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Making the Most of Read-Alouds to Support Primary-Grade Students' Inference-Making

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By using inferential questions, scaffolding, and feedback, teachers can make the most of read-alouds to support primary-grade students' inference-making, an essential component of reading comprehension.

Ms. Lee (all names are pseudonyms), a first-grade teacher, wanted to find a way to support her students' inference-making, even as they were still learning to decode text. She decided to use her daily read-alouds as one way to integrate inference-making support. So, each day as she read a book aloud to her students, she paused at points in the book where an inference was needed to comprehend the text and asked an inferential question—often a how or why question to get at information that wasn't explicitly stated in the text. She encouraged her students to use parts of the text she had already read to help answer the question, and as needed, modeled how to do so by thinking aloud: "I know this happened from the book… and I know that happened from the book… when I put these two ideas together, I can make an inference to help me answer the question!" Students eagerly shared their answers, first with each other, and then after Ms. Lee would call on one or two to share with the group. After hearing their answers, she responded to the students and reinforced the correct inference by explaining why the inference was correct.

One day, at the end of a read-aloud session, she asked her students what they thought it meant to make an inference. "You can make inferences when you put two, um, you put like a few ideas, and mush them together [placing both palms together] into a big, um, new idea," Jamal explained to his classmates. Ms. Lee shared this anecdote with us to illustrate how her students gained insights about making inferences and comprehending texts.

Generating accurate inferences is essential for successful comprehension of text (Cain et al., 2001; Kendeou et al., 2014; Kintsch, 1998). However, many students experience difficulties in making inferences. For example, the latest Nation's Report Card revealed that more than one-third of fourth-grade students encountered difficulties in making simple inferences during reading and, subsequently,

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in comprehending the overall meaning of texts (National Assessment of Educational Progress [NAEP], 2019). Thus, students need instructional support for inference-making starting in the early grades to prevent later difficulties in comprehending texts. In response to this persistent issue, we (former teachers, teacher educators, and researchers) collaborated with teachers to design and develop a suite of tools called *Inference Galaxy*, which supports primary-grade (K-2) students' inference-making. As part of our collaboration, we developed an instructional process for teachers to guide students to make inferences during one of the most common activities in K-2 classrooms: read-alouds.

In this article, we share findings from our research in these K-2 classrooms. Then, we describe how teachers can plan and implement their own read-alouds to support students' inference-making through inferential questions, scaffolding, and feedback. But first, we start by discussing the importance of inference-making processes and instructional principles to support students' inference-making.

PAUSE AND PONDER

- How and how often do you provide primary-grade students with instructional support for inference-making?
- How do you plan read-aloud lessons to develop primary-grade students' inference-making?
- What challenges or concerns arise when you engage primary-grade students in read-alouds to develop their inference-making?
- What instructional strategies do you use to enhance primary-grade students' inference-making during read-aloud lessons? Do you think these strategies are effective? Why or why not?

Inference-Making: Why Is it Important? What Are the Processes?

An inference can be defined as information or idea that is not explicitly stated, but can be generated based on information that we have seen, heard, or read (e.g., via read-alouds or videos; Kendeou et al., 2019). Texts do not always explicitly state or provide all of the information needed for successful comprehension, so it is critical for readers to generate accurate inferences about information left out or implicit in text (Cabell & Hwang, 2020). Indeed, most reading models and frameworks recognize inference-making as a critical component of reading (e.g., the Active View of Reading, Duke & Cartwright, 2021; the Direct and Indirect Effects Model of Reading [DIER], Kim, 2017), and researchers have shown that good inference-making skills can lead to successful comprehension of text (e.g., Elleman, 2017; Hall, 2016). Students who struggle to make accurate inferences are likely to encounter difficulties in comprehending texts (Kendeou et al., 2014). Often, their comprehension is limited to locating or recalling information explicitly stated in a text, while "reading between the lines" and understanding the gist of text is more challenging.

The inference-making process consists of two stages (McMaster et al., 2019). First, a reader activates different information from a text (i.e., current information) and/or previous information stored in long-term memory (i.e., background knowledge). Second, the reader integrates the information to generate the inference. These two stages—*activation* and *integration*—imply potential sources of difficulties in making inferences: knowing the relevant information and putting the pieces of information together. Because background knowledge is critical to make inferences, students with less background knowledge can experience challenges in making inferences (McNamara & Kintsch, 1996). In addition, even when relevant background knowledge is activated (i.e., the first stage was completed), this does not guarantee that the second stage (i.e., integration) will take place.

Effective instructional support is responsive to the potential sources of difficulties. By capitalizing on read-alouds, teachers can address the potential sources of difficulties in inference-making. That is, read-alouds can not only help students develop their inference-making skills (Kelly & Moses, 2018), but also build students' background knowledge (Cabell & Hwang, 2020). During read-alouds, teachers can support students' understanding and mastery of the activation and integration stages by scaffolding students' inference-making and providing immediate feedback during read-alouds (Kendeou et al., 2019). In doing so, teachers can use simple, but theory-informed language consistently. Back to the vignette, by saying "I know this happened… and I know that happened…" the teacher facilitates the activation stage by helping students activate relevant knowledge, and by saying "when I put these two ideas together, I can make an inference…" the teacher facilitates the integration stage by modeling the integration of the activated knowledge. Inference-making is often automatic for skilled readers, so unpacking these inference-making processes, activation and integration, and helping students reflect on them can bolster their inference-making. Also, engaging students in read-alouds of texts connected to one another around science or social

studies content can boost students' background knowledge (Hwang et al., 2022).

Aligning Read-Alouds with Instructional Principles to Support Inference-Making

Read-alouds can support students' inference-making most effectively when their design is informed by research. The Inferential Language Comprehension Framework (iLC) draws on major findings from research on comprehension, media, and inference-making and provides instructional principles for designing instruction to support inference-making across a variety of modalities, including read-alouds (Kendeou et al., 2019; McMaster et al., 2019). Here, we explain the four major principles of the iLC framework and its implications for designing read-alouds (see also Table 1).

First, the iLC framework states that *inference-making is a core general skill*. This means that inferences are crucial for learning across different subject areas (e.g., science, mathematics, history, engineering, music). It also means that students' inference-making skills can transfer across different modalities of communication (i.e., visual, oral, or written forms of communication). For example, students' inference-making while listening to their teacher's read-alouds (i.e., oral presentation of text) can transfer to inference-making when students begin reading texts by themselves (i.e., written forms of text). Because much of learning occurs through reading, and inference-making skills can transfer across different subjects, the ability to make inferences can be a springboard for developing knowledge and skills in different subject areas. Thus, students need support to generate inferences effectively starting in the early elementary grades.

Second, *inferential questions can support students' inference-making* (Graesser & Franklin, 1990; Zucker et al., 2010). Inferential questions are those that ask students to make connections between multiple pieces of information in a text (i.e., bridging inferences) or between information in a text and their background knowledge (i.e., elaborative inferences; Cain et al., 2001). Inferential questions during read-alouds can guide students to think beyond explicit information in a text (McMaster et al., 2019). When students attempt to answer inferential questions, it can facilitate the activation of previously stated information in a text and/or students' background knowledge, as well as bolster the integration of new information with previously stated information and/or background knowledge. Questioning can also support language development because answering questions often demands students to elaborate on their answers (Kelly & Moses, 2018). Therefore, students can benefit from answering inferential questions during read-alouds.

Third, *scaffolding students' inference-making* and *providing feedback* can enhance students' inference-making and comprehension (McMaster et al., 2014). Scaffolding can be defined as "supported situations in which children can extend current skills and knowledge to a higher level of competence" (Rogoff, 1990, p. 93). In the context of read-alouds, scaffolding can take place in two steps: modeling and prompting. Teachers can first model how inferences are generated. Then, teachers can prompt students to recall and integrate relevant information in text or from background knowledge. After scaffolding, teachers can provide immediate feedback to students' inferences.

Table 1
Inferential Language Comprehension Framework (iLC) and its Classroom Implications (Adapted from Kendeou et al., 2019)

Instructional principles from iLC	Implications
1. Inference-making is a core general skill that transfers across different subject areas.	■ Read-alouds can be leveraged to support inference-making in early grades. ■ Inference-making during read-alouds can transfer to that in independent reading and content-area learning. ■ Therefore, students need support to generate accurate inferences effectively in early grades.
2. Inferential questions can support students' inference-making.	■ Inferential questions need to be embedded into read-alouds to support inference-making.
3. Scaffolding can enhance students' inference-making.	■ Modeling, prompting, and immediate feedback should be provided to support students' responses to inferential questions during read-alouds.
4. Background knowledge can support inference-making.	■ Inference-making can be better supported in the context of building students' background knowledge.

Immediate feedback can prevent missed or inaccurate integrations of ideas from hindering further comprehension of and learning from text.

Fourth, inference-making can be better supported in the context of *building students' background knowledge* because background knowledge can facilitate generation of accurate inferences. Read-alouds can help build students' background knowledge (Cabell & Hwang, 2020), while supporting inference-making (Zucker et al., 2010). The potential of read-alouds can be optimized when texts for read-alouds are aligned with the instructional goal of building background knowledge (Hwang et al., 2022). For example, when an instructional goal is to support students to learn about koalas, teachers can select multiple texts that are connected to one another around characteristics and habitats of koalas. Students can practice integrating what they already know (e.g., food koalas eat) with new information (e.g., where koalas live) during read-alouds of the texts, which can support building background knowledge and making inferences.

In summary, teachers can support students' inference-making development during the early grades by asking inferential questions and providing scaffolding and feedback to students during read-alouds. Students' inference-making can be better supported when texts are connected to one another around similar content or themes. As learning new skills necessitates multiple opportunities to practice (Cepeda et al., 2006), we suggest that read-alouds to support inference-making should be provided to students regularly. Indeed, the K-2 teachers that we have partnered with also emphasized that students need multiple opportunities to practice inference-making.

Brief Description of our Research for Supporting Inference-Making

We have collaborated with K-2 teachers to design an instructional program called *Inference Galaxy*. *Inference Galaxy* was designed based on the instructional principles (explained above) to support primary-grade students' inference-making. In Inference Galaxy, students had multiple opportunities to practice inference-making during read-alouds of texts and/or instructional videos. The program was aligned with ELA standards (Common Core State Standards) and the state science and social studies standards (for further explanation of the program, McMaster et al., 2019, or go to https://inferencegalaxy.com/).

Evidence from research on *Inference Galaxy* supports the potential of read-alouds in enhancing inference-making in young children. We found that inference instruction that engaged students in interacting with read-alouds and videos improved primary-grade students' inference-making (Kim et al., 2022). For example, students who participated in the inference instruction improved their inferential skills within a 10-week period. The difference in students' inference-making scores before and after the 10-week instruction was large (Cohen's *d* effect size = .87; Kim et al., 2022). Furthermore, evidence indicates that providing scaffolding and feedback is associated with improved accuracy of students' inferences to inferential questions (Butterfuss et al., 2022). The difference in students' inference-making scores before and after receiving scaffolding and feedback was also large (*d* = 2.42, Kim et al., 2022). In addition, teachers shared with us that read-aloud lessons were feasible to be implemented in their daily instruction (McMaster et al., 2019). Motivated by these promising results, in this paper we share how teachers can prepare their own read-aloud lessons guided by the instructional principles for inference-making, as we did within the context of *Inference Galaxy*.

How Can Teachers Prepare Read-Alouds to Support Students' Inference-Making?

Typical read-aloud lessons can be transformed to effectively support students' inference-making by: (1) selecting texts that can enhance inference-making and background knowledge, (2) selecting key vocabulary words to teach that are critical to comprehend text, and (3) preparing inference questions to ask students during read-alouds of the selected texts. These three suggestions are actionable steps teachers can undertake in planning read-aloud instruction for supporting inference-making.

Step 1: Selecting Texts to Read-Aloud

Preparing read-alouds starts with text selection. Because background knowledge is essential in inference-making, using connected texts around topics (for informational texts) or themes (for narrative texts) can enhance inference-making. National and state/district standards can guide teachers' text selections for their read-alouds (see Table 2). Content-area standards can help teachers decide science and social studies topics for their read-alouds. After selecting a topic from standards (e.g., animals), teachers can select multiple texts that are related to one another around the topic (e.g., animals living in the arctic, animals living in rainforest). For narrative texts, teachers can choose a theme (e.g., courage) and select multiple texts related to the theme (e.g., multiple stories describing how different characters overcome obstacles with courage and providing multiple perspectives related

Table 2
Examples of Text Selection for Informational and Narrative Texts

Informational texts about animals and plants	Narrative about feelings/emotions
Life in a Desert by Carol K. Lindeen	*Boats for Papa* by Jessixa Bagley
The book is about animals and plants that live in deserts.	The book shows feelings when missing your family.
Sea Creatures by Anne Faundez	*Life Without Nico* by Andrea Maturana
The book is about animals that live in the ocean.	The book shows feelings when missing your friends and feeling of loneliness.
Artic Animals by Jill McDonald	*Grumpy Monkey* by Suzanne Lang
The book is about animals that live in polar regions.	The book shows feeling of grumpiness and how others could make you feel better.
Secrets of Animal Camouflage by Carron Brown	*Jabari Jumps* by Gaia Cornwall
The book is about how animals adapt to their environment.	The book shows how courageous the main character was even when feeling nervous and scared.

Note. Science topics (animals and plants) are aligned with Next Generation Science Standards (NGSS), K-ESSE-1: Relationship of plants and animals with habitats. Themes for narrative texts (feelings) are aligned with Minnesota Social and Emotional Learning (SEL) practice guidance (K-3): Recognize and label different emotions and feelings.

to courage). In addition, based on the Common Core State Standards, teachers can balance the use of informational and narrative texts for their read-alouds (NGA Center for Best Practices & CCSSO, 2010).

In addition, engagement potential and complexity of texts need to be considered when selecting texts for read-alouds (see Hiebert, 2013, for more information about dimensions of text complexity). Teachers can consider whether style and illustrations (pictures, photos) of texts are attractive to students, as well as whether topics or problems described in texts are relatable to students (Pennell, 2014). Texts that represent students' home languages, culture, as well as their racial/ethnic identities can foster students' engagement in interacting with read-alouds and support their inference-making (Cho & Christ, 2022). Furthermore, if these texts also include diverse identities and cultures different from those of the students, it can enhance students' cultural competence (Aronson & Laughter, 2016). We encourage teachers to consider the length and complexity of texts for read-alouds to enhance students' inference-making, because texts that are sufficiently long and complex are more likely to include rich information and gaps in ideas. This richness and complexity can lead organically to "why" and "how" questions that would prompt students to make inferences. After selecting texts, teachers can determine the order of read-alouds based on length and complexity. Shorter texts can be read before longer texts as longer texts tend to be more complex and contain more information. Complexity can be determined by considering vocabulary or content (Hwang et al., 2021). Texts that contain many unfamiliar words can come later. Teachers can start with texts that have simpler content first and later move to texts with more complicated content.

Step 2: Selecting Vocabulary Words to Teach

Making inferences depends on the extent to which a reader knows vocabulary words in text. Thus, it is important to select vocabulary words to teach before read-alouds. Teachers can prioritize words that are important in comprehending a text for read-alouds and are unknown or relatively difficult for students (i.e., Tier 2 or 3 words; see Beck & Mckeown, 2007). Then, teachers can prepare to teach these vocabulary words explicitly before and throughout read-alouds. Providing child-friendly explanations or definitions of words will promote students' understanding of the words (Beck & Mckeown, 2007; see https://www.wordsmyth.net/ for student-friendly definitions of vocabulary words.) Teachers can also enhance students' learning by presenting an image or object for a target word (Wasik et al., 2016; Wasik & Hindman, 2014) and draw students' attention to the spelling and pronunciation of a target word (Rosenthal & Ehri, 2008). The teachers we collaborated with expressed that explicit teaching of vocabulary words before and throughout read-alouds was crucial to supporting inference-making and comprehension.

Step 3: Preparing Inferential Questions to Ask

Teachers can generate inferential questions by looking for gaps in cohesion in text (i.e., bridging inferential questions;

Figure 1
Examples of Inferential Questions about Missing Information

Informational	Narrative
Life in a Wetland **by Carol K. Lindeen**	***Red*** **by Michael Hall**
Two sentences in the book: • "Alligators crawl on land and swim in shallow water." • "They eat fish, frogs, and other small animals."	One sentence in the book: • "He was *Red*, but – wasn't very good at it." One picture in the book: • A picture of a blue firetruck drawn by *Red*
Missing information/idea (i.e., the gap in cohesion): • Alligators' prey, fish and frogs, live in shallow water.	Missing information/idea (i.e., the gap in cohesion): • *Red* was not good at being a red crayon because *Red* draws in the color blue.
An inferential question about the gap: • Why do alligators swim in shallow water?	An inferential question about the gap: • Why was *Red* not good at being a red crayon?
Scaffolding: • We know that alligators crawl on land and swim in shallow water, and we know they eat fish, frogs, and other small animals. When we put these two ideas together, we can make an inference that alligators swim in shallow water because they can find fish and frogs there to eat.	Scaffolding: • We know that *Red* wasn't good at being red, and we know that *Red* drew pictures in blue. When we put these two ideas together, we can make an inference that *Red* is not good at being a red crayon because *Red* cannot draw in the color red.

Note. The type of inferences the questions ask to generate is bridging inferences (Lea, 1995).

Lea, 1995) because the gaps are often not obvious to young students. For example, a text may say, "Ferns need shade to live. Many ferns live under the rainforest canopy." The gap in this text is that the rainforest canopy provides shade for ferns to live. An inferential question can be asked to students: "Why do ferns live under rainforest canopies?" It would help teachers to consider what information is not explicitly stated in a book but is necessary to comprehend the book, and then generate a question that can be answered by using two explicitly stated ideas from the book to make an inference.

In addition to bridging inferential questions, teachers can make inferential questions to generate reasonable predictions (i.e., elaborative inferential questions; Lea, 1995). For example, a text says, "Bees eat nectar and pollen," "Flowers create nectar and pollen." Based on the two ideas, it is reasonable to surmise that flowers are crucial for the survival of bees. The teacher could ask an elaborative inferential question: "What would happen to bees if flowers disappeared?" The reasonable prediction would be that bees cannot live if flowers disappeared; this is because bees would die if they do not eat food, and nectar and pollen from flowers are their food. To answer this question correctly, students need to use the two sentences to make an inference about the unknown situation and draw on their background knowledge to reason about the potential consequences of flowers disappearing.

Importantly, inferential questions need to reflect different communicative goals by text genre. Informational texts convey information about the natural and social world (Duke et al., 2012), thus inferential questions can focus on, for example, mechanisms and reasons behind animal behavior or function of government institutions. Narrative texts share experiences or interpretations of experiences (Duke et al., 2012). Thus, inferential questions for narrative texts may focus on characters' feelings and thoughts, or how settings or interactions influenced characters' actions. Figures 1 and 2 provide more examples of inferential questions for

Figure 2
Examples of Inferential Questions to Make Reasonable Predictions

Informational	(biographical) Narrative
What Magnets Can Do **by Allan Fowler**	***On a Beam of Light*** **by Jennifer Berne**
Two sentences in the book: • "A magnet is a piece of metal that can attract another piece of metal." • "The only metals a magnet attracts are iron, steel, cobalt, and nickel."	One sentence in the book: • "Albert thought and figured until the very last minute of the very last day of his life." One picture in the book: • "He asked questions never asked before and his thinking helped us understand our universe as no one ever had before."
An inferential question about the prediction: • What would happen when you try picking up an eraser with a magnet?	An inferential question about the prediction: • What would happen if we asked big questions about the world and tried to answer them?
Scaffolding: • When we put these two ideas together, we can make an inference that a magnet cannot pick up an eraser because erasers are not made of iron, steel, cobalt, or nickel.	Scaffolding: • When we put these two ideas together, we can make an inference that asking big questions and trying to answer them could help us learn more about the world that we did not know before.

Note. The type of inferences the questions ask to generate is elaborative inferences (Lea, 1995).

informational and narrative texts, respectively. In addition, we recommend incorporating three to five inferential questions per book. Indeed, teachers reported to us that three to five questions per book are adequate and feasible to ask during real-alouds with K-2 students.

What Do Read-Alouds for Supporting Inference-Making Look like?

In this section, we present examples of teachers leveraging read-alouds to support students' inference-making. The examples are from first-grade teachers who read aloud a book titled, *Dolphins*.

Beginning of Read-Aloud

Note that in the following example, Ms. Bak (all names are pseudonyms) introduces the book to students with a brief overview of what it is about. She continues to explain how the previous and current books are related to each other by reminding students of what the previous book was about. Then she clearly tells students that they will practice inference-making during read-alouds of this book and explains what inferences are. Important vocabulary words are taught before starting read-alouds. The teacher also highlighted that they will encounter the words in the book they are about to read.

Teacher: We are going to read a book, *Dolphins* by Melissa Stewart. We will learn interesting information about dolphins, for example, their body parts and the food they eat. Can you guess where these dolphins are [show the cover of the book]?

Shanice: Ocean.

Teacher: Yes, Shanice. Most of them live in an ocean. Anyone remember what we read yesterday?

NamJoon: Sharks living in an ocean.

Teacher: Correct, NamJoon. Yesterday, we read a book about different types of sharks living in an ocean. Now, we will learn more about dolphins.

First, I'll tell you about some words that will help you understand the book. Whisper predator with me. *Predator*.

Students: *Predator*.

Teacher: Predators are some animals that eat other animals for food. Foxes are predators of rabbits. Owls are predators of mice. Can you think of other predators?

Hayden: Birds are predators of spiders.

Teacher: Great example, Hayden. Now let us read the book. In the book, we'll learn that some sharks are predators of dolphins. While we are reading, I'll stop and ask some questions to help us make inferences. Remember, an inference is when we connect something we see, hear, or read to something we already know to make a brand new idea!

Questioning, Scaffolding, and Feedback Strategies during Read-Aloud

Note below that Mr. Chaska asks inferential questions and provides scaffolding to guide students through processes of inference-making. For scaffolding, the teacher first provides modeling of how he makes an inference and then prompts students to make inferences with peers (think-pair-share). Finally, the teacher offers feedback contingent to students' inferences. For the modeling and feedback, he uses consistent language to describe the process of the activation ([raising one hand] "I/we know that…" [raising the other hand] "I/we know that…") and integration ([collapsing hands together] "When we put these two ideas together, we can make an inference"). Also note that the teacher points out when they come across the word *predator* and reminds or asks students what it means throughout the book reading.

Teacher (modeling): (Stopped reading at the relevant point to ask the inferential question that the teacher prepared)

For the first question, I'll show you how we can make inferences to answer questions about the book. Then, it will be your turn to make the inferences! Here's the first question. What would dolphins in charge of watching for predators do when they see sharks? Remember predators are animals that eat other animals for food.

(Phrases in quotation marks are sentences written in a book. The teacher is modeling how to use two pieces of information in the book through think-aloud.)
[Raising one hand] I know that "dolphins squeak, squeal, and whistle to talk to each other."
[Raising the other hand] I know that "some dolphins in a pod are in charge of watching for sharks and other predators"
[Clasping hands together.] When we put these two ideas together, we can make an inference. Dolphins in charge of watching for sharks and other predators can tell other dolphins in a pod that sharks are coming by squeaking, squealing, and whistling.

Teacher (prompting): (Continued reading and stopped at the relevant point to ask another inferential question that the teacher prepared)
Now it's your turn to make an inference! Turn to a neighbor and tell them why dolphins rise to the ocean surface and breathe.
(Students are taking part in think-pair-share).
Anyone who would like to share thoughts?

My-Duyen: They rise to see people and ships.

Teacher (feedback): It is possible, but let us look at what the book says. We want to make the inference why dolphins rise to the ocean surface using information in the book. Let us look at the information the book gives.
[Raising one hand] We know that "dolphins have lungs and breathe air."
[Raising the other hand] We know that "oxygen is in the air."
[Clasping hands] When we put these two ideas together, we can make an inference. Anyone who would like to share what the inference would be?

Yoon-Gi: Dolphins rise to surface and breathe air because they need oxygen in the air.

Teacher (feedback): That's right! Dolphins rise to surface to breathe the oxygen in the air above the water! Good thinking, everyone.

End of Read-Aloud

Ms. Chen closes the read-aloud by emphasizing the importance of making inferences during reading. She also tells students that they will continue to practice inference-making.

Teacher: Thank you for working hard and reading *Dolphins* with me. We were all great thinkers today because we used important ideas in the book to make good inferences. We are going to practice making inferences with a book about elephant seals tomorrow and keep getting better at making inferences.

Alternatively, before closing read-alouds, teachers can also make connections between the current and previous books. For informational texts, teachers can use a semantic map to show how ideas from different books are related to one another (see Figure A1; Hwang et al., 2021). Making a semantic map can support learning of vocabulary because students can see how words are connected to one another (Hiebert, 2019). Semantic networks among vocabulary words can also facilitate inference-making (Daugaard et al., 2017). For narrative texts, teachers can engage students to discuss how situations or reactions by characters in different texts are similar or different with one another. This way, teachers can help students connect to different stories on a deeper level and infer what they would do, say, or feel if they were in similar situations, or they were characters.

Conclusion

Inference-making is critical for deep text comprehension and ultimately learning from text. In collaboration with teachers, we designed read-aloud lessons to support early-grade students' inference-making by aligning read-alouds with previous research and theory on inference-making (iLC, Kendeou et al., 2019). Our study indicated the positive role of read-aloud lessons in enhancing students' inference-making. Specifically, teachers can make the most of read-alouds to support inference-making by carefully selecting texts and vocabulary words to teach. Asking inferential questions *during* read-alouds can also help students use their prior knowledge and information in text. Furthermore, providing scaffolding and feedback can help students understand how inferences can be generated (i.e., activation and integration processes), a crucial insight for comprehension. When teachers connect read-aloud instruction with research and theories on inference-making, students' inference-making can improve (Hall, 2016), thereby strengthening both language comprehension (Elleman, 2017) and reading comprehension (Silverman et al., 2020).

TAKE ACTION!

1. Select texts that are connected to one another around topics (for informational texts) or themes (for narrative texts) and sequence the texts by considering text complexity and content goals.
2. Select vocabulary words to explicitly teach before and throughout the read-aloud (e.g., providing child-friendly definition of words, showing accompanying pictures).
3. Analyze the texts to find missing or implicit ideas in the texts and make inferential questions related to these cohesion gaps.
4. Explicitly teach students what the book is about, what inferences are, and meaning of vocabulary words before and throughout read-alouds.
5. Show students how to make inference through modeling.
6. After modeling inference-making, ask inferential questions throughout read-alouds and prompt students to make inferences.
7. Give students opportunities to share their inferential ideas in pairs and with the whole group.
8. Provide scaffolding and feedback to support students' inferences.

NOTES

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MORE TO DISCOVER

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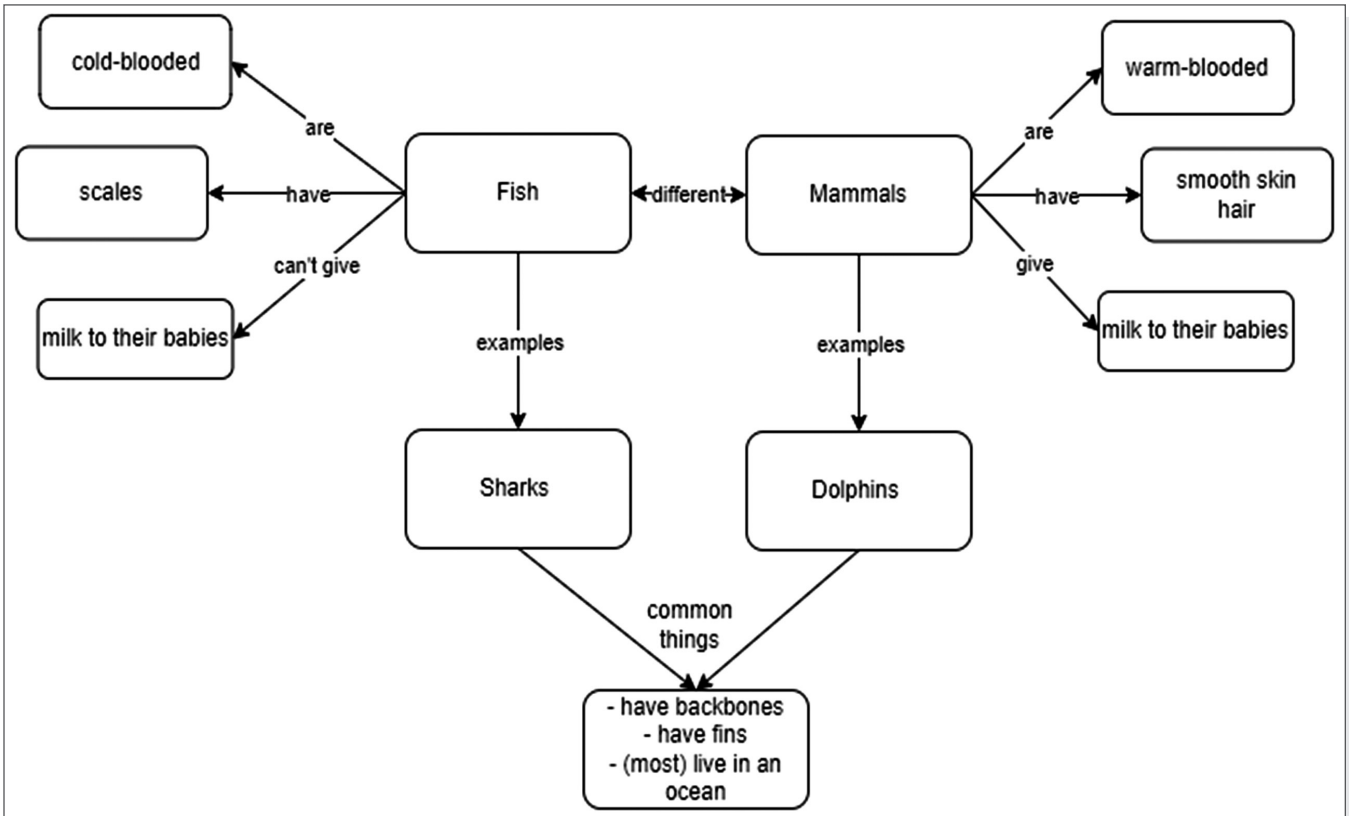
Appendix A

Figure A1
Semantic Map for Animals



Note. Teachers can engage students in adding words and phrases to the semantic map as they continue to read books about different animals to their students. For example, teachers can first read books about sharks to students and then make a semantic map about sharks with students. Afterwards, they can read aloud a book about dolphins, and then teachers can extend the semantic map by adding words and phrases about dolphins with their students. Teachers can engage students in comparing and contrasting between sharks and dolphins by making connections in the semantic map. Well-developed semantic relations can be a facilitative condition for inference-making (Daugaard et al., 2017). For more examples, see Hwang et al. (2021).