Using Technology to Assess Learning in the Classroom

A workshop for
Santa Monica College

The Center
For Teaching Excellence

September 8, 2017 – 12:30 PM

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COLLEGE

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Session agenda

• Overview
• 1 – Background Knowledge Probe + Kahoot or Pollev
• 2 – Think Pair Share + Todays Meet or Twitter
• 3 – Contemporary Issues Journal + NearPod
• 4 – Concept Maps + Bubbl.us or Mindmup
• 5 – Knowledge Grid + Google docs
• Wrap-up / Q & A

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BACKGROUND KNOWLEDGE PROBE

Kahoot
Poll Everywhere (pollev.com)

Instructions

- Get in pairs, where at least one of you has technology with access to the Internet.
- Visit tiny.cc/TechAssess1
- Answer the following questions as individuals or as a pair.

Survey

- What are the benefits of using technology for assessment in the classroom?
  - Flexibility
  - Speed
  - Motivation
  - Other

- What are the challenges of using technology for assessment in the classroom?
  - Ease of use
  - Prep time
  - Equity
  - Other

Benefits and tips

Benefits
- Speed: Technology allows you to collect info quickly to assess what students already know.
- Flexibility: You can come back to the responses right after the activity, again throughout the class, and after class for a deeper dive.

Tips
- Equity: Not every student has a mobile device. Use small groups rather than requiring individual responses.

Discussion

About the activity
• Is this something you could use in your class?

About the technology
• What would you need to use this technology in your class?

THINK PAIR SHARE (THINK TWEET PAIR TWEET)

Today's Meet (todaysmeet.com)
Twitter

Instructions

• Get in pairs, where at least one of you has technology with access to the Internet.
• Visit tiny.cc/TechAssess2
• Answer the questions shown on the following slides
  • Answer each question individually first
    • Example of different answers before discussion: #Question2.1: A, B
  • Discuss and then submit again
    • Example of the same answer after discussion: #Question2.2: A, A
  • In some cases you will be asked to submit written responses as a pair
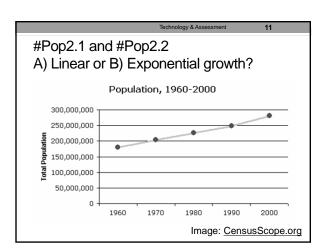   • Example: #Question4: brief written response
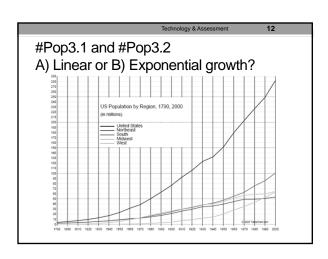
Question of the day

Answer individually first (#Pop1.1), then compare, discuss and submit your response (#Pop1.2)

- According to Census Bureau figures, the population of the United States grew at a rate of approximately **13.15%** during the decade from 1990 to 2000.
- Based on this **ten-year growth rate,** please make a conjecture on whether the **annual growth rate** is equal to **1.315%,** i.e., whether you think that it is logical to infer that the annual growth rate is equal to one-tenth of the ten-year growth rate?

A) Yes   or   B) No

Activity source: Science Education Resource Center – Carlton College

#Pop2.1 and #Pop2.2
A) Linear or B) Exponential growth?

Population, 1960-2000

Image: CensusScope.org

#Pop3.1 and #Pop3.2
A) Linear or B) Exponential growth?

US Population by Region, 1790, 2000
(in millions)

United States
Northeast
South
Midwest
West

#Pop4

- After making your decisions, please discuss your conjectures with your nearest neighbor and explain to each other your underlying reasonings. You don't necessarily have to agree with each other's assessments, but do have a candid discussion; you are free to change your initial reasonings in light of your neighbor's explanations

- Afterwards, **please record your conjectures and reasonings in written form**.

Benefits and tips

Benefits
- Collaborative learning: Students often improve their responses after being able to discuss with peers.
- Self-assessment: Students answer individually first, then check themselves against their peers' responses.

Tips
- Use this as a way to confirm students have done a reading and/or homework assignment.

Discussion

About the activity
- Is this something you could use in your class?

About the technology
- What would you need to use this technology in your class?

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Time to move! (discipline clusters)

• Art, Arts, Design	• Sciences
• Humanities	• CTE programs
• Languages	• Technology
• Social Sciences	• Business
• Comm & Media	• Professional Training
• Psychology	• Workforce Dev

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CONTEMPORARY ISSUES JOURNAL

NearPod

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Show real-world connections

• In small groups, assign a tech scribe.

Collect & Select (2 min)
• Select a broad topic from one or more of your classes.
• Search the web for an image of a recent event related to that topic.

Reflect & Share (3 min)
• Visit tiny.cc/TechAssess3
• Post each image you find and write a brief reflection about how that image relates to the course topic.
  • Bonus points for connecting course topics to your daily life!

Benefits and tips

Benefits
• Integration: Students draw connections between course concepts and real-world events, concepts in other disciplines or their daily lives.

Tips
• Manage time: Give clear time limits for each part of the activity.
  • IDEA: Assign bonus points for the first 3/4/5 complete entries that meet rubric criteria.

Discussion

About the activity
• Is this something you could use in your class?

About the technology
• What would you need to use this technology in your class?

CONCEPT MAPS

C-Map / Bubbl.us
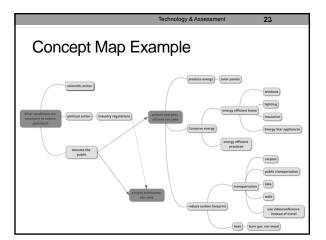
Show the connections between ideas

• In small groups of 2 to 4, assign a tech scribe.

Prepare (3 min)
• What conditions are necessary for reducing pollution?
  • Identify 5-10 concepts that are relevant to answering this question.(NOTE: Pick any lens: science, politics, etc.)

Create and share (3 min)
• Visit bubbl.us or mindmup.com
• Create a map connecting the concepts you identified
  • Add to example at tiny.cc/TechAssess4-example

Concept Map Example

Benefits and tips

Benefits
• Non-linear: This allows students to show what they know in a different way.
• Collaboration: Using small groups allows all students to contribute. To promote this, require groups to use 3 ideas from each person, with no repeats.

Tips
• Variation: Consider having students create concept maps as homework, then discussing as a class.
• Create a rubric with 3-5 criteria and share before activity.
• Create your own map and show as just another example.

Discussion

About the activity
• Is this something you could use in your class?

About the technology
• What would you need to use this technology in your class?

KNOWLEDGE GRID

Google docs (spreadsheet)

Instructions

• Get in small groups, where at least one of you has technology with access to the Internet.
• Visit tiny.cc/TechAssess5
• Fill in the assigned column of the Knowledge Grid as a team.

Knowledge grid – verb conjugation

	Team 1	Team 2	Team 3	Team 4	Team 5	Team 6
tense	present	present	present	present	present	present
verb type	regular -ar verbs	regular -er verbs	regular -ir verbs	irregular verbs	irregular verbs	irregular verbs
example verb	andar	correr	vivir	estar	ser	tenir
yo						
tú						
el, ella, usted						
nosotros						
vosotros						
ellos, ellas, ustedes						

Knowledge grid – world poetry

	common poetry forms	rhyme scheme	meter	well-known poets
Africa				
Asia				
Australia				
Europe				
Middle East				
North America				
South America				

Benefits and tips

Benefits
• Analysis: students differentiate, classify, or compare and contrast course concepts using the Knowledge Grid.

Tips
• Use as a pretest to identify what students already know.
• Use as a note-taking strategy. Provide an empty grid as a handout for students to fill in as you progress through a lecture (individually or on teams), or as they progress through a recorded lecture or reading assignment.

Discussion

About the activity
• Is this something you could use in your class?

About the technology
• What would you need to use this technology in your class?

WRAP-UP

Using technology for assessment

Assessment Techniques we explored (just a few examples)
• 1 – Background Knowledge Probe + Kahoot or Pollev
• 2 – Think Pair Share + Todays Meet or Twitter
• 3 – Contemporary Issues Journal + NearPod
• 4 – Concept Maps + Bubbl.us or Mindmup
• 5 – Knowledge Grid + Google docs

Using technology for assessment

In the classroom
• Learning Assessment Techniques (just a few examples)

Assess what domain?	Which technique?	Which technology?
Knowledge	Background Knowledge Probe (LAT 2)	Poll Everywhere, Twitter, Socrative, NearPod
Application	Quotation Commentaries (LAT 13)	Google docs
Integration	Sequence Chains (LAT 22)	Bubbl.us, mindmup (ti
Human Dimension	Dramatic Dialogues (LAT 33)	Blog tool,
Caring	Proclamations (LAT 40)	Google docs, VoiceThread
Learning How to Learn	Learning Goal List (LAT 47)	Today's Meet

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Using technology for assessment

Out of the classroom
• Learning Assessment Techniques (just a few examples)

Assess what domain?	Which technique?	Which technology?
Knowledge	Background Knowledge Probe (LAT 2)	Quiz
Application	Quotation Commentaries (LAT 13)	Google docs
Integration	Sequence Chains (LAT 22)	Bubbl.us, mindmup (ti
Human Dimension	Dramatic Dialogues (LAT 33)	Blog tool
Caring	Proclamations (LAT 40)	Google docs, VoiceThread
Learning How to Learn	Learning Goal List (LAT 47)	Today's Meet

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Using technology for assessment

In the classroom
• Classroom Assessment Techniques (just a few examples)

Assessing what KSA?	Which technique?	Which technology?
Prior Knowledge	One-Minute Paper (CAT 6)	Twitter, Todays Meet
Synthesis/Creative Thinking	Concept Maps (CAT 16)	Bubbl.us, mindmup
Application	Student Generated Test Questions (CAT 25)	Facebook page, Google docs
Student Awareness of Attitudes	Classroom Opinion Poll (CAT 28)	Poll Everywhere, Twitter, Socrative, NearPod

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Out of the classroom
• Classroom Assessment Techniques (just a few examples)

Assessing what?	Which CAT?	Which Technology?
Prior Knowledge	One-Minute Paper (CAT 6)	Discussion forum (one minute thread)
Synthesis/Creative Thinking	Concept Maps (CAT 16)	Bubbl.us, mindmup
Application	Student Generated Test Questions (CAT 25)	Google form or Google docs
Student Awareness of Attitudes	Classroom Opinion Poll (CAT 28)	Quiz

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FINAL QUESTIONS?

Slide

THANK YOU!

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