Play, Passion, and Purpose: Students as Innovators

Katrina Liu, University of Wisconsin – Whitewater
Justin Stewart, Lincoln Inquiry Charter School

UWSP and UWW Digital Learning Jumpstart Conference

August 5, 2014
Agenda

- Introduction (5’)
- Discussion (10’)
  - What does "students as innovators" mean
  - What examples of this have you seen in practice?
- Share (10’)
- Frameworks for Innovation (25)
  - Inquiry-based Learning (Katrina)
  - Personalized Learning (Justin)
- Questions
Innovation: A Platform for 21st Century Skills

“It is [the] combination of play, passion, and purpose that best develops the discipline and perseverance required to be a successful innovator.”


But how do we get there?
Share Your Expertise

What does "students as innovators" mean?

What examples of this have you seen/done in practice?
Innovation: A Platform for 21st Century Skills

7 Principles for Designing Innovative Learning Environment

1. Learners as the center of what happens in the classroom
2. Learning is a social practice and can’t happen alone
3. Emotions are an integral part of learning
4. Learners are different
5. Students need to be stretched, but not too much
6. Assessment should be for learning, not of learning
7. Learning needs to be connected across disciplines

Innovation: A Platform for 21st Century Skills

**Innovative teachers**
- Master disciplinary knowledge
- Experiment with methods
- Provoke thoughtfulness
- Cede the reins

**Innovative learners**
- Driven by curiosity and passion
- Willing to fail in the quest to improve
- Attacking real-world problems
- Obtaining expert knowledge
- Mobilizing the community
Innovation: A Platform for 21st Century Skills

What do we mean by INNOVATION?

- Inquiry-based learning
- Integrated curriculum
- Appropriate technology
- Community service learning
- Gaming, Playing, and Making
- Reform policies for “improvements”
An Inquiry-based Framework for Student Innovation

- Disciplined Inquiry
- Construction of Knowledge
- Value Beyond School
- Interdisciplinary Approach to Teaching

Innovative Learning

Adapted from Newmann, Marks, and Gamoran 1996
An Example Addressing People, Places, and Environments: Electronic Waste (e-waste)

Disciplined Inquiry

- Where is e-waste from and how is it made?
- Where does e-waste go in the United States and internationally?
- What hazardous impact does e-waste have on the environment?
- What laws and regulations on recycling e-waste already exist in the United States and internationally?
- What can school-based initiatives/projects do to deal with e-waste?
Construction of Knowledge

- Documentaries and articles
- Data collection from the community (Hallway Interview)
- Compare and contrast
- Critical analysis
Students as Innovators
Where does your interviewee think the e-waste eventually went?

- don't know/not sure: 1
- recycled somewhere: 6
- In trash dump: 2
- In a landfill: 9
- Shipped out of US: 3

Total Results: 21
Interdisciplinary Teaching

- Social studies (civic engagement and social advocacy)
- Science (expert knowledge of e-waste)
- Art (Eco Installation)
Linking back to the local

• **Students identify a problem from the local:** plastic bags (Fall 2012); plastic bottles (Spring 2013)

• **Students inquire for expert knowledge:**
  - Group 1: Where are plastic bottles from and how are they made?
  - Group 2: How are plastic bottles recycled (or not) in the United States?
  - Group 3: Where do they go in the United States and internationally?
  - Group 4: What laws and regulations on recycling plastic bottles already exist in the United States and internationally?
  - Group 5: What can school-based initiatives/projects do to deal with plastic bottles?

• **Transformative action in the community:** Eco Installation project
Expert knowledge gained through disciplined inquiry

Current Laws in the United States
- California: Customers pay $0.05-$0.10 for a plastic bag
- Hawaii: First state to ban plastic bags from check outs
- Wisconsin: In Madison a bill was passed that requires residents to recycle plastic bags at 13 drop off points

Current Global Laws
- England: Modbury became the first town to ban plastic bags. According to the Daily Mail, "Londoners use 1.6 billion plastic bags a year - for an average of just 20 minutes per bag."
- Mexico: Mexico City adopted plastic bag ban
- India: Delhi, Mumbai, Karwar, Tirumala, Vasco, Rajasthan all have a ban on plastic bags
- Burma: A ban went into effect in Yangon late last year

72.5% of plastic bags used in the United States are made in the United States.
Eco Installation project
Fall 2012
Eco Installation Project
by
All Students Of

ELEMMID 363-
The Teaching of Social Studies in the Elementary/Middle School

11/08/2012
Plastic Bottle Project Spring 2013
Beyond the methods classroom

Apply knowledge and skills for transformative actions in the local community

- Volunteer work at local communities
- Reach out to students and parents
Sample Student Project by Zach Novak
Sample Student Project

by

Jennifer Guckenberger
Sample Student Volunteer Projects

- [http://www.youtube.com/watch?v=3QPn0HcjG9k](http://www.youtube.com/watch?v=3QPn0HcjG9k)

This video is about the impact that one time use water bottles have on the environment. It provides alternatives to using one time use plastic water bottles.
Innovation at LINCS

• Personalized Learning

• Inquiry-based Learning
Katrina Liu: liuy@uww.edu
Justin Stewart: jstewart@wwusd.org

Thank You Very Much!