Can applying the Multiple Intelligences theory to Online Learning be the key to content retention?

Stephanie Delgado, M. Ed
Welcome!
• The majority of online students do not feel engaged

• Assignments are traditional for a non-traditional environment
Teaching Vs. Learning

I taught Spot how to whistle.

I can't hear him whistling.

I said I taught him. I didn't say he learned it.

EJ and Spot.
Teaching vs. Learning

Teaching

Content

Retention

Learning
Teaching Vs. Learning

People generally remember...
(learning activities)

- 10% of what they read
- 20% of what they hear
- 30% of what they see
- 50% of what they see and hear
- 70% of what they say and write
- 90% of what they do.

People are able to...
(learning outcomes)

- Define
- List
- Describe
- Explain

- Demonstrate
- Apply
- Practice

Passive Learning

Active Learning

- Participate in Hands-On-Workshops
- Design/Create Lessons
- Simulate, Model, Evaluate a Lesson
- Design/Perform a Presentation - "Do the Real Thing"
- Analyze
- Define
- Create
- Evaluate
The Theory of Multiple Intelligences, is NOT a learning style. It is a different way of measuring intelligence.....
Theory that there are different types of “smart”
The Multiple Intelligences Theory Framework

- **Verbal-Linguistic**: Learning through spoken and written words; reading, listening, speaking, and writing.
- **Mathematical-Logical**: Learning through reasoning and problem-solving; numbers.
- **Musical**: Learning through songs, patterns, rhythms, instruments, and musical expression.
- **Visual-Spatial**: Learning visually and organizing ideas spatially; think in images and pictures and "see" things in one's mind.
- **Naturalist**: Learning through classification, categories, and hierarchies; ability to pick up on subtle differences.
- **Existential**: Learning by seeing the "big picture"; connects real world understandings and application to new learning.
- **Interpersonal**: Learning through interactions with others; working collaboratively and cooperatively.
- **Intrapersonal**: Learning through feelings, values, and attitudes; understand other people.
- **Bodily/Kinesthetic**: Learning through interaction with one's environment; concrete experiences.
What are students saying...

• According to student surveys:
  o Less monotony in their courses
  o For instructors to understand they “are not robots” and get bored with reading and responding on discussion boards all day
  o Quizzes aren’t really helpful
  o Group projects aren’t always feasible
  o They want to be enjoy their classes
How can teaching to preferred learning styles lead to higher content retention?

- Higher student interest
- If they like the task, they will be more engaged
- If they are more engaged, they will apply themselves more and create a better product
- More application, more creation = more retention
# Multiple Intelligences & Learning Styles

<table>
<thead>
<tr>
<th>Intelligence</th>
<th>Technology Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal-Linguistic</td>
<td>- Create a blog or online journal</td>
</tr>
<tr>
<td></td>
<td>- Create a poem, myth, legend, or play in Word, PowerPoint, or Pixie 2</td>
</tr>
<tr>
<td></td>
<td>- Create a podcast (talk show radio program) using Audacity or Pixie 2</td>
</tr>
<tr>
<td></td>
<td>- Write an interview in Word</td>
</tr>
<tr>
<td></td>
<td>- Create a newsletter, brochure, or sign in Publisher</td>
</tr>
<tr>
<td>Logical-Mathematical</td>
<td>- Propose a solution to a problem using Excel</td>
</tr>
<tr>
<td></td>
<td>- Translate a word problem into a mathematical formula in Excel</td>
</tr>
<tr>
<td></td>
<td>- Create a Venn diagram in Word or classstools.net</td>
</tr>
<tr>
<td></td>
<td>- Conduct and analyze a survey using charts and graphs in Excel</td>
</tr>
<tr>
<td></td>
<td>- Outline a story in Word</td>
</tr>
<tr>
<td></td>
<td>- Create a 5 paragraph essay using a Burger diagram at</td>
</tr>
<tr>
<td></td>
<td><a href="http://classstools.net/education-games-php/burger/">http://classstools.net/education-games-php/burger/</a></td>
</tr>
<tr>
<td>Visual-Spatial</td>
<td>- Illustrate a story or poem in Word or PhotoStory3</td>
</tr>
<tr>
<td></td>
<td>- Create a video using Pixie 2, MovieMaker, or PhotoStory3</td>
</tr>
<tr>
<td></td>
<td>- Create a cartoon using Pixton.com</td>
</tr>
<tr>
<td></td>
<td>- Generate a newspaper clipping in <a href="http://www.fodey.com">www.fodey.com</a></td>
</tr>
<tr>
<td></td>
<td>- Design a poster or collage using Publisher or Word</td>
</tr>
<tr>
<td></td>
<td>- Graph information from a survey using Excel</td>
</tr>
<tr>
<td></td>
<td>- Create a slideshow in PowerPoint</td>
</tr>
<tr>
<td></td>
<td>- Create a 3-D building in Sketchup for Google Earth</td>
</tr>
<tr>
<td>Bodily-Kinesthetic</td>
<td>- Make task puzzle cards in Word or trading cards in Pixie 2</td>
</tr>
<tr>
<td></td>
<td>- Write a story to act out in Storytop.com</td>
</tr>
<tr>
<td></td>
<td>- Perform a science experiment online</td>
</tr>
<tr>
<td></td>
<td>- Choose answers on an interactive whiteboard</td>
</tr>
<tr>
<td>Musical</td>
<td>- Write lyrics to a song in Word, present in VoiceThread.com</td>
</tr>
<tr>
<td></td>
<td>- Create musical poetry (haiku, cinquain, etc.) and publish on your Wiki</td>
</tr>
<tr>
<td></td>
<td>- Create a multimedia presentation including audio files in PowerPoint, MovieMaker,</td>
</tr>
<tr>
<td></td>
<td>PhotoStory3, MovieMaker, or Pixie 2</td>
</tr>
<tr>
<td>InterPersonal</td>
<td>- Create a blog to discuss classroom learning</td>
</tr>
<tr>
<td></td>
<td>- Create an interactive story in Excel</td>
</tr>
<tr>
<td></td>
<td>- Create a presentation in PowerPoint to teach other students a concept</td>
</tr>
<tr>
<td></td>
<td>- Create a multimedia presentation showing different perspectives</td>
</tr>
<tr>
<td></td>
<td>- Write to a keypad in another country</td>
</tr>
<tr>
<td>IntraPersonal</td>
<td>- Reflect on classroom learning in a blog</td>
</tr>
<tr>
<td></td>
<td>- Create an autobiography in PowerPoint, PhotoStory3, MovieMaker, or Pixie 2</td>
</tr>
<tr>
<td>Naturalist</td>
<td>- Create a blog about the world around you</td>
</tr>
<tr>
<td></td>
<td>- Create a documentary about endangered species in MovieMaker, PhotoStory, PowerPoint</td>
</tr>
<tr>
<td></td>
<td>- Write and illustrate a story about animals in Word</td>
</tr>
</tbody>
</table>
In traditional assignments, students will be asked to fill out a diagram like this through either fill in or matching. An alternative would be:

**Whack-A-Bone**
Study Review Session via Adobe Connect Session

Before Implementation

• Poor attendance
• No engagement
• No questions or interaction from the students
Differentiating in Comm Arts...

Study Review Session via Adobe Connect

After Implementation

• Improved test scores
• Increased engagement
• Increased retention
Differentiating in Engineering...

Pre - Implementation:

*Explain how bridges are built to withstand weight while being aesthetically pleasing.*

- Good assignment, but lacks engagement and really only caters to one type of learner/intelligence.
Post – Implementation: *Popsicle Bridge*

*Objective:* They will test their bridges using weights, evaluate their results, and present their findings to the class via VideoEverywhere.

Students will act as "engineers" to design and build their own bridge out of glue and popsicle sticks. Students can use up to 200 popsicle sticks and the bridge must span at least 14 inches. The students will present their bridges via VideoEverywhere. During their recorded presentations, the students evaluate the bridges by testing its ability to withhold a minimum of 5 pounds.
What does this do for faculty?

• Increasing engaging activities reduces the opportunity for online cheating
  o Online cheating is more prevalent in standardized curricula

• Happy students = Better Faculty Evaluations

• Better Faculty Evaluations = Happy University
Conversations with IDs

- We don’t have to start from scratch!
- Taking a closer look at Blackboard tools with Shara
That's All!

Thank You