Using the SAMR model to examine technology for learning
How you feel about technology?

Go to: menti.com
Code: 26 20 29
Quiz/Polling software

• Mentimeter (Short questions, images)
• GoSoapBox (Longer questions)
• Kahoot (Groups, games)
• Socrative (Ghosting)
SAMR is a model that categorizes integration of technology
Trying to answer:

• is the tech required?
• is the tech a good fit?
• is it worth it?
• how to best implement it?

For example...

https://youtu.be/SC5ARwUkVQg
Does tech make a new activity possible?

Redefinition
Tech allows for the creation of new tasks, previously inconceivable

Does the tech facilitate different LO’s?

Modification
Tech allows for significant task redesign

What do the features add?

Augmentation
Tech acts as a direct tool substitute, with functional improvement

What will be gained by replacing?

Substitution
Tech acts as a direct tool substitute, with no functional change

Diagram is based on Kathy Schrock’s take on SAMR & Bloom’s [http://www.schrockguide.net/samr.html](http://www.schrockguide.net/samr.html)
Use of SAMR

K-12 % of total # of sessions at ISTE mentioning SAMR

(Hamilton, Rosenberg & Akcaoglu, 2016, p.434)
International Society for Technology in Education (ISTE)
### Use of SAMR

#### Scopus Results 2013-2016

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Year</th>
<th>Journal/Conference</th>
<th>Number of Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics, technology interventions and pedagogy seeing the wood from the trees</td>
<td>Bray, A., Tangney, B.</td>
<td>2013</td>
<td>CSEDU 2013 - Proceedings of the 5th International Conference on Computer Supported Education pp. 57-63</td>
<td>6</td>
</tr>
</tbody>
</table>

- **Number of publications**

  - 2013: 2
  - 2014: 1
  - 2015: 3
  - 2016: 1

- **Affiliations**

  - University of Fort Hare: 2
  - Wellesley Public School District: 1
  - Towson University: 1
  - Idaho State University: 1
  - Trinity College Dublin: 1
  - Auburn University: 1
  - University of Massachusetts System: 1
  - UC Davis: 1
  - Georgia Southern University: 1
  - American University: 1
Criticism

- theoretical basis and evidence
- context
- hierarchy
- different interpretations + applications (misuse)


SAMR is NOT

A tool for evaluating...

- instruction, or instructor professional development
- large scale implementation of technology
Why I use it

- flexible – student focused
- helps isolate tech from activity & pedagogy
- entry into understanding the impact of technology on learning
- perfect for applying to a single activity or assignment
- simple enough to use as part of a team
How I use SAMR:
Start w context
LOACTIVITY>TECH>IMP
REFLECTING
MARS
RAMS
ARMS
<table>
<thead>
<tr>
<th>Starting Topic</th>
<th>Focused Question</th>
<th>Keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Schools</td>
<td>The History of Blue Quills Residential School</td>
<td>Blue Quills, St. Paul, History</td>
</tr>
<tr>
<td>Healthcare (In)access &amp; Discrimination</td>
<td>What are some factors that contribute to patient-doctor dissonance between Indigenous people and the Canadian healthcare system? How can this be reconciled?</td>
<td>Healthcare, health access, Canadian healthcare, mental health, patient-doctor dissonance, patient relationships, cultural competency, anti-oppressive practice, institutional racism, healing, intergenerational trauma</td>
</tr>
<tr>
<td>Language Revitalization</td>
<td>What does language revitalization look like in our local, Edmonton, Treaty 6, context?</td>
<td>Language rights, culture, Cree (nehiyaw), Alternative narratives</td>
</tr>
</tbody>
</table>
SAMR Reflection – replacing paper with Google doc for topic brainstorm

Cost
• 5-10 min
• Typing in tiny URL

Benefit
• Easier collaboration – group access after class
• Anonymous sharing
• Engagement
• Better topics

= worth it
So much work

Convenient

NOT WORTH IT!
Would you use it?
Why or Why not?

http://bit.ly/2j5njLc

It is recent, has many sources, but would have to check out to see if they are credible. The article is very general and hits a lot of points under one topic. It is also biased as it comes from a poverty's website itself. Depends on how you go about with your opinion.
Looked at 2 of the sources, and they are legitimate sources (research article, academic journal)

The facts don’t seem reliable and the grammar isn’t great; the source lacks reliability. Also, it is not peer-reviewed which leaves room for error in the facts.

**Shoutout to Professor Sinclair.**

Recent article, uses lots of sources, some from 2010. Even though it is not from an academic journal, it looks to be reliable

Also the author is a digital strategist and filmmaker which brings the idea that he may skew information to make it more interesting for his blog

-FACTS
Anthropology 101
Professor Katie Sinclair & Kim Peacock, Tech Coordinator

Bonding with Aurasma AR app
In pairs...

- Discuss if you think the ANTH 101 activity is using Aurasma at the Substitution, Augmentation, Modification or Redefinition level and why

- Share your answer:
  Go to: menti.com
  Code: 26 20 29
Astrophotography

Astrophotography is the photographing of objects in space and can be as simple as amateur photography to more advanced forms such as the Hubble Space Telescope. Seeing truly is believing, especially when dealing with distant planets, stars, and nebulae. Not only are the images absolutely stunning, but also very revealing of the mysteries of the universe. Astronomers utilize high budget large orbiting telescopes such as the Hubble Space Telescope and the James Webb Space Telescope to see better quality images outside of the distorting atmosphere. Different lenses can capture different wavelengths, such as near-infrared, ultraviolet, and visible light, viewing nebulae in a whole new light (pun intended). The images on the right were taken by Hubble’s Wide Field Camera 3, revealing just how broad the wavelength range truly is. The above image is taken in near visible light, while the bottom image is taken in near-infrared light. By using infrared light to penetrate the dust, the infant star is revealed!
Evolution of the wiki

• Made better use of wiki features to benefit LO’s
• Added more collaborative, interactive, interest-based, peer evaluation
What is one thing you learned that stays with you?

The types of distances and variability in the types of solar systems we can get. I think we all have used wikipedia but never thought how much effort needs to be put in to create a wikipage. Just the fact that we had to do extensive research on the topic and then take all of that information and write in a form that is easy to understand was the most challenging and part.

How to search for appropriate sources, that are credible.

Our topic was Adaptive Optics, and prior to completing the wiki assignment, I did not understand how adaptive optics work. Was very interesting learning about AO systems.

I really hate APA citation.

I did not particularly enjoy the Wiki project, so I guess it confirmed that I do not enjoy group work. In saying that, I felt it went well in spite of that.

The value of the contract

How to distinguish credible websites.

I learned so much about exoplanets which made me interested enough want to continue with Astronomy.

I was fascinated by the many different ways that we, humans, can view the universe through many different types of electromagnetic radiation, and it interested me to learn about the ways that technology allows researchers to achieve those visualizations and data that allows us to understand our universe.

I found that for me the wiki project made me want to know more about the different robotic missions. I'm really interested in the surface conditions of other planets so it was neat to find information on our own!
Feedback/Improvements

• Deadlines/Timeline
• Clarity – More examples
• More Technology support (1 comment)
Nursing 424 – High Priority Populations
Professor Mona Haimour & Kim Peacock, Tech Coordinator
UN Sustainable Development Goal’s with Pictochart, Biteable video & Twitter
Do you think what you learned about your topic and the SDG’s be useful to you as a nurse?

Yes, because of it's impact on the lives of many individuals I will eventually serve.

Do you think what you learned about making videos/infographics and using twitter will be useful to you as a nurse?

I don't think it will be helpful because I don't think there is any relevance to what I plan on going into as a career path, for my nursing career.

I greatly appreciate this fun project more than writing a paper! It was a thoughtful choice!
Unintended Consequences

• Hidden competencies and required learning areas that distracted from main learning objectives
• Students did more work than was required
• Students worked ahead of our schedule
Learning goals decide where & how to use tech

Making/Technology Activity
Tech skills/knowledge is primary focus

Subject Content Activity
Use of tech is a means to an end
What do you want to try?

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Use SAMR to weigh the value of technology & features to your learning design
Contact: Martina King
kingm10@macewan.ca