

Designing for a Blended Community of Inquiry

Overview

1. Blended Learning
2. Community of Inquiry
3. Web 2.0 and Collaboration
4. Blended Learning Design
5. Case Study
6. Related Resources

1. BLENDED LEARNING

Your Definition:

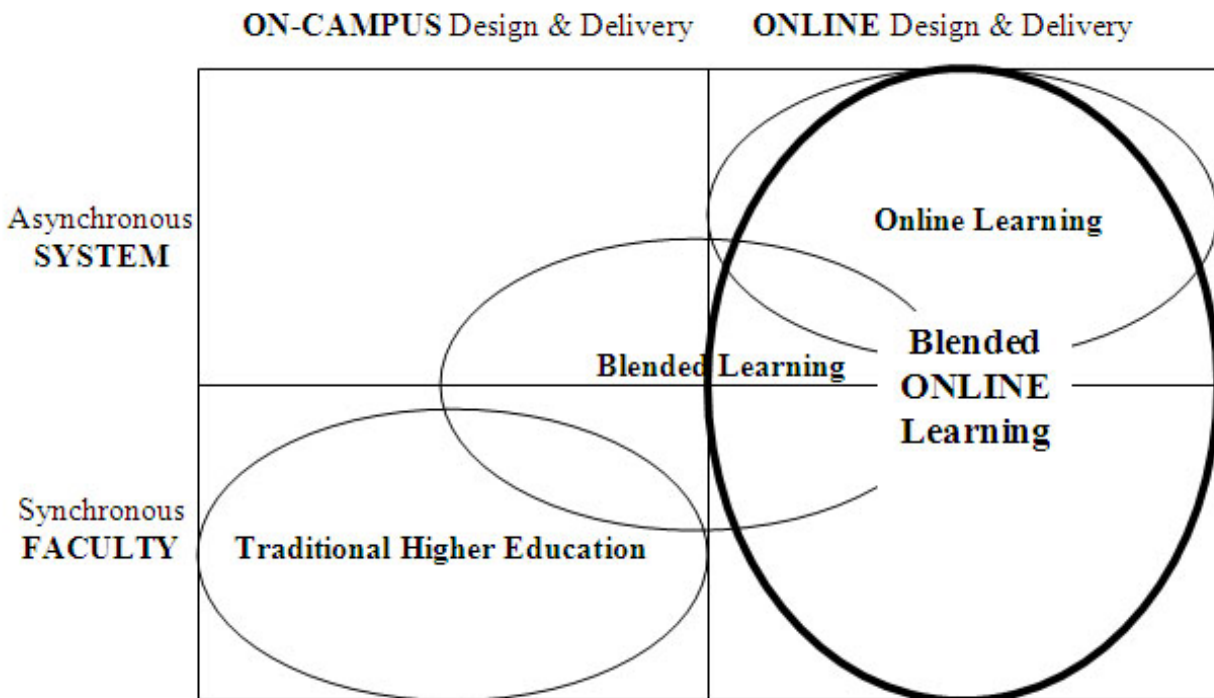
Opportunities:

Challenges:

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Blended Learning

- Blended learning is the *organic integration* of thoughtfully selected and complementary face-to-face and online approaches and technologies (Garrison & Vaughan, 2007).
- ...is the simultaneous and complimentary integration and implementation of an *asynchronous*-mode learning environment (i.e. a course management system, or CMS) and a *synchronous* desktop conferencing environment” (i.e. a virtual classroom)” (Power, 2008).



Blended Online Learning Design

- ...is the simultaneous and complementary integration and implementation of an *asynchronous*-mode learning environment (i.e. a course management system, or CMS) and a *synchronous* desktop conferencing environment (i.e. a virtual classroom) (Power, 2008).

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Opportunities:

Students

- Increase in student accountability for ownership of learning (control and responsibility)
- More flexible and accessible course format (convenience, options for courses with multiple sections)
- Improved learning outcomes for students
- Decrease in student drop-failure-withdrawal (DFW) rates

Faculty

- Borderless teaching, reaching more students
- Enhanced teacher interaction with students
- Increased student engagement in learning
- More flexible teaching and learning environment
- Continuous improvement

Administrators

- Overall improvement in cost/effectiveness ratio;
 - Lower structure & associated front-end design costs;
 - Decreases drop-out and failure rates;
 - More flexible teaching and learning environment;
 - Some economy of scale possible;
- Greater quality
 - Greater frequency of content refresh & increased course redesign (incremental improvement)

Challenges:

Students

- General
 - Transition – from a passive to an active & collaborative learning approach
 - Study and time management skills
 - Expecting that fewer classes equates to less work
 - Accepting responsibility for completing individual & team activities;
- Technical
 - Obtaining high-speed Internet access;
 - Learning to use more sophisticated technologies

Faculty

- Time commitment
- Lack of support for course redesign
- Difficulty in acquiring new teaching and technology skills
- Risk factors

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2. COMMUNITY OF INQUIRY FRAMEWORK

Community

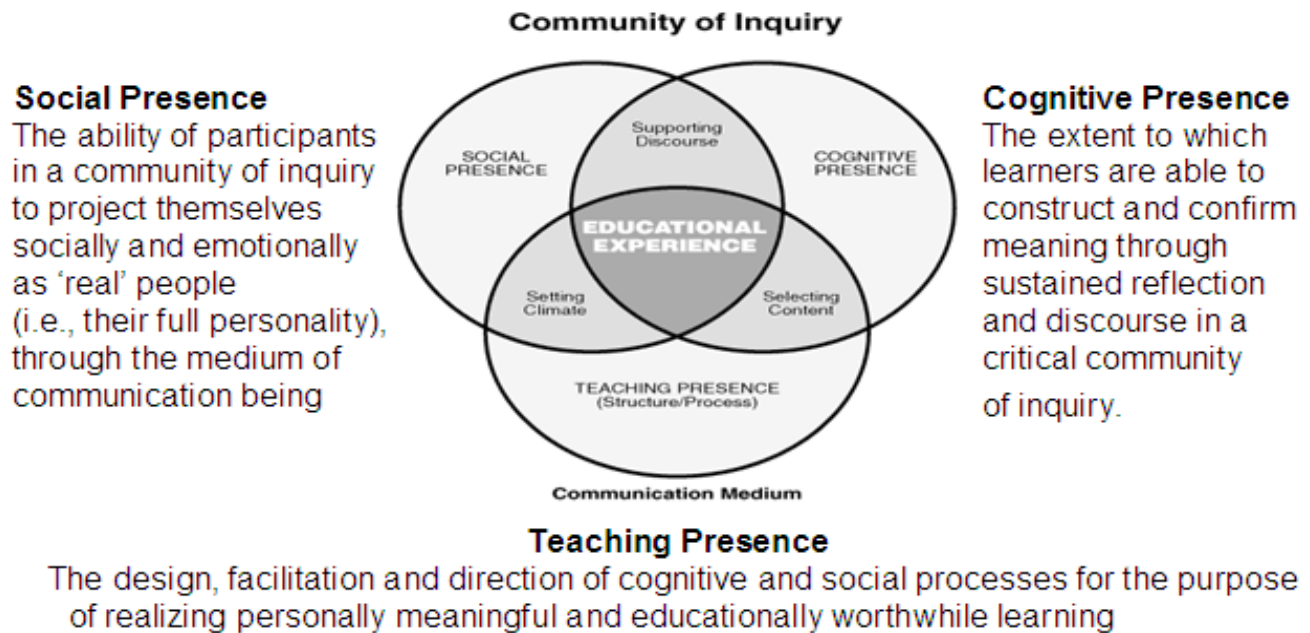
- ... community means meaningful association, association based on *common interest* and endeavor. The essence of community is *communication*...
» (John Dewey)

Inquiry

- Is problem or *question driven*
- Typically has a *small-group* feature
- Includes *critical discourse*
- Is frequently *multi-disciplinary*
- Incorporates *research methods* such as information gathering and synthesis of ideas

Community of Inquiry

- The importance of a community of inquiry is that, while the objective of critical reflection is *intellectual* autonomy, in reality, critical reflection is “thoroughly *social* and communal.
» Lipman, 1991



Garrison, Anderson & Archer, 2000
<http://communitiesofinquiry.com>

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3. WEB 2.0 AND COLLABORATION

Definition

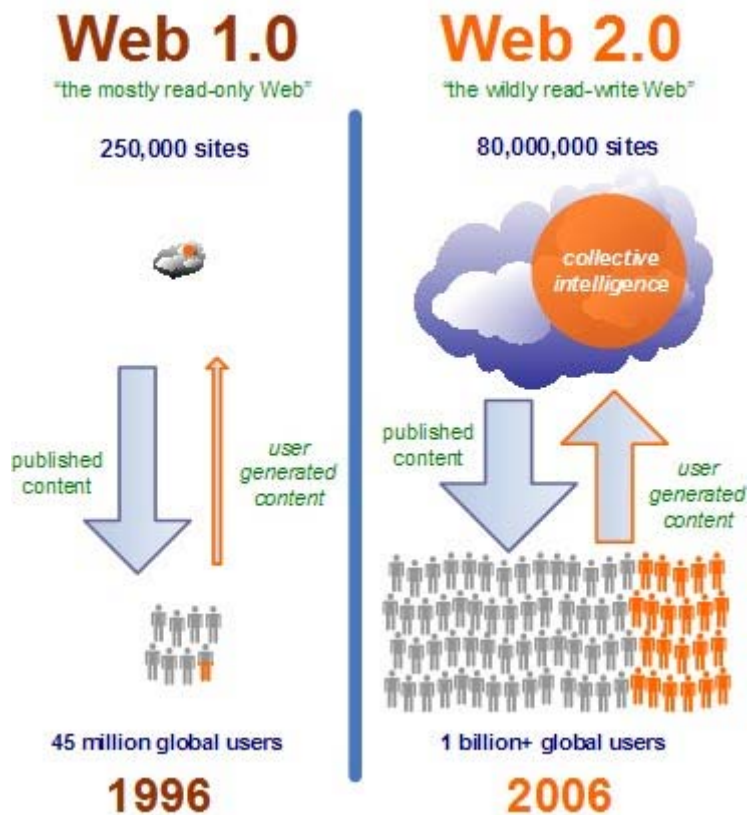
A term used to describe the trend in the use of World Wide Web technology and web design that aims to enhance creativity, information sharing, and, most notably, collaboration among users.

O'Reilly (2005)

<http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>

Web 1.0 vs. Web 2.0

<i>Web 1.0</i>		<i>Web 2.0</i>
personal websites	-->	blogging
publishing	-->	participation
content management systems	-->	wikis
directories (taxonomy)	-->	tagging ("folksonomy")
stickiness	-->	syndication



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Web 2.0 Categories (http://shex.org/wiki/Collaborative_learning_technologies)

Category	Description	Examples	Learning Activities	Issues
Social bookmarking	<ul style="list-style-type: none"> • Sharing personal collections of URLs on a web-based server • Ability to re-use and re-purpose existing collections of links • Tagging of resources helps develop relationships between concepts and people 	Del.icio.us http://del.icio.us/ Connotea http://www.connotea.org/ Edtags http://edtags.org/ Furl http://www.furl.net/		
Blogs	<ul style="list-style-type: none"> • A Web-based public diary with dated entries, usually by a single author, often accompanied by links to other blogs that the author of the site visits on a regular basis (Downes, 2004). • Reflective writing and reading activity • Opportunity for students to receive external feedback and to make contributions to the dialogue in their field of study 	Google's Blogger http://blogger.com/ Edublogs http://edublogs.org/ Bloglines http://www.bloglines.com/		
Wikis	<ul style="list-style-type: none"> • A wiki is a collection of Web pages that can be edited by anyone, at any time, from anywhere. The possibilities for using wikis as a platform for collaborative projects are limited only by one's imagination and time. (Cunningham, 1995) • Support collaborative and creative project-based work 	Wikispaces http://www.wikispaces.com/ Pbwiki http://pbwiki.com/ Seedwiki http://seedwiki.com/ Google Docs http://documents.google.com/		

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Category	Description	Examples	Learning Activities	Issues
Social networking	<ul style="list-style-type: none"> Focuses on building and verifying of online social networks for communities of people who share interests and activities Additional “communication channel” to reach students (i.e. RSS feeds from institutional learning management systems) 	Facebook https://www.facebook.com MySpace http://www.myspace.com/ Friendster http://www.friendster.com/ Bebo http://www.bebo.com/ Ning http://www.ning.com/		
Social media sharing	<ul style="list-style-type: none"> Simplify the process of posting and sharing content on the Web (i.e. text, audio, images and video) Provide a wealth of reusable media resources for learners and educators 	Podomatic http://www.podomatic.com/ Flickr http://flickr.com/ YouTube http://youtube.com/ Slideshare http://www.slideshare.net/		
Mashups	<ul style="list-style-type: none"> Allow non-technical individuals to mix up data, find new meaning and present it in interesting ways Allow users to put together different types of data Mapping mashups – maps are overlaid with different types of information Music mashups – mixing tracks from two or more different source songs 	IBMs Many Eyes http://services.alphaworks.ibm.com/manyeyes/home Intel’s Mash Maker http://mashmaker.intel.com/web/ MIT’s Piggy Bank http://simile.mit.edu/wiki/Piggy_Bank Quintura http://www.quintura.com/ Visuwords http://www.visuwords.com/ Wordle http://www.wordle.net/		

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Category	Description	Examples	Learning Activities	Issues
Synchronous Tools	<ul style="list-style-type: none"> • Synchronous communication opportunities (i.e. text messaging, audio, video) • Support ‘real-time’ collaborative and creative project-based work 	Skype http://skype.com/ WiZiQ http://www.wiziq.com/ Dimdim http://www.dimdim.com/ Vyew http://vyew.com/site/ Elluminate Live! http://www.illuminate.com/ Horizon Wimba http://www.wimba.com/		
Virtual worlds	<ul style="list-style-type: none"> • Synchronous interaction in 3-D immersive worlds • Support collaborative and creative project-based work that goes beyond text-based and audio communication 	Second Life http://secondlife.com/ Croquet http://www.opencroquet.org The Palace http://www.thepalace.com/ Moove http://www.moove.com/		

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4. BLENDED LEARNING DESIGN

Learning Outcomes	Assessment Activities	Before a Synchronous Session	During a Synchronous Session	After a Synchronous Session	Tools
<p>What do you want your students to know when they have finished your course (e.g. key learning outcomes – knowledge, skills and attitudes)?</p>	<p>How will you and your students know if they have achieved these learning outcomes (e.g. opportunities for self, peer and instructor assessment)?</p>	<p>How will you help students determine what prior knowledge and experience they have with the assessment activity?</p>	<p>How will students synchronously interact and engage with the assessment activity?</p>	<p>What portion of this assessment activity will require “reflective time” for interaction and communication</p>	<p>What tools could be used to help organize, facilitate, and direct these assessment activities?</p>

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Practical inquiry phases

Description	Category/Phase	Indicators
The extent to which learners are able to construct and confirm meaning through sustained reflection, discourse, and application within a critical community of inquiry.	<ol style="list-style-type: none"> 1. Triggering event 2. Exploration 3. Integration 4. Resolution/application 	<ol style="list-style-type: none"> 1. Inciting curiosity and defining key questions or issues for investigation 2. Exchanging and exploring perspectives and information resources with other learners 3. Connecting ideas through reflection 4. Applying new ideas and/or defending solutions

Design considerations before a synchronous session

Nature of Inquiry	Learning Activities	Tools
<p>Learner</p> <ul style="list-style-type: none"> • Create a <i>triggering event</i> • Advanced organizer • Stimulate connections <p>Teacher</p> <ul style="list-style-type: none"> • Determine learner's prior knowledge or experience with the topic or issue 	<p>a) Reading/Writing</p> <ul style="list-style-type: none"> • Pre-reading assignment or activity on a specified topic or issue • Followed by a self assessment quiz, survey or discussion forum <p>b) Listening/Writing</p> <ul style="list-style-type: none"> • Auditory/visual presentation of information • Followed by a self assessment quiz, survey or discussion forum activity 	<p>i) Communication</p> <ul style="list-style-type: none"> • Announcement sent to students via an RSS feed through a Social Networking Tool (i.e. Facebook) or News Aggregator Application (i.e. Bloglines) <p>ii) Posting or linking to pre-reading assignments</p> <ul style="list-style-type: none"> • Social Bookmarking Tools (i.e. Del.icio.us, Edtags) <p>iii) Digital learning objects</p> <ul style="list-style-type: none"> • Podcasts (i.e. Podomatic) • PowerPoints (i.e. Slideshare) • Videos (i.e. YouTube) <p>iv) Self assessment quizzes</p> <ul style="list-style-type: none"> • Assessment tools (i.e. Moodle) <p>v) Anonymous surveys</p> <ul style="list-style-type: none"> • Survey Tools (i.e. getfast.ca) <p>vi) Discussion Forum</p> <ul style="list-style-type: none"> • Pre-class online discussion regarding questions and issue related to the required reading (i.e. Facebook, Ning)

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Design considerations during a synchronous session

Nature of Inquiry	Learning Activities	Tools
<ul style="list-style-type: none"> • Defining the <i>triggering events</i> (key questions) • Beginning to <i>explore</i> the questions 	<p>a) Talking/Listening</p> <ul style="list-style-type: none"> • Dialogue with teacher and fellow learners about the specified issue or topic • Mini-lecture and/or tutorial to address the results of the pre-class quiz or survey • Large or small group discussion or activity • Case study • Initiation of an individual or group project 	<p>i) Displaying quiz or survey results</p> <ul style="list-style-type: none"> • Online – display in the VOIP application (i.e. Horizon Live) • Classroom – computer projection or overhead <p>ii) Conducting in-class quizzes and surveys to promote dialogue and small group work</p> <ul style="list-style-type: none"> • Online – survey tool and break-out room features in a VOIP application (i.e. Elluminate Live) • Classroom - Personal response systems (clickers) and think, pair, share activities <p>iii) Displaying digital learning objects and resources</p> <ul style="list-style-type: none"> • Online/classroom – using social media sharing sites (i.e. Flickr, Slideshare, YouTube) and repositories such as merlot.org <p>iv) Displaying assignments</p> <ul style="list-style-type: none"> • Online/classroom – course blogs or wikis can be used to post assignment handouts, tutorials, resources and links to examples of previous student work

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Design considerations after a synchronous session

Nature of Inquiry	Learning Activities	Tools
<ul style="list-style-type: none"> • Further <i>exploration</i> towards <i>tentative integration</i> with the ability to connect theory to practice application 	<p>a) Reading/Writing</p> <ul style="list-style-type: none"> • Anonymous class exit survey • What did you learn from the class session? • What are you still unclear about? • Online discussion with student moderation <p>b) Talking/Listening + Reading/Writing</p> <ul style="list-style-type: none"> • Individual or group project work, case studies <p>Preparation for next class</p> <p>a) Reading/Writing</p> <ul style="list-style-type: none"> • Pre-class reading assignment or activity on a specified topic or issue • Followed by a self assessment quiz, survey or discussion forum 	<p>i) Anonymous surveys</p> <ul style="list-style-type: none"> • Survey tools (i.e. getfast.ca) <p>ii) Communication</p> <ul style="list-style-type: none"> • Announcement section of a course blog or wiki for student “to do” list • Group email for the student “to do” list • Email for individual student questions or clarification (try to put common questions into a Frequently Asked Questions discussion forum) • Online discussion forums in social networking systems (i.e. Facebook) to facilitate student moderated discussions • VOIP and Virtual Worlds (i.e. Elluminate Live, Second Life) for synchronous working sessions among student groups <p>iii) Individual and Group Project Work</p> <ul style="list-style-type: none"> • Study groups within social networking systems (i.e. MySpace, Ning) • Blogs for reflective journaling (i.e. Blogger) • Wikis for collaborative writing projects (i.e. Seedwiki) • Mashup tools for data analysis and representation of collaborative projects (i.e. Intel’s Mash Maker)

Design considerations for the next synchronous session

Nature of Inquiry	Learning Activities	Tools
<ul style="list-style-type: none"> • <i>Resolution/ Application</i> 	<p>a) Talking/Listening/Writing</p> <ul style="list-style-type: none"> • Review of online discussion activities • Individual or group presentations • Final group thoughts on the topic or issue • Initiation of dialogue on the next topic or issue 	<p>i) Display quiz or survey results</p> <ul style="list-style-type: none"> • Online – display in the VOIP application (i.e. Horizon Live) • Classroom – computer projection or overhead <p>ii) Display of online discussion forum</p> <ul style="list-style-type: none"> • Online discussion forums within social networking systems (i.e. Facebook) <p>iii) Display assignments and student work</p> <ul style="list-style-type: none"> • Links to student blogs and wikis

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5. CASE STUDY – UNIVERSITY OF CALGARY

National Survey of Student Engagement

Student engagement

1. Amount of time and effort that students put into their *classroom* studies that lead to experiences and outcomes that constitute student success
2. Ways the *institution* allocates resources and organizes learning opportunities and services to induce students to participate in and benefit from such activities

NSSE

<http://nsse.iub.edu/index.cfm>

National Survey of Student Engagement

Five clusters of effective educational practice (*benchmarks*)

1. Active and collaborative learning
2. Student interactions with faculty members
3. Level of academic challenge
4. Enriching educational experiences
5. Supportive campus environment

Student Engagement in Blended Courses – Fall 2006

	Active and collaborative learning	Faculty to Student Interaction	Level of Academic Challenge	Learning
CPSC 203	Low	Low	Moderate	Moderate
ENGG205	Low	Low	High	Moderate
GEOG 361	Low	Low	High	Moderate
GRST 205	Low	Low	Low	Low
MDSC 361	Moderate	Low	High	Moderate
POLI 343	Low	Low	High	Moderate
POLI 541	Moderate	Moderate	High	Moderate
PSYC 467	Moderate	Low	High	Moderate
STAS 201	Moderate	Low	Moderate	Moderate
MODE	Low	Low	High	Moderate

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PSYC467 – Psycholinguistics

Fall 2006

- Course initially consisted of three – 50 minute lecture periods per week
- Redesigned to incorporate a lab component and offered in a 120 minute time block – once a week

Winter 2007

- Course redesigned based on feedback from the NSSE survey results

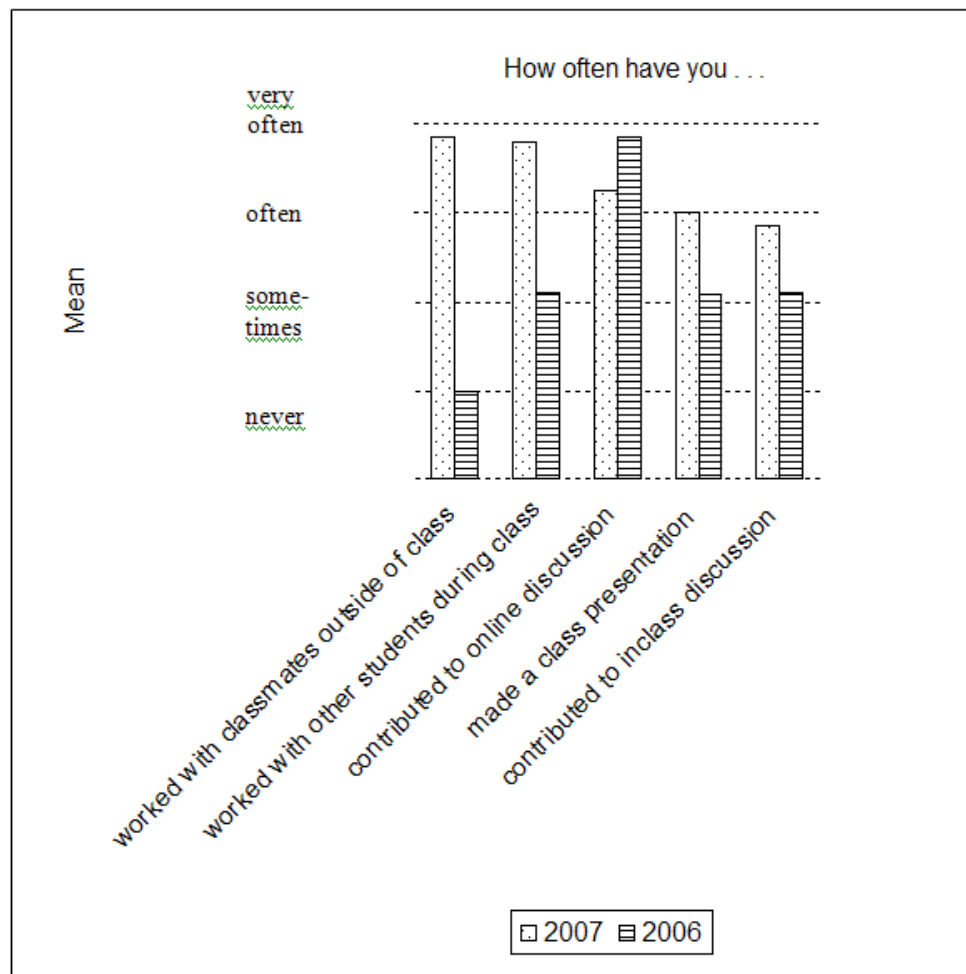
Lecture component

- *Social bookmarking* – peer reviewed journal articles used to supplement course textbook
- Article critique assignment
 - Student groups select an article to critique each week
 - Weekly online discussions about the articles – moderated by these student groups
 - Groups then make a class presentation based on an analysis & synthesis of the online discussion – summary posted to *seedwiki*

Lab Component

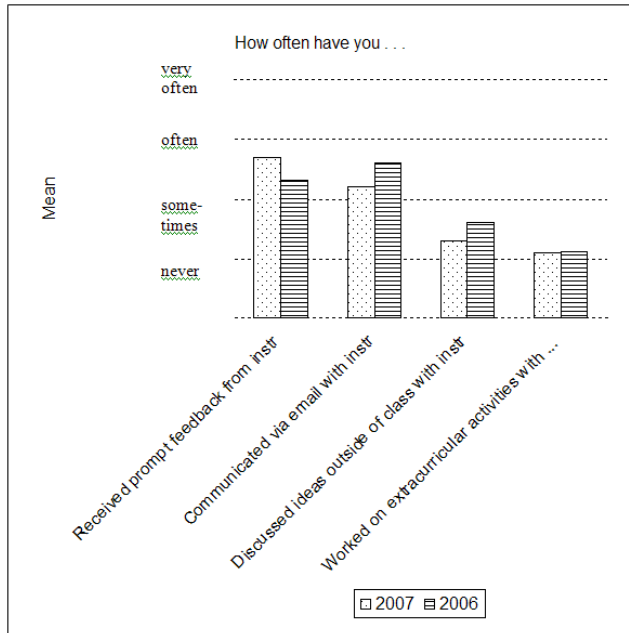
- Individual experiments redesigned to become team based
- Data collection required outside of class time
- *Mashups* used to analyze and present research findings
- Instructor and graduate teaching assistant demonstrated and discussed their current research in the labs

Active and collaborative learning

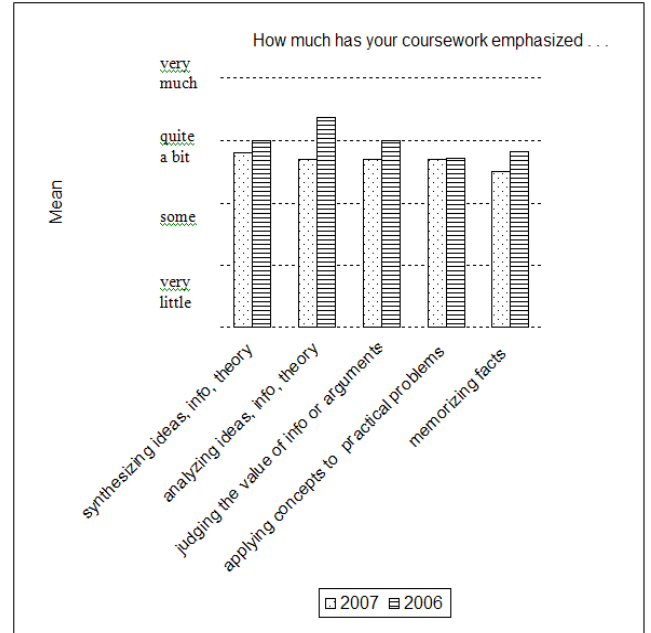


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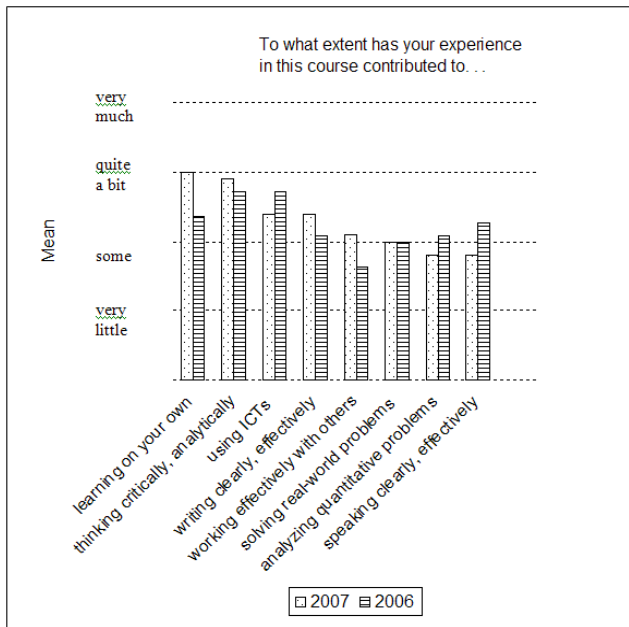
Faculty to student interaction



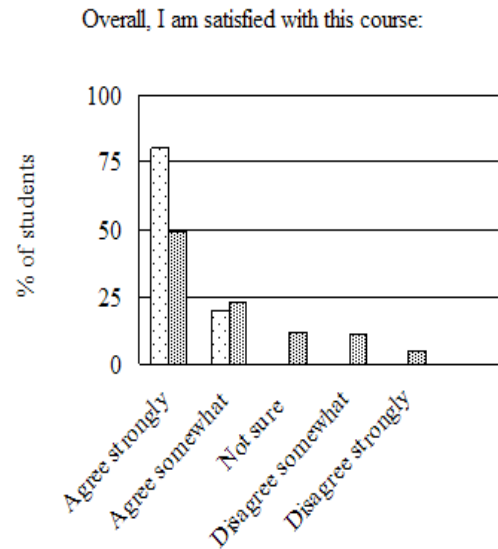
Level of academic challenge



Student learning



Student satisfaction



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Student Success

Fall 2006	Winter 2007
Drop/withdrawal = 15%	Drop/withdrawal = 0%
Final Course Grades	
A = 64%	A = 82%
B = 36%	B = 12%
C = 0%	C = 6%

Conclusion

- Improvement in higher education will require converting teaching from a “solo sport” to a “community-based research activity”. (Carnegie Mellon University)

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6. RELATED RESOURCES

- Allen, I.E. & Seaman, J. (2008). *Staying the Course: Online Education in the United States, 2008*. Needham, MA: Sloan-C Publications. Available online at: http://www.sloan-c.org/publications/survey/pdf/staying_the_course.pdf
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