**Teaching Gems on the Web**

Presenter: Linda Nilson

**Types of Web Resources**:

-Student self-assessment and improvement tools

-Podcasts and videos for knowledge transmission

- Experiential learning activities

- Student research tools

-Learning objects= these are reusable, instructional digital lessons that students can play again and again and again. There are a staggering number of these things out there for all disciplines. Some of them are high quality and some are less high quality but they still might be useful in your course.

1. **Student Self-assessment and Improvement Tools**

-Now when would you be interested in a personality or temperament test? Possibly when trying to put together student groups. Students love taking these because they get to learn about themselves. You could assign these for homework. You ‘ve got a couple of those. You also have an “IQ” test out there. Keep in mind that this is neither the Stanford-Binet nor the Wechsler Adult Intelligence Scale, but you know what, it’s a good imitation of an IQ test. And it’s a sort of test that’s used for Mensa entrance so its got to have some validity.

**Personality/Temperament**

Keirsey Temperament Sorter- Personality

[www.advisorteam.com/user/ktsintro1.asp](http://www.advisorteam.com/user/ktsintro1.asp)

Jung Personality Test

<http://similarminds.com/personality_tests.html>

“IQ”

[www.testq.com/career/quizzes/show/121](http://www.testq.com/career/quizzes/show/121)

**Political ideology**: ([www.politicalcompass.org/](http://www.politicalcompass.org/)) Now, if you’re in a political science course or something neighboring that then this is a high quality test. What’s interesting about it is it not only tags somebody on the left/right continuum, it tags the person on the authoritarian/libertarian dimension as well. So it puts people on a quadrant rather than a line.

**Collaborative leadership (for S-L):** <http://www.turningpointprogram.org/Pages/pdfs/lead_dev/CL_self-assessments_lores.pdf>

**Career aptitudes and preferences**: We have a great career center here, but still if your students don’t want to go there for some reason or want something more convenient then they can pick out one of these.

[www.careerexplorer.net/aptitude.asp](http://www.careerexplorer.net/aptitude.asp)

[www.careerkey.org/English](http://www.careerkey.org/English) ($9.95)

Now, one of them costs a little money, but only about as much as a gourmet hamburger. These are really quite high quality.

**Other career-related tests** (leadership, emotional intelligence):

<http://etesting.modwest.come/index.php>

These could be of interest to you when forming groups or with any other affective development that you might be interested in developing in your students.

**Assorted free tests**: Google them or follow the link, [www.queendom.com/tests/alltests.html](http://www.queendom.com/tests/alltests.html)

Here you have career tests, IQ tests, personality tests, health tests, fun tests and quizzes. You get choices here. Under each category is a list of other tests that deal with the same topic. The website may look “trashy” but the tests themselves are quite valid.

**Self-quizzes**: on the MERLOT site (Multimedia Educational Resource for Learning and Online Teaching)

[www.merlot.org/materials.htm?materialType=Assessment%20Tool&sort.property=overallRating](http://www.merlot.org/materials.htm?materialType=Assessment%20Tool&sort.property=overallRating) for biology, health sciences, computer science and history.

They have a category just of quizzes for students to take on their own on these areas. Most of the materials on MERLOT (over 30,000) have been peer-reviewed and you can see what rank they’ve received by peers in your discipline, so that’s another resource you can go to.

**Writing skills:** <http://dartmouth.edu/writing-speech/learning/materials>

<http://owl.engligh.purdue.edu/owl/resource/679/01>

**Study and learning skills**:

There are all sorts of high quality study and learning skills sites and entrance is free to all of these. I want to point out the Stanford University one because it has videos and students love videos. And that would make a bad assignment and if its something like you’re teaching CU 101 then these are really good to use and they have several videos there put together by a faculty member. Writing skills, you could have Dartmouth University do the training for you. So these are all quite good.

<http://educationalatlas.com/higher-education-study-skills.html> - repository

[www.studygs.net](http://www.studygs.net)

[www.how-to-study.com/study-skills-articles.asp](http://www.how-to-study.com/study-skills-articles.asp)

<http://www.mindtools.com/pages/main/newMN_ISS.htm>

[www.ucc.vt.edu/stdysk/stdyhlp.html](http://www.ucc.vt.edu/stdysk/stdyhlp.html)

[www.samford.edu/how-to-study](http://www.samford.edu/how-to-study) - videos

These are the videos:

-Beliefs that make you fail or succeed

-What students should understand about how people learn

-Cognitive skills for optimizing learning

-Putting the principles for optimizing learning into practice

-Blew the exam, now what?

So these are really some excellent resources and they’re not long

You can go to Purdue OWL for an online writing lab and that is all there for free. The site is [www.owl.english.purdue.edu/owl/](http://www.owl.english.purdue.edu/owl/)

There are also several classes and resources on study skills on skill port. You can access that by going to [www.clemson.edu/elearning](http://www.clemson.edu/elearning), it is just for our students and faculty.

**2.** **Podcasts and videos for knowledge transmission**

These are classic for hybrid courses and distance ed. courses. For podcasts, there are hundreds and hundreds or thousands, I got sick of counting.

Podcasts:

-**iTunes:**

<http://itunes.apple.com/us/genre/podcasts-education-higher/id1416>

-Click on “View Higher Education” in iTunes at upper left and choose a subject in drop box.

-NPR <http://www.radiolab.org/archive> for music, biology, communication, math, physics, medicine, psychology, and sociology.

Lets go right to the higher education site. You can choose a subject or go to the list of popular topics. Lets target a subject. What subject should we search? Any subject. There are a lot of things you can search for here.

**-Videos:**

-YouTube [www.youtube.com](http://www.youtube.com) and <http://utubersity.com/> for lessons, lectures, performances (music, drama, dance, comedy), sports, media broadcasts and interviews

-Ted Talks- “Riveting talks by remarkable people” [www.ted.org/](http://www.ted.org/) top-quality ≈20-min lectures

-TedEd w/short lessons (“flips”) <http://ed.ted.com>

-Kahn Academy- 3000+ lessons <http://www.khanacademy.org/> for the arts, history, language, literature, social and natural sciences, math.

-Annenberg Media [www.learner.org/](http://www.learner.org/) is for the arts, history, language, literature, social and natural sciences, and math.

-Artbabble [www.artbabble.org/partner/national-gallery-art-washington](http://www.artbabble.org/partner/national-gallery-art-washington) - for art & architecture

Okay Ted talks, this is a website that uploads recorded lectures of the highest quality. You too can attend the live lectures once you pay the $6,000 entrance fee! You can type in a subject and search for lectures on that given topic. (A video is played to give an example of the type of lectures shown on site).

Kahn Academy is just not math anymore. What I’ll do is I’ll simply go here so you can see the range of subjects that have been added to their site. You can learn almost anything for free but you can see that they’ve gone to science, computer science, finance and even the humanities. They have a video of Kahn talking at Ted actually with Bill Gates as well!

Annenberg Media you might be interested in exploring. It’s another video resource.

And then there are all of these.

-Open Yale <http://oyc.yale.edu/>

- MIT Open Courseware <http://ocw.mit.edu/index.htm>

-Udacity <http://www.udacity.com/> - computer science, math and physics

-UoPeople <http://www.uopeople.org/> -business administration and computer science

-Coursera [www.coursera.org/](http://www.coursera.org/) -200 courses

-EdX <http://www.edx.org/> -ongoing courses at Harvard, MIT, UC Berkeley, & UT Texas

-Video lectures <http://videolectures.net>

-Internet Archive [www.archive.org/index.php](http://www.archive.org/index.php)

There aren’t many of them at Ed X, Open Yale, and MIT because those are courses going on right now so the number of courses available is changing all the time. All of these are available for you to go to and get free videos though. It’s also not every subject, lots of them are somewhat specialized. The Video Lectures site has gotten no press that I know of, but I think it’s a really fine, fine site. Look at the categories. Look at how many of them you have. They offer everything from architecture to technology to literature. You can get very specific subjects so it might be easier to get specific subjects here than in these other open course sites. Nasa has a bunch of videos out there with images, there are also apps you can download. There are also organizations that offer sites that you can link to as a free resource for your students. However all of these links are free at the moment.

**3. Experimental learning activities**

**-Simulations**

- <http://www.merlot.org/merlot/materials.htm;jsessionid=8296fb4b30d659ae7f2a529b4d77ab63d7f13fdca659.e34Oa30TaN4Ke34Kah8Pb3mSaxf0?materialType=Simulation&sort.property=overallRating>

-3,000 in most disciplines e.g., Biology, nursing, bioengineering

Now when we think of simulations we often think of students acting in various roles in a real world situation working out problems or competing in some way. That’s now what these simulations tend to be. They tend to be animations that reproduce and explain a process and I want to show you a n example in nursing and maybe biochemistry. Its called Cells Alive at [www.cellsalive.com](http://www.cellsalive.com). Animations show what will happen during certain processes and you can replay and rewind and stop or pause at any point during any of the animations. There are galleries of cells or bacteria growth.

Now how many of you have ever used the case method?

-**Cases and PBL problems**

[www.udel.edu/pbl/problems/](http://www.udel.edu/pbl/problems/) free- physics, biochemistry, biology, chemistry, criminal justice

<https://primus.nss.udel.edu/Pbl> free- almost all disciplines; register

<http://sciencecases.lib.buffalo.edu/cs/> free- cases and problems, most disciplines

[www.merlot.org/merlot/materials.htm?materialType=Case%20Study&sort.property=overallRating](http://www.merlot.org/merlot/materials.htm?materialType=Case%20Study&sort.property=overallRating) free- almost 600 cases, most disciplines

These are sites for free cases. In the business world, most of the cases cost money, except at these sites. Buffalo tends to be more of a science site but we can go to the site at the university of buffalo and we can go right to the case collection site. You can browse by subject heading and you can see if they have any freebies in the section you wish to browse.

The university of Delaware site doesn’t have a big collection but it has a strong collection. Some of them have teaching notes for guidance. You have to register for the primus link but that ensures that you won’t receive any junk from the site. You can browse the clearinghouse by discipline. Physics and astronomy, political science, psychology are just a few examples.

**Virtual labs, field trips, animations and problem scenarios**

These are much more in the science.

**-Physics:** <http://phet.colorado.edu>; <http://jersey.uoregon.edu/> ; <http://web.mit.edu/8.02t/www/802TEAL3D/> ; <http://svs.gsfc.nasa.gov/goto?4000//svs.gsfc.nasa.gov/>

**-Chemistry**: [www.chemcollective.org/find.php](http://www.chemcollective.org/find.php)

**-Biology**: <http://highered.mcgraw-hill.com/sites/0072437316/information_center_view0/> ; <http://bio.rutgers.edu> ; <http://bio.rutgers.edu> ; [www.hhmi.org/biointeractive/vlabs](http://www.hhmi.org/biointeractive/vlabs)

**-Ethnobiology**: [www.opensciencenetwork.et/](http://www.opensciencenetwork.et/)

**-Geology**: [www.sciencecourseware.org/eecindex.php](http://www.sciencecourseware.org/eecindex.php)

**-Engineering**: [www.jhu.edu/virtlab/virtlab.html](http://www.jhu.edu/virtlab/virtlab.html) ; <http://virlab.virginia.edu/VL/contents.htm>

**-Math and statistics**: <http://www.math.uag.edu/stat/> ; <http://onlinestatbook.com/rvls.html>

**-Sciences and math**: [www.shodor.org/interactivate/](http://www.shodor.org/interactivate/)

**-Multidisciplinary** **sites**: [www.merlot.org](http://www.merlot.org) ; <http://virtuallaboratorycolorado.edu> ; <http://www.bbc.co.uk/science/0/> ; [www.nobelprize.org/educational](http://www.nobelprize.org/educational)

Virtual labs give your students no experience what so ever doing anything physical. Clicking on something is not the same as using a pipette. What Hands-on Labs is, is a laboratory for a semester in a box. Your students are working at home on a lab and are given all the equipment that they need and the fee is no higher than the typical lab free in a face-to-face class. There are quite a few places you can get these labs. There are 11 subject areas where you can find these things. If you’re interested in finding the labs that are available in your area. This way your students have actual experience with doing labs. They even have packaged microscopes for your students. if you are interested and you teach a lab science, this is better than any virtual lab out there. Your students can actually have that lab experience.

I did find some game sites!

-**Games with educational value**

[www.merlot.org](http://www.merlot.org)

www.nobelprize.org/educational/ - scroll down

<http://gamescene.com/>

[www.theproblemsite.com/default.asp](http://www.theproblemsite.com/default.asp)

[www.freeonlinegames.com/tag/educational-games](http://www.freeonlinegames.com/tag/educational-games)

These are of very mixed quality. They are definitely trying to promote games in learning but it’s just a mess of things. Some of them have nothing to do with anything academic. There are some possibilities here but not a lot.

**4. Student research tools**

Most of these are going to be for the social sciences and psychology or any other field that deals with survey data. Here you have access to surveys and statistical applets that might be of tremendous interest to you.

**-Data sources**

-National Opinion Research Corp (NORC) General Social Survey (GSS) data w/statistical applets [www.norc.org/GSS+Website/](http://www.norc.org/GSS+Website/)

- Teaching with Data [www.teachingwithdata.org](http://www.teachingwithdata.org): social science data sets, many free-access, plus codebooks, tables, figures, analysis tools, lessons, assignments, and readings

- Online Education Database

<http://oedb.org/library/features/best-online-research-sites>: primary and secondary sources in art, bio-med, government, and history

-Internet Archive <http://archive.org/index.php>: collection of sites and digitized cultural artifacts (images, audio files, animations); also course materials and recorded lectures (under Education)

- New York Public Library Digital Collections <http://www.nypl.org/collections>: culturally significant images, audio files, videos, books, and literary works

-Smithsonian Institution [www.si.edu](http://www.si.edu): world’s largest museum (actually 19 museums), 9 research centers, and the National Zoo

-MERLOT [www.merlot.org](http://www.merlot.org): includes databases and collections

There are all kinds of potential materials already set up for certain kinds of experiments. But the ones I’ve found happen to be in psychology and these links below are the locations of the tests.

**Instruments for experiments**

**-**Many tests at

<http://www.bbc.co.uk/science/humanbody/mind/index_surveys.shtml>

-“Senses Challenge”- visual perception test

<http://www.bbc.co.uk/science/humanbody/body/interactives/sensechallenge/>

-Reaction time test

<http://www.bb.co.uk/science/humanbody/sleep/sheep/reaction_version5.swf>

Another educational gaming site is [http://www.nobelprize.org/educational](http://www.nobelprize.org?educational)

The site contains less advertising and more accurate results

Another is <http://www.artbabble.org>

**Courses and course materials**

-MERLOT [www.merlot.org](http://www.merlot.org): 30,000+ links to materials, most peer-reviewed, including entire courses, presentations and collections

-National Science Foundation Internet Library at <http://nsdl.org/index.php>: technologically sophisticated instructional materials for math, the sciences, economics, public health, and other fields. The math review links on this site are great for college students needing to review old math standards they need to be familiar with in their college math classes, or students who are studying to become teachers and need to familiarize themselves with old material.

-Notre Dame’s Open Course Ware <http://ocw.nd.edu>: lecture transcripts, syllabi, and more in history and social sciences

-Online Books

[www.digital.library.upenn.edu/books](http://www.digital.library.upenn.edu/books)

35,000+ free books

-Open Learning Initiative <http://oli.cmu.edu/>

-Repository of teaching resources <http://www.taylorprograms.com/images/Free_teaching_resources.pdf>

- Also, go see the information under video sources, slide 10.

-Skill Port also has “Books 24/7” as an archive of books in [www.clemson.edu/elearning](http://www.clemson.edu/elearning)

**Collections of resources for scholarly research**

[www.clemson.edu/library/](http://www.clemson.edu/library/)

<http://libguides.clemson.edu/>

[www.intute.ac.uk/](http://www.intute.ac.uk/)

<http://en.wikipedia.org/wiki/Main_Page>

<http://scholar.google.com>

Learn to evaluate web sites for research: [www.vts.intute.ac.uk/detective/](http://www.vts.intute.ac.uk/detective/)

Rather than let your students run wild with their research, sometimes it is better to limit their access.

**5. Learning objects (lessons, exercises and games)**

**-Repositories:**

[www.merlot.org](http://www.merlot.org)

[www.brocku.ca/learningobjects/flash\_content](http://www.brocku.ca/learningobjects/flash_content)

[www.wisc-online.com](http://www.wisc-online.com)

<http://www4.uwm.edu/cie/learning_objects.cfm?gid=55>