Contents

Before, During, After (BDA)

What is it?

A tool that helps students develop high-quality responses to classroom questions—whenever those questions are asked

What are the benefits of using this tool?

How often do teachers ask higher-order-thinking questions but get lower-level-thinking responses? One reason for this disconnect is that good responses depend on what teachers and students do before a question is posed and after an initial response is developed. Before, During, After outlines a three-phase thinking process that helps to increase student engagement and depth of thinking during classroom questioning. The three phases are preparing students to think BEFORE the question, posing the question in a way that invites students to explore possible responses (DURING), and processing student responses through probing, paraphrasing, and the use of varied classroom participation techniques (AFTER).

What are the basic steps?

1. Develop a question that you want students to think about deeply.

   Note: It is important to have a clear purpose for your question: Why are you asking it? What do you hope students will learn/discover by exploring it? How will you assess student responses?

2. Prepare students for deep thinking BEFORE posing the question by providing context and piquing student interest. See Teacher Talk for tips on how to provide context and increase interest.

3. Pose the question to the class. Make sure all students understand the question, and provide wait time DURING the process to encourage students to think about possible responses.

4. Make students' covert thinking overt by having students generate their initial thoughts on paper.

   Tip: Have all students set aside a dedicated thinking journal or learning log at the beginning of the year as a place to collect and record their thoughts.

5. Allow students to share and compare their initial thoughts with a partner. Encourage students to listen to each other's responses carefully, look for similarities and differences in their thinking, and generate additional thoughts or select the best idea.

6. Invite students to share their ideas as a class. Call on a wide variety of students to ensure high levels of participation.

7. Use probing questions, paraphrasing, and participation techniques to help students evaluate and expand their thinking AFTER they share their initial responses.
   - *Probe:* What is your evidence? How do you know that's so? And you think that because?
   - *Paraphrase:* Do I hear you saying …? Do you mean …?
   - *Participation techniques:* How many people agree? Who has a different point of view?

How is this tool used in the classroom?

✔ To train students to think deeply before, while, and after responding to questions

✔ To make the questioning process active

✔ To deepen responses through probing and participation techniques

EXAMPLE: A high school English class is reading Shakespeare's *Romeo and Juliet*. The teacher uses the BDA process to help students think about and discuss a soliloquy in which Juliet expresses her love for Romeo.

BEFORE: The teacher begins by asking students if they know what the word *naïve* means and if any of them has ever been accused of being naïve. After drawing on students' experiences, she reads Juliet's soliloquy aloud. Then, she poses two related questions: "Is Juliet naïve? Do you agree or disagree that this soliloquy reveals that Juliet is naïve?"

DURING: The teacher gives students time to think and jot down their initial ideas in their learning logs. Students compare their ideas with a neighbor. In pairs, students must use textual evidence to decide whether they agree or disagree with the premise that Juliet is naïve.

AFTER: The teacher initiates a whole-class discussion in which students share and justify their ideas using the text.

Teacher: So what do we think?

Student 1: I agree with the statement. Juliet is naïve.

Teacher: What evidence in the text leads you to believe that?

Student 1: Well, it's the way she talks. It's so gushy.

Teacher: How many of you agree?

Student 2: I agree. It sounds like an obsession, like she's a teenager with a bad crush.

Teacher: Can you give me an example?

Student 2: "Take him and cut him out in little stars,

   And he will make the face of heaven so fine

   That all the world will be in love with night

   And pay no worship to the garish sun."

Teacher: Does anyone disagree with the idea that Juliet is just an infatuated teenager?

Student 3: I disagree. I mean, just listen to the way she can express herself. Her ability to express herself is incredible. It's not young-sounding to me.

Teacher: Interesting. What language in particular are you referring to?

🌣 Teacher Talk

➜ To better prepare students for the question, provide background information or a context that will make the question more meaningful and interesting when you pose it.

Sample language: Have you ever heard of a mixed blessing? It means that something is both positive and negative at the same time. Take cars, for example. They get us where we want to go whenever we want. But they also create huge amounts of pollution, and car accidents cause thousands of deaths every year. Today, we'll be exploring a different mixed blessing: fracking.

➜ To increase student interest in your question, consider how you can use the "Eight Cs of Engagement" (Silver & Perini, 2010) to make your question especially intriguing. Some of the Cs, along with questions that engage these Cs, include

- **C**URIOSITY: Have you ever wondered why some animals hibernate and others don't? What's going on? Why do some animals hibernate?

- **C**ONTROVERSY: Should street artists like Banksy be studied alongside masters like Monet and Picasso?

- **C**REATIVITY: What if Thomas Edison had never lived? How would your life be different?

- Personal **C**ONNECTIONS: Have you ever rebelled against something? When is rebellion justified?

➜ Posing a question is different than asking a question. Posing is an invitation to explore possible ideas and responses. To help emphasize this point in the classroom, explain to students that the root of the word *question* is *quest*. A quest is a journey, a search for truth. Instead of questioning, invite the class to go "questing."

➜ Pausing several seconds after asking a question to give students time to think before responding and to refine their thinking is called wait time. Research indicates that when students have more time to think about their responses before they actually respond, they tend to participate more in class, think more deeply, and generate more thoughtful responses (Rowe, 1972; Tobin, 1987). Of course, it's not just the wait time that counts; it's also what students do with the time. By inviting students to write down their initial thoughts, you help them get their ideas out in the open; by allowing them to share their ideas with another student, you help them test and refine their ideas—and gain new perspectives.

➜ The probing and participation prompts/questions below enhance student discussions. Notice that they encourage thinking rather than looking for correct answers.

- Share your thinking.

- What are your ideas?

- Can you give me an example?

- That's an interesting way to think. How did you arrive at that idea?

- What's behind your idea? Can you explain your reasoning?

- Does anyone have a different idea?

- How many agree? How many disagree? Who's unsure?

Window Notes

What is it?

A tool that makes the note-taking process more engaging by encouraging students to record questions, personal reactions, and interesting connections in addition to facts

What are the benefits of using this tool?

Note taking is an essential part of classroom life, and it has a significant impact on student achievement (Dean et al., 2012). But ask most students (and most adults) about their experiences with taking notes and you'll probably get a shudder. Window Notes makes the process of taking notes more interesting for students by inviting them to jot down not just factual information but also questions, reactions, and connections they can make with what they're learning. Note that challenging students to generate different types of notes does more than enhance engagement; it stimulates active processing of the content in question, and it facilitates learning and retention as a result.

What are the basic steps?

1. Tell students that you want them to try making notes in a different way than usual—specifically, that you want them to generate notes that include the following four elements: (1) factual information, (2) questions, (3) feelings and reactions, and (4) connections that come to mind.

   Tip: Encourage students to record *any* connections that come to mind—for example, personal, real-world, literary, historical, or academic (i.e., connections to things they've learned in school).

2. Review the Window Notes organizer (p. 162) with students. Show them how it has a place for each of the four note types mentioned in Step 1, as well as guiding questions to spur their thinking.

3. Model the Window Notes process for students. Select a topic or text, and make all four types of notes about that topic or text on the organizer. Think aloud as you work.

4. Ask students to generate Window Notes about a specific topic, text, lecture, or other classroom presentation. They can use the Window Notes organizer on page 162, make their own organizers using the one on page 162 as a model, or express their thoughts orally (ideal for younger students).

   Tip: Before having students create content-related Window Notes, let them practice making Window Notes about a topic that's very familiar to them (e.g., a day in their life). Observe students as they work, and provide guidance or feedback as needed.

5. Invite students to share their notes with the class. Review key ideas and address students' questions if appropriate. Instruct students to add to or revise their notes as they see fit.

6. Encourage students to use the Window Notes technique independently, as a means of making the note-taking process more active, engaging, and personally meaningful. Facilitate the process by making blank Window Notes organizers readily available.

How is this tool used in the classroom?

✔ To promote note taking that includes facts, questions, feelings/reactions, and connections

✔ To make the note-taking process an active, engaging, and personally meaningful one

EXAMPLE 1: After reading a passage about the bee hummingbird aloud, a second-grade teacher invited students to generate Window Notes as a class. Students shared their ideas orally, and the teacher recorded them (shown below). Notice how the teacher made the four types of notes more distinct by using different symbols for each.

Facts	Feelings and Reactions
☑ The bee hummingbird is the world's smallest bird. ☑ They can fly forward, backward, and upside down. ☑ Hummingbirds are the only birds that can stay in place while they fly. This is called <u>hovering</u>. ☑ Bee hummingbirds beat their wings 80 times in a second.	☺ Bee hummingbirds are amazing! ☺ It must feel really cool to fly upside down. ☺ We want to learn more about bee hummingbirds.
Questions	**Connections**
⑦ How do they fly upside down and backward? ⑦ Why can't other birds hover?	✷ I saw a nature show on hummingbirds once. I remember that their wings move so fast that you can't see them flapping. ✷ It's probably called a bee hummingbird because it's tiny like a bee.

EXAMPLE 2: A high school student's notes from Maya Angelou's "Caged Bird" are shown below.

FACTS	FEELINGS & REACTIONS
· The poem goes back and forth between a free bird and a caged bird. · The free bird leaps and floats and flies and "claims the sky." · The caged bird's wings are clipped, and its feet are tired. · The poem is written in free verse.	The poem makes me feel sorry for the caged bird. It can't fly and longs to be free. I really like the way it repeats the verse about the caged bird singing of freedom. The song can't be stopped.
QUESTIONS	CONNECTIONS
Is the caged bird actually triumphant at the end?	The poem reminds me of a technique they sometimes use in movies where they keep cutting back and forth between two different characters.

EXAMPLE 3: Here are the notes a fourth-grade student made while watching a video on tornadoes:

FACTS	FEELINGS & REACTIONS
• Tornadoes are rotating columns of air. They go from a thunderstorm in the sky down to the ground. • They form when warm moist air hits cool dry air. • They can reach wind speeds of 300 miles per hour.	• Tornadoes are really scary! I didn't know how much damage they could cause!
QUESTIONS	**CONNECTIONS**
• How do they measure the wind speed inside a tornado? • Why don't tornadoes keep going? What makes them stop?	• I saw something about a tornado on TV when my parents were watching the news. Some of the people were crying because their houses had gotten blown away. • Tornadoes remind me of getting off to school. I am trying to do so many things and I am so rushed that it feels like I am spinning at 300 miles per hour!

🌐 Teacher Talk

➔ Because many students aren't used to being asked how they feel, particularly in a note-taking context, you may need to spend more time modeling and discussing what goes in the Feelings & Reactions quadrant of the organizer. One way to help is to give students a list of feeling stems that might help them—for example, "I really enjoyed ___," "I was impressed by ___," "I was surprised that ___," "I was inspired by ___," "I was confused about ___," or "I'm not sure how I feel about ___."

➔ While this tool is typically used to have students take notes on one specific text or presentation, it can also be used to help students reflect on and demonstrate what they've learned at the end of a lesson sequence or unit. When used in this way, students' completed organizers serve as a great tool for assessing students' learning, interests, open questions, and feelings about the topic or text.

➔ Help yourself (and your students) recognize that people have different note-taking preferences by surveying the class to see which of the four note types is each student's favorite. Explain that it's fine to have preferences, but that each note type has value—and, therefore, that students should aim to generate all four types of notes, even if some come less naturally to them.

➔ Help students appreciate—and encourage them to use—the Window Notes technique by identifying (or challenging them to identify) the value of each note type. Among other things, you might note that recording FACTS helps students extract and summarize key content, generating QUESTIONS allows students to express their curiosity, expressing FEELINGS & REACTIONS lets students connect with what they're learning on a personal level, and making CONNECTIONS encourages students to tap into their prior knowledge.

➔ To promote deeper understanding and retention of the material students took notes on, assign a task that requires students to review, summarize, and/or synthesize their understanding of that material.

➔ Some teachers may wonder if this technique is "fluffy." But, in reality, it promotes deeper understanding than traditional note taking. Why? Because making the four types of notes requires active processing and ensures that students are not simply copying, which can be done mindlessly.

Name: _____   Date: _____

Topic or text: _____

Window Notes

FACTS	FEELINGS & REACTIONS
What did you learn?	How did you feel about what you saw, heard, or read?

QUESTIONS	CONNECTIONS
What do you want to know or wonder about?	Can you make any connections to people, places, or things you know about? Or to experiences you've had?