

USING QUESTIONS TO DRIVE INQUIRY



How do you encourage students to ask higher order “fat” questions (as opposed to lower-order “skinny” questions) that will help them with their investigations?

It seems so easy: Just ask a question, and students will get to work figuring out the answer. Voila, inquiry is occurring! Unfortunately, it's much more complex than that to facilitate critical thinking in the classroom. A significant part of inquiry-based learning rests on the questions teachers and students ask themselves and others. Asking a great question is fodder for the type of thinking every teacher hopes students learn to do.

Questioning Gone Wrong

Before we focus on the type of questions that get students thinking, it's important to note those that don't. A common, but ineffective, questioning approach is known as I-R-E.¹ The teacher *Initiates* a question, a student (or students) *Respond*, and the teacher *Evaluates* those responses. Students call this “guess what's in the teacher's brain,” and only a few of them in any given classroom are willing to play the game. For example:

Teacher: Why did Marty [a character in the book *Shiloh*?] steal the dog from Judd Travers? Joseph?

Joseph:³ Because Judd Travers was not a good owner.

Teacher: Good. But what was he doing that made him a bad owner? Brandi?

Brandi: He beat the dog and had him on a chain all the time.

Teacher: Right. Why did Judd do that to his dog?

And the game continues, with students answering questions for which the teacher already knows the answers.

Before we go too much further, it's important to note that literal questions do have a place in the classroom. But limiting a lesson to these types of questions will not ensure that students think deeply. In this article, we offer advice about two types of questions that can facilitate students' deep thinking while also recognizing other types of questions can do the same thing.

Essential Questions

An essential question is just that: a question. But it's a question for which there is no clear-cut right answer. As Jay McTighe and Grant Wiggins⁴ noted, an essential question:

1. Is *open-ended*; that is, it typically will not have a single, final, and correct answer.
2. Is *thought-provoking* and *intellectually engaging*, often sparking discussion and debate.
3. Calls for *higher-order thinking*, such as analysis, inference, evaluation, prediction. It cannot be effectively answered by recall alone.
4. Points toward *important, transferable ideas* within (and sometimes across) disciplines.
5. Raises *additional questions* and sparks further inquiry.
6. Requires *support* and *justification*, not just an answer.
7. *Recur*s over time; that is, the question can and should be revisited again and again.

Essential questions encourage inquiry and discussion, disagreement

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and disequilibrium, and above all a humbling acceptance that some matters are never truly settled. In schools whose teachers and administrators truly believe in critical inquiry, the curriculum is organized around essential questions that the students propose and vote on. The adults in the school get no vote on these essential questions; only students do (in many schools, it is the adults who select the questions). In most schools that use essential questions, the entire school focuses on the same question at the same time, differentiating readings and lessons based on the ages of the students. At our school, Health Science High and Middle College in San Diego, California, grade 9 to 12 students selected the following essential questions for the 2015-2016 school year (one per quarter):

1. Who do you want to be?
What do you want to be?
2. What's your story?
3. Which is stronger, mind or heart?
4. What defines beauty?

Students are expected to read widely to determine their personal response to the question, incorporating ideas from all of their classes. Wide reading builds background knowledge and vocabulary. Simply said, readers who read a lot know more about the world. In addition, readers who read a lot end up asking more questions and for broader purposes, rather than simply reading to locate answers to specific questions. For example, Raquel, a 6th grader, read *Wonder*⁶ as part of her reading selections in response to the essential question, "What defines you?" Interestingly, Raquel also developed her own question, namely the way in which disability defines a person, and she read a lot of books on the topic during the nine-week investigation.

Text-dependent Questions

At a more lesson-specific level, text-dependent questions have the potential to facilitate inquiry and critical thinking. Text-dependent questions require a careful reading of the text so that students can produce evidence in their verbal or written responses. There are several ways to structure questions so that students return to the text to find evidence for their responses. Our experience suggests that these questions should not be focused solely on recall. Rather, emphasis should be placed on using explicit and implicit information from the text to support one's reasoning.

At least six categories of questions can be used to structure a progression of text-dependent questions that move from explicit to implicit meaning, and from sentence level to whole text and across multiple texts.

My Shadow*

By Robert Louis Stevenson

I have a little shadow that goes in and out with me,
And what can be the use of him is more than I can see.
He is very, very like me from the heels up to the head;
And I see him jump before me, when I jump into my bed.

The funniest thing about him is the way he likes to grow—
Not at all like proper children, which is always very slow;
For he sometimes shoots up taller like an India-rubber ball,
And he sometimes gets so little that there's none of him at all.

He hasn't got a notion of how children ought to play,
And can only make a fool of me in every sort of way.
He stays so close beside me, he's a coward you can see;
I'd think shame to stick to nurse as that shadow sticks to me!

One morning, very early, before the sun was up,
I rose and found the shining dew on every buttercup;
But my lazy little shadow, like an arrant sleepy-head,
Had stayed at home behind me and was fast asleep in bed.

*<http://www.poets.org/poetsorg/poem/my=shadow>.

Some of these question types may not be suitable for a particular reading; all of them do not need to be used with every piece of text.

These questions can be organized into three phases:⁶

- What does the text say?
- How does the text work?
- What does the text mean?

It's important to note at this point that text-dependent questions are meant to be used in fostering collaborative conversations. Unlike the I-R-E process described earlier, text-dependent questions should engage students in thinking and talking, not just responding to the teacher. We believe that while beginning at the literal level is important, this should not be the end-point. Rather, as soon as students understand the text at the literal level, the teacher should move the questions to the structural level. In one class,

this may require 10 minutes of discussion and investigation; in another classroom, three minutes; and still another, 22 minutes. Students' discussions about text-dependent questions should signal the teacher regarding the appropriate time to push the thinking deeper. Of course, students can also ask text-dependent questions of themselves and each other as they learn to read and think this way. We have found that they do so after they have experienced this type of learning over time.

In the next section, we will describe each of the types of questions and provide example questions from the poem, "My Shadow"⁷ by Robert Louis Stevenson, focusing on students in grades 4 and 5.

General understandings. These questions get at the gist of the text. What does the author want us to know or understand from the content of the poem or prose? Often, these questions focus on the (1) main claim, as well as the evidence used to support it, (2) the arc of the story, or (3) the sequence of information. For Stevenson's poem, the teacher might ask: *What is the subject of this poem? Is the narrator a boy or a girl? How do you know?*

Key details. These questions focus on important details the author uses to inform the reader. Thus, these questions often include *who, what, where, when, why, or how* in the stem. They can also include more nuanced details that add clarity to the reading. Key detail questions tend to focus on information presented directly in the text, which is important enough to warrant a question. These are recall questions, and by themselves would not make for a strong lesson. For the poem, a teacher might ask: *When does the shadow appear? What is the "funniest" thing about the shadow? What happens to the shadow in the last stanza?*

Vocabulary and text structure. Some of the questions that students must consider revolve around the vocabulary used by the author,

as well as the structure of the text itself. Text structure questions require that students consider the organization of the reading, such as the use of problem and solution or character dialogue to propel action. In asking questions related to vocabulary, teachers must be sure to include both denotation (definitions) and connotation (the idea or feeling that a word invokes). In addition, as appropriate, the questions may focus on shades of meaning, word choice, figurative language, idioms, and confusing words or phrases. Finally, questions can provide students with an opportunity to use context or structural clues to determine the meaning of unknown words. For the poem, a teacher might ask: *Describe what the shadow looks like. Is it always the same? What is a notion? The narrator says the shadow is not like "proper children." What does proper mean?*

Author's craft and purpose. This area of questioning relates to the choices that authors make as they write. Topics include the genre of the text, the role of the narrator, as well as literary devices. In addition, understanding the overall purpose of the text guides students in following the flow of the reading. Readers should understand whether the text is meant to inform, entertain, persuade, or explain something to them. In some situations, the text has a specific bias or provides only part of the story. When this occurs, students could be asked about the perspectives not explored in the text. For the poem, a teacher might ask: *Does this poem rhyme? How does this affect the tone of the text? What does the narrator call his shadow? When the shadow is described and shooting "up taller like an India-rubber ball" and getting "so little that there's none of him," what's actually happening?*

Inferences. Some of the questions students need to consider will require them to understand how the parts of a text build to a whole. This probes each argument in persuasive text, each idea in informational text, or each key detail in literary text. Importantly, inference questions require that students have read the entire selection so that they know where the text is going and how to reconsider key points in the text as contributing elements of the whole. For the poem, a teacher might ask: *How does the narrator feel about his shadow? How do you know? Does the narrator think of this shadow as being a part of himself? Why or why not?*

Opinions, arguments, and intertextual connections. The final category of text-dependent questions should be used sparingly, and typically comes after students have read and reread a text several times to fully develop their understanding. Readers should develop opinions about what they read, and they should be able to argue their perspective using evidence from the text and other sources, experiences, and beliefs that they hold. For this poem, a teacher might ask: *The narrator says of his shadow: "what can be the use of him is more than I can see." Do you think he actually thinks shadows are useless? Think about your own shadow. Does it do some of the same things the shadow in the poem does? Which ones?*

Conclusion

Teachers can use essential questions and ask text-dependent questions to encourage critical thinking and facilitate inquiry. Having said that, we recognize that there is more to this type of learning than one question or even 10. Habits must be built, and expectations must be set. Procedures must be taught. And teachers have to trust the process. We felt that it would be helpful to other teachers to show how we focus on questions because we have seen the power in using the just-right question to engage learners. ✍

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NOTES AND REFERENCES

1. Names used are pseudonyms.
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3. Phyllis R. Naylor, *Shiloh* (New York: Atheneum, 1991).
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5. Raquel J. Palacio, *Wonder* (New York: Alfred A. Knopf, 2012).
6. Douglas Fisher, Nancy Frey, Heather Anderson, and Marisol Thayre, *Text-dependent Questions: Pathways to Close and Critical Reading, Grades K-5* (Thousand Oaks, Calif.: Corwin, 2015).
7. Robert Louis Stevenson, "My Shadow": <https://www.poets.org/poetsorg/poem/my-shadow>. This poem is in the public domain.