Using Technology to Assess Learning in the Classroom

A workshop for
Santa Monica College

September 8, 2017 – 12:30 PM
Kevin Kelly, EdD

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Session agenda

• Overview
• 1 – Background Knowledge Probe + Kahoot or PollEverywhere
• 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

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?

Image: CensusScope.org

#Pop3.1 and #Pop3.2
A) Linear or B) Exponential growth?
#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?
Time to move! (discipline clusters)

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

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

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
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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.
<table>
<thead>
<tr>
<th>Knowledge grid – verb conjugation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tense</strong></td>
</tr>
<tr>
<td>present</td>
</tr>
<tr>
<td><strong>Verb Type</strong></td>
</tr>
<tr>
<td>regular</td>
</tr>
<tr>
<td>-ar verbs</td>
</tr>
<tr>
<td>-er verbs</td>
</tr>
<tr>
<td>-ir verbs</td>
</tr>
<tr>
<td>irregular</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Knowledge grid – world poetry</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Common Poetry Forms</strong></td>
</tr>
<tr>
<td>Africa</td>
</tr>
<tr>
<td>Asia</td>
</tr>
<tr>
<td>Australia</td>
</tr>
<tr>
<td>Europe</td>
</tr>
<tr>
<td>Middle East</td>
</tr>
<tr>
<td>North America</td>
</tr>
<tr>
<td>South America</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Benefits and tips</th>
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</thead>
<tbody>
<tr>
<td><strong>Benefits</strong></td>
</tr>
<tr>
<td>• Analysis: students differentiate, classify, or compare and contrast course concepts using the Knowledge Grid.</td>
</tr>
<tr>
<td><strong>Tips</strong></td>
</tr>
<tr>
<td>• Use as a pretest to identify what students already know.</td>
</tr>
<tr>
<td>• 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.</td>
</tr>
</tbody>
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Discussion

About the activity
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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)

<table>
<thead>
<tr>
<th>Assess what domain?</th>
<th>Which technique?</th>
<th>Which technology?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Background Knowledge Probe (LAT 2)</td>
<td>Poll Everywhere, Twitter, Socrative, NearPod</td>
</tr>
<tr>
<td>Application</td>
<td>Quotation Commentaries (LAT 13)</td>
<td>Google docs</td>
</tr>
<tr>
<td>Integration</td>
<td>Sequence Chains (LAT 22)</td>
<td>Bubbl.us, mindmup (ti)</td>
</tr>
<tr>
<td>Human Dimension</td>
<td>Dramatic Dialogues (LAT 33)</td>
<td>Blog tool,</td>
</tr>
<tr>
<td>Caring</td>
<td>Proclamations (LAT 40)</td>
<td>Google docs, VoiceThread</td>
</tr>
<tr>
<td>Learning How to Learn</td>
<td>Learning Goal List (LAT 47)</td>
<td>Today's Meet</td>
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</tbody>
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#### Out of the classroom
- **Learning Assessment Techniques** (just a few examples)

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### Using technology for assessment

#### In the classroom
- **Classroom Assessment Techniques** (just a few examples)

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<th>Assessing what KSA?</th>
<th>Which technique?</th>
<th>Which technology?</th>
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</thead>
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<tr>
<td>Prior Knowledge</td>
<td>One-Minute Paper (CAT 6)</td>
<td>Twitter, Today's Meet</td>
</tr>
<tr>
<td>Synthesis/Creative Thinking</td>
<td>Concept Maps (CAT 16)</td>
<td>Bubbl.us, mindmup</td>
</tr>
<tr>
<td>Application</td>
<td>Student Generated Test Questions (CAT 25)</td>
<td>Facebook page, Google docs</td>
</tr>
<tr>
<td>Student Awareness of Attitudes</td>
<td>Classroom Opinion Poll (CAT 28)</td>
<td>Poll Everywhere, Twitter, Socrative, NearPod</td>
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### Using technology for assessment

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

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<td>One-Minute Paper (CAT 6)</td>
<td>Discussion forum (one minute thread)</td>
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### FINAL QUESTIONS?

### THANK YOU!

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