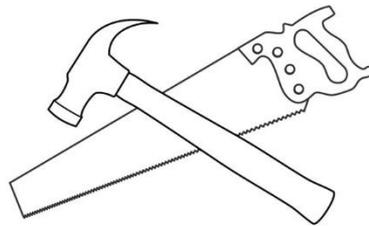


Simple Techniques for Using Technology to Enhance Your Teaching



David Halpin, PhD

Objectives

- Implement strategies to make lectures and presentations more engaging.
- Utilize technologies that support a more active learning environment.
- Identify free tools that can enhance your teaching.

Technology is not a panacea,

It is a support tool,

We must make technology do our
bidding,

Not vice versa.

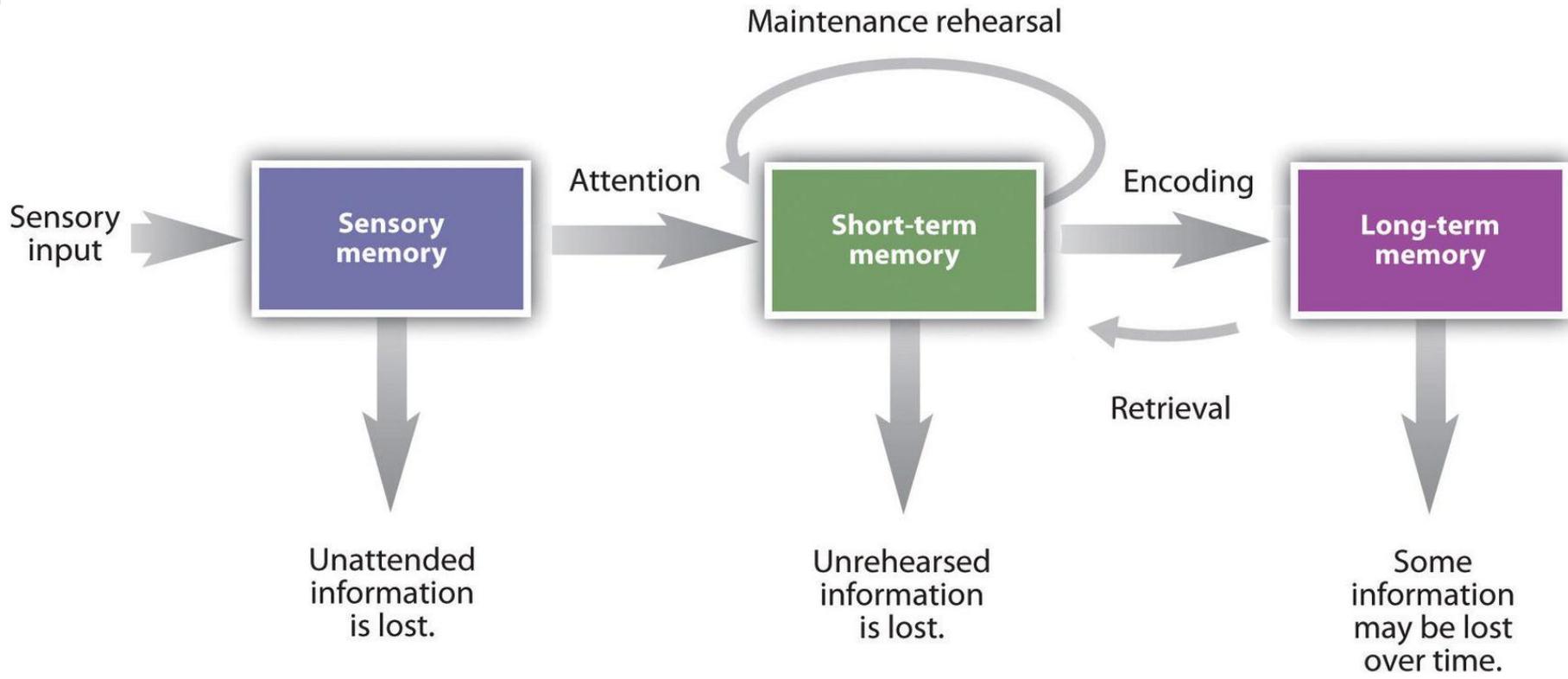
“What I am doing is more important than a movie or audio of me doing it.

Technology should never be used for technology's sake, but the application of technology to enhance learning, I am all for.”

(Robert Pompi)

NINE EVENTS OF INSTRUCTION





1. Gain Attention

2. Inform Learners of Objectives

3. Stimulate Recall of Prior Learning

4. Present the Content

5. Provide Learning Guidance

6. Elicit Performance (Practice)

7. Provide Feedback

8. Assess Performance

9. Enhance Retention and Transfer to the Job

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4. Present the Content

“Here is what we are going to learn...”

- New content is presented to the learner
- Textbook, lecture, multimedia, cases, scenarios, etc.
- Chunk and organize
- Use a variety of media
- Give directions or demonstrate desired outcome

5. Provide Learning Guidance

“Examples of this...”

- Provide support when needed (scaffolding)
- Suggest a meaningful organization
- Multiple examples and non-examples
- Case studies, graphical representations, mnemonics, and analogies
- Promotes entry into long-term memory

6. Elicit Performance (Practice)

“Your turn to try...”

- Informal learner performance
- Ask learner to recall new knowledge or perform new skills or behaviors
- Demonstrate what they have learned without penalty
- Gauge performance
- Repetition increases likelihood of retention

7. Provide Feedback

“This is how you did...”

- Give informative feedback based on performance
- Feedback should be immediate
- Elaborative feedback
- Exercises should be used for comprehension and encoding purposes, not for formal scoring
- Regular feedback enhances learning



4. Present the Content



4. Present the Content



Blackboard



articulate[®]

PAN  PTO

SCREENCAST  **MATIC**

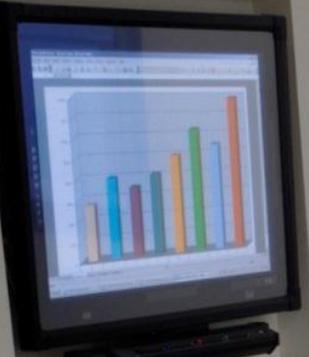


Prezi



POWERPOINT





SPLIT UP CONTENT





Recommendations: Prediabetes

- Screening for prediabetes with an informal assessment of risk factors or validated tools should be considered in asymptomatic adults.
- Testing should begin at age 45 for all people.
- Consider testing for prediabetes in asymptomatic adults of any age w/ BMI ≥ 25 kg/m² or ≥ 23 kg/m² (in Asian Americans) who have 1 or more add'l risk factors for diabetes.
- If tests are normal, repeat at a minimum of 3-year intervals.
- FPG, 2-h PG after 75-g OGTT, and A1C, are equally appropriate for prediabetes testing.
- In patients with prediabetes, identify and, if appropriate, treat other CVD risk factors.
- Consider prediabetes testing in overweight/obese children and adolescents with 2 or more add'l diabetes risk factors.

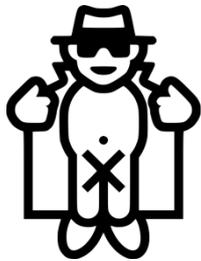
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**DO NOT
FLASH THE
AUDIENCE**





Don't let bullet points
**expose all of your
information** to your
audience at once.

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**REPLACE
BULLETS WITH
SOMETHING
ELSE**





Energy Efficiency

Recycling



Renewable Energy

Safe Nuclear?



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ARE YOU DIABETIC?

ACCORDING TO THE AMERICAN DIABETES ASSOCIATION (ADA), YOU SHOULD TEST FOR DIABETES IF:

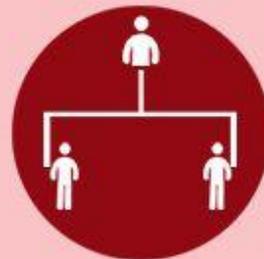
YOU ARE 45 YEARS OF AGE
OR OLDER



YOU HAVE BODY MASS INDEX
(BMI) GREATER THAN 25



YOU HAVE A FIRST DEGREE
RELATIVE WHO HAD TYPE 2
DIABETES.



Recommendations: Prediabetes

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- Consider testing for prediabetes in asymptomatic adults of any age w/ BMI ≥ 25 kg/m² or ≥ 23 kg/m² (in Asian Americans) who have 1 or more add'l risk factors for diabetes.

Sample Presentation: Before

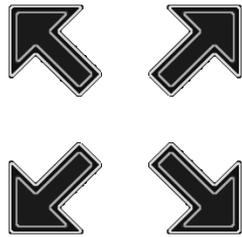
Sample Presentation: After



**Comfort
Zone**

Challenge

EXPAND ON THE INFORMATION



5. Provide Learning Guidance



5. Provide Learning Guidance

 iClicker®

 REEF Polling™
by iClicker.

 PowerPoint

 PANOPTO

 articulate®

 SCREENCASTOMATIC

 nearpod

 iSpring®

GET THEM

DOING

SOMETHING!





Instructions
Reset

\$0

\$0

\$0

\$0

Adj Scores
Double

\$0

\$0

\$0

\$0

Category 1

Category 2

Category 3

Category 4

Category 5

Category 6

\$100

\$100

\$100

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\$100

\$100

\$200

\$200

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\$500

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\$500

\$500

\$500

\$500



WHO WANTS TO BE A MILLIONAIRE

Title of Game

TEAM 1

50:50

Phone

Team

TEAM 2

50:50

Phone

Team

Extra Credit Points

- ✓ No missed questions = 5 points
- ✓ 1 missed question = 4 points
- ✓ 2 or more missed questions = 3 points

15 ▶ \$1 MILLION

14 ▶ \$500,000

13 ▶ \$250,000

12 ▶ \$100,00

11 ▶ \$50,000

10 ▶ \$25,000

9 ▶ \$16,000

8 ▶ \$8,000

7 ▶ \$4,000

6 ▶ \$2,000

5 ▶ \$1000

4 ▶ \$500

3 ▶ \$300

2 ▶ \$200

1 ▶ \$100

0

ANSWER 1

0

ANSWER 5

0

ANSWER 2

0

ANSWER 6

0

ANSWER 3

0

ANSWER 7

0

ANSWER 4

0

Player 1

\$0

ADD TO SCORE

Player 2

\$0

ADD TO SCORE

SHOW QUESTION

TIMER

X XXXXX



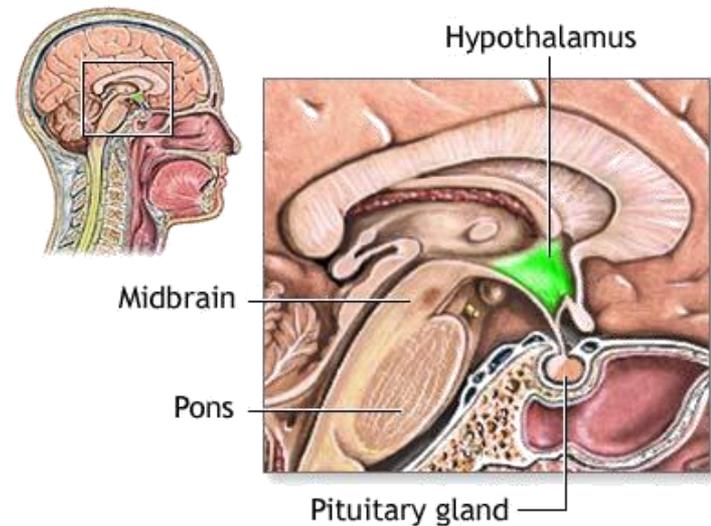
Uses for Clickers

- **Feedback**
- **Discussion**
- **Critical Thinking**
- **Predictions**
- **Surveys & Polls**
- **Quizzes**

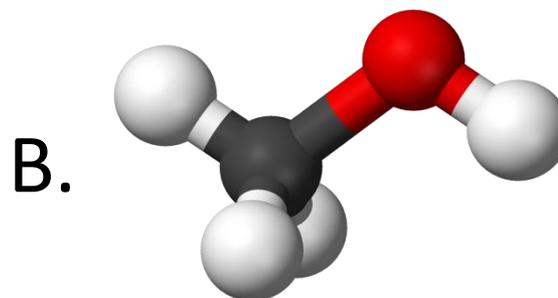
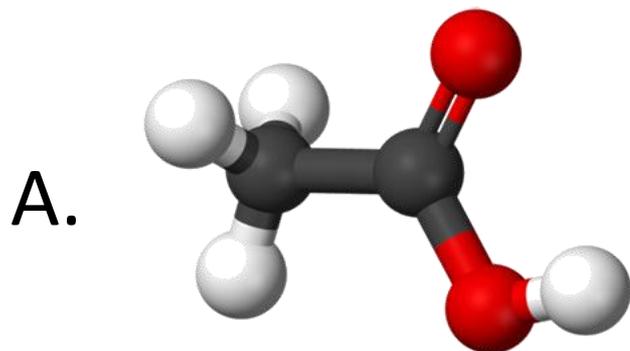
When you inject epinephrine directly into the hypothalamus of an animal, the secretion of several tropic hormones is changed. How is this possible since epinephrine is not a releasing hormone?

Do you agree with the chosen group's answer and rationale?

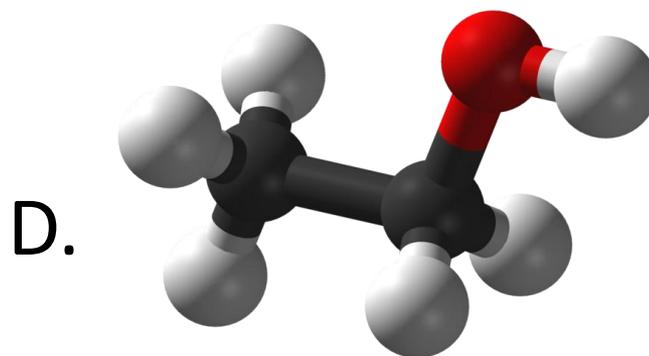
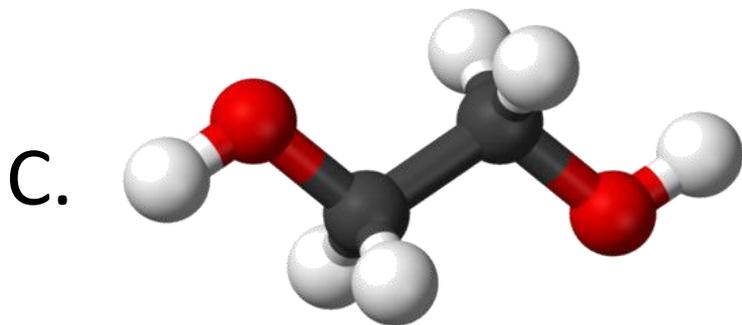
- A. Yes
- B. No
- C. Partially
- D. Don't know



Which of the following structures represents **methanol**?



You can also review the wrong answers.



In 1970, "Genie" was found at the age of 13. She had been locked in her room her entire life, often strapped to a potty chair, and beaten if she vocalized. What do you think is the likelihood that going forward she could learn to speak normally?

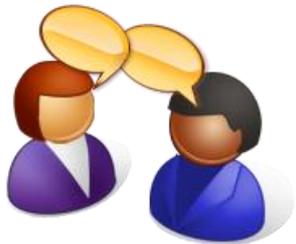
- A. 0-20%
- B. 21-40%
- C. 41-60%
- D. 61-80%
- E. 81-100%



In 1990 Terri Schiavo had a stroke, and her brain was deprived of oxygen for several minutes. Watch the video of Terri Schiavo and give your opinion. Should Terri have been taken off life support?

A. Yes

B. No



Now, turn to your neighbor and explain your answer.

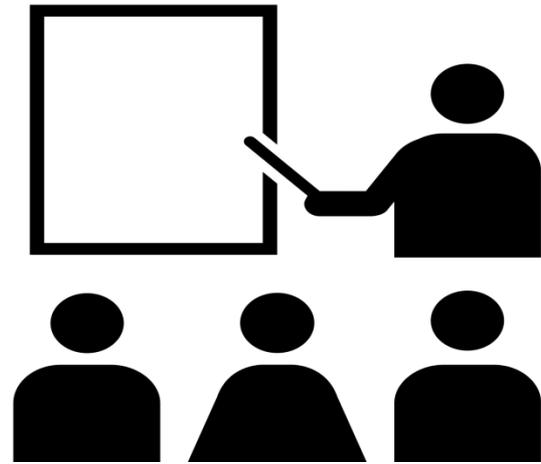
The residents of a burning apartment complex had to decide whether or not to throw their 9-month old infant out the window into the arms of a police officer waiting 4 floors below. The uncle said, "I looked into his eyes and saw that he would catch her. Then I let her go". His decision was made based on:

- A. Utility
- B. Expected value
- C. The gambler's fallacy
- D. Decision making flaws



Why is A correct?
Example of B?

**MAKE
THEM
TEACH!**





From sage on the stage
to guide on the side.

Alison King

6. Elicit Performance (Practice)

7. Provide Feedback



6. Elicit Performance (Practice)

7. Provide Feedback

 i-clicker®

 REEF Polling™
by i-clicker.

 Poll Everywhere

Quizlet

articulate®

 iSpring®

 nearpod

Kahoot!

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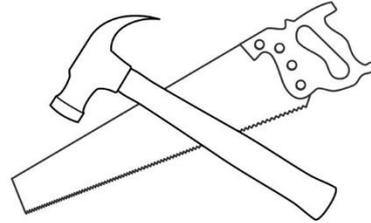
9. Enhance Retention and Transfer to the Job

**Question: What computer
sings the best?**

Answer: A Dell.



Thank You!



David Halpin, PhD
dmhalpin@carilionclinic.org