

ONLINE OR FACE-TO-FACE HIGH-ENROLLMENT INTRODUCTORY COURSES: WHAT'S THE RIGHT BLEND?



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With support from San Diego State University's Academic Affairs and Instructional Technology Services (ITS), the Department of Psychology has rigorously explored the ways in which blending can support student learning in the large classroom setting. Unique to this effort is that it targets two sections of a large Introductory course (PSY 101), whose enrollees are mostly freshman new to the university environment. Large classes are the norm for freshmen, and there is considerable interest in ways to eliminate their impersonality by building students' sense of community while (at the same time) exposing them to innovative uses of technology.

In courses that are designated as blended, some portion of face-to-face time (as defined by the instructor) is replaced by thoughtfully integrated online activity (see: <http://www.sloan-c.org/>). Blended courses are designed with transformation in mind, the goal being to optimize the effectiveness and efficiency of the learning experience. The literature suggests that blended learning is part of a larger movement to help universities operate with less "waste" and thus their resources well (both personnel and facilities). Blended learning, advocates argue, can make schools more competitive-offering instructional options to students who are looking for flexibility in their schedules and greater access to technology.

Large classrooms (n=200+) are thought to improve space utilization; simply put, more students can be served by fewer (and less costly) instructional staff. Students are reportedly satisfied with the learning experience and perform well when such classes are held in high-tech

spaces that are both ergonomically and acoustically sound and taught by instructors well-versed in ways to involve students in learning through varied activities, innovative questioning strategies, and exercises that engage the senses.

SDSU has explored the initial rollout of the blended learning approach by comparing the two class sections on a number of variables, including test and quiz scores; scores on in-class "clicker" questions; attendance; and a variety of student satisfaction variables. Students also had an opportunity (in Fall 2006, via focus groups held at the end of the semester) to describe their perceptions of the large classroom; the ways in which the instructor personalized the environment; their ability to manage time and take responsibility for their own learning; and the ways in which specific technology-infused activities helped them plan for tests, quizzes, and class meetings.

While reporting "results" is important, of course, our larger goal is to stimulate interest in continued funding for research of this type—although perhaps not at the scale/depth of the current effort. Faculty/chairs from nearly every program at SDSU are exploring the viability of blended and fully online learning—to improve use of facilities, provide students with more flexibility/options from which to choose, remain relevant to a technologically-savvy student body, and stay viable in an extremely competitive marketplace. Our intent, then, is to help faculty/chairs make informed decisions that are instructionally sound and empirically defensible.

FACE-TO-FACE ELEMENTS IN AN INTRODUCTORY PSYCHOLOGY BLENDED LEARNING COURSE

EXTENSIVE USE OF CLICKERS (expanded this usage, based on prior student feedback)

ConceptCheck questions: multiple choice items to gauge student conceptual understanding on-the-fly

Attendance: points given for daily class attendance (40/700 points in the course)

Demonstrations: in-class data gathering for demonstrations of key concepts (e.g., the serial position effect)

Anonymous polling: in-class data gathering regarding sensitive issues such as drug and alcohol use

Peer instruction: Ask question, reveal responses (not divulging correct answer), students discuss, re-ask question

What students say:

Class clicker usage helps me to remember important course content

Class clicker usage makes me more likely to attend class

Class clicker usage helps me to feel more involved in class

Class clicker usage makes it more likely for me to respond to a question from the professor

I understand why my professor is using clickers in this course

My professor asks clicker questions that are important to my learning

	% Strongly Agree or Agree Fall 2006	% Strongly Agree or Agree Spring 2007
Class clicker usage helps me to remember important course content	72%	50%
Class clicker usage makes me more likely to attend class	88%	80%
Class clicker usage helps me to feel more involved in class	85%	75%
Class clicker usage makes it more likely for me to respond to a question from the professor	93%	81%
I understand why my professor is using clickers in this course	90%	83%
My professor asks clicker questions that are important to my learning	92%	78%

EXTENSIVE USE OF MULTIMEDIA

Videos, demonstrations, and simulations from text and web

THE ELEPHANT IN THE ROOM IS THE ROOM

Feedback indicated pluses (comfortable seats, good visibility, good AV equipment, etc.) and minuses (acoustics are "too good," difficult getting 500 people out of the room quickly, etc.)

SPILLOVER OF INCREASED INTERACTION

Face-to-face → online

Online → face-to-face

AMBIVALENCE RE: ANONYMITY AND INTERACTION IN MEGA CLASSES

Student feedback indicates mixed feelings regarding class size

Some like being anonymous, some don't

Some appreciate efforts to increase interaction, some don't



ONLINE ELEMENTS IN AN INTRODUCTORY PSYCHOLOGY BLENDED LEARNING COURSE

COURSE RELIES ON TEXTBOOK PUBLISHER'S WEBSITE / LEARNING MANAGEMENT SYSTEM (LMS)

- Multimedia materials linked to text
- Includes LMS tools (gradebook, quizzes, surveys, announcements, progress/participation monitoring)
- eBook with tools to enhance the reading/note-taking process

INTERACTIVE LECTURES IN WIMBA LIVE CLASSROOM

- Replace about 40% of in-person class sessions
- Uploaded PowerPoint materials are core of the lecture presentation
- Audio commentary by instructor
- About 1/4 to 1/3 of students attend live
- Session is archived for on-demand viewing by all students
- Frequent pauses for questions from students via text chat or audio
- Use of yes/no and polling question tools for interaction similar to in-person clicker use
 - Polling question participation not for points yet, but will be in future, based on student feedback
- Demonstrations, simulations, and videos (multimedia) via application sharing and website pushes in Wimba
 - More of these and less lecture as the course is further refined

ONLINE OFFICE HOURS AND PRE-TEST REVIEW SESSIONS

- Positively received by students
- Pre-test review sessions are also archived

LIMITATIONS/CHALLENGES

- Technical problems
 - Wimba has had some issues with latency (mostly solved) and initiating sessions (still solving)
 - Playback of Wimba archives has improved significantly
- Helping students to develop skills/attitudes necessary for successful online learning
 - Technical proficiency and patience for troubleshooting/problem-solving
 - Independence, motivation, discipline, flexibility, etc.

EVALUATION OF AND INTRODUCTORY PSYCHOLOGY BLENDED LEARNING COURSE

What we've done to date (tools and strategies)

- How's it going? survey (SurveyMonkey; see: <http://tinyurl.com/2vtoqy>)
 - Administered during week 7 of the semester to glean student perceptions of course design elements
- In-class observations
 - Completed by graduate student research assistants in Fall 2006, using a structured protocol based on Gagné's conditions of learning
- IDEA Diagnostic Survey (normed, standardized; see: <http://idea.ksu.edu> and <http://edweb.sdsu.edu/bober/IdeaOnline.pdf>)
 - Focuses on student progress on instructor's teaching objectives
 - Provides comprehensive, comparative, and longitudinal reporting
- Focus groups (Fall 2006)
- SDSU/Dept of Psychology end-of-course survey
- Course grades and individual analysis of the four major tests

Where we're headed

- Evaluation is a continuous process—not a one-time event; results to date available by request to Dr. Marcie Bober (bober@mail.sdsu.edu, 619.594.0587)
- CSU Transforming Course Design toolkit

INSTITUTIONAL EFFECTS OF AN INTRODUCTORY PSYCHOLOGY BLENDED LEARNING COURSE

- Creation of annual summer Course Design Institute (CDI) – first offered in 2007
- Movement towards greater support from Academic Affairs for fully online courses
- Creation of ITS "Faculty-in-Residence" position for Dr. Laumakis
- Greater collaboration with Dept. of Educational Technology
 - Negotiating the launch of an advanced certificate program in instructional design in higher education for lecturers and early career faculty
- Blended Learning (BL) footnote in Course Catalog and Class Schedule and mandatory Readiness Survey for students
- ITS Support Services Survey (sent to faculty in fall 2007)
 - Assesses preferences for faculty development modalities and venues, focusing not only on "what" they wanted in terms of workshop content, but perhaps more importantly, "how" they wanted to interact (e.g., face-to-face vs. online, just-in-time, etc.).