



Bias Bite #10: Dunning-Kruger Effect

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Bias Bites are written for administrators to help teachers explore their cognitive limitations through suggested protocols that can be implemented in school-wide meetings and other professional development opportunities. The following activities guide teachers to explore the Dunning-Kruger effect, which is a tendency for people who have low competence in a given area to overestimate their abilities. While this cognitive pattern can lead to a sense of confidence and a willingness to take on new challenges, this bias can also lead to poor decision-making and resistance to feedback. The structured learning experiences in this Bias Bite provide educators with a more thorough understanding of this bias. They also help educators develop greater humility and awareness of their cognitive limitations, fostering more spaces for civil discourse in their schools.



Driving Question

Why do we often overestimate our own knowledge and abilities about subjects we know little about?

Materials Needed

- “Why incompetent people think they’re amazing—David Dunning” video
- Mental Notes graphic organizers for students

Bias Description

The Dunning-Kruger effect describes a cognitive bias in which people with low competence in a given area tend to overestimate their abilities. Conversely, highly competent individuals may underestimate their skills because they assume everyone has the same level of understanding. Every bias has its pros and cons. The pros and cons of the Dunning-Kruger effect are as follows:

- Increased confidence. The Dunning-Kruger effect can lead to a sense of confidence and self-efficacy and can motivate the individual, which can be helpful when taking on new challenges.
- Poor decisions. This bias can lead to poor decision-making through inaccurate assessments, flawed judgments, and ineffective strategies.
- Resistance to feedback. The Dunning-Kruger effect can lead to individuals being unaware of their own limitations and resisting criticism or feedback because they view themselves as an expert.

Bias in Action: School-Based Examples

- An administrator with a personal assumption of unique strengths and excellent job performance was passed up for a promotion because in reality the individual was unwilling to learn from others and was average in performance.
- A teacher may overestimate their classroom management skills and dismiss constructive criticism from colleagues, coaches, or administrators.
- A talented teacher with years of experience and measurable impact is reluctant to pursue leadership roles because of a lack of confidence in performing well.

Professional Development Protocol for School Leaders

ACTIVATE

- Watch the video, "Why Incompetent People Think They're Amazing—David Dunning."
- Ask educators to reflect on the following questions:
 - What is the Dunning-Kruger effect?
 - Why do you think people overestimate their own abilities?

EXPLAIN

- Share the definition of the Dunning-Kruger effect and following examples:
 - More than 100 studies demonstrate that people tend to overestimate their abilities to a degree that violates the laws of math.
 - A high percentage of software engineers at 2 companies, 32 percent and 43 percent respectively, put themselves in the top 5 percent.
 - 88 percent of American drivers describe themselves as having above-average driving skills.
- Explain why the Dunning-Kruger effect occurs.
 - This bias occurs because incompetent individuals lack the metacognitive skills to recognize their own shortcomings. They don't know what they don't know or where their knowledge gaps lie. They may also misinterpret positive feedback as confirmation of their expertise.
- Share mitigation strategies.
 - Foster a culture of feedback from diverse sources.
 - Use objective metrics to gauge your expertise.
 - Reward intellectual humility in your conversations with others.
 - Collaborate with people who challenge your thinking.
- Ask educators to generate examples of confirmation bias that are school based and non-school based. Have a few volunteers share with the whole group.

DISCUSS

- Engage in a whole-group discussion about the following questions:
 - What is the relationship between this bias and the others you're learning about?
 - How can the Dunning-Kruger effect show up in schools for different stakeholders (e.g., students, teachers, administrators, families)?
 - Under what conditions or in what situations are we most susceptible to this bias?
 - How could one recognize when this bias is affecting them?

- What are some strategies to overcome this bias?
- What is the relationship between this bias and humility? In what ways can our awareness of this bias improve civil discourse?

SYNTHESIZE

- Revisit the driving question and have participants respond.