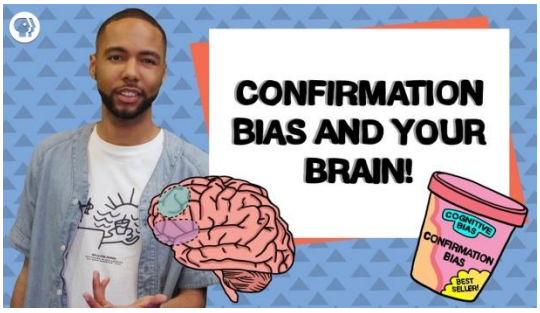
The Lowdown
Connecting newsroom to classroom

A project of
KQED Learning

Lesson Plan: Can You Beat Cognitive Bias?



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Featured resources

[KQED's Above the Noise: Why Do Our Brains Love Fake News?] (5:20)

[Lowdown Quiz: Do You Recognize These Types of Biases?]

Opening quick write prompt:

Describe a time you tried to change someone else's mind, either about a decision they made or their views on an issue. Were you successful? Why or why not?

A quick write allows students to write down their thoughts before discussing the opening question in order to increase participation and make the discussion more accessible to English Language Learners.

Objective

- Students will define and analyze five different types of cognitive bias.
- Students will evaluate and reflect on ways to recognize and respond to five types of bias.

Essential Question and Lesson Context

What is cognitive bias? What are different types of bias? What can I do to recognize and respond to my own biases and those of others?

Cognitive bias affects us all. Even though we can fact-check information using phones and computers, we still fall for fake news and cling to outdated opinions. Why? When our cognitive biases take control, our ability to make logical judgments is limited, and facts take a back seat to deeply held beliefs. Scientists theorize that some cognitive biases have evolutionary roots, helping us maintain social connections. This mattered in prehistoric times when being isolated meant almost certain death. These days, cognitive biases still influence our choices —not to mention politics and elections. In this lesson, students will learn about five of the most common types of cognitive bias and ways to recognize and respond to them.

Key vocabulary

Pre-teach key vocabulary before students do the activity, especially if you have English Language Learners. After going over the simple definition, consider providing a visual aid or having students draw one. More ideas for how to pre-teach vocabulary can be found here.

Word	Simple definition
Anchoring bias (n.)	Relying too much on the first piece of information you learn or hear
Blind-spot bias (n.)	Recognizing bias in others, but failing to recognize it in yourself
Confirmation bias (n.)	Listening to and trusting only information that confirms your beliefs
Negativity bias (n.)	Focusing on negative events at the expense of positive or neutral events
Outcome bias (n.)	Judging or evaluating a decision based solely on the outcome

Direct instruction and guided practice

- Discuss the quick-write prompt to connect the topic to students' own lives and experiences. Ask a few students to describe an occasion when they changed someone's mind and also when they tried to but weren't successful.

- **Ask:** Whose fault is it when you can't change someone's mind? Is it that you aren't being convincing enough or that the other person is too stubborn? Call on students to share what they think.

- **Explain:** It's no one's fault! Getting someone to change their mind about a firmly held belief is hard to do. We all have cognitive biases. That means our brains are wired in ways that can limit our logical thinking and cause us to think in ways that don't always make a lot of sense. This explains why people have a hard time changing their minds or do things like fall for crazy fake news stories.

- As a class or in small groups, students watch the Above the Noise video (*Note: Use a platform like EdPuzzle or PlayPosIt to insert questions directly into the video. Find strategies for how to make classroom videos interactive HERE.*)
    - **At 2:10**, ask: What do people do when experiencing confirmation bias? What don't they do? (Answer: They seek out information they agree with and ignore or minimize information they don't agree with.)

- **At 2:56**, ask: Does confirmation bias rely more on the reasoning part of your brain or the emotional part? (Answer: The emotional part, controlled by the orbitofrontal cortex.)
- **At 3:48,** ask: Is there anything good about confirmation bias? (It might connect us to others and/or keep our community from turning against us.)
- **At the end of the video,** ask: Why is it important to research the facts of your own side AND the other side to fight confirmation bias? (Answer: Once you start researching, you might not know as much as you may have thought. If you're less certain about your own beliefs, you may be open to other viewpoints.)

- **Transition to independent practice:** Remind students that the first step in overcoming bias is recognizing you're prone to it. Explain that students will analyze four other types of bias in addition to confirmation bias to improve their ability to recognize—and avoid—bias in themselves.

Independent practice

- In small groups or individually, students read The Lowdown post, which lists four other types of biases.

- After students read the sidebar, they should take the interactive quiz to test how well they can recognize each type of bias. If working in groups, students should discuss each choice before selecting their answer. (Make your own interactive quizzes for free using Qzzr.)
  - Model this process, if needed, once students or groups have read The Lowdown sidebar.

- Individually or in small groups, students then choose one type of bias and write another example when they might see this type of bias in action, either in the news or in their own lives.
  - Model, if needed using these or other examples: Your little cousin tried an easy new skateboarding trick and didn't fall. Now he thinks he can do any skateboarding trick without getting hurt. This is an example of outcome bias. Politicians often blame their opponents for negative events and ignore anything positive their rival has done. This is negativity bias.

Assessment/Reflection

- Individually or in small groups, students share their own example of bias in action, either out loud or in writing. If there isn't time for students to write their own examples, go over each quiz question and discuss related examples as a class.

- As other students identify the type of bias, brainstorm ways to fight each type. Encourage students to be creative. After all, experts are still figuring out how to fight bias.
  - For example, if your cousin thinks he's invincible on a skateboard based on doing one easy trick, ask him to think through the steps of future tricks to assess their difficulty.

Circle chats, small-group discussions and think-pair-share provide a safer space for students to practice speaking and listening, and also boost participation during whole-class discussions.

Extension/Homework

- **Help others learn about types of bias:** Individually or in groups, students create an infographic, poster or presentation to share with the audience of their choice what they've learned about one or more types of bias. (For example: their community, younger students or others in their grade.) Students should choose what information to include about their chosen type of bias, based on their audience.
    - AdobeSpark, piktochart, Prezi, Canva, and Thinglink are all free, online tools that can be used for infographics, posters or presentations.

Common Core standards

CCSS.ELA-Literacy.CCRA.R.1	Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
CCSS.ELA-Literacy.CCRA.R.6	Assess how point of view or purpose shapes the content and style of a text.
CCSS.ELA-Literacy.CCRA.R.7	Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.