

## **Final Report**

As I indicated in my Interim Report and the PowerPoint presentation I gave at the UMB Educational Technology conference, I collected data from a third blended section during the Spring 2009 semester. I am still in the process of integrating the course data (various exam scores) with the data from the various survey instruments I collected during the semester (student satisfaction evaluations; student background information). I plan to finish the analyses and the resulting paper this summer and submit it for publication. I am also working on the literature review for the paper.

## **Interim Report**

### 1. Project's original intent

The original intention of the project was to assess the impact on learning outcomes and student satisfaction with teaching my Psychology 335 (Social Attitudes and Public Opinion) course with a "blended" format. The blended format presents much of the material online, and also has course meetings on campus once a week.

### 2. Changes

I originally planned to compare the learning outcomes for one blended section and one face-to-face section in the Spring 2008 semester. I have expanded the project, and have collected data on a blended section I taught the Fall 2008 semester, and plan to collect data for a third blended section the Spring 2009 semester. The expanded data collection should make a publication of the results more viable. I hope to have that paper written in June 2009.

### 3. Accomplishments

Thus far, I have collected data on one face-to-face section and two blended sections. Remaining, I will collect data on one additional blended section this coming spring semester.

### 4. Anticipated challenges

Something I did not anticipate is that students, particularly when the semester gets busy, do not always listen to the recorded lectures. Thus, the course discussions I have planned for our once a week meeting time have at times ended up to be less than satisfactory, in my view. I experimented with various techniques (quizzes, etc.) in Fall 2008 to incentivize them to listen to the lectures, and I hope to be more successful this coming spring semester.

### 5. Other comments

I remain very excited about this method of course delivery. I have joined the Academic Affairs Committee in order to bring my expertise to bear on the anticipated increase in blended course proposals, and I am participating in a CIT faculty seminar to get further faculty input and feedback on this course method.

***Combining Face-to-Face  
Teaching with Online Content:  
Students' Learning in Blended  
Courses***

Michael Milburn  
Psychology Department  
UMass/Boston

# The Course

- Psychology 335—*Social Attitudes and Public Opinion*
  - Upper division Psychology course
  - Psychological processes that affect public opinion
  - Media analysis
- Online teaching
  - Digitized lectures
  - Threaded discussions
  - Replicated assignments/real-time discussions
    - Using Wimba
- [The inspiration](#)
- Blended: Combine the two

# What is a Blended Class

- Make use of online content
- Also meet once a week face to face
- Balance (F2F/online) can be in different proportions

# The Evaluation

- Research study
  - Academic Technology Award from the President's Office
- Spring 2008
  - Face-to-face
  - Blended section
- Fall 2008
  - Blended section
- Spring 2009
  - Blended section (no data yet)

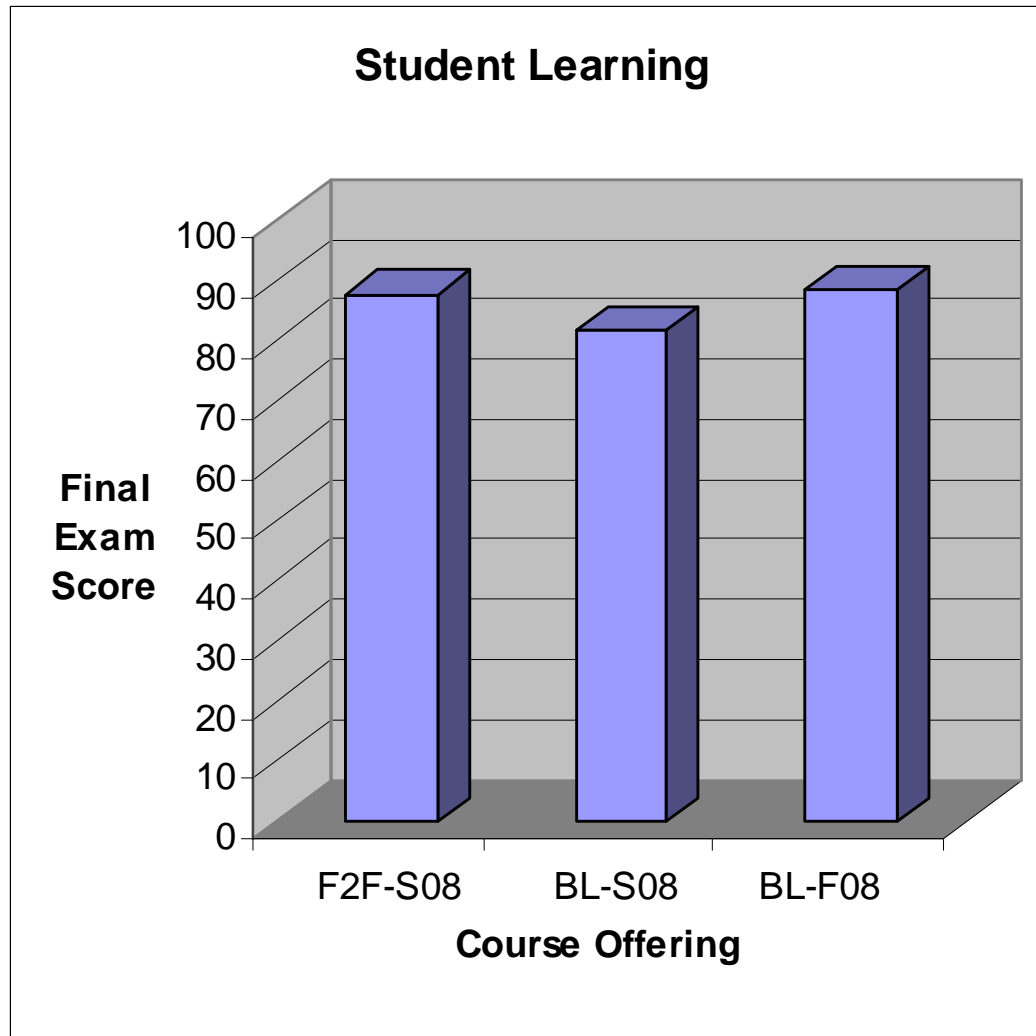
# The Iterations

- Iteration 1 (Spring 2008)
  - Digitized lectures/discussion in weekly meetings
  - **BUT** Students didn't listen to lectures
  - Ended up with abbreviated lectures
- Iteration 2 (Fall 2008)
  - Online quizzes for each week before class
  - **BUT** Students experienced them as very punitive
  - Most still didn't talk in class as much as I would like
- Iteration 3 (Spring 2009)
  - Quizzes extra credit
  - Better discussion; still not enough participation

# The Evaluation

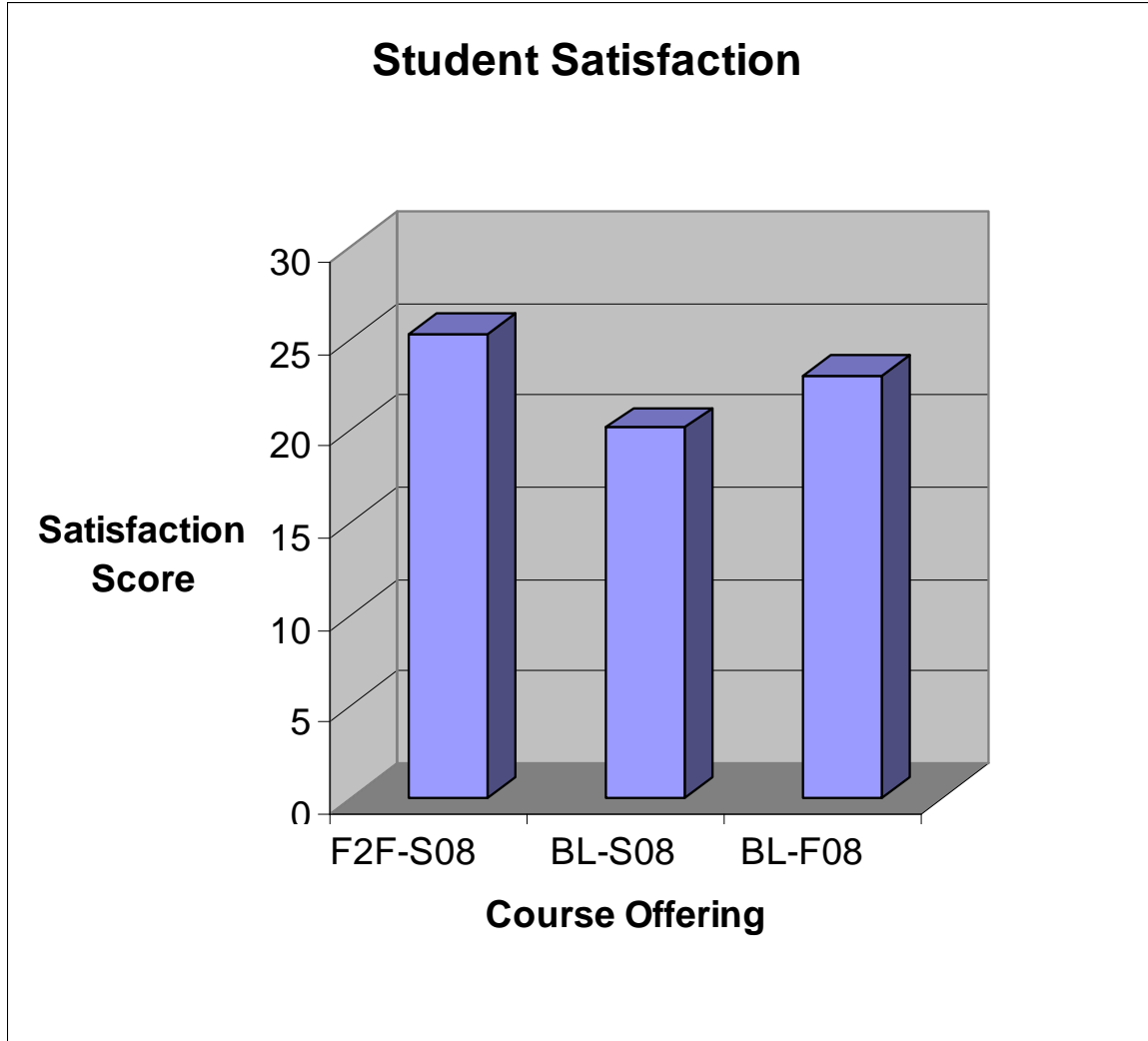
- Outcome measures
- Final Exam scores
  - In-class Multiple Choice
  - Take-home Essays
  - In-class Media Analysis
- Course Satisfaction Questionnaire (*Alpha* = .80)
  - Feel connected to other students in the course?
  - Did you make friends in the course?
  - Did you feel there was adequate time to discuss readings and other course materials?
  - Was the professor accessible?
  - Rate the sense of community you felt in the course

# The Results



No statistically significant differences

# The Results



Significant  
difference  
in the Fall

No  
difference  
in the  
Spring

# Actually, a *Quasi-experiment*

- Students self-select
- Background differences relate to performance, e.g.,
  - GPA
  - Academic stress
  - Personal stress
- IRB approved data collection

# The Results, Controlling for Background Variables

## Tests of Between-Subjects Effects

Dependent Variable: Final Exam Score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1107.308 <sup>a</sup>	5	221.462	5.378	.001
Intercept	4080.770	1	4080.770	99.090	.000
GPA	807.362	1	807.362	19.604	.000
StressAc	53.956	1	53.956	1.310	.259
StressPe	81.846	1	81.846	1.987	.166
Class	199.377	2	99.689	2.421	.101
Error	1729.671	42	41.183		
Total	374373.000	48			
Corrected Total	2836.979	47			

a. R Squared = .390 (Adjusted R Squared = .318)

# The Results, Controlling for Background Variables

## Tests of Between-Subjects Effects

Dependent Variable: Final Exam Score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1107.308 <sup>a</sup>	5	221.462	5.378	.001
Intercept	4080.770	1	4080.770	99.090	.000
GPA	807.362	1	807.362	19.604	.000
StressAc	53.956	1	53.956	1.310	.259
StressPe	81.846	1	81.846	1.987	.166
Class	199.377	2	99.689	2.421	.101
Error	1729.671	42	41.183		
Total	374373.000	48			
Corrected Total	2836.979	47			

a. R Squared = .390 (Adjusted R Squared = .318)

Difference between classes in learning no longer significant

# The Results, Controlling for Background Variables

## Tests of Between-Subjects Effects

Dependent Variable: Course satisfaction

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	319.796 <sup>a</sup>	5	63.959	1.814	.129
Intercept	250.891	1	250.891	7.116	.011
GPA	.117	1	.117	.003	.954
StressAc	100.675	1	100.675	2.855	.098
StressPe	27.236	1	27.236	.772	.384
Class	242.397	2	121.198	3.437	.041
Error	1586.684	45	35.260		
Total	28450.250	51			
Corrected Total	1906.480	50			

a. R Squared = .168 (Adjusted R Squared = .075)

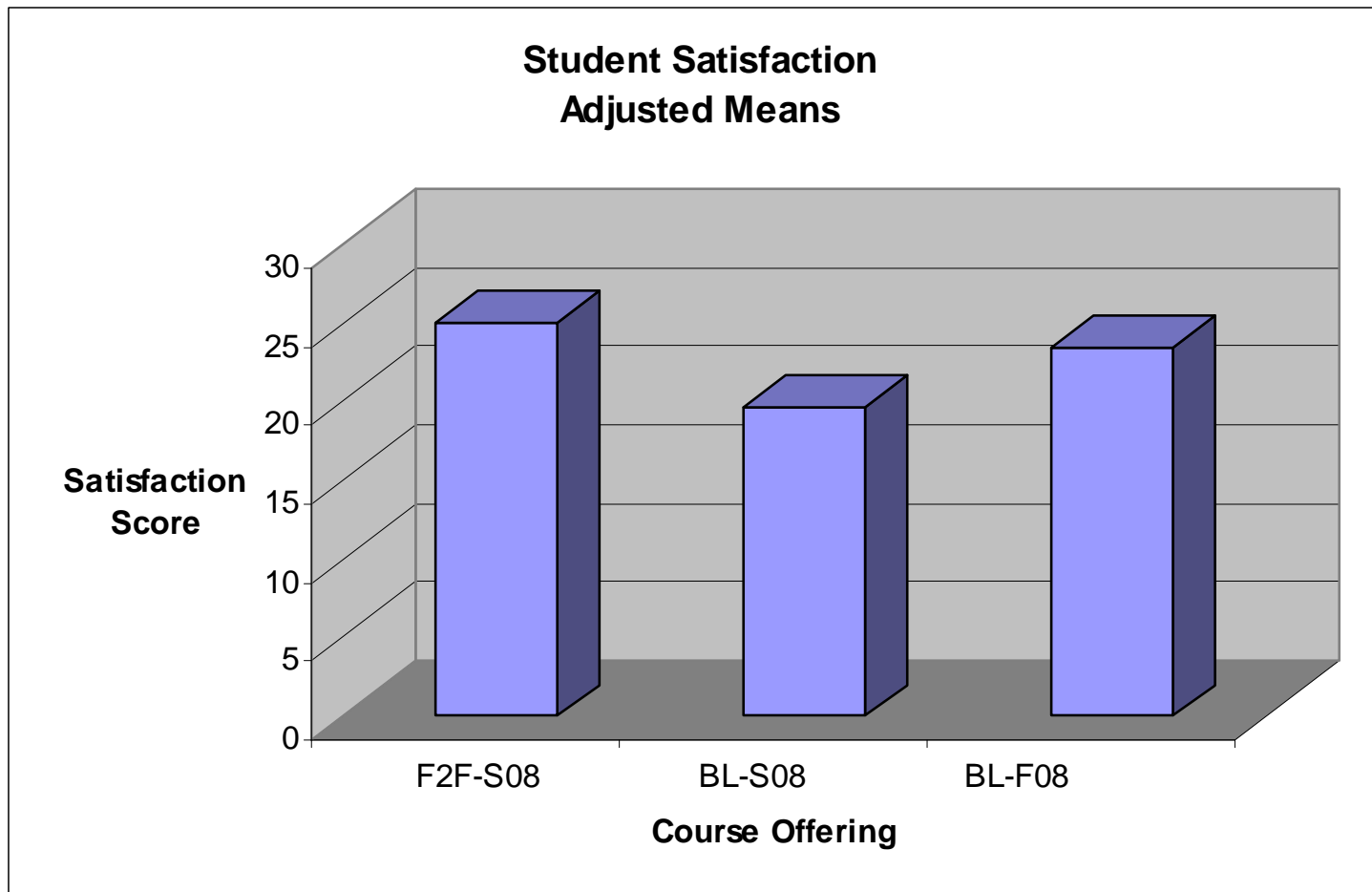
Still significant, but difference is just between F2F and BL-SP08—no difference in satisfaction between F2F class and BL-FL08

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.005	6.828		2.930	.005
	BLSP08	-5.402	2.114	-.410	-2.556	.014
	BLFL08	-1.579	2.021	-.123	-.781	.439
	GPA	.088	1.534	.008	.058	.954
	How stressful was your academic coursework this semester?	1.315	.778	.237	1.690	.098
	How stressful was your personal life this semester?	-.458	.521	-.125	-.879	.384

a. Dependent Variable: Course satisfaction

# The Results, Controlling for Background Variables



# The Final Exam

- Typically: *“What do you want students to know?”*
- Instead: *“What do you want students to be able to do?”*
- One of the major goals—news media deconstruction
- [NBC story](#) (1:47)

# The Next Iteration

- Threaded Discussions [students can't hide online]
  - Introductions/post photos
  - Use weekly (required) online discussions for reacting to the lectures
  - Use F2F meetings for group problem-solving activities
- Blended Learning Program
  - Alan Aycok, Ph.D.
    - Learning Technology Center, University of Wisconsin-Milwaukee
    - <http://hybrid.uwm.edu>
  - Simmons College
  - Pair Faculty with ID
- Manage student/faculty expectations
  - Different from F2F
    - FACULTY: Two exams and a paper
    - STUDENTS: Doing reading the night before the exams
- Chunking assignments—multiple deadlines
- Classroom assessment
  - 5 minutes at the end/one thing you got/one thing still unclear

# The Payoffs and Pitfalls

- Pitfalls
  - Must be done correctly
    - Avoid “Course and a half”
    - Match online/F2F format with information, tasks
    - Manage student expectations
  - Risk losing students
- Payoffs
  - Free up classroom space
  - Increased flexibility for students/faculty
  - No difference in learning outcomes
  - Potential for enhanced student learning and satisfaction