



Lecturing Moves that Engage Students

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Where's
your
mental
energy
right now?



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Why should lecturing continue to be a valuable teaching method?



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Drum Roll Please..... The Top 5 Answers were:

Efficient way to explain complex material

Model expert thinking

Organizes information

Access to shared foundational information

Because 200 students can't all talk at once!

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Exploring the Lecture

The Reality

The lecture continues to be the most used teaching method

(Davidson & Katopodis, 2022)

Fortunately...

- Meta-analysis of half-century of research (328 studies): Direct instruction, when done well, works!(Stockard et al., 2018)
- Combining direct instruction with inquiry-based techniques often works better than either technique alone (Jong et al. 2023)

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High-Assistance
Instruction
is BEST
for Novice
Learners

Tetzlaff et al. (2025)



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Expertise Reversal Effect

- Tetzlaff et al. (2025);
- Castro-Alonso et al. (2021)



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It's the Moves
Not the Method

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What You Will Be Able to Do After Today:



Organize a lecture around big ideas



Build in lecture moments that spark curiosity and peer interaction to sustain engagement



Embed reflection and retrieval to strengthen learning

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A Comprehensive Approach to Lecturing



DESIGN

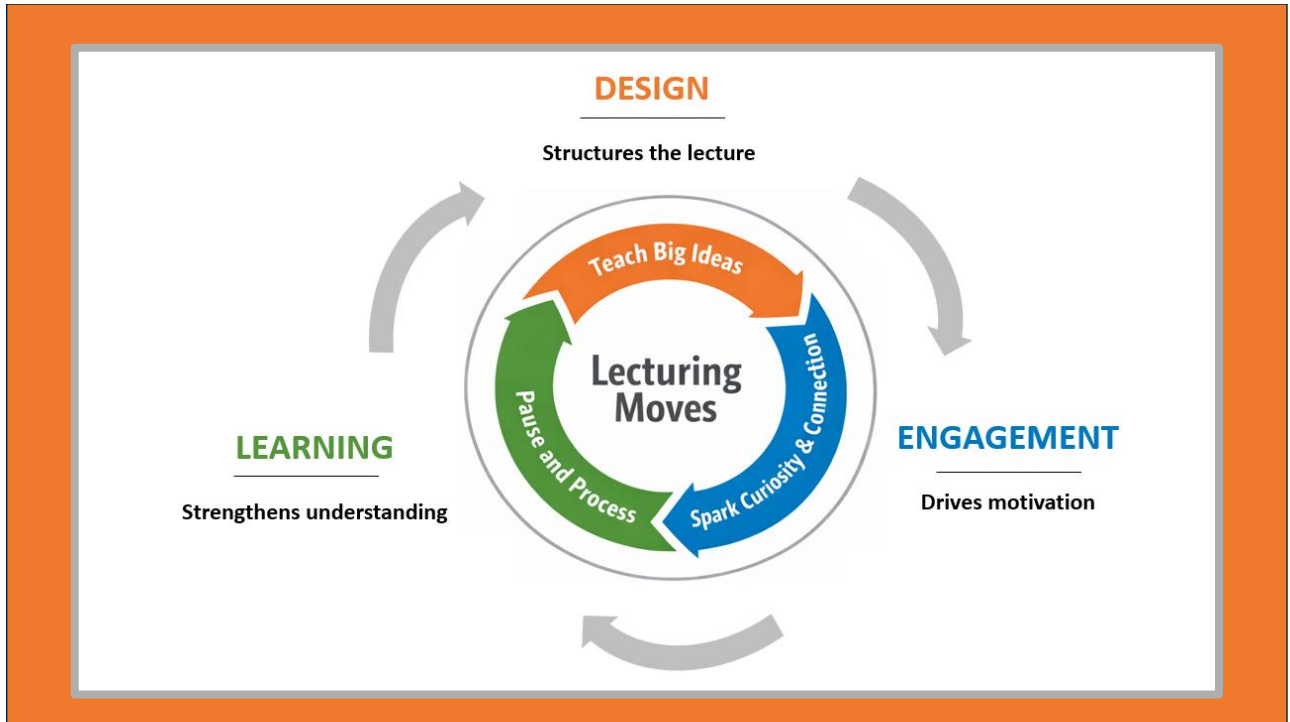


ENGAGEMENT



LEARNING

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DESIGN MOVES:
What You Will Be Able
to Do After Today:

Organize a
lecture around
big ideas



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Which do you prefer?

Students remember lectures best when instructors signal a small number of essential ideas and organize content around those anchors instead of covering everything equally and breaking lectures into intentional chunks prevents overload and gives the brain time to reset before new information arrives but without pauses students lose opportunities to connect ideas and strengthen retention while learning is happening.

Design Around Big Ideas

Students remember lectures best when instructors signal a small number of essential ideas and organize content around those anchors instead of covering everything equally.

Segment to Protect Attention

Breaking lectures into intentional chunks prevents overload and gives the brain time to reset before new information arrives.

Pause to Build Memory

Brief processing moments help students connect ideas and strengthen retention while learning is happening.

Example generated by ChatGPT

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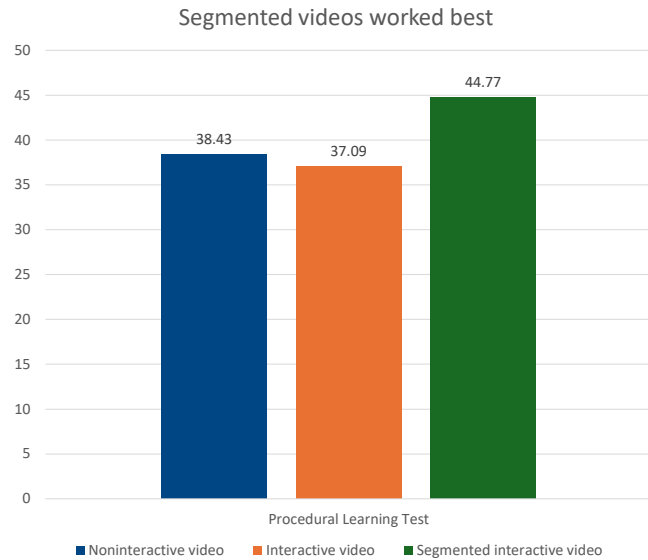
Identify and
Introduce the
3 Big Ideas

- Chunking content improves memory (Thalman et al., 2019)
- Knowing main concepts before the lesson increases learning (Mayer, 2020)

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Segmenting Lectures Improves Learning

Biard et al. (2018)

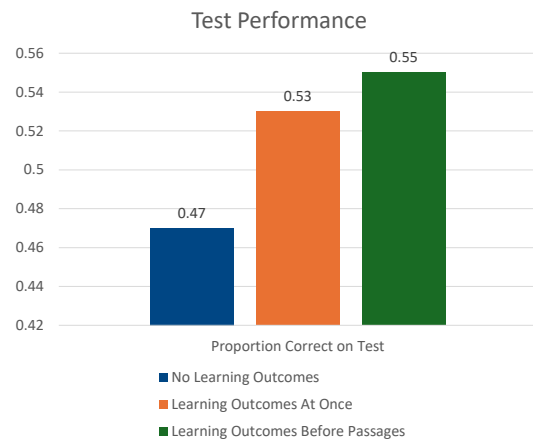


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Communicating Purpose

Higher
Performance

Learning outcomes shared before each passage vs. no outcomes



Sana et al. (2020)

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Opening and Closing with Impact

Opening Moves

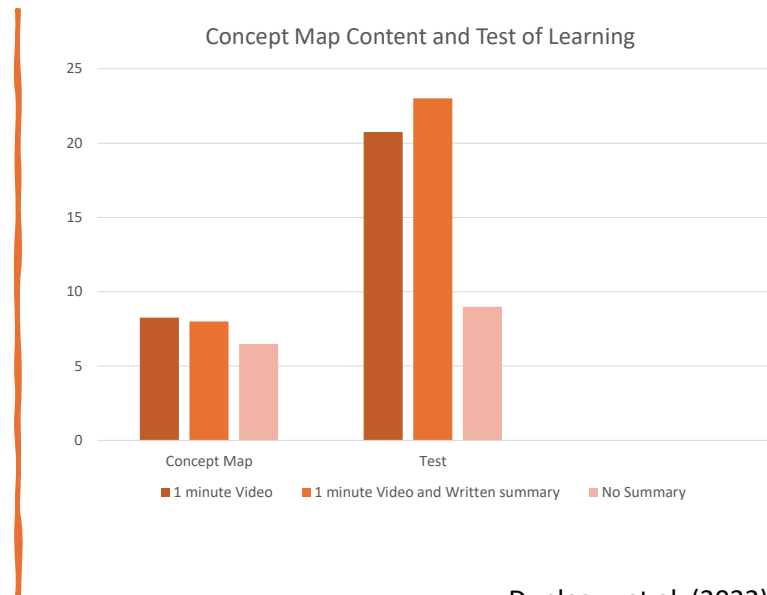
Well-being check-in
Curiosity builders
Big idea preview

Closing Moves

Retrieval prompt
Meaning recap
Forward link

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Closing
Strong



Dunleavy et al. (2022)

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What were the 3 big ideas from one of your lectures?

- How did students know that these were the big ideas?
- Why is it important to explicitly communicate the big ideas of the lecture?
- What are some ways you can convey the big ideas?

**TURN
AND
TALK**

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ENGAGEMENT MOVES:
What You Will Be Able to
Do After Today:

Build in lecture
moments that spark
curiosity and peer
interaction to
sustain engagement




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True or False Prediction

Asking students to make predictions increases attention and learning, even when their predictions are incorrect

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Curiosity Builders

Prediction activities

- Which group performed best?

Challenging Your Thinking: What's incorrect?

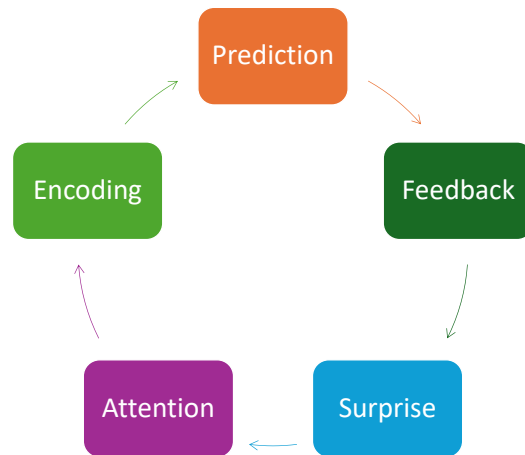
- Academic Version Two Truths and a Lie

Why Questions

- Why would this be helpful to know?

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Building Curiosity through Predictions

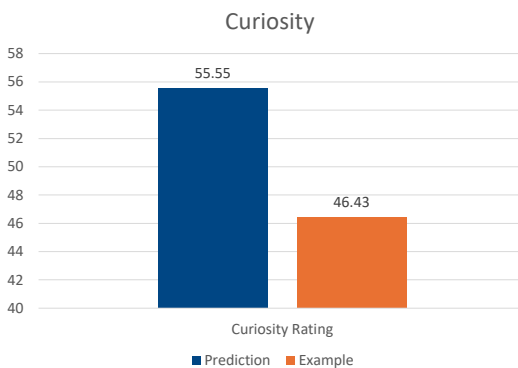


Brod (2021)

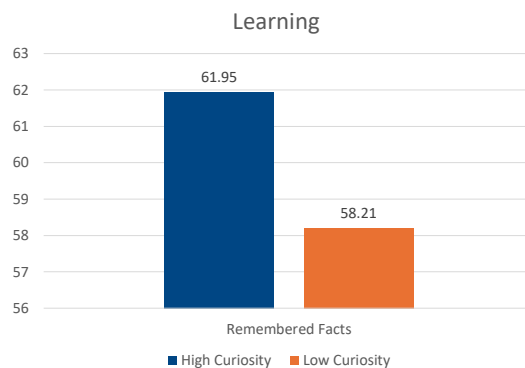
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Prediction Increases Curiosity and Learning

Increased Curiosity with Prediction



Increased Learning when Curiosity High



Brod & Breitwieser (2019)

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Connection Moves

Well-Being Check-Ins

- What weather term best captures how you are feeling?

Celebration Check-Ins

- Share something you are proud of

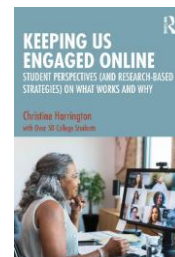
KWL

- What do you know? What do you want to know? What did you learn?

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“One of the strategies that Dr. Grimes uses in her teaching is emotional well-being checks. She understands that students have different needs and challenges, and she tries to create a supportive and flexible learning environment for all of us. She checks our mood at the beginning of each class and addresses any concerns we share. For example, she may ask us how we are feeling, what we are looking forward to, or what we are struggling with. She often shares tips and resources to help us deal with our challenges. She is empathetic and accommodating to students who have genuine reasons for not meeting the deadlines or attending classes. She does not penalize them for late submissions or absences but rather encourages them to communicate with her and seek help when needed.”

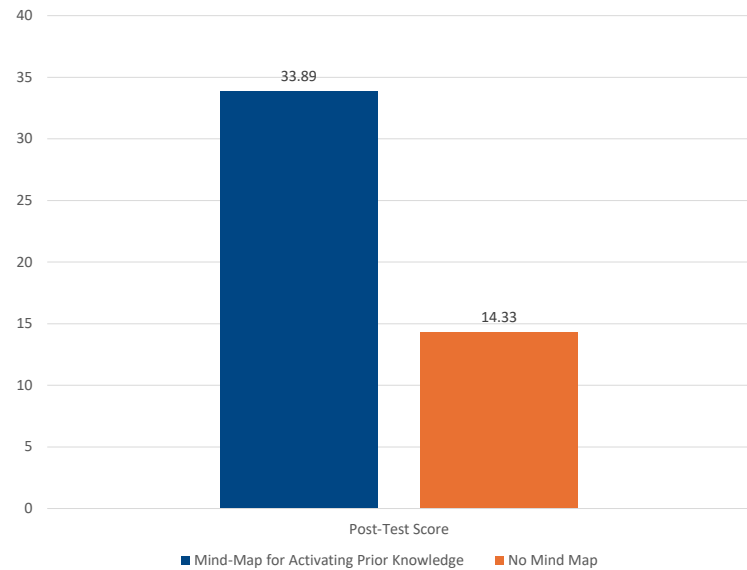
Emotional Well-Being Checks
Patricia B. Ateboh-Briggs
Morgan State University



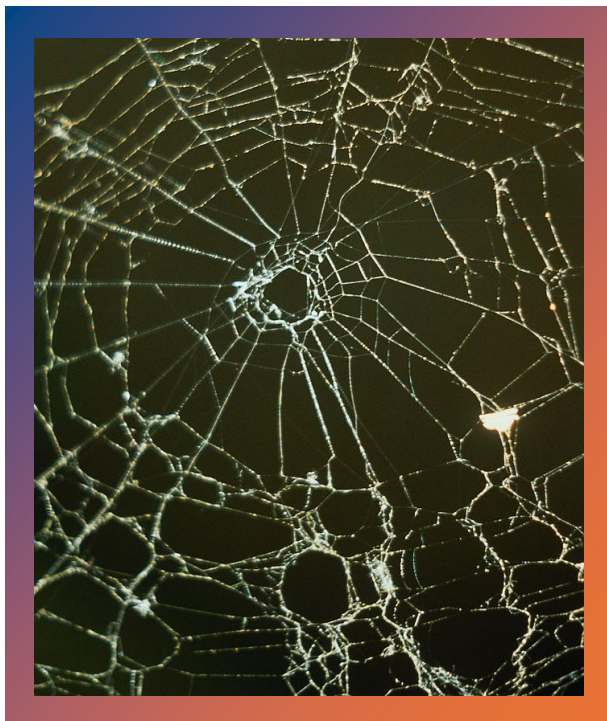
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Activating Prior Knowledge

Subaie (2025)



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Dusting Off the Cobwebs

- No Notes- What did you learn from our last class?
- Look at Notes- Fill in any information gaps
- Large Group Discussion

(Harrington & Zakrajsek, 2017)

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How can you spark curiosity and connection at the start of class and before each big idea?

**TURN
AND
TALK**

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What You Will Be Able to Do After Today:

Embed reflection and retrieval to strengthen learning



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Academic Two Truths and a Lie

Writing summaries during a pause works better than reviewing notes.

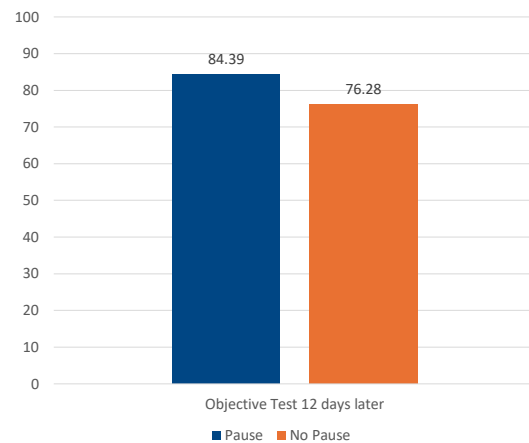
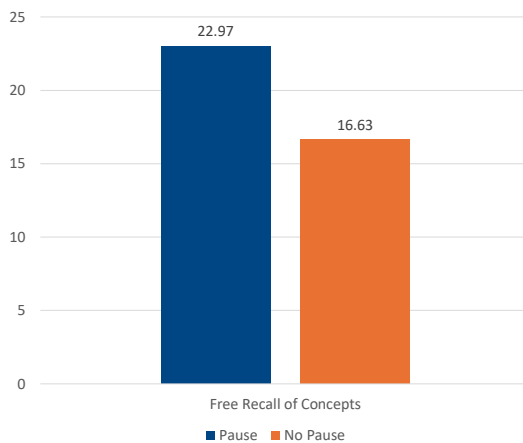
Interactive quizzes during class improve learning.

Reflection works best when done independently.

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The Power of Pausing

Three 2-minute Pauses to Review Concepts and Share Notes

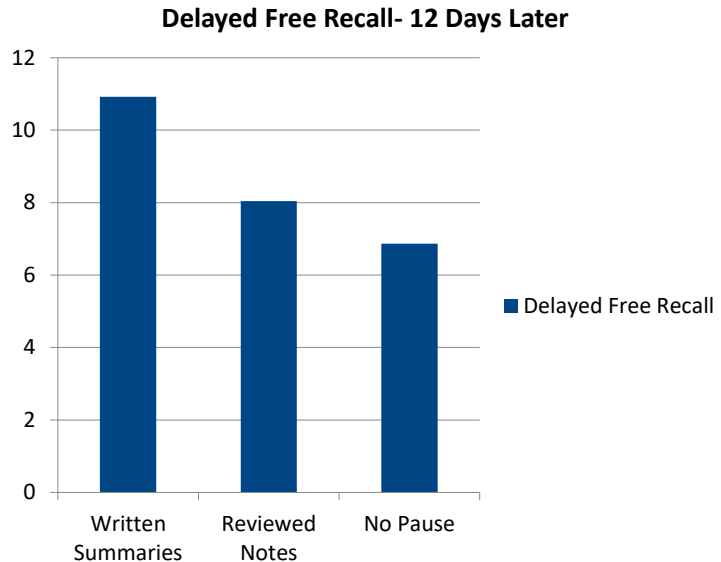


Ruhl et al. (1987)

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The Power of Writing Summaries During Class

- 79 Students randomly assigned
- 21-minute video lecture with two 4-minute pauses



Davis & Hult (1997)

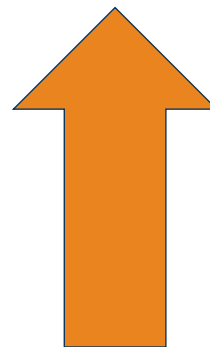
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Pausing and Revising Notes

Luo et al. (2016)

Revising notes DURING lecture vs. after lecture

Revising WITH A PARTNER vs. revising alone



- Concepts in Notes
- Higher Test Scores

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Benefits of Pausing

Chaudhry et al. (2024)

Variable	Pause	No Pause
Improvement in Multiple Choice Items	66.6%	40%
Perceived Achievement of Learning Outcomes	73.3%	43.3%
Clarity of Topic	86.7%	43.3%
Maintained Attention Until End of Lecture	80%	26.7%

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Value of Pausing: Student Perspective

Siddique & Harrington (2025)

Peer engagement

- “Helps students with engagement and lets students understand a topic better from a different point of view.”

Better understanding

- “Thinking about the question and trying to do it ourselves helped us understand the material better.”

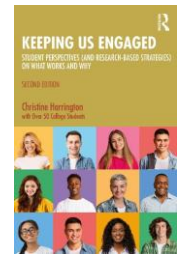
Reflection

- “It is helpful to see what exactly we need help with.”

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Team-Based Quizzes and Discussions

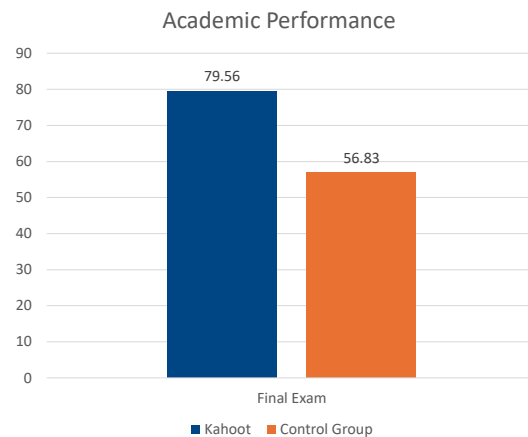
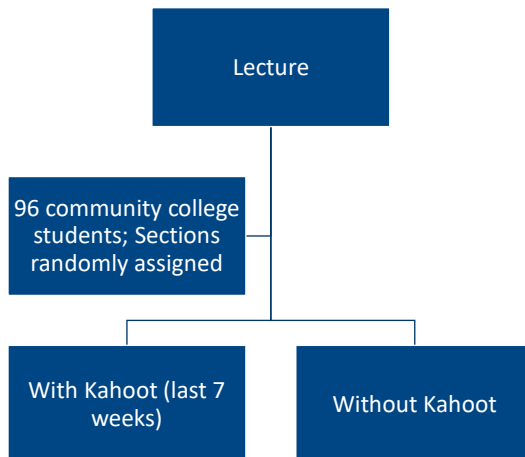
Katelyn Benes, Taylor University



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Kahoot Improves Learning

Bawa (2019)



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Reflection and Retrieval Moves

- One Minute Papers
- Turn and Talk or Think Pair Share
- Compare Notes
- Quick Quizzes
- 5 Paper Fast Pass



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Quick Quiz

True or False

Written summaries improved retention of information and exam performance.


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Quick Quiz

True or False

Revising notes during class with a partner improved academic performance.

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How can you use pausing during your lectures?



**TURN
AND
TALK**

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What actions
can we take
to improve
lectures?



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Drum Roll Please.....

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Use design moves such
as identifying the big
ideas

2

Use engagement moves
such as well-being
checks and prediction
that spark curiosity and
connection

3

Use learning moves
such as pauses and
interactive quizzes that
strengthen
understanding

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What was your main take-away from today's session?

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