TRANSFORMATIVE TECH: FOSTERING AUTHENTIC LEARNING THROUGH TECHNOLOGY

PRESENTED BY JESSICA KONTCHOU
4th Grade ELAR/SS Teacher, Fort Bend ISD
OUR AGENDA

BACKGROUND
What is authentic learning, and why should we strive for it?
How does technology play a role in authentic learning?

INSTRUCTIONAL DESIGN
What are the components of authentic learning?
How can we optimize instructional design?

RESOURCES & REFLECTION
How can you transform your current instructional practices to foster authentic learning?
ONE WORD ONLY: HOW'S IT GOING?
What is authentic learning? How does technology play a role in authentic learning?
AUTHENTIC LEARNING

“Learning through applying knowledge in real-life contexts and situations”
Educational Research Newsletter and Webinars

“Learning designed to connect what students are taught in school to real-world issues, problems, and applications”
ACEL (Australian Council for Educational Leadership)
WHY AUTHENTIC LEARNING?

STUDENTS LEARN BY DOING

EMPOWER OUTSIDE-THE-BOX THINKERS

PREPARE STUDENTS FOR LIFE OUTSIDE OF SCHOOL

TEACH 21ST CENTURY SKILLS
AUTHENTIC LEARNING IN ACTION

As you watch the video, record your thoughts on the following questions:

IN WHAT WAYS IS TECHNOLOGY BEING USED?

WHAT EVIDENCE OR ELEMENTS OF AUTHENTIC LEARNING DO YOU SEE?
AUTHENTIC LEARNING IN ACTION

After watching the video, discuss with your partner:

IN WHAT WAYS WAS TECHNOLOGY BEING USED?

WHAT EVIDENCE OR ELEMENTS OF AUTHENTIC LEARNING DID YOU SEE?
ONLINE LEARNING

Both instruction and assessment are completed online. Also known as virtual classroom.

FLIPPED CLASSROOM

Content and materials are introduced online, prior to traditional face-to-face instruction.

BLENDED LEARNING

Content and instruction are partly delivered online. Students have control over time, place, path, or pace of their learning.

TECHNOLOGY INTEGRATION

Technology is used as a tool to complement or enrich traditional face-to-face instruction.
<table>
<thead>
<tr>
<th>Blended Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flipped Classroom</td>
</tr>
<tr>
<td>Online Learning</td>
</tr>
<tr>
<td>Technology Integration</td>
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What are the components of authentic learning?
How can we optimize instructional design?
10 COMPONENTS
OF A ROBUST AUTHENTIC LEARNING EXPERIENCE

- Real-life Relevance
- Ill-defined Problem
- Sustained Investigation
- Multi. Sources & Perspectives
- Collaboration
- Reflection
- Interdisciplinary Perspective
- Integrated Assessment
- Polished Product
- Multi. Solutions & Outcomes
Self-directed learning

Real-world problems & presentation of findings

Student discourse & social learning

Open-ended inquiry & thinking

Self-directed learning
<table>
<thead>
<tr>
<th>ELAR</th>
<th>SOCIAL STUDIES</th>
<th>MATH</th>
<th>SCIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBLISH (AUDIO)BOOK</td>
<td>LETTER TO GOVT OFFICIAL</td>
<td>BUILD A MODEL</td>
<td>DO AN EXPERIMENT</td>
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<tr>
<td>ONLINE BOOK REVIEW</td>
<td>INTERVIEW</td>
<td>CREATE/FOLLOW RECIPE</td>
<td>PLANT A GARDEN</td>
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<tr>
<td>MENTOR READING</td>
<td>VIDEOCONFERENCE</td>
<td>MARKETPLACE SIM.</td>
<td>CARE FOR ENVIRONMENT</td>
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<td>PODCAST</td>
<td>NEWS REPORT</td>
<td>STOCK MARKET SIM.</td>
<td>CREATE A WEBSITE</td>
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<td>CREATE A VIDEO PSA</td>
<td>HOST FUNRAISER EVENT</td>
<td>SURVEY CLASS/SCHOOL</td>
<td>CODE A GAME</td>
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<tr>
<td>BLOG</td>
<td>ACTIVISM/RALLY</td>
<td>PLAN AN EVENT</td>
<td>ENGINEER A MACHINE</td>
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Each row represents one of the 5 attributes of learning environments: Active, Collaborative, Constructive, Authentic, and Goal-Directed. Each column represents one of the 5 levels of technology integration: Entry, Adoption, Infusion, and Transformation.
This characteristic focuses on the extent to which technology is used to place learning into a meaningful context, increase its relevance to the learner, and tap into the student’s intrinsic motivation.

**TECH INTEGRATION**

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<tr>
<th>LEVELS OF TECHNOLOGY INTEGRATION</th>
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<tr>
<td>ENTRY LEVEL</td>
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<td>The teacher begins to use technology tools to deliver curriculum content to students.</td>
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**ATTRIBUTE: AUTHENTIC LEARNING**

Students use technology tools to link learning activities to the world beyond the instructional setting rather than working on decontextualized assignments.
RESOURCES & REFLECTION

How can you transform your current instructional practices to foster authentic learning?
WHAT IS CURRENTLY YOUR FAVORITE TECHNOLOGY TOOL?
INSTRUCTIONAL RESOURCES
FOR LESSON DESIGN & IMPLEMENTATION

- A Guide to Authentic E-Learning
  Jan Herrington, Thomas C. Reeves, Ron Oliver

- Journal of Authentic Learning
  SUNY (State University of New York at Oswego) Digital Repository

- Authentic Learning: Real-World Experiences That Build 21st-Century Skills
  Todd Stanley

- Authentic Learning in the Digital Age: Engaging Students Through Inquiry
  Lisa Pahomov

- Ditch that Textbook
  Matt Miller
TECH INTEGRATION

WEBSITES TO CONSIDER

**SCIENCE**
- Code.org
- Gizmos
- NOVA Labs
- PhET
- Genetics Virtual Labs

**MATH**
- Gizmos
- PhET
- How the Market Works
- The Stock Market Game

**SOCIAL STUDIES**
- Houston Chron Letter to the Editor (viewpoints@chron.com)
- Google Docs
- Adobe Spark

**ELAR**
- GarageBand (podcasts)
- Audacity (podcasts)
- Book Recorder
- Kidblog
- Edublogs
- Biblionasium
- Storybird
- Story Jumper
- My Storybook