Thinking about Technology

Niagara Falls City SD
September 6, 2017
Pedagogy in the Digital Age
A Little About Me

Tod Johnston
tjohnston@clarity-innovations.com

@johnstontod

After 10 years of elementary and middle school teaching experience, Tod experienced the true potential of technology in education first-hand when he piloted a 1:1 classroom in his district. He now develops content to help schools and teachers effectively use technology to enhance the way students learn.
Training Goals

1. Explore pedagogical models to frame your technology integration.
2. Examine digital tools for augmenting and enhancing your classroom.
3. Consider your next steps for improving your practice
Course Logistics and Resources

Course Resources:  k12blueprint.com/niagara

Collaborative Notes:


Agenda

1. Welcome & Introductions
2. Pedagogy in the Digital Age
3. Break
4. Digital App Exploration
5. Next Steps
Padlet Warm-up

Open the padlet:

https://padlet.com/TODJ/NFC1

QR code will load the Padlet in a mobile app
Pedagogies for the Digital Age
The Methods & Practices of Teaching

Trivium & Quadrivium
- The 7 Liberal Arts

Learn by doing
- John Dewey

Instructional Theory into Practice
- Madeline Hunter

Understanding by Design
- Wiggins & McTighe

TPACK model
- Matthew J. Koehler

“Effective pedagogical practices have a strong research base, are clearly understood by classroom practitioners and are direct responses to students’ identified learning needs.”

- Center for Education Statistics and Evaluation
A Shift in Pedagogy

What’s the difference?
Add your discoveries to bit.ly/NFCmorning
# Challenges Facing Educators: Teaching with Technology

<table>
<thead>
<tr>
<th>TRADITIONAL TECHNOLOGIES</th>
<th>DIGITAL TECHNOLOGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Specific</strong>&lt;br&gt;Posses a single, identifiable task</td>
<td><strong>Protean</strong>&lt;br&gt;Usable in many different ways</td>
</tr>
<tr>
<td><strong>Stable</strong>&lt;br&gt;Have not changed over time</td>
<td><strong>Unstable</strong>&lt;br&gt;Rapidly changing</td>
</tr>
<tr>
<td><strong>Transparent</strong>&lt;br&gt;Easy to understand how they work</td>
<td><strong>Opaque</strong>&lt;br&gt;The way they work is hidden from users</td>
</tr>
</tbody>
</table>
What does effective use of technology in the classroom look like?
Intel Education’s Approach

- Student-centered
- Teacher-focused
- Supports 21st century skills
  - Creativity, Collaboration, Communication, and Critical Thinking
- Inquiry-based using the Essential Questions model
Pedagogies for Transforming Learning

The focus of this presentation is on TPACK and SAMR and the One to One Framework developed by Intel Education to help you integrate technology.

TPACK model
-Matthew J. Koehler, TPACK

SAMR
-Ruben Puentedura, Hippasus
Technological Pedagogical Content Knowledge (TPACK)

Technological Knowledge (TK)

Technological Pedagogical Knowledge (TPK)

Pedagogical Knowledge (PK)

Pedagogical Content Knowledge (PCK)

Content Knowledge (CK)

Contexts

tpack.org
https://www.youtube.com/watch?v=FagVSQIZE
Teacher Profile #1

- Technological Knowledge
- Pedagogical Knowledge
- Content Knowledge
Teacher Profile #2
TPACK Self-Assessment

Take 3-5 minutes for reflection.

On a scrap piece of paper, sketch your own TPACK diagram that represents your comfort and ability levels in the 3 types of knowledge.

Document your strengths as well as some areas for growth.
The SAMR Model
The SAMR Model
SAMR
In 120 Seconds

A Simple SAMR Example

**Geoboard**

- **Substitution**
- **Augmentation**
- **Modification**
- **Redefinition**

http://www.mathlearningcenter.org/web-apps/geoboard/
SAMR as a continuum

From Carl Hooker
SAMR Brainstorm

1. Consider a lesson or activity you currently teach that doesn’t use (much) technology


3. Feel free to work with partner(s) and submit more than one form to share multiple ideas.
Take a Break
Let’s Review

Go to: quizlet.live
Enter the on-screen code
Digital Apps
The Task

1. Independently or with a partner, choose one of the following digital tools:

<table>
<thead>
<tr>
<th>Collaboration</th>
<th>Communication</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office365</td>
<td>Office Mix</td>
<td>EDPuzzle</td>
</tr>
<tr>
<td>Padlet</td>
<td>Mentimeter</td>
<td>Quizizz or Kahoot</td>
</tr>
<tr>
<td>Quizlet</td>
<td>Excel Survey</td>
<td>Microsoft Sway</td>
</tr>
<tr>
<td></td>
<td>Today’s Meet</td>
<td></td>
</tr>
</tbody>
</table>

…. Or any other tool that is on your radar but you haven’t had time to explore.

2. Explore and play with the tool. How does it work? How could it be used in the classroom? What curricular objectives could it help accomplish?

3. Create something to demonstrate what you learned.

4. Present your learning to the group.
Next Steps
Curricular Resources

https://education.microsoft.com/find-create-and-share-a-lesson/lesson-plans

https://www.commonsense.org/education/lesson-plans
Finding Inspiration

How will you stay connected and inspired?

- Your colleagues
- Books and blogs
- Social networks
Padlet Wrap Up

Reopen the Padlet:

https://padlet.com/TODJ/NFC1

Add a new post (or edit your last one) to describe one thing you are excited to explore or try in the classroom with technology.