Enhancing Student Engagement in eLearning: A Theoretical Perspective

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Outline

• Rationale
• Theory
• Practical examples

• Breadth rather than depth
• Two parts to this presentation:
  1. This talk
  2. Your self-directed learning after the talk
Why change our current teaching approaches?

1. Critiques of ‘traditional’ teaching
2. Net generation learners
3. Learning theories
4. Research evidence

Many examples will be given
Four Critiques of Traditional Teaching

1. Learners are dissatisfied

“My greatest concern is that the courses I teach will be as boring as the courses I took.”
- A faculty member
2. Learners skip through courses

“Students strive to finish their coursework as quickly as possible, with little attention to mastery of the actual course material and most attention on their final grades.”
– a faculty member
3. Traditional teaching is not active nor interactive

“What keeps me up at night is the rush to write out my lectures, so that I can ‘cover’ as much material as possible.”
– a faculty member
4. Traditional teaching ignores what we know about effective learning

“I’m not a psychologist so I don’t know much about how people learn. I teach the way I was taught”

– a faculty member
Engagement
If engagement in learning is our goal, then...

Student activities should involve active cognitive processes:

- problem-solving
- reasoning
- decision-making
- evaluation

Students should be intrinsically motivated to learn from activities that are meaningful to them.

But who are today’s students?
Who are today’s learners?

**Net Generation Learners**

1. **Millennials**: Howe and Strauss (2000)
5. **Net Generation** (or **Net Geners**): Tapscott (1997).
6. **Trophy Generation** (or **Trophy Kids**): Alsop (2008b; Tulgan (2009)
Some Characteristics of Net Geners

1. Technology skilled
2. Rely on search engines for information
3. Interested in multimedia
4. Like to create Internet content
5. Learn by discovery / trial and error
6. Multitask on everything and have short attention span
7. Crave social interaction and prefer teamwork and collaboration.
Learning Theory
Elements of Motivation

- Curiosity
- Relevance
- Expectancy of success (confidence)
- Satisfaction

Adapted from John Keller
Some Learning Theories Applied in Education

- Social Constructivism
- Experiential Learning
- Adult Learning Principles
- Reflective Practice
- Social Cognitive Theory/Self-Efficacy
- Communities of Practice

Kaufman, DM & Mann, KV (2007; 2010)
Some Principles Derived from Theories (1/2)

1. Learning is an active, rather than a passive mental process.

2. Learners should develop their own understanding through self-directed learning, combined with dialogue with their teachers and peers.

3. Learners should be given some challenging tasks they can’t solve independently, and then work on these with more capable teachers or peers.
Some Principles Derived from Theories (2/2)

4. Learning should be closely related to the understanding and solution of real-world problems.

5. Learners should practice, accompanied by reflection, self-assessment and constructive feedback from their teachers and peers.

6. Learners should be included in a ‘Community of Practice’ (CoP) involving their peers, more senior learners, teachers and others.
Research Evidence about Learning-Centered Teaching
American Psychological Association’s
Learning-centered psychological principles

Research Evidence

APA Learning-Centered Psychological Principles (1997) (2 key ones)

1. **Nature of the learning process.**
   The learning of complex subject matter is most effective when it is an intentional process of constructing meaning from information and experience.

2. **Social influences on learning.**
   Learning is influenced by social interactions, interpersonal relations, and communication with others.

A Nice Overview

Figure 13.4  Student assessment process in a networked peer learning task (McLoughlin and Luca, 2001)
• Use collaborative activities
e.g., cooperative learning structures such as think-pair-share, jigsaw, roundtable, value line
www.literacynet.org/icans/chapter01/overview.html

• Assign group and individual challenges
e.g., Cases, problems, team projects, competitions

• Integrate technology appropriately

What is 21st century eLearning?
Teacher-directed vs student-centered teaching
Teacher-directed vs student-centered teaching
Don’t discard lectures…

Discuss the question below for one minute with your partner
I will ask a few of you for your answer

What’s the benefit of a good lecture?
1. Provide an overview of your field
2. Explain difficult concepts
3. Model your thinking
4. Inspire students

But keep your lectures short or interactive!

What’s the benefit of a good lecture?
Use collaborative activities
Write down one or two questions

“I’d like you to write down one or two questions you have at this point. Get the question exactly right so that it addresses what you are really interested in or confused about.”

“Take the questions you have written down and ask them to other students in the forum until you have satisfactory answers.”

• Discuss a question

“In pairs, discuss the following question online.”

Collaborative activities you can easily use in your online teaching
Think-Pair Share (online)

1. Think about the following question
2. Discuss the question with your online partner(s)
3. Post your answers in the class forum

Easy collaborative activities you can use in your online teaching (2)
• Kagan and Kagan (1998) developed roughly 200 classroom "structures", which may be thought of as steps to classroom activities.

• The structures have various aims, such as: building team cohesion and positive relationships among students; information sharing; critical thinking; communication skills; and mastery (learning/remembering) of specified material.

• Many of the structures can fulfill a number of aims simultaneously, depending on how the teacher uses them.
<table>
<thead>
<tr>
<th>Structure</th>
<th>Brief Description</th>
<th>Functions (Academic &amp; Social)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roundrobin</td>
<td>Teambuilding</td>
<td>Expressing ideas and opinions, creation of stories. <em>Equal participation getting acquainted with teammates.</em></td>
</tr>
<tr>
<td></td>
<td>Each student shares something with his or her teammates, by going around in a circle.</td>
<td></td>
</tr>
<tr>
<td>Jigsaw</td>
<td>Each student on the team becomes an “expert” on one topic by working with members from other teams assigned the corresponding expert topic. Upon returning to their teams, each one in turn teaches the group; and students are all assessed on all aspects of the topic.</td>
<td>Acquisition and presentation of new material, review, informed debate. <em>Interdependence, status equalization.</em></td>
</tr>
</tbody>
</table>

**Selected Cooperative Learning Structures**
Assign Group Challenges
Problem-Based Learning
PBL

One example
Subject-Based Learning: SBL

Start

Given problem
to illustrate
how to use it

Learn it

Told what we
need to know
Problem-Based Learning: PBL

Problem posed

Identify what we need to know

Apply it

Start

Learn it

Many other examples will be shown later
Use Technology Appropriately
Use technology in lectures, demos, activities, assignments

Examples:

1. Music, podcasts, video, games, blogs, wikis, search engines, databases
2. Consider multiplayer virtual environments
3. Include simulations & games

Adapted from Berk (2009)

How do we enhance engagement and learning for ‘net geners’?
http://cgi.sfu.ca/~lectures/pub_html_podcasts/cgi
Videogames and Tangential Learning

www.youtube.com/watch?v=rN0qRKjfX3s
Ted Talks
Ken Robinson; Changing Education paradigms

Creativity expert Sir Ken Robinson challenges the way we're educating our children. He champions a radical rethink of our school systems, to cultivate creativity and acknowledge multiple types of intelligence.

www.cccone.org/node/393
Avater

Become Your Avatar.

FREE AVATAR

What is an Avatar?

You may have heard the term “avatar” from friends, on the Web or in the news. For example, there’s the James Cameron-directed movie “Avatar” and a popular animated TV show “Avatar: The Last Airbender.” But what exactly is an avatar in Second Life? In a virtual world, an avatar is a digital persona that you can create and customize. It’s you — only in 3D. You can create an avatar that resembles your real life or create an alternate identity. The only limit is your imagination. Who do you want to be? Create your avatar in Second Life by signing up now.
Rely on Search Engines for Information
Provide assignments that rely on search engine skills
Give guidance on how to think critically and interpret the information (information literacy)
Examples:
1. Webquests
2. Problem-solving
3. Writing papers requiring online searching

How do we Enhance Engagement for Net Geners?
Information literacy is important
Webquests: A Taxonomy of Tasks

Design tasks  Powerpoint or report
Compiling tasks  Virtual exhibition
Mystery tasks  Solve a mystery
Journalistic tasks  Report on an event
Scientific tasks  Design a home
Study a webcam site

Many others

See  http://webquest.sdsu.edu/taskonomy.html
Porto facts
http://en.wikipedia.org/wiki/Porto

Porto video
http://www.youtube.com/watch?v=re4_9blE4ts

Porto information
http://www.travel-in-portugal.com/Porto/

Webcam for Porto
http://www.truelookcams.com/portugal/porto/32359-porto-portugal
Radio Days: A WebQuest


By Cynthia Matzat

**Introduction**

Back before there were televisions and computers, there was radio. Families of the 1930s and 1940s would gather around the radio and listen to their favorite programs such as *Little Orphan Annie*, *Amos and Andy*, *The Guiding Light*, and *The Shadow*. Millions of Americans tuned in daily to their favorite programs, just as today we tune in to our favorite television shows. Radio allowed the listener to create their own images of characters and settings, a luxury that we no longer have in these days of television. Take a journey back to the "Golden Age of Radio" as you learn about Radio Days.

**The Task**

You are an employee of a local radio station. Your boss, who grew up during the "Golden Age" of radio, has decided to add new programming to the station. He has assigned you and your co-workers the task of writing and producing a new radio drama. Your boss expects you and your co-workers to research the history of radio drama and use this knowledge to create a script for a new radio mystery/suspense series. He wants the script to contain references to sound effects as well as the actors' dialogue. In addition to the script,
• Use multimedia in your presentations and activities
• Get students to share their favorites

Examples: music, images, video, games,

How do we enhance engagement for Net Geners?
Use interesting images in your presentations
Online Games

Game board for Asthma: 1,2,3… Breath!

www.savie.qc.ca/carrefourjeux2/Accueil_content_an.asp
Create Internet Content

• Provide students with opportunities to contribute to websites

Examples:
1. Write their own blogs
2. Create team wikis
3. Create YouTube videos, podcast, vodcasts with appropriate content
4. Create an e-Portfolio

How do we enhance engagement for Net Geners?
Animations

6 Free Sites for Creating Your Own Animations

October 27, 2010 by Sarah Kessler

1,622

1535 likes. Sign Up to see what your friends like.

Computer Animation Course - Part time or full time courses. Get real experience & real results.
bc.ca/Computer-Animation

The long and illustrious history of moving pictures all started with the zoetrope. Then there was the thaumatrope, the flip book, and my personal favorite, the phenakistoscope. And now we have (drumroll please): The internet.

People have been excited about moving pictures for ages. But achieving a passable animation has never been as easy or required as little talent as it does today.

Previously, we made some suggestions for sites where you can get your webcomic on. This week, we’re bringing you five excellent ways to tackle animation, the next step in your pseudo-artistic journey.

1. GoAnimate

Digital Animation Course
Part time or full time courses. Get real experience & real results.
bct.ca/Digital-Animation

Page Flip Software
Next generation page flip software. Download and try for free!
www.3dplease.com

Cheap Flights Canada
Save Up To 47% On Your Next Flight. Book Now. During This Special Offer
Welcome to the Mahara Demo Site

Mahara is a fully featured web application to build your electronic portfolio. You can create blogs, upload files, embed third-party resources from the web and collaborate with other users in groups.

This site will reset itself once a day at 7 a.m. GMT / UTC.
All content will be erased then and only the pre-configured content will be available.

If you want to keep anything before the reset, please export your portfolio in Leap2A under My Portfolio -> Export to be able to import it into another Mahara later on.

Demo accounts

Logins

- student1
- student2
- tutor (institution staff account)
- staff (institution staff account)
- admin (institution admin account)

Password for all logins

Testing1

You can also register on this site and use it with your own username until the site is reset at 7 a.m. GMT.
Lady Gaga becomes a 'billion-hit' artist

If you have watched any of Lady Gaga's online videos, you are part of this story. The controversial and for some too racy, artist's online videos have recorded one billion hits making her a record breaker. The three videos on YouTube and Vimeo that helped Lady Gaga set the record... [Read more]
Barack Obama
@BarackObama Washington, DC
This account is run by #Obama2012 campaign staff. Tweets from the President are signed -BO.
http://www.barackobama.com

About @BarackObama
1,377 Tweets
695,652 Following
8,726,655 Followers
146,031 Listed

Similar to @BarackObama
whitehouse The White House ➤ Follow
Official WH twitter account. Comments & messages ...
SenJohnMcCain John McCain ➤ Follow
U.S. Senator John McCain (R-AZ)
SarahPalinUSA Sarah Palin ➤ Follow
Former Governor of Alaska and GOP Vice President...

Following ➤ view all

About Help Bing Mobile Status Jobs Terms Privacy
Shortcuts Advertisers Businesses Media Developers
Resources ©2011 Twitter

http://twitter.com/#!/BARACKOBAMA
• Shorten your presentations and assign individual and group work

Examples:

1. Use cases and problems requiring problem-solving and/or decision-making
2. Use games and simulations

How do we enhance engagement for Net Geners?
Online Simulations in Physics, Biology, Math, Chemistry - Virtual Labs

PHET at the University of Colorado

http://phet.colorado.edu/
Virtual Tour of the Louvre

www.louvre.fr/llv/commun/home.jsp?bmLocale=en
Virtual Tour of Oxford

www.chem.ox.ac.uk/oxfordtour/
Other Artifacts to Create

• Digital storytelling
  http://www.storycenter.org/

• Concept mapping
We surface authentic voices around the world through group process and participatory media creation.

Our programs support people in sharing and bearing witness to stories that lead to learning, action, and positive change.

What’s New
View our Spring 2012 Quarterly Newsletter

Third Edition Book Spring Sale
50% off in April and May

Order yours online today

Upcoming Workshop Highlights

Digital Storytelling
An example Concept Map

Here is an example of a concept map. In this example the nodes are labeled, the links are also labeled and uni-directional.

This one was made using CMap on the Macintosh.

Concept Mapping links
Some New Technologies

Handheld game machines
http://mediadesign.sfu.ca/portfolio/?link=28

Biofeedback
http://mediadesign.sfu.ca/portfolio/?link=27

Mobile devices (e.g., smartphone, iPod)
www.youtube.com/watch?v=w7bsOdbhZWI&feature=related
The 21st Century Teacher
There are MANY possibilities for enhancing student engagement and learning.

Podcasts, vodcasts, webquests, wikis, blogs, online surveys, online books and journals, synchronous chats, asynchronous discussions, e-portfolios, expert videos, digital storytelling, concept mapping, virtual field trips, tours, animations, debates, online games, simulations, moviemaking, role play, PBL, cases, ........on and on......
Teachers need to figure out how to apply these learning-centered methods effectively and efficiently
THERE ARE MANY ONLINE RESOURCES FOR TEACHERS
Podcasting Software

http://podcast-software-review.toptenreviews.com/
www.blogger.com

http://wordpress.com/
Social Resources

https://www.socialtext.net/medialiteracy/wiki_resources


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