Welcome to the AMTE Webinar

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Using Animations to Create Teaching and Learning Scenarios for Mathematics Teacher Education

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For many years, teacher educators, and mathematics teacher educators in particular, have advocated for the use of artifacts of practice in the professional education and development of teachers.

(see sample reference list at end)

What types of artifacts of practice have you used?

(Let’s take a Poll!)
What do artifacts of practice afford us as mathematics teacher educators?

Enter your responses in the Question box
“...teachers need robust examples with which to work, either from their own classrooms, or collected systematically from others. To be useful, artifacts of practice require careful collection and development.”

(Ball & Even, 2009, p. 256)
Potential Uses of Animation Authoring Tools

Mathematics Teacher Educator:
Use examples from research or practice to
• Construct a scenario of a classroom
• Represent students’ work on a task

Preservice or Inservice Teacher:
Enact lesson planning and instructional skills to:
• Construct a scenario of how to introduce a task, or explain a concept to students
• Construct a scenario of sample student-teacher dialogue on anticipated work on a task
Example of Research-informed Scenario:
Launching a Statistical Investigation and Student’s Work

http://tinyurl.com/kqx29fz
Examples of Practice-based Scenarios

Made with GoAnimate
http://tinyurl.com/ncznpq

Made with PowToon
http://tinyurl.com/nybj29p
Some Free (or Cheap) Tools

Commercial and Educational Tools:
Web-based tools
- GoAnimate [http://goanimate.com](http://goanimate.com) ($58/yr)
- Powtoon [http://www.powtoon.com](http://www.powtoon.com) (free)
- XtraNormal [http://xtranormal.com](http://xtranormal.com) (used to be free, but recently acquired and being redone)

Designed for Teacher Education Purposes:
- Lesson Sketch [http://www.lessonsksketch.org](http://www.lessonsksketch.org)
GoAnimate
Dynalogues
Lesson Sketch

Summary: A geometry teacher discusses properties of isosceles trapezoids with his students. After asking students to identify the quadrilateral formed by connecting the midpoints of the adjacent sides of an isosceles trapezoid, the teacher asks the students to prove that the figure is a rhombus. The different versions of the episode vary with respect to the problem set-up and the solutions offered by the students.

B: Main branch of story. C-I: Abridgements of B.
Affordances and Constraints of Animations

- Time
- Purpose/Re-purpose
- Realistic but not “real”
- Enact dialogue
- Ease of use
- Bang for your buck
Sample Animated Videos

My Playlist on youtube.com with sample animated videos

- http://tinyurl.com/mathedanimate

Samples from Dynalogue from Janet Bowers

- http://www.screencast.com/t/ig0xWJhg
- http://www.screencast.com/t/lw3f4JWT
References


