?"</p>
Code representing scaffolding intentions ($n = 5$)		
Recruitment	"Getting students interested in a task and helping them adhere to the requirements of a task" (van de Pol et al., 2010, p. 276)	<p>"Let's see how they are going to get there."</p> <p>"Now I want you to turn to your friend and tell them the favorite part you have of our day."</p> <p>"Yesterday we rewatched our infomercial. All about what?"</p>

After training, a research assistant independently coded 11 sets (41%) of the field notes and transcripts. The interrater reliability score was 90%. Also, member checking was conducted. Mrs. Swanson confirmed the accuracy of the data and her supports.

Finally, the coded units were entered into a spreadsheet, and the absence or presence (and sources) of children’s responses immediately preceding each unit was noted. Then the codes were compared and contrasted, and themes were developed. The lesson artifacts were used to understand and triangulate the themes, and a search for disconfirming evidence was conducted that confirmed the identified instructional trends.

Results

Analysis revealed that Mrs. Swanson’s support included verbal scaffolding of children’s informational text comprehension. However, at children’s points of difficulty, the scaffolding inconsistently offered support to children experiencing difficulties. Mrs. Swanson’s informational text comprehension instruction occurred during her whole-group reading lessons within multiweek units of instruction. All lessons were educator created; featured print, digital, and/or multimodal materials; and tended to focus on topics of high interest to children (e.g., animals) and to include children’s collaboration in a culminating project (e.g., video script and recording). The trends found during her instruction are described below.

Trend 1: Verbal Scaffolding of Children’s Informational Text Comprehension

Mrs. Swanson’s informational text comprehension instruction included verbal scaffolding of children’s comprehension. During the instruction, her scaffolding was present from the start to the end of each lesson, occurring prior to (and outside of) children’s experiencing of difficulties. Mrs. Swanson drew attention to texts’ features, children’s knowledge, reading strategies and goals, authors’ purposes, and the meanings of words and sentences. She offered modeling, explanations, and prompting, and she facilitated text discussions and writing activities.

To illustrate, an excerpt from a whole-group reading lesson on May 16 is provided below. The lesson occurred during a unit in which the class examined videos of the daily routines in kindergarten classrooms and collaboratively developed and recorded a new video explanation of the routines in their own classroom for families to view at the next Kindergarten Orientation session. In the lesson, children compared and contrasted ideas from two informational videos. One was a video featuring a summary of the children’s school day that had been created earlier in the year and viewed previously. One was a new video describing the daily routines in another classroom. The excerpt showcases Mrs. Swanson’s embedding of support into the lesson. In the excerpt, her scaffolding included *direct explanation* and *focusing of attention*.

- 1 *Mrs. Swanson:* Do you remember when I showed you the video about what
- 2 you do in kindergarten? And it showed us from the
- 3 beginning of our day until the end of our day. Well today
- 4 we’re gonna watch an infomercial—Okay, it’s the same

5 thing as a video, it's just full of information. Just like when
6 you read an informational book. This is like an
7 informational video. So it's called an infomercial—And
8 we're gonna see how this kindergarten class is the same
9 and then we wanna look for some way that it's different
10 than our kindergarten class. Okay? So you have two things
11 to be thinking about while we're watching it. One is how is
12 this class the same as our kindergarten?

13 *Aiden:* And different.

14 *Mrs. Swanson:* [starting video] And two, how is this class different than
15 our kindergarten class? So do you have your listening ears
16 on? Your voices off? Your eyes on the screen?

17 *Mrs. Swanson:* [pausing video] Now. I want you to turn to your partner
18 and tell them something. I want you to tell your partner
19 something that you have seen that is the same so far in our
20 video. Go.

Mrs. Swanson reminded children of a previous reading lesson and summarized the informational video they had viewed (Lines 1–3). Then she defined the new kind of text she was using and identified children's reading goal (Lines 4–15). After viewing the video, she reminded children about their goal as she instructed them to share their thinking with each other (Lines 17–20). Her verbal scaffolding focused on helping all children (a) set a comprehension-focused goal (finding similarities and differences between the two classrooms' routines), (b) use that goal to decide what was important to notice and remember, and (c) check their addressing of that goal. Mrs. Swanson's explanations and prompts occurred from the start of the lesson, prior to children's experiencing of difficulty. She used the embedded scaffolding to support children's understanding, recall, and use of the videos' ideas.

Trend 2: Contingent Support at Children's Points of Difficulty

Mrs. Swanson's verbal scaffolding also was present when children experienced comprehension difficulties. Her use of the scaffolding was contingent on children's responses, seemingly triggered when they experienced the difficulty and discontinued when it was resolved. She offered the additional support to children at their points of difficulty.

To illustrate, an excerpt from a whole-group reading lesson on April 29 is provided below. The lesson was part of a unit focused on animals and intended to prepare children for their upcoming field trip to the zoo. At the start of the lesson, Mrs. Swanson reviewed the purpose and features of informational books, displayed three texts (a storybook, a concept book, and an informational book), and explained how readers use their reading goal to choose among texts. Then she reminded children about their upcoming zoo field trip, said she wanted to learn about the zoo animals before their visit, wondered about which text she should read, and invited one child to respond. The child chose the concept book, justifying the choice with an assertion that it tells about zoo animals. In the excerpt, Mrs. Swanson responded to the child's incorrect response, initiating her providing of additional support. The excerpt showcases Mrs. Swanson's use of verbal scaffolding at the child's point of difficulty. In the excerpt, her scaffolding included *clarification*, *explicit modeling*, *invitation to participate*, *paraphrasing*, *request for evidence or examples*, and *verification*.

1 *Mrs. Swanson:* Okay, I think that sounds like a really good idea, too. So I

2 picked this up because it does say "Animals at the Zoo." So

3 I'm thinking, oh I'm gonna learn about zoo animals, right?

4 So I look at it. "We're going to the zoo," "to see the

5 animals."

6 *Finley:* It's not telling you any facts. It's just showing you the zoo

7 animals.

8 *Mrs. Swanson:* It's just showing me the zoo animals. But I wanna learn

9 about zoo animals. So is this something that I would want

10 to pick for that?

11 *Children:* No.

12 *Mrs. Swanson:* You have to read a nonfiction book because nonfiction

- 13 books tell us what? What do nonfiction books tell us?
- 14 *Children:* Facts!
- 15 *Mrs. Swanson:* So, okay, everyone keeps saying the monkey [book]. Well,
- 16 this one doesn't say monkeys.
- 17 *Brian:* It says "Marvelous Mammals!"
- 18 *Mrs. Swanson:* It does say "Marvelous Mammals."
- 19 *Brian:* That's better because it has more than one mammal. It
- 20 doesn't say mammal, it says mammals.
- 21 *Mrs. Swanson:* Aw! I love that you noticed that it says mammals, so it's
- 22 going to tell me about more than one. Does anyone happen
- 23 to know what mammals are? Kaisen, what are mammals?
- 24 *Kaisen:* They're animals that have fur.
- 25 *Mrs. Swanson:* They do. You're right. They have fur. Is there anything else
- 26 that you know about mammals? Maddie?

After a child chose a text that did not align well with the identified reading goal of learning about zoo animals, Mrs. Swanson publicized the child's probable reasoning for selecting the concept book and read aloud the first few pages of the book (Lines 1–5). When another child spontaneously pointed out that the words were not teaching about zoo animals, she repeated the statement, reviewed her reading goal, and questioned whether the book was addressing her goal (Lines 6–11). Then she told them that an informational book was needed and asked the children to tell her previously-given information about readers' goals (Lines 12–14). Next, Mrs. Swanson addressed their misreading of the informational book's title (Lines 15–20). She repeated one child's naming of the title and incorporated his idea into her scaffolding by asserting that the informational book will *tell* about mammals. Finally, she focused on children's understanding of the meaning of "mammal" and returned to her instruction by prompting for the children's prior knowledge (Lines 21–26).

Mrs. Swanson's verbal scaffolding offered contingent support at the child's point of difficulty. After the child's selection of a book that did not match the established

reading goal (learning about animals in preparation for their field trip), she temporarily increased the level of help provided. Mrs. Swanson repeated previously-given information, prompted for children's recall of the same information, read aloud from the book, restated their knowledge, and shared new information. She discontinued the verbal scaffolding when the group selected the text that corresponded to the identified reading goal. Her help enabled resolving of the point of difficulty.

Trend 3: Providing Support for Lesson Goals

Mrs. Swanson's verbal scaffolding at children's points of difficulty was focused on their collective attainment of lesson goals. Although she did use the verbal scaffolding to help children experiencing comprehension difficulties, she also simply continued the lesson or allowed other children's use of her scaffolding to resolve the point of difficulty. The support offered to individual children when they were experiencing difficulties varied.

To illustrate, an excerpt from a whole-group reading lesson on May 13 is provided below. The lesson was part of the unit in which children produced their video explanation for families attending Kindergarten Orientation and focused on identifying and describing the routines that would need to be included in the script they would be creating. During the lesson, Mrs. Swanson played the informational video summarizing children's school day (that had been created earlier in the year) for the first time. After the read-aloud, the class worked together to construct a chart listing their daily routines. Mrs. Swanson asked questions, prompted children, and wrote on the chart. The excerpt showcases Mrs. Swanson's focus on enabling recall of the video's ideas. In the excerpt, her scaffolding included *clarification*, *direct explanation*, *invitation to participate*, and *verification*.

- 1 *Noah:* Learn.
- 2 *Mrs. Swanson:* Learn what?
- 3 *Noah:* Learn what?
- 4 *Mrs. Swanson:* Like what? Tell me what things you learn at school.
- 5 Because we learn lots of things at school. Are you talking
- 6 about reading? Math?
- 7 *Noah:* Learning math.
- 8 *Mrs. Swanson:* Learning reading? What do we do when we learn to read?
- 9 *Noah:* Learn our powers.
- 10 *Mrs. Swanson:* We do. Learn our reading powers...

(The class continues to talk about the parts of their day described in the text.)

11 *Mrs. Swanson:* There's something else that we do.

12 *Brian:* Sign up for lunch.

13 *Mrs. Swanson:* Aimee?

14 *Aimee:* Sometimes we go on field trips.

(The class continues to talk about the parts of their day described in the text.)

15 *Mrs. Swanson:* What else do we do when it's working time?

16 *Mackenzie:* We read.

17 *Mrs. Swanson:* We read, and read, and read. Lots of reading. We do our
18 journals in the morning, our morning work. Noah?

19 *Noah:* We have surprises.

20 *Mrs. Swanson:* Sometimes. I'm thinking of something we do every day.

21 *Caroline:* Read.

22 *Mrs. Swanson:* We do sometimes. So guided reading.

As children shared ideas, Mrs. Swanson's verbal scaffolding was connected more closely to the lesson goal than to individual children's comprehension. In the three exchanges included in the excerpt, her support only sometimes involved helping the children experiencing difficulty. During the first exchange, the child shared a nonspecific response, and Mrs. Swanson prompted for further information (Lines 1–2). When Mrs. Swanson's prompt was unsuccessful, she reviewed the video's focus and identified parts of the school day he might have been attempting to identify (Lines 3–6). After the child chose one of the parts, she prompted him to complete the task of sharing a recalled idea (Lines 7–10). In contrast, during the second exchange, when the child described a daily activity not included in the video, Mrs. Swanson did not offer additional help in connecting the activity to a part of the day mentioned in the video (Lines 11–14). Instead, Mrs. Swanson called on another child to provide another idea. In the third exchange, the child repeated an idea that already had been shared, and Mrs. Swanson offered a hint about their morning routine (Lines 15–18). Then, when responding to the next child, she acknowledged the child's response but prompted for another idea (Lines 19–20). When a different student responded to her prompt, she took up the new idea (Lines 21–22). Rather than helping the child complete the task of recalling an idea, Mrs. Swanson publicized

and elaborated on the response offered by another child.

Mrs. Swanson’s offering of additional support did not always include opportunities for the children to resolve their difficulties. At the first child’s point of difficulty, she increased the level of help provided until an idea from the text was recalled. At the second child’s point of difficulty, verbal scaffolding was not used. Instead, Mrs. Swanson continued eliciting the group’s recall of ideas. At the third child’s point of difficulty, she temporarily increased the level of help but then did not allow the child to recall a new idea. Instead, another child recalled an idea. Mrs. Swanson’s support remained focused on the lesson goal but not on all children’s comprehension.

Trend 4: Lack of Responsiveness to Children’s Continued Experiencing of Difficulty

Mrs. Swanson’s support was not always responsive to children’s comprehension difficulties. Sometimes, her use of verbal scaffolding at children’s point of difficulty did not change when they and/or their classmates continued experiencing difficulty.

To illustrate, an excerpt from another whole-group reading lesson on April 29 is provided below. The lesson was part of the unit that prepared children for their zoo field trip and focused on their researching of mammals. During the excerpt, the class was participating in a shared reading of an informational book and studying the text’s glossary. The focus was on understanding the text feature and gaining skill in its use. When Mrs. Swanson paused and children spontaneously but incorrectly read the next word, she initiated use of verbal scaffolding. The excerpt showcases how she continued to rely on the same scaffolding until the point of difficulty had been resolved. In the excerpt, Mrs. Swanson’s scaffolding included clarification, direct explanation, invitation to participate, and verification.

- 1 *Mrs. Swanson:* Some mammals like to live alone. Skunks are, oh wow!—
- 2 *Children:* Stinky!
- 3 *Mrs. Swanson:* I have to tell you, if I looked at that word, I might think that
- 4 it says stinky but when I’m looking at it, I notice that
- 5 there’s not a st at the beginning. So this says “solitary.” I
- 6 want you to turn to your partner and I want you to tell them
- 7 what you think solitary means. I’m gonna give you five
- 8 seconds, go... Three, two, one, back to me... Ryder, what
- 9 did you and your partner think that solitary meant?
- 10 *Ryder:* Nothing.

11 *Dani:* Solitary is like...

12 *Mrs. Swanson:* What?

13 *Dani:* It's like something, like smelly.

14 *Mrs. Swanson:* Smelly. Ryder, what did you and your partner think that
15 solitary meant?

16 *Ryder:* Really, really stinky...

17 *Mrs. Swanson:* Really stinky. Is there anybody else thought that it meant
18 something different than stinky?

19 *Aiden:* Yeah.

20 *Mrs. Swanson:* Aiden, what did yours think it meant?

21 *Aiden:* It meant that they are really really really really really really
22 stinky.

23 *Mrs. Swanson:* Okay, something besides that. Did anybody else think that
24 it meant something else? Kaisen.

25 *Kaisen:* Um uh that uh that they want to be alone and all be their
26 self?

27 *Mrs. Swanson:* Really?! Is that what you thought? That is so fantastic!
28 Let's look back here and see. "Solitary: spending a lot of
29 time alone."

Mrs. Swanson drew attention to the children's mistake, acknowledged that the word began with the same letter, and identified the correct word (Lines 1–5). Then she returned to the lesson's comprehension focus, asking children to think about and to share the identified word's meaning (Lines 5–9). After one child offered an inaccurate meaning, Mrs. Swanson continued to call on children until their fourth attempt to respond to her question yielded the

word's meaning (Lines 10–27). Finally, she returned to what she had been doing prior to their word-reading mistake and demonstrated readers' use of the glossary to figure out the meaning of "solitary" (Lines 28–29).

In the excerpt, Mrs. Swanson's additional support was offered at the point of difficulty and remained in place until it was resolved. However, the support was not adjusted when multiple children were unable to explain the word's meaning. Rather than offering an increased level of help (e.g., prompting for use of visual clues, sharing her own thinking), Mrs. Swanson persisted in her use of the scaffolding. Her verbal scaffolding was not responsive to children's continuing experiencing of the difficulty.

Discussion

The current study examined Mrs. Swanson's verbal support of children's informational text comprehension in kindergarten. Despite decades of attention to comprehension instruction, many students continue to exhibit persistent comprehension difficulty across their school careers (National Center for Education Statistics, 2022), and insight into educators' support enables greater understanding of the help presently offered. Mrs. Swanson's support included verbal scaffolding. She used planned scaffolding throughout her instruction and interactional scaffolding at children's points of difficulty. However, her interactional scaffolding offered inconsistent support for children experiencing comprehension difficulties.

The study results extend previous studies of educators' support during comprehension instruction. The results confirm that the kinds of verbal support showcased in prior research are used to help children comprehend informational text during instruction in kindergarten. Educators' explanations, modeling, hints, and prompts during explicit teaching of reading strategies and text characteristics, facilitating of text discussions, and writing activities have helped elementary students—including children experiencing comprehension difficulties—engage in and benefit from the instruction (Maloch & Bommer, 2013b; Pearson & Cervetti, 2017). Additionally, the results reveal that the circumscribed and inequitable help previously noted in reading lessons (e.g., Hedin & Gaffney, 2013) also is present when educators use interactional scaffolding during informational text comprehension instruction in kindergarten.

Mrs. Swanson's verbal scaffolding underscores the significance of contingency to the pressing issue of educators' support of children's informational text comprehension. Educators' offering of additional support at children's points of difficulty is essential to the functioning of their lessons, but children's opportunities to engage in and benefit from the instruction also depend on educators' decisions about when and how to help each child experiencing difficulty. In the third lesson excerpt, Mrs. Swanson's use of interactional scaffolding helped only the first child who experienced difficulty recall ideas from the video. In the fourth lesson excerpt, Mrs. Swanson's repeated use of the same scaffolding failed to provide the higher level of help needed by the first three children who attempted to share the word's meaning. In both lesson excerpts, Mrs. Swanson's

support focused on attainment of the lesson goals but also restricted individual children's opportunities to engage in and benefit from the instruction when they were experiencing difficulties. Given the enduring disparities observed in fourth-grade students' reading scores (National Center for Education Statistics, 2021), the concern is not only about enabling all children's learning; also of specific interest is individual children's comprehension. Using interactional scaffolding to help children resolve their own points of difficulty during instruction can enable educators to address individual children's difficulties without obstructing children's collective attainment of the lesson goals.

The current study suggests that, during informational text comprehension instruction in kindergarten, more consistent recognition of (a) who is experiencing difficulty and (b) who is being supported at points of difficulty is required. During whole-group lessons, a focus on supporting children in resolving their own points of difficulty would enable increased opportunities for individual children to engage in and benefit from instruction. Useful guidance for enacting the contingent support during instruction is available from published descriptions of educators' scaffolding moves (e.g., Zucker et al., 2020).

Also, an expanded focus on kindergarten educators' support of children's informational text comprehension in professional development and teacher education is needed. Enabling educators' knowledge and skill in the kinds of support showcased in prior research (e.g., Maloch & Bomer, 2013b) is foundational to children's engagement in and benefiting from instruction. However, attending to educators' learning about interactional scaffolding and in-the-moment use of the scaffolding to support children's own resolving of points of difficulty would allow educators to address not only their lesson goals but also the additional comprehension difficulties individual children may be experiencing. Introducing, modeling, and offering opportunities to practice the verbal scaffolding moves previously used with kindergarten students (e.g., Ankrum et al., 2014) during professional development activities and teacher education coursework would provide increased opportunity for educators' development of knowledge and skill in helping children resolve points of difficulty.

Additionally, increased recognition and adjusting of educators' support for individual children's difficulty will necessitate routine analyses of which children are receiving help during each lesson. Children do not have equal opportunity to engage in and benefit from informational text comprehension instruction (e.g., Duke, 2000), and an understanding of which children tend to be the focus of help is foundational to identifying classroom trends in the contingency of educators' verbal scaffolding. Researchers and teacher educators will need to help kindergarten educators develop systems for routinely capturing, analyzing, and changing their instructional trends. Lesson excerpts such as those included in the current study could be used to enable educators to discuss similarities and differences in the interactional scaffolding that has been provided and to identify patterns in the helping of individual children during their participation in professional development activities and teacher education coursework.

Moreover, future investigation of the contingency of kindergarten educators' support during informational text comprehension instruction is urgently needed. The current study had several limitations. For example, Mrs. Swanson's classroom demographic profile, which reflected the district's enrollment patterns, included only partial representation (i.e., below-grade-level readers) from the student groups most at risk of persistent comprehension difficulty. Exploration of educators' support in kindergarten classrooms with greater racial, linguistic, and socioeconomic diversity would yield increased understanding of the extent to which the trends at children's points of difficulty are the same

in educators' interactive scaffolding of BIPOC students and White students, as well as for English learners and low-income students and their peers. Also, the school's schedule limited data collection to Mrs. Swanson's reading instruction block during the spring semester. Investigation of educators' support when informational text is used in science and social studies lessons and from the start to the end of the year would reveal whether the same patterns are present across subject areas and across the full span of kindergarten. Moreover, examination of the effects of Mrs. Swanson's help at children's points of difficulty on their learning was beyond the study's scope. Future analyses of children's learning would clarify how educators' interactional scaffolding impacts each child's comprehension and long-term growth.

Conclusion

The current study's showcasing of one kindergarten educator's verbal support for children's comprehension raises further concern about children's opportunities to engage in and benefit from informational text comprehension instruction. Although only the first of the elementary school years, children's opportunities in kindergarten remain foundational to addressing the issue of their persistent comprehension difficulty. Rodgers et al. (2016) argues, "There seems to be something about the nature of teacher–student interactions at the point of difficulty that matters to student progress" (p. 345). Greater understanding of educators' support at children's points of difficulty is useful for informing contemporary conversations and efforts designed to improve informational text comprehension instruction at the start of children's school careers.

About the Author

Nicole M. Martin is an assistant professor in the Department of Elementary Education at Ball State University, where she teaches courses, engages in research, and partners with schools. Dr. Martin's scholarship focuses on understanding and enabling literacy teaching and learning in content areas such as science and social studies in early childhood and elementary classrooms. Recognitions for her teaching and research have included "Teacher of the Year" and "Outstanding Dissertation Award Finalist."

Acknowledgements

This work was supported by the SEET grant funded by Teachers College, Ball State University. Also, I wish to acknowledge Diane Bottomley and Amy Heath for their contributions to the completion of this study.

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