Strategies to Design Engaging, Motivating, and Meaningful Competency-Based Education

July 13, 2016
Robin Colson, Ph.D.
Director, Research & Evaluation
Innovation Institute at University of West Florida
Acknowledgment

Much of this presentation is based on the work of Dr. Atsusi Hirumi, Associate Professor of Instructional Design & Technology at University of Central Florida
Engagement and the Particular Case of Online CBE

- Asynchronous
- Self-paced / directed
- Rigorously assessed
- (Can be) isolating

These characteristics ‘up the ante’ on engagement and lead to efforts to find ways to promote engagement, motivation, and meaningfulness in online CBE.
Faster
Cheaper
Better
Better
Special Case of Adult Learners

- Anxiety about not spending time with friends/loved ones: 58.5%
- Worrying about intellectual ability to complete coursework: 51.5%
- Experiencing stress because classes interfere with normal routine: 49.1%
- Fearing that earning a degree is needed to prove competence to others: 42.0%
- Resentment over doing coursework instead of something more interesting: 40.4%
But Still We Go On

By 2025, 50% of SUS institutions offer competency-based or adaptive learning courses that accelerate student time-to-degree
Student Engagement

- Lack of student engagement and self-regulation are two of most common reasons for dropout
- Academically engaged adult learners more likely to succeed
- Engagement linked to motivation, deep processing, GPA, critical thinking, and retention
Indicators of Engagement in Instruction

- Higher Order Learning
- Reflective & Integrated Learning
- Quantitative Reasoning
- Collaborative Learning
- Discussions with Diverse Others
- Student-Faculty Interaction

#BbWorld16
Poll

What techniques do you use to promote student engagement in online learning?
Seven Classes of Learner Interactions (Hirumi, 2016)

1. Learner-Interface (GUI)
Seven Classes of Learner Interactions (Hirumi, 2016)

1. Learner-Interface (GUI)
2. Learner-Instructor
Seven Classes of Learner Interactions (Hirumi, 2016)

1. Learner-Interface (GUI)
2. Learner-Instructor
3. Learner-Learner
Seven Classes of Learner Interactions (Hirumi, 2016)

1. Learner-Interface (GUI)
2. Learner-Instructor
3. Learner-Learner
4. Learner-Other Human
Seven Classes of Learner Interactions (Hirumi, 2016)

1. Learner-Interface (GUI)
2. Learner-Instructor
3. Learner-Learner
4. Learner-Other Human
5. Learner-Content
Because learners place high importance on learner-control interactions and high importance on mobile devices as a primary interface, what are the implications for online CBE course developers?
Seven Classes of Learner Interactions (Hirumi, 2016)

1. Learner-Interface (GUI)
2. Learner-Instructor
3. Learner-Learner
4. Learner-Other Human
5. Learner-Content
6. Learner-Tool
Seven Classes of Learner Interactions (Hirumi, 2016)

1. Learner-Interface (GUI)
2. Learner-Instructor
3. Learner-Learner
4. Learner-Other Human
5. Learner-Content
6. Learner-Tool
7. Learner-Environment
The Interaction Loop

Instruction

Evaluation

Practice
Column 1
• Lorem ipsum dolor sit amet
• Sed diam nonummy nibh euismod tincidunt laoreet
• Dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam erat

Column 2
• Lorem ipsum dolor sit amet
• Sed diam nonummy nibh euismod tincidunt laoreet
• Dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam erat

Column 3
• Lorem ipsum dolor sit amet
• Sed diam nonummy nibh euismod tincidunt laoreet
• Dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam erat
Constructivist Instructional Strategies

- Experiential Learning
- Experiential Learning Model
- Guided Experiential Learning
- Learning by Doing
- Problem-Based Learning
- Collaborative Problem-Solving
- Problem Solving: Design
- Problem Solving: Decision Making
- Problem Solving: Troubleshooting
- BSCS 5E Model
- WebQuest

- Case-Based Learning
- Simulation Model
- Inquiry Training
- Inductive Thinking
- Jurisprudential Inquiry
- Scaffolded Vee Diagram
- Historical Inquiry
- Adaptive Instructional Design
- Eight Events of Student-Centered Learning
- Constructivist Learning
Conclusion

1. CBE is a Special Case on Online Learning that Requires Engaging, Meaningful Instruction

2. Interaction is Shown to Improve Engagement

3. Effective Interaction Benefits from an Experiential, Constructivist Strategy