From Theory to Practice: The 5E Learning Model

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Time Frame 140 minutes

Essential Question(s)

How does the 5E lesson framework support authentic teaching and learning practices?

Summary

In this professional learning session, participants explore the structure of a 5E lesson. They evaluate a model lesson from LEARN, determining how each section addresses components of Authenticity. Participants then examine resources on the 5E Model and discuss their findings. Next, participants work together to determine how the model lesson could be modified to best work in their classrooms. These modifications are put into practice as participants facilitate the lesson in small groups. The experience is then reflected on, and opportunities for improvement are discussed.

Learning Goals

- Demonstrate knowledge of authenticity and principles of 5E on a LEARN lesson.
- Modify and facilitate a 5E lesson.

Standards

InTASC Model Core Teaching Standards (K-12th)

3d: The teacher manages the learning environment to actively and equitably engage learners by organizing, allocating, and coordinating the resources of time, space, and learners' attention.
3p: The teacher is committed to supporting learners as they participate in decision making, engage in exploration and invention, work collaboratively and independently, and engage in purposeful learning.
4l: The teacher knows and uses the academic language of the discipline and knows how to make it accessible to learners.
6k: The teacher understands the range of types and multiple purposes of assessment and how to design, adapt, or select appropriate assessments to address specific learning goals and individual differences, and to minimize sources of bias.
8l: The teacher knows when and how to use appropriate strategies to differentiate instruction and engage all learners in complex thinking and meaningful tasks.

Attachments

- Instructional Strategy Note Catcher—From Theory to Practice.docx
- Instructional Strategy Note Catcher—From Theory to Practice.pdf
- Lesson Modifications—From Theory to Practice.docx
- Lesson Modifications—From Theory to Practice.pdf
- Peer Teaching Reflection—From Theory to Practice.docx
- Peer Teaching Reflection—From Theory to Practice.pdf
- Session Slides—From Theory to Practice.pptx
- Vetting Design and Feedback for Lessons—From Theory to Practice.docx
- Vetting Design and Feedback for Lessons—From Theory to Practice.pdf

Materials

- Presentation Slides (attached)
- Laptop or tablet
- Vetting Design and Feedback for 5E Lessons handout (attached; one per participant; print two-sided)
- 5E Lesson Framework Reading handout (linked; one per participant; print two-sided)
- Lesson Modifications handout (attached; one per participant; print two-sided)
- Peer Teaching Reflection handout (attached; ½ page per participant)
- Materials for the model lesson of your choice

5 minutes

Engage

Facilitator's Note: Sample Lessons

Before beginning this session, determine which lesson for each content area you plan to use:

- ELA Lesson: A Way With Words
- Math Lesson: Keep It Simple
- Science Lesson: Ace in the Hole
- Social Studies Lesson: What is History?

Be sure to download and print the lesson and gather the materials for the lesson(s) in advance that will be used in the Engage and Extend phases. However, you may choose a different model lesson to fit your participants' needs if you are working with teachers who are in different content areas, teach different age levels, have already seen this lesson, or are working under different time constraints.

Use the attached **Presentation Slides** to guide the lesson. Begin the session by to displaying **slide 2** and introducing yourself to the participants.

Transition to **slide 4** and ask participants to demonstrate their current level of understanding of the 5E framework using the Fist to Five instructional strategy. Invite participants to hold up a number that demonstrates their current level of understanding of the 5E framework. Acknowledge the level of understanding in the room.

Transition to **slide 5** and **slide 6** and briefly highlight the session's essential question and objectives. These will serve as a roadmap for the session and inform participants of what to expect.

Facilitator's Note: Technology Option and Mentimeter Setup

For a digital version of the Fist to Five activity, follow the steps below to create a digital poll to be displayed on **slide 3** prior to the session. If choosing this option, unhide **slide 3** and skip **slide 4**.

1. Create an account or log into an existing account on mentimeter.com.
2. Select **New Menti.**
3. Title your presentation and select the **Survey** option.
4. Use the **Multiple Choice** option to create a poll question.
5. Use the question **"On a scale of 1 to 5 (5 being the most), how much do you already know about 5E?"**
6. Click on the options and create five choices labeled **1 to 5**.
7. Copy and paste the survey code into the presentation. Additionally, you can download a QR code using the **Share** button on Mentimeter and add it to your presentation.
8. Invite participants to scan the QR code or navigate to menti.com and enter your survey code. Once they have access to the questions, ask them to vote.

15 minutes

Explore

Introduce participants to the 5E Lesson Framework on **slide 7**. Move to **slide 8**. Pass out a copy of the printed model lesson instructions, the **Vetting Design and Feedback for 5E Lessons** handout and the Authentic Lesson Reflection Tool handout to each participant. Ask participants to identify portion of the model lesson that align with each 5E component and the components of authenticity. Have participants discuss their reasoning as a group and tell them to be prepared to share out.

Facilitator's Note: Abbreviations

Consider asking participants to abbreviate the components of authenticity in the Vetting Design and Feedback for 5E Lessons with the following:

- CoK: Construction of Knowledge
- RWC: Real-World Connections
- IBL: Inquiry-Based Learning
- SCL: Student-Centered Learning

Provide participants adequate time to read the model lesson and handouts. Once most participants have had time to read the materials and discuss the various components, ask groups to share out. After groups have shared their responses, ask them to set the model lesson aside for later.

20 minutes

Explain

Transition to **slide 9**. Hand out the **5E Lesson Framework Reading** handout. Invite participants to read the handout and use the S-I-T (Surprising, Interesting, Troubling) instructional strategy to consider the following questions:

- What is one surprising fact or idea you read?
- What is one interesting fact or idea you read?
- What was one thought-provoking fact or idea you read?

Once participants have had adequate time to read the handout, transition to **slide 10** and play the video What is the 5E Instructional Model? After playing the video, invite participants to add any additional responses to their S-I-T answers.

Display **Slide 10** to share the **K20 Center's 5E Instructional Model** video and inform participants that they can add any additional responses to their **S-I-T**. After the video, move on to **Slide 11** and have participants discuss in their groups their responses to the **S-I-T** and what the 5E model could look like in their classrooms.

Move to **Slide 12** and discuss as a whole group the following prompts:

- What are some reasons why you would need to modify a lesson?
- Is it possible to still have an authentic lesson if you modify or remove an E? Why or why not?

90 minutes

Extend

Ask participants to retrieve their lesson from earlier. Break participants into groups of five and inform them that they will participate in a peer-teaching activity. Introduce participants to **Peer Teaching** on **Slides 13–14**. Provide each group with their lesson materials, and ask participants to divide up the Es for the lesson among their group. As a group, they should decide how to split up the lesson to teach it within 60 minutes. After they have decided on the time allocation for each E, pass out the **5E Lesson Modifications** handout. Individually, they should determine how they would modify their portion of the lesson to fit the given time frame and their personal style while still satisfying the components of their self-assigned E.

Facilitator's Note

- If you have a group with fewer than five participants, have those who need to double up take the Es that require the least amount of time.
- If you have multiple groups working on the same lesson, after everyone has selected their E, consider grouping participants with the same E together to discuss their modifications (e.g., engages together, explores together).

After each person has made modifications to their E, have participants begin the lesson, where each will facilitate their E to their group members, who will act as the audience. After each person facilitates their E, direct the others in the group to note feedback or ideas on the back of the 5E Lesson Modifications handout to share after everyone has presented.

Facilitator's Note

- Emphasize to participants that they are teaching their portion of the lesson, not merely explaining the activity. They will need to download the PowerPoint for their presentation and ensure they have the necessary materials.
- If the video doesn't fit into their timed portion, they can modify it to play the most relevant segment to complete the task.

10 minutes

Evaluate

Display **Slide 15** and pass out the **Peer Teaching Reflection** handout. Ask participants to reflect and respond to the following prompts:

1. How did the experience of teaching your peers impact your understanding of Authenticity in the context of education?
2. In what ways did you incorporate your personal teaching style? How did this influence the reception of the lesson by your peers?
3. After receiving feedback from your peers, how comfortable are you with facilitating a 5E lesson?
4. How do you plan to further cultivate Authenticity in your future teaching experiences based on what you learned from this peer teaching opportunity?

Provide time for participants to share their responses.

Transition to **slide 16** and invite participants to reflect on the different instructional strategies they saw used throughout the session and consider the impact these strategies had on their understanding or approach.

As they reflect, pass out one copy of the **Instructional Strategy Note Catcher** handout to each participant. Invite participants to fill in the first column with their thoughts on the impact each strategy had on their understanding. Ask participants to fill in the second column with their ideas about how to integrate each strategy into their teaching practices.

If time permits, invite participants to share out their ideas about how they could use the instructional strategies in their classrooms.

Research Rationale

In the 5E format, students take ownership of their learning by creating their own understanding through inquiry and discovery. Unlike traditional teaching models where the teacher is the “sage on the stage,” imparting expertise to passive learners (Morgan & Ansberry, 2013), the 5E model engages students in recalling prior knowledge and testing their preconceived ideas against new information. This approach provides a framework for student-centered learning. Students *Engage* in assessing prior knowledge, *Explore* new concepts through hands-on experiences, *Explain* and summarize their discoveries, *Extend* their understanding to new situations and *Evaluate* their grasp of the material.

Resources

- K20 Center. (n.d.). Fist to five. Strategies. Retrieved from https://learn.k20center.ou.edu/strategy/68
- K20 Center. (n.d.). S-I-T (Surprising, Interesting, Troubling). Strategies. Retrieved from https://learn.k20center.ou.edu/strategy/926
- K20 Center. (n.d.). Mentimeter. Tech Tool. https://learn.k20center.ou.edu/tech-tool/645
- Morgan, E., & Ansberry, K. (2013). *Even more picture-perfect science lessons: Using children's books to guide inquiry, k-5*. Arlington, VA: NSTA Press.
- What is the 5E instructional model?. YouTube. https://www.youtube.com/watch?v=9l2MVsYVxlE&t=1s
- Impactful Engagement: Professional Resources for Authentic Teaching collection