Blended Learning: Evidence Based Practice

Dr. Randy Garrison

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Objectives

1. Blended learning described
   - definition
   - scenarios
2. Evidence
   - NCAT
   - Surveys
   - NSSE
3. Institutional challenges
   - strategic plans

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Blended Learning Described

- Blended learning is described as a blending of campus and online educational experiences for the express purpose of enhancing the quality of the learning experience.

- Blended learning is seen as an opportunity to fundamentally redesign how we approach teaching and learning in ways that higher education institutions may benefit from increased effectiveness, convenience and efficiency.

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Blended Learning Described

- At the heart of blended learning redesign is the goal to engage students in critical discourse and reflection.

- The goal is to create dynamic and vital communities of inquiry where students take responsibility to construct meaning and confirm understanding through active participation in the inquiry process.

Garrison & Vaughan, 2007

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Question

- Is there a typical blended learning course design?

- What does a blended learning course look like?

Scenario One – Large Enrollment Course

LAW & POLITICS

Goal to:

- create inquiry modules (resource access)
- reduce formal lectures

Solution:

- Breeze presentation for student orientation
- tutorial/project groups meet with prof bi-weekly
- team-based research projects
- each team critiques another team's project

Scenario Two – Medium Enrollment Course

DEVELOPMENT STUDIES

Goal to increase:

- student peer interaction and critical dialogue during class time

Solution:

- lectures replaced by Breeze (Adobe Presenter) presentations (narrated PowerPoint) accessed outside of class time within the Blackboard learning management system
- class time used exclusively for group work (60 students - 20 meet on Monday, 20 meet on Wednesday and 20 on Friday)

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Scenario Three – PD Course

HEALTH PROMOTION

Goal to increase:

- course scheduling flexibility
- exposure to diverse perspectives

Solution:

- weekend course workshops
- virtual presentations by online guests through the Elluminate Live! and related discussions "hosted" within the Blackboard learning management system

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Why Blended Learning?

- New approaches to teaching (change culture re lecturing)
- Enhance student learning
- Maximize institutional resources
- Access; convenience; retention

EVIDENCE

Sources of Evidence

BL design studies and surveys:

- Evidence
  - The National Centre for Academic Transformation – Carol Twigg
  - The Sloan Consortium Survey
  - McGraw-Hill Ryerson – Technology and Student Success in Canadian Higher Education
- University of Calgary Context
  - I&BL Survey Findings

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NCAT – Course Redesign

Carol Twigg is President & CEO of NCAT

- Program in Course Redesign – 1999-2003
- Roadmap to Redesign (R2R) – 2003-06
- Colleagues Committed to Redesign (C2R) – 2007-08
- State-based Programs – 6 states
- Redesign Alliance – 70+ institutions
- http://www.center.rpi.edu/

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Course Redesign Defined

Course redesign is not just about putting courses online. It is about rethinking the way we deliver instruction in light of the possibilities that new technology offers.

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Program in Course Redesign (1999-2003)

- 25 of 30 PCR projects improved learning; the other 5 showed equal learning.
- 24 measured course completion rates; 18 showed improvement.
- All 30 reduced costs by 37% on average, with a range of 15% to 77%.
    – Twigg, 2007

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R2R – 2003-2006

- 9 of 12 R2R projects improved learning; the other 3 showed equal learning.
- 10 of 12 improved course completion rates; the other 2 showed equal completion.
- All 12 reduced costs by 32% on average, with a range of 13% to 68%.

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The Extent and Promise of Blended Education in the United States

- ***Commissioned by The Sloan Consortium***

SLOAN-C THE SLOAN CONSORTIUM A Consortium of Institutions and Organizations Committed to Quality Online Education

  – Findings are based on 3 years of responses from a sample of over 1,000 American colleges and universities wishing to expand their online enrolments (2003 to 2006)

    • Blended/hybrid course – 30 to 79% of content delivered online

    • Online course – 80% or more of content delivered online

  – Blended learning is seen as a discrete option

  – http://www.blendedteaching.org/system/files/Blending_In.pdf

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Sloan Findings

- 68% of schools offering blended courses agreed with the statement "blended courses hold more promise than online courses" in 2004 (72% agreed with this statement in 2003)
- Number of BL courses slightly > online (sig. considering the sample).
- The "market for online/blended delivery has a lot of room for growth" (uncertainty but openness to online & BL)

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Another Survey

A survey of largely US institutions revealed that 80% of all higher education institutions and 93% of all doctoral institutions offer blended (hybrid) courses.
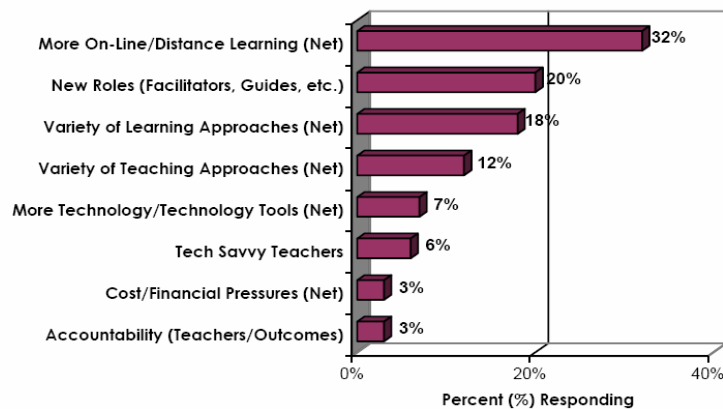
Arabasz and Baker (2003)

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Technology and Student Success
in Canadian Higher Education

- A study of technology and student success (1,980 faculty responses)
- Overview: technology causing faculty to abandon role as lecturer (some reluctantly); PD top priority
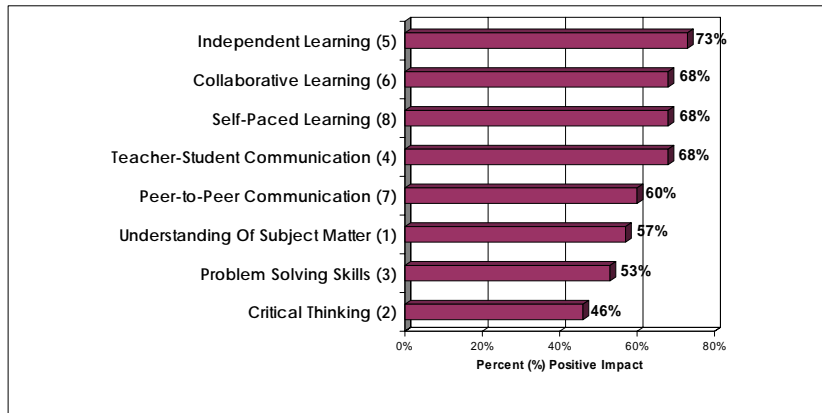
Coordinated by McGraw-Hill Ryerson – Winter 2006

McGraw-Hill Ryerson

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Ways in which roles will change

	Percent (%) Responding
More On-Line/Distance Learning (Net)	32%
New Roles (Facilitators, Guides, etc.)	20%
Variety of Learning Approaches (Net)	18%
Variety of Teaching Approaches (Net)	12%
More Technology/Technology Tools (Net)	7%
Tech Savvy Teachers	6%
Cost/Financial Pressures (Net)	3%
Accountability (Teachers/Outcomes)	3%

Impact of Instructional Technologies: Positive Impact

Category	Percent (%) Positive Impact
Independent Learning (5)	73%
Collaborative Learning (6)	68%
Self-Paced Learning (8)	68%
Teacher-Student Communication (4)	68%
Peer-to-Peer Communication (7)	60%
Understanding Of Subject Matter (1)	57%
Problem Solving Skills (3)	53%
Critical Thinking (2)	46%

( ) = Order of Priority
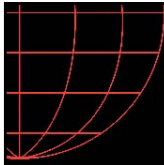
Total Sample: N=1980

US Survey – Impact of Technology

- The emphasis remains on a knowledge-transmission approach to education, not one rich in peer feedback, online mentoring, or cognitive apprenticeship.

Kim and **Bonk**, 2006

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University of Calgary Findings

I&BL Student Survey - Overview

Winter 2006 - 9 courses
- 241 completed paper-based surveys
- 76% return rate
- 50% first yr
- 78% female
- Average age 21.4 yrs

I&BL Student Survey - Advantages

- Interaction - amount
  - With other students
    - **77.6% increased**; 15.8% no difference
    - group work was primary reason
  - With instructor
    - **55.2% increased**; 27.4% no difference
    - accessibility was primary reason

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I&BL Student Survey - Advantages

- Interaction – quality
  - With other students
    - **68.9% increased**; 25.3% no difference
    - group work and discussions were primary reasons
  - With instructor
    - **58.5% increased**; 27.8% no difference
    - accessibility was primary reason

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I&BL Student Survey – Challenges

- Least effective aspects of I&BL courses
  - lack of clear course expectations, organization, structure and direction
  - online component
  - increased workload
  - poor communication
  - technological "glitches" and problems

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I&BL Student Survey – Advantages

- Most effective aspects of I&BL courses
  - group work
  - discussions – face to face and online
  - increased interaction with other students and instructors
  - online resources
  - greater flexibility
  - Self-directed learning opportunities
  - application of learning
  - variety of assignments and methods of assessment
  - integration of online and in-class learning

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Faculty Feedback

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National Survey of Student Engagement

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National Survey of Student Engagement

Student engagement

1. Amount of time and effort that students put into their studies and other activities 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

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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

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What have we learned about student engagement?

National Survey of Student Engagement

Grades, persistence, student satisfaction, and engagement go hand in hand.

NSSE

Faculty Survey of Student Engagement

FSSE measures faculty expectations and activities related to student engagement in effective educational practices

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CLASSE – Classroom Survey of Student Engagement

- Classroom level adaptation of the NSSE
  (ie, student engagement at classroom level)
- Student and faculty versions
- Benchmarks
  - Engagement activities
  - Cognitive skills
  - Other educational practices
  - Class atmosphere

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Course Emphasis

	Lower Division	Upper Division
FACULTY report very much or quite a bit of emphasis on memorizing	**29% / 14%**	
	71% / 43%	

	1st yr. Students	4th yr. Students
STUDENTS report very much or quite a bit of emphasis on memorizing	**65% / 63%**	
	70% / 63%	

Prompt Feedback

	Lower Division	Upper Division
FACULTY gave prompt feedback often or very often	**93% / 93%**	
	80% / 79%	

	1st yr. Students	4th yr. Students
STUDENTS received prompt feedback often or very often	**64% / 76%**	
	29% / 45%	

DEEP Institutions

- Lived educational philosophy
- Unshakeable focus on student learning
- Clear pathways to student success
- Environments adapted for educational enrichment
- Improvement oriented ethos
- Shared responsibility for quality and student success

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INSTITUTIONAL CHALLENGES

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BL Challenges

- Awareness and understanding of inquiry and blended learning
- Student orientation (resistance)
- Commitment to fundamental redesign
- Strategic plan covering all four undergraduate years
- Teaching-research imbalance

What We Did (Action Plan)

- Draft policy, set priorities
- Provide incentives/financial support
- Strategic selection of prototypes; focus on limited number of prototypes the first year
- Single POP for support, quality assurance, and project management
- Mandatory participation in ITBL (support programs)
- Study and evaluate all projects/developments

History of BL at U of C

- Institutional Learning Plan
- Blended Learning Position Paper
- Link to inquiry based learning
- Raising Awareness
  - Steve Sorg, UCF (2002)
  - Carol Twigg, NCAT (2004)
  - Curtis Bonk, Indiana University (2005)
  - Peter Bullen & Peter Chatterton, University of Hertfordshire (2006)
- Grant program (i.e., incentives)

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I&BL Program

- Faculty apply for course redesign grants ($10,000 with one $30,000 grant for a major course redesign)

- Teaching & Learning Centre provides course redesign consultation and support through ITBL (goals and expectations, learning activities and assessment, online tools, evaluate implementation, disseminate results)

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Inquiry Through Blended Learning

Support Program

- *Orientation* – course redesign guide and initial meeting with representatives from the Teaching & Learning Centre, Information Technologies and the Library

- *Faculty community of inquiry* – blending of face to face luncheon meetings with online learning activities to support project development

- *Project team meetings* – Teaching & Learning Centre consultant with faculty, graduate students and staff involved in each specific project

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CONCLUSION

Questions

http://tlc.ucalgary.ca/teaching/programs/itbl/

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Doing Things Differently

Does it make sense to continue with large lectures and expect to enhance the engagement of students?

Transformational Potential of BL

- Evolutionary transformation
- Opportunity to rethink teaching & learning (back to the future)
- Sustain community over time/place
- Effective and efficient
- Flexibility of communication
- Support higher-order learning

http://ca.wiley.com/WileyCDA/WileyTitle/productCd-0787987700.html
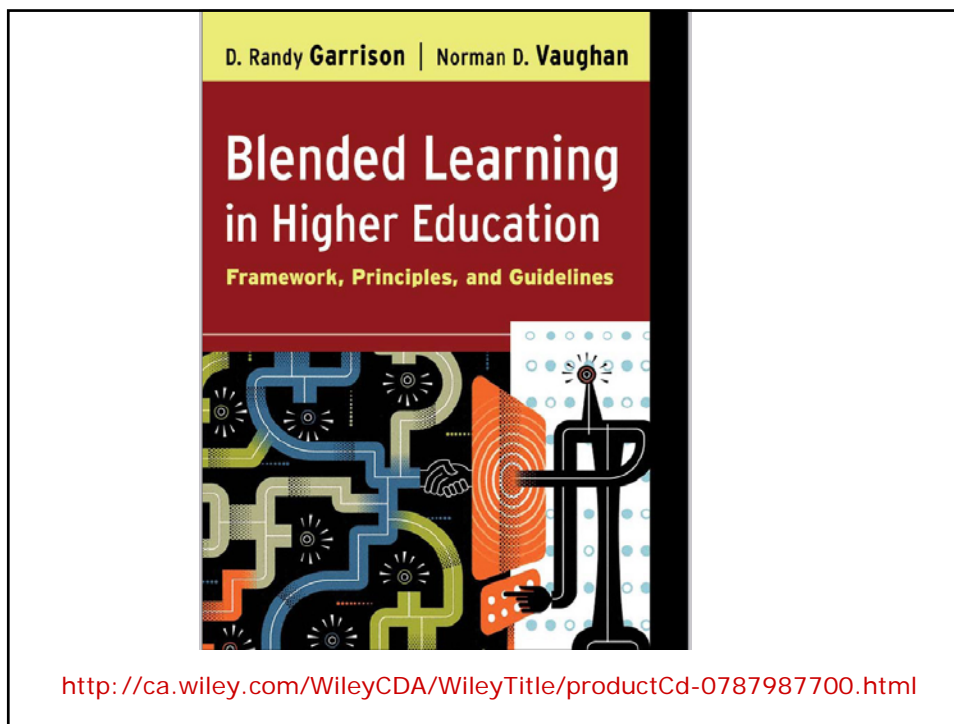
Contact Information

Dr. D. Randy Garrison

Director
Teaching & Learning Centre
University of Calgary
BioSciences Building
2500 University Drive NW
Calgary, Alberta, Canada
T2N 1N4

Ph: 403-220-6764
FAX: 403-282-0730
garrison@ucalgary.ca

Teaching & Learning Centre
http://tlc.ucalgary.ca