




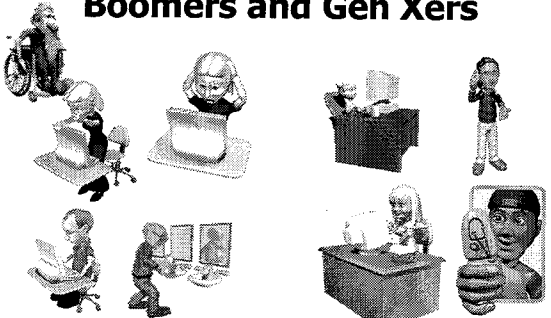
## Blended Learning: Situations and Solutions



**Curt Bonk, Professor, Indiana University**  
**President, SurveyShare, Inc.**  
**cjbonk@indiana.edu**  
**http://php.indiana.edu/~cjbonk**  
**http://SurveyShare.com**

## Differences between Boomers and Gen Xers



## Prefer online to traditional!

### EDUCATION with Student News

**Students prefer online courses**

Classes popular with on-campus students

APU — Andy Steele lives just a few blocks from the campus of Clark Mills State University in Spanish, South Dakota. So commuting to class isn't the problem. But he doesn't like lectures much. It's a morning person, and wastes time during the day to restore motorcycles.

On South, a half five minor economics major. The state history of motorcycles.

Andy Steele lives in a small town in the heart of South Dakota. He's a history major at Clark Mills State University.

### Always online -- and always talking

When Doro says without a word to an elevator






### Money

Generation Y: They've arrived at work with a new attitude

By Stephanie Armour, USA TODAY

They're young, smart, impatient. They may wear flip-flops to the office or listen to iPods at their desks. They want to work, but they don't want work to be their life.



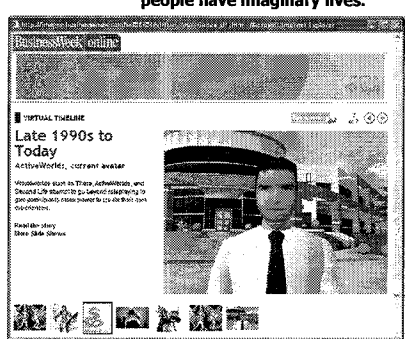
### Generation Y

Defining generation

They're the first to grow up with computers, the Internet, and cell phones. They're the first to be born in the 21st century. They're the first to be born in the 21st century.




Generation	Approximate Birth Dates
Generation Z	1995-2012
Millennials	1981-1996
Generation X	1965-1980
Baby Boomers	1946-1964
Silent Generation	1928-1945
Traditionalists	1928-1945

**MAY 1, 2006, Business Week Online: My Virtual Life**  
A journey into a place in cyberspace where thousands of people have imaginary lives.



## This part of the talk will cover

1. Definitions of blended learning
2. Advantages and disadvantages
3. Models of blended learning
4. Examples of blended learning
5. Implications for blended learning

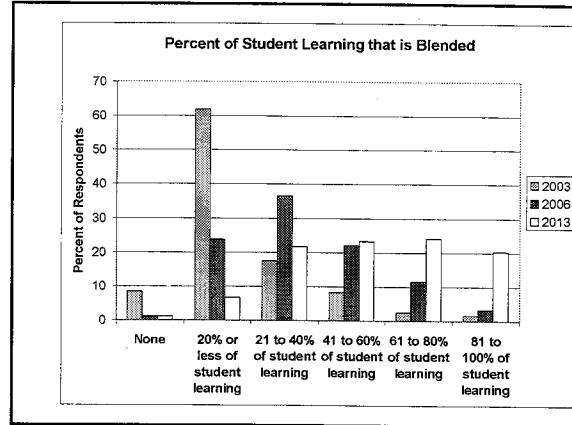




**Poll #1. Have you taught, taken, or designed a blended learning course?**

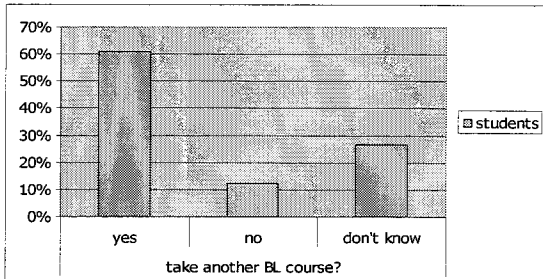
**A = yes**

**B = no**

**C = not sure, I am here to find out what blended means**



**Student Satisfaction in Canada for Blended Learning (Owston, Garrison, & Cook 2006)**



**Conclusions: Blended Learning at 8 Institutions in Canada (Owston, Garrison, & Cook 2006)**

- Pragmatic advantages of BL format
  - Interaction a key ingredient for success
  - Online discussions can work in large classes
  - Online contributions do not have to be individually graded to be meaningful
  - More time and effort required—but student outcomes appeared to be better
  - Faculty get to know their students better
- Institutions need clear policies and support

**Emergence of Blended Learning Systems in Higher Ed**

In 2002 the President of Pennsylvania State University said that the convergence between online and residential instruction was "the single-greatest unrecognized trend in higher education today."

Young, J. R. (2002, March 22). 'Hybrid' teaching seeks to end the divide between traditional and online instruction. *Chronicle of Higher Education*, pp. A33.

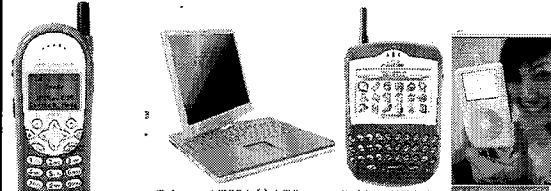


**1. Blending Delivery Media**

- "Blended learning means the combination of a wide range of learning media (instructor led, web based courseware, simulations, job aids, webinars, documents) into a total training program designed to solve a specific business problem." (Bersin & Associates, 2003, p. 3)

**NEWS**  
**Gift of PCs and PDAs to education students**

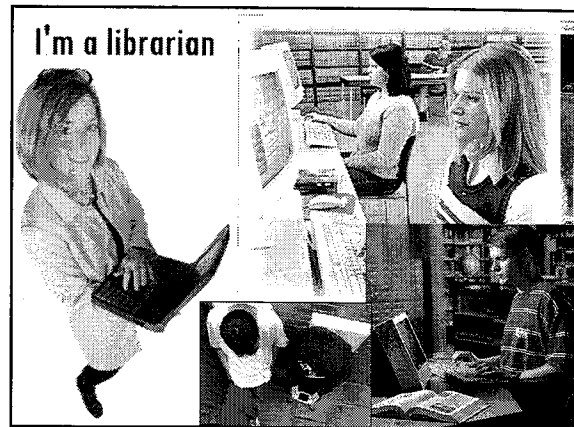
**In the Midst of Budget Cutbacks, there are Technology Giveaways**



**Gateway M275 tablet PC, Winona State University**  
 The school will provide the tablet computers to full-time students who do not have laptops from previous programs.

**BlackBerry 7510 PDA, University of Maryland**  
 The school has begun handing out the wireless personal digital assistants to faculty and more than 200 full-time graduate students in the Smith School of Business.

**Students in partnership with both types of education technology.**

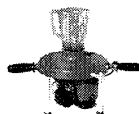


**2. Blending Instructional Methods**

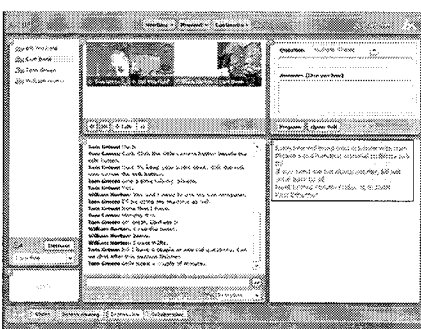
- **"Blended learning: to combine various pedagogical approaches (e.g., constructivism, behaviorism, cognitivism) to produce an optimal learning outcome with or without instructional technology." (Driscoll, 2002, p. 54)**

**3. Blending Online and F2F Instruction**

- **"Blended learning refers to events that combine aspects of online and face-to-face instruction" (Rooney, 2003, p. 26; Ward & LaBranche, 2003, p. 22)**

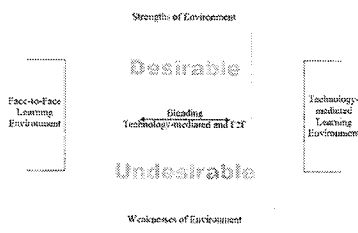


**Synchronous Conferencing**



**Working Definition (Graham, 2006)**

**Definition:**  
**Blended learning systems combine face-to-face instruction with computer-mediated instruction.**

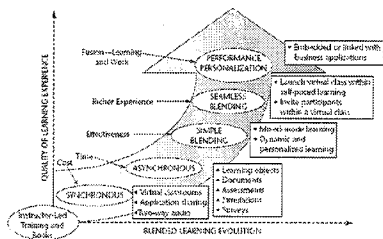


## Harvey Singh (2006)

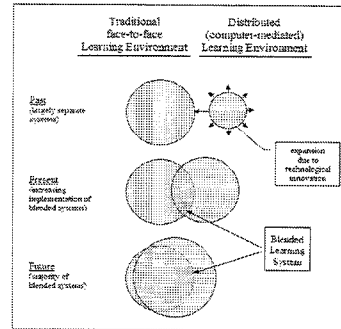
Blended Learning and Work

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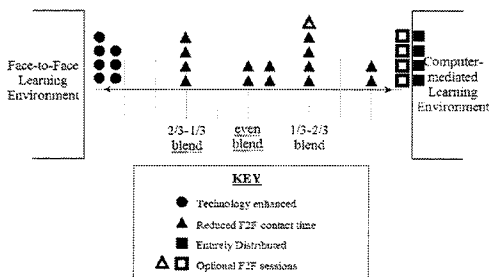
FIGURE 34.1. PAST, PRESENT, AND FUTURE OF BLENDED LEARNING.



## Historical Emergence of BL (Graham, 2006)



## Range of Blends in Pew Cases



Source: Graham, C. R., & Allen, S. (2005). Blended learning: An emerging trend in education. In C. Howard & J. V. Boettcher & L. Justice & K. D. Schenk & P. L. Rogers & G. A. Berg (Eds.), *Encyclopedia of Distance Learning* (pp. 172-179). Hershey, PA: Idea Group Inc.

## Why Blend? Three Key Reasons

- 1. Improved Pedagogy**
  - Interactive vs. Transmissive environments
  - Authenticity integration into work
- 2. Increased Access/Flexibility**
  - Reduced seat time courses – UCF M courses
- 3. Increased Cost Effectiveness**
  - Corporate: ROI – IBM 47:1, Avaya, Microsoft
  - Higher Ed: PEW Grants

## Blended Learning Advantages

- 1. Increased Learning (better papers, higher scores)**
- 2. More effective pedagogy and interaction**
- 3. Course access at one's convenience and flexible completion (e.g., multiple ways to meet course objectives)**
- 4. Reduction in physical class or space needs, commuting, parking**
- 5. Increased opportunities for human interaction, communication, & contact among students**
- 6. Introverts participate more**

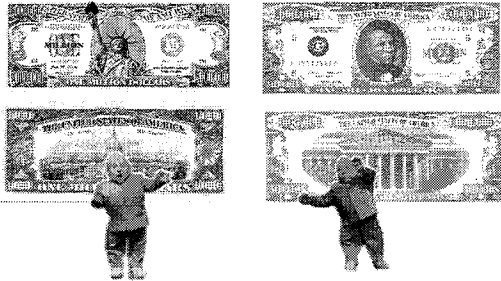


## Blended Learning Disadvantages

- 1. Procrastination (trouble managing time and requirements)**
- 2. Problems with technology at the beginning (instructor tries too much)**
- 3. Can be overwhelming or too novel**
- 4. Poor integration or planning**
- 5. Resistance to change**
- 6. Good ideas but lack of time, money, & support**



## Ok, Million Dollar Question: Where is blended learning beneficial?



## Where is Blended Beneficial?

<http://www.center.rpi.edu/PewGrant/ProjDesc.html>

- Large Classes (spanish, intro psych, algebra, elementary statistics, biology)
- Classes with certification
- Classes with need for standardization
- New requirements for a profession
- Writing intensive classes



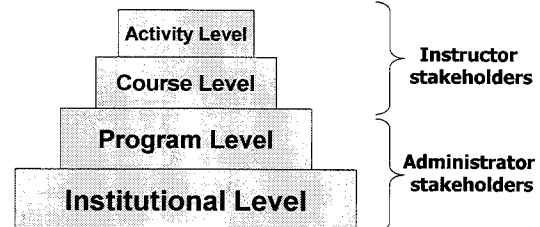
## Examples of Blended Learning, Margaret Driscoll, e-Learning, March 2002

- Put assessments/reviews online
- Follow-up in community of practice
- Put reference materials on Web
- Deliver pre-work online
- Provide office hours online
- Use mentoring/coaching tool
- Access experts live online
- Use e-mail and instant messaging



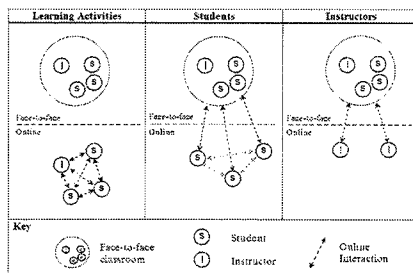
## Models of Blending

Blending occurs at the following four levels:

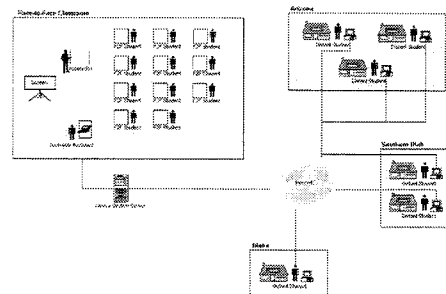


## 1. Activity- and Course-Level Blends

Blended learning systems: Definitions and directions (Osguthorpe & Graham, 2003)



## 2. Course-Level Blend: Using CMS to blend distance and F2F learners (Rogers, Graham, et al., 2003)



## 2. Course-level blends: Beijing Normal University (2006)

**Alternating F2F and e-learning activities in a multimedia course in China.**

See: Huang Ronghui, H. & Yueliang Z. (in press). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), *Handbook of blended learning: Global perspectives, local designs*. San Francisco, CA: Pfeiffer Publishing.

## 2. Course-level Blends Jagannathan, S. (2006).

- Alternating F2F and e-learning activities in World Bank course.

Session 1	Session 2	Session 3	Session 4
Background readings & lecture Peer for Web	Small group discussion Facilitation online	Apply model to real class Final F2F or e-2 discussion	Self-paced work to reinforce learning Web, CD-ROM, print
+ Via Videoconferencing			
Topic 1 Introduce analytical model	Topic 2 Comment on group work, new concepts	Topic 3 Groups present instructor facilitates & summarizes	Topic 4 Links from self-paced to analytical model

## Program-level blending

Teleconferences Online Seminar 1 Seminar 2 Mentoring

2.5 Months

**Figure 1: Avaya's ESSBa program schedule**

## 4. Institutional-level Blending

**Example 1: University of Central Florida**

- E courses are technology enhanced courses
- M courses are blended courses with reduced seat time
- W courses are web courses (completely online)

See: Chikun, S., Herman, J., Auer, P., Mosler, P., & Borg, S. (in press). Blended learning systems: Definition, current trends, and future directions. In C. J. Bonk & C. R. Graham (Eds.), *Handbook of blended learning: Global perspectives, local designs*. San Francisco, CA: Pfeiffer Publishing.

## 4. Institutional-level Blending

FIGURE 22.1. OPEN UNIVERSITY MALAYSIA'S BLENDED LEARNING MODEL.

## The OUM

(Abtar Kaur, 2005, Ed Media)

- Started August 2001 : approx. 800 students
- Total students (2005): approx. 33,000
- Total full-time academic staff : 60
- Total part-time academic staff (tutors) : approx 3,000
- 33 Learning Centres (7 Regional Centres)
- Pedagogical approach : Blended Learning

## 4. Institutional-level Blending

- A learner in the remote areas of Sabah and Sarawak in East Malaysia may depend entirely on the specially designed print module and attend three out of the five assigned face-to-face classes.
- A learner in the towns of Sabah and Sarawak in East Malaysia may use the specially designed print module as a guide, use textbooks and online digital resources as core study materials for self-managed learning, attend all five face-to-face classes, meet with peers for small-group discussions, and actively participate in online discussion forums.
- A learner in Kuala Lumpur City in West Malaysia may depend entirely on online resources (such as digital books, journal articles, and related links) and online discussions but also attend classes two out of five times, mainly to sit for the tests.

## 4. Institutional-level Blending (Brian Linqvist, 2006)

### Example 2: University of Phoenix

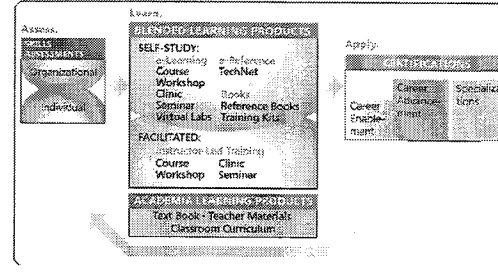
- **Completely online courses**
- **Residential F2F courses**
- **Blended Courses**
  - **Local Model** = 5 week courses with first and last week F2F
  - **Distance Model** = 5 week courses with half first and half last week F2F (the last meeting of one course is coordinated to be back-to-back with the first meeting of the next 5 week course)

## Blended Learning Form Factors (copyright Microsoft, Ziob & Mosher, 2006; Handbook of Blended Learning Environments)

Live instructor-led	Self-paced learning	Tools for learning communities
<ul style="list-style-type: none"> <li>• Traditional classroom</li> <li>• Onsite engagement</li> <li>• Virtual online classroom</li> <li>• Live video via satellite or videoconferencing</li> <li>• Online coaching/mentoring</li> </ul>	<ul style="list-style-type: none"> <li>• Instructor-led classroom via e-mail</li> <li>• Online or computer-based training (CBT)</li> <li>• Self-study guides, manuals, texts</li> <li>• Online resources and databases</li> </ul>	<ul style="list-style-type: none"> <li>• Chat</li> <li>• Instant messaging (IM)</li> <li>• Newsgroups and forums</li> <li>• Collaboration</li> </ul>

FIGURE 7.2 ASSESS, LEARN, AND APPLY.

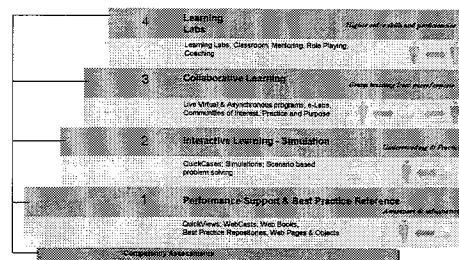
### Microsoft Products and Services for Lifelong Learning



## Blended Learning Scenario (copyright Microsoft, Ziob & Mosher, 2006; Handbook of Blended Learning Environments)

Pre Class	Day 1	Day 2	Day 3	Day 4	Day 5	Post Class
Self-study prep	In classroom	Virtual class	e-Learning	Virtual class	In classroom	Community newsgroups

## The IBM Four Tier Learning Model (2006) Blending Learning for Business Impact – IBM's case for learning success, In press, Handbook of Blended Learning, Nancy Lewis, Vice President, On Demand Learning

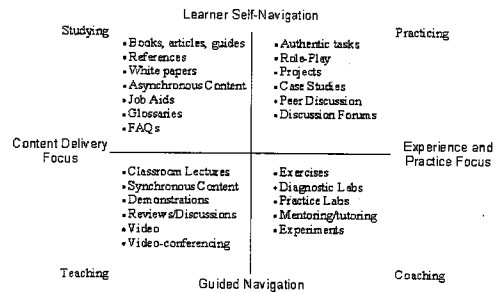


## Specific Learning Elements An Learning Ecology from Sun Microsystems (Wenger & Ferguson, 2006)

TABLE 6.1. LEARNING ELEMENTS.

- Classroom (instructional) content
- Self-paced Web content
- Self-study guides
- Certification
- Practice tests
- Remote labs
- E-mentoring
- Asynchronous discussion forums
- Documentation
- Procedural job aids
- Guided lab activities
- Learning management system
- Transfer of information (recorded audio and slide presentations)
- Webcasts
- Video
- Performance support

## Specific Learning Elements An Learning Ecology from Sun Microsystems (Wenger & Ferguson, 2006)

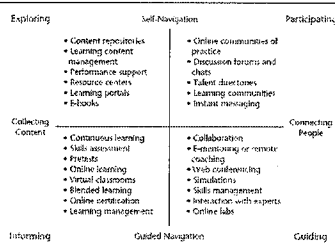


## Specific Knowledge Services An Learning Ecology from Sun Microsystems (Wenger & Ferguson, 2006)

A Learning Ecology Model for Blended Learning

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FIGURE 6.6. SPECIFIC KNOWLEDGE SERVICES.



## Design Criteria (instructional strategies from all quadrants) (Wenger & Ferguson, 2006)

- It is a collaborative activity.
- Uses authentic problem scenarios.
- Mentored by experts.
- Work on project teams.
- Activity supported by:
  - Reference materials.
  - Procedure guides.
  - Async content.

## Categories of Blends

<b>A. Enabling Blends</b>	<b>Enabling blends primarily focus on addressing issues of access and convenience; provide similar learning experiences.</b>
<b>B. Enhancing Blends</b>	<b>Enhancing blends allow for incremental changes to the pedagogy; additional or supplementary online resources.</b>
<b>C. Transforming Blends</b>	<b>Transforming blends are blends that allow for a radical transformation of the pedagogy and learner construction of knowledge.</b>

## A. Enabling Blends

- Many of the for-profit institutions like **Capella**, **Jones International University**, and **University of Phoenix** have models that focus on making educational opportunities available to those who don't have access due to time and location constraints.
- **National University** has a teacher preparation program geared towards access and flexibility.
- Many international education and training programs are also focused on providing access (e.g., **World Bank**, **Mexico's Red Escolar program**, etc.)



