

Blended Learning

F. Jeannine Everhart, PhD

TEACH Session

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Learning Objectives

- Compare and contrast in class, on line, flipped, and hybrid teaching methods
- Discuss the benefits and challenges to using blended learning teaching methods
- Describe common blended learning techniques
- List steps to assist in migrating a course from a traditional to a blended format

Instructor



- F. Jeannine Everhart, PhD, MPH, MBA, CHES®
- Assistant Professor, JCHS
- Program Director, Doctor of Health Sciences

Some Course Delivery Methods

In Class

- Pros
 - Teacher always there
 - Easy to have interactive questions
 - Easy to form group activities
- Cons
 - Time constraints
 - Location constraints
 - Learning modalities?

Online

- Pros
 - Convenient
 - Challenges student to use interactive tools
 - Easy integration into a Learning Management System (LMS)
- Cons
 - “Death by Powerpoint”
 - Unengaging instructor can kill the learning experience
 - Group projects can be difficult
 - How to get interactive questions/comments?

Blended/Hybrid

“Blended learning (also known as hybrid learning) is a method of teaching that integrates technology and digital media with traditional instructor-led classroom activities, giving students more flexibility to customize their learning experiences.”¹

“In general, blended learning refers to the following:

- Some learning happens online in a format where the student has control over the path and pace at which they engage with content
- Some learning happens in an instructor-led classroom
- Online and in-person learning is complementary, creating a truly integrated learning environment” ¹

“Flipped” Classroom

- Type of blended learning
- Lectures are viewed outside of class time (i.e., online)
- Students meet with instructor for group work and activities.

Flipped VS Traditional

Flipped

Teacher instructs lesson at home
(video / podcast / book/ website)

Students work in class.

- Deeper understanding of concepts, applications, and connections to content are made.
- Students receive support as needed.

Traditional

Teacher instructs

Students take notes

Students follow guided instruction

Teacher gives assessment

Students have homework

Trends in Blended Learning

Blended Learning

Benefits

- Convenience/self-pace
- In class can be customized
- Lectures are recorded for review
- Change of scenery reduces boredom
- Appeal to part time and distant students
- May cut costs

Challenges

- Requires engagement and effort for instructor
- Must be “tech comfortable”/Learning curve
- Update as tech changes
- Difficult to design a class well
- Need IT resources

Some Tools

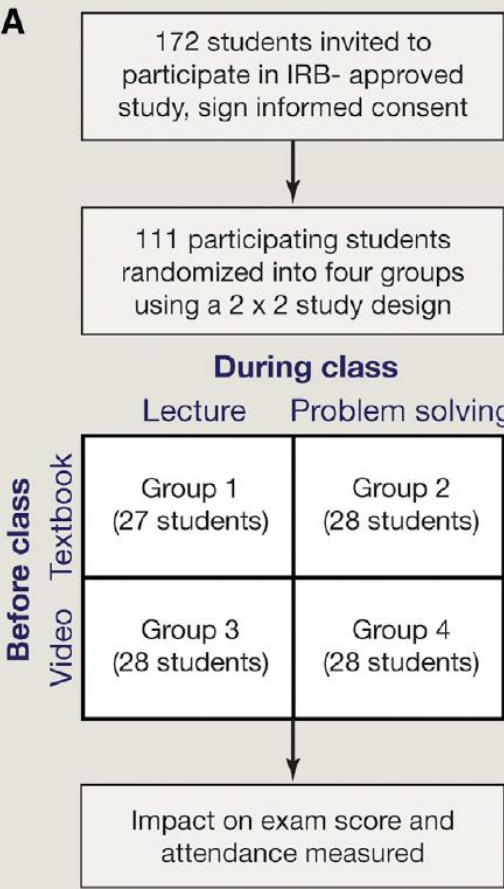
- Podcasts (any voice recording)
- Screen capture (such as screencast-o-matic)
- “Pre-made” materials – articles, videos, etc.
- Asynchronous discussion (such as Voice Thread)
- Online Synchronous Collaboration (Zoom, Blackboard Collaborate)
- Clickers (Kahoot [0159981])
- Embedded assessments (Nearpod, iSpring)

Module	Week	Dates	Topic
1	1	8/16-8/17	<p>Thursday 8/17: Meet at JCHS</p> <p>Introduction to HSC 300</p> <ul style="list-style-type: none"> • *** Before class on 8/17 *** • Read the Syllabus • Read Chapter 1 (pages 1-12) in your textbook, <u>Research Techniques for the Health Sciences, Fifth Edition</u> • During class we will discuss the syllabus, Chapter 1, and the Chapter 1 assignment
	2	8/18-8/23	<p>What is Research?</p> <ul style="list-style-type: none"> • Complete the syllabus Quiz: Due 11:59pm on 8/23 • View weekly videos (posted in Blackboard, Module 1, Week 2) • Complete Chapter 1 Quiz (#1): Due 11:59pm on 8/23 • Submit Chapter 1 Assignment: Due 11:59pm on 8/23
	3	8/24-8/30	<p>Thursday 8/31: Meet at JCHS</p> <p>Developing the Research Proposal</p> <p>*** Before class on 8/31 ***</p> <ul style="list-style-type: none"> • Read Chapter 2 (pages 13-25) in your textbook • View Chapter 2 Lecture Slides (posted in Blackboard, Module 1, Week 3) • View weekly videos (posted in Blackboard, Module 1, Week 3) • Complete Chapter 2 Quiz (#2): Due 11:59pm on 8/30 <p><u>During Class we will have a lecture on Chapter 2, and we will:</u></p> <ul style="list-style-type: none"> • Walk through Chapter 2 Assignment • Discuss key concepts regarding upcoming Chapter 3 • Talk about the Exam format

But, does it work?

RCT by Stockwell et. al (2015)² showed that

- Students who received a video assignment were **more likely to attend class** than students who received a textbook assignment.
- Students who solved problems in class **performed better** than students who only listened to a lecture.
- Video assignments were **more satisfying** to students than textbook assignments



B

	Male	Female	P-value	High	Low	P-value
Group 1:	15	12	0.998	19	8	0.990
Group 2:	15	13		19	9	
Group 3:	15	13		20	8	
Group 4:	15	13		20	8	

*Randomization ensured no significant differences in male/female and high/low prior exam scores (Chi-square test)

C

Class attendance

	Did not attend	Attended
Pre-class assignment Textbook	18	37
Video	9	47

P=0.04

D

Study group	Median exam score
Group 1: Textbook, lecture	61
Group 2: Video, lecture	67
Group 3: Textbook, problem solving	73
Group 4: Video, problem solving	80

Study group	Median Exam Score	
Groups 1+2: Lecture	63] P=0.03
Groups 3+4: Problem solving	74	
Groups 1+3: Textbook	66] NS
Groups 2+4: Video	67	

Study group	Satisfaction (1=low, 5=high)	
Groups 1+2: Lecture	4.1] NS
Groups 3+4: Problem solving	4.1	
Groups 1+3: Textbook	2.9] P<0.0001
Groups 2+4: Video	4.3	

Implementing Blended Learning³

Three Design Approaches

- (1) Low-impact blend: adding extra activities to an existing course
- (2) Medium-impact blend: replacing activities in an existing course
- (3) High-impact blend: building the blended course from scratch.

Low Impact: adding activities³

- 1) Add a simple online activity that instructor and students can easily manage
- 2) Activity should have a specific purpose
- 3) Activity should be well integrated into the course
- 4) The course should not be overloaded with tasks and activities.
- 5) For teachers with no experience in designing for blended learning. It is easy to implement and has a low risk of failure.

Medium Impact: Replacing activities³

- (1) Apply the replacement approach incrementally.
- (2) Determine the mix of face-to-face with online according to the flavor and needs of the class
- (3) Refine and revise according to evaluations, experience and feedback
- (4) Best with teachers already very experienced in the course material
- (5) Intuitional support is important for success

High Impact: Build from Scratch³

- (1) Teachers experienced with low/medium approaches
- (2) Teachers should be prepared to invest considerable time in the design.
- (3) Teachers should consider including a variety of delivery medium in their blend. Will likely require faculty development and training
- (4) Institutional support is a key factor

Questions?

References

1. Panopto: “What is Blended Learning?”. Retrieved from <https://www.panopto.com/blog/what-is-blended-learning/>
2. Stockwell, B. R., Stockwell, M. S., Cennamo, M., & Jiang, E. (2015). Blended learning improves science education. *Cell*, 162(5), 933-936.
3. Alammery, A., Sheard, J., & Carbone, A. (2014). Blended learning in higher education: Three different design approaches. *Australasian Journal of Educational Technology*, 30(4).