Masterclass Part 2: Addressing Learning Styles and Diverse Learners with the R2D2 Model

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The R2D2 Method
1. Read (Auditory and Verbal Learners)
2. Reflect (Reflective Learners)
3. Display (Visual Learners)
4. Do (Tactile, Kinesthetic, Exploratory Learners)

1. Auditory or Verbal Learners
- Auditory and verbal learners prefer words, spoken or written explanations.

Read 1a. Publishing in Open Access Journals (e.g., PLOS)

Read 1b. Course Announcements (e.g., Teaching with Twitter)
Read 1c. Podcast Shows and Research Report Reflections
- Students listen to a podcast.
- Reflect on what they learned in an online forum.
- Students comment on each other's post.

2. Reflective and Observational Learners
- Reflective and observational learners prefer to reflect, observe, view, and watch learning; they make careful judgments and view things from different perspectives.

Reflect 2a. Expert and Domain Specific Blog Reflections

Reflect 2b. Analyze Online Cases (problems, solutions, etc.)

Reflect 2c. Workplace and Field Reflections
1. Instructor provides reflection or prompt for job related or field observations
2. If a large section class, divide into teams
3. Reflect on job setting or observe in field
4. Record notes on Web and reflect on concepts from chapter
5. Respond to peers
6. Instructor summarizes posts

Reflect 2d. Student Created Online Resource Library (ORL) or Library Day
- Students find 20 online articles in 1 week.
- Summary them in a discussion forum.
- Peer assigned to give feedback.
- Write summary paper of what learned.
3. Visual Learners
- Visual learners prefer diagrams, flowcharts, timelines, pictures, films, and demonstrations.

Display 3a. Pubcasts! (videos of scientific papers and science)
NSF, the Public Library of Science, and the San Diego Supercomputing Center created a YouTube for scientific to help demystify important research papers. See SciVee

Display 3b. Anchored Instruction
Discussions (YouTube, CNN, BBC, TeacherTube, CurrentTV)
- In a synchronous lecture interrupt it with a summary video (could be a movie clip) explaining a key principle or concept.
- Refer back to that video during lecture.
- Debrief on effectiveness of it.

Display 3c. Adventure Learning
Australian adventurer Don McIntyre and teenage circumnavigator Mike Perham to re-enact Capt. William Bligh’s epic mutiny on the Bounty open boat voyage, September 9, 2005

Display 3d. Concept Mapping and Timeline Tools (VUE, Bubble.us, Cmap, Freemind, Gliffy, Mindmeister, or Mindomo)

Display 3e. World Trends and Indices (e.g. Worldmapper)

Display 3g. Shared Online Video
(e.g., Howcast, WonderHowTo, Clip Chef, Link TV, Fora TV, etc.)

Display 3h. Online Historical Document
(e.g., Turning The Pages, British Library)

Display 3i. Medical Animations and Videos
(find anchoring event: YouTube, CNN, BBC, TeacherTube, CurrentTV)

Display 3j. Online Timelines
(US Presidents)

Display 3k. Videos of the Periodic Table
Display 3L. Video Blog (Vlog) and Vodcasts

Display 3m. Human Embryology Animations
(Valerie O'Loughlin, Indiana University)

Display 3n. Download and Use Online 3D Sketches (Google SketchUp; download http://sketchup.google.com/3dwarehouse)

Display 3o. Indexing Sounds in Cities with Google Maps

4. Tactile/Kinesthetic Learners
- Tactile/kinesthetic senses can be engaged in the learning process are role play, dramatization, cooperative games, simulations, creative movement and dance, multi-sensory activities, manipulatives and hands-on projects.

Do 4a. Wikibooks: International Collaboration (Web 2.0 and Emerging Learning Technologies (The WELT))
Do 4b. Survey Research and Market Analysis
(e.g., Master Poll, MicroPoll, Zoomarang, SurveyShare)

Do 4c. Online Warm-ups Activities
Just-In-Time-Teaching (JiTT)
http://webphysics.iupui.edu/jitt/jitt.html

Do 4d. Syllabus, Glossary, etc. in wiki:
Students sign up for tasks
(Ron Owston, York University)

Do 4e. Podcasts for students of pronunciation class
(e.g., Tzu-Su Chen, Taiwan)

Do 4f. Create Video Blogs
- Have students create a blog with videos or a video blog.
- Have them do a final reflection on it.

Do 4g. Virtual World and Podcast Reenactments
Poll #2: How many ideas did you get from the second part of this talk?

a. None—you are an idiot.
b. 1 (and it is a lonely #).  
c. 2 (it can be as bad as one).  
d. 3-5  
e. 6-10  
f. Higher than I can count!

Try the R2D2 Method!
Try TEC-VARIETY!
And hope for some magic!!!

Sample papers:
http://www.publicationshare.com/
Archived talks:
http://www.trainingshare.com/