

Aspects of Student Engagement: Cognitive

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Time Frame 45 minutes

Essential Question(s)

Summary

This professional learning session focuses on providing teachers with foundational knowledge and strategies that they can use to promote cognitive student engagement in the classroom. Participants will explore research on student engagement, analyze engagement scenarios, and generate strategies for generating cognitive engagement.

Learning Goals

1. Summarize the aspects of student cognitive engagement.
2. Analyze factors contributing to cognitive engagement.
3. Generate strategies for improving student engagement.

Standards

Educator Standards 6–12 (6th - 12th)

E.K.14: Acknowledge and critically examine your own biases, assumptions, and beliefs about students' abilities, identities, and potential. Recognize how these biases influence interactions, expectations, and teaching practices.
E.K.17: Recognize how your guidance, encouragement, and modeling can position you as a trusted mentor who inspires and supports students in exploring and pursuing postsecondary pathways.
E.K.19: Be aware of the various influences on students' aspirations, including family, cultural values, socioeconomic background, community, and personal interests, and how these factors shape their college and career goals and decision-making processes.

InTASC Model Core Teaching Standards (K-12th)

3n: The teacher is committed to working with learners, colleagues, families, and communities to establish positive and supportive learning environments.

Attachments

- Always, Sometimes, or Neve True Discussion Guide—Aspects of Student Engagement-Cognitive.pdf
- Cognitive Engagement Scenarios—Aspects of Student Engagement-Cognitive.docx
- Cognitive Engagement Scenarios—Aspects of Student Engagement-Cognitive.pdf
- Honeycomb Harvest—Aspects of Student Engagement-Cognitive.docx
- Honeycomb Harvest—Aspects of Student Engagement-Cognitive.pdf
- Presentation Slides—Aspects of Student Engagement Cognitive.pptx
- Research Brief—Aspects of Student Engagement.pdf
- Resources—Aspects of Student Engagement-Cognitive.docx
- Resources—Aspects of Student Engagement-Cognitive.pdf

Materials

- Always, Sometimes, or Never True Menti

- Cognitive Engagement video
- Presentation Slides (attached)
- Choice Board Template (attached; linked; one per group)
- Honeycomb Harvest (attached; linked; one per participant)
- Cognitive Engagement Scenarios (attached; linked)
- Research Brief (attached; linked; one per participant)
- Resources (attached; linked; optional)
- Always, Sometimes, or Never True Discussion Guide (attached; optional)

Essential Questions

- What does cognitive engagement look like?
- What strategies support it?

Session Preparation

Setting up the Mentimeter.

Navigate to mentimeter.com.

1. Login or create an account.
2. Select “+ New Menti.”
3. Select “Start from scratch.”
4. Select “Multiple Choice”
5. For the questions, type the prompts in the **Always, Sometimes, or Never True Discussion Guide** attached.
6. Select “Share.”
7. Copy your Join Code at the bottom.
8. Add join code to **slide 5**.

5 minutes

Engage

Use the attached **Presentation Slides** to follow along with this PD. Go over the Essential Questions on **slide 3.** Briefly discuss the Learning Objectives on **slide 4.**

To begin, invite learners to use the Always, Sometimes or Never True strategy to start a dialogue about student engagement.

Move to **slide 5.** During the Always, Sometimes, or Never activity linked in this slide, learners will examine a set of statements about student cognitive engagement. Some of these statements are extracted from research; others are common thoughts or ideas about engagement. Learners will reflect on each of the statements and decide if they are Always, Sometimes, or Never True.

As facilitator, remember to emphasize that the objective of the activity is not for the learners to come up with the right answers, but to reflect deeply on the statements and develop a justification for their categorization. Learners will have an opportunity at the end of the lesson to revisit these statements after they have learned more about student cognitive engagement.

As the facilitator, your role is to guide the discussion to focus on the categorization of these statements. As there may be varied responses for each of these statements, the attached **Always, Sometimes, or Never True Discussion Guide** provides some research and conversation stems for each of the statements in the lesson.

After collecting responses for each statement in Mentimeter, ask one volunteer from an outlying response to give their reasoning.

Let learners know that this PD focuses on cognitive engagement. Move to **slide 6** and play the KISSCE video on the slide (and below) for learners. Discuss how the video illustrates cognitive engagement and formalize a definition with learners.

Embedded video
https://youtube.com/watch?v=JHNFhmYhzaE

10 minutes

Explore

Move to **slide 7.** Distribute the Honeycomb Harvest activity via one of the following options:

- Distribute a copy of the attached **Honeycomb Harvest** handout to each learner.
- Make the following link available to all learners: Honeycomb Harvest activity (this link, also on slide 7, provides a separate copy for each learner.)

Be sure learners can access the activity before moving on.

Introduce learners to the Honeycomb Harvest strategy. For this activity, the statements in the "honeycomb" hexagons describe cognitive student engagement.

Ask learners to look at the statements and consider their relationships to one another. Learners should arrange the hexagons on the page in any combination that makes sense. Hexagons that touch each other should be somehow related to each other. The blank hexagons can be used as dividers or set aside for now. The blanks will be used when the learners return to a large group to discuss their perceptions of the statements.

After individual learners have sorted the hexagons, ask them to pair up with another participant to discuss differences and similarities in how their respective statements are arranged. Invite learners to share their reasoning with partners, explaining why the hexagons are arranged as they are.

Have each group (or pair of volunteers if it's a very large session) share with the whole group something they sorted differently and summarize their discussion as partners.

After groups share out, explain that these statements came from a research-grounded instrument for measuring student engagement.

15 minutes

Explain

Move to **slide 8.** Assign individuals to small groups. Give each group **one** of the scenarios in the attached **Cognitive Engagement Scenarios** document to read and review (or use the following Google Docs version: Cognitive Engagement Scenarios. There are three individual scenarios described in the handout.

Each group should have different information about the same school on different levels, school level, classroom level, and individual level. Once the learners have read the assigned scenario, use the following questions to guide a discussion.

- As you read, think about the statements in the Honeycomb Harvest. Are there one or two statements that stand out as key indicators of the struggle in this scenario?
- What is the role of cognitive engagement in your scenario?

Move to **slide 9 and** share the KISSCE descriptors for cognitive engagement during the discussion.

Next, show the summary on **slides 10-12** for each scenario and have each group share what role they determined cognitive engagement plays. Discuss the big picture that comes together when all scenarios are seen together.

After the groups have shared their findings, hand out the attached **Research Brief** (or use the following linked version: Research Brief), which examines what impacts student engagement. Move to **slide 13.** Ask each participant to highlight key words and strategies for increasing student engagement. To do so, Introduce the Why-Lighting instructional strategy for highlighting.

Move to **slide 14.** After learners have analyzed the Research Brief, ask participants to add the words and strategies they highlighted to their Honeycomb Harvest on the blank hexagons. Students should add these honeycombs to their previous arrangements, placing them wherever they most strongly connect.

10 minutes

Extend

Have learners return to their small groups and reflect on their assigned scenarios. Then, move to **slide 15.** Assign groups to present their ideas about how to improve engagement in their scenario. To do so, use the attached **Choice Board** document and assigned one slide to each group (or use the following Google Docs version: Choice Board slides).

Each group's slide should include 3 of the 6 options below:

- One of the 10 Always, Sometimes, or Never True statements, with an explanation of why it is or is not true in the case of this scenario.
- A list of at least three actions that could be taken by the teacher to improve engagement in this scenario.
- Two found images that represent the specific scenario **before** engagement strategies have been implemented and **after**.
- A crafted catchphrase or very short poem that summarizes the core significance or meaning of cognitive engagement.
- A symbolic drawing with a color scheme that represents the core message of learners' analysis of the scenario.
- **A K20 resource that could be used to improve engagement in this scenario.**

5 minutes

Evaluate

Move to **slide 16.** Provide time for each group to present their slide to the whole group.

Research Rationale

Read more about the research that guided this session in the attached Research Brief.

Resources

- K20 Center. (n.d.). Always, sometimes, or never true. Strategies. https://learn.k20center.ou.edu/strategy/145
- K20 Center. (2019, July 9). Cognitive engagement [video file]. YouTube. https://youtu.be/JHNFhmYhzaE
- K20 Center. (n.d.). Honeycomb harvest. Strategies. https://learn.k20center.ou.edu/strategy/61
- K20 Center. (n.d.). Student, school, and career engagement. Research Brief. https://learn.k20center.ou.edu/professional-learning/1260/Research%2520Brief%25E2%2580%2594Aspects%2520of%2520Student%2520Engagement.pdf?rev=49860&language=English
- K20 Center. (n.d.). Why-lighting. Strategies. https://learn.k20center.ou.edu/strategy/128