

The 2011 IUPUI Assessment Institute

Using Research on Best Online Instructional Practices to Close the Loop in Learning Outcomes Assessment

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About UMUC

- United States' largest public university (headcount)
- 80% of classes online; 20% hybrid
- Global enterprise: 150 worldwide locations; 25 countries
- ~92,000 highly diverse students worldwide
 - 42% active-duty military service members
 - 43% racial minority (mostly Black, then Hispanic)
 - 71% of students work full time
 - 47% of students are working (full time) parents
 - Median age of undergraduates is 32
 - ~2,200 faculty members worldwide (mostly adjuncts)

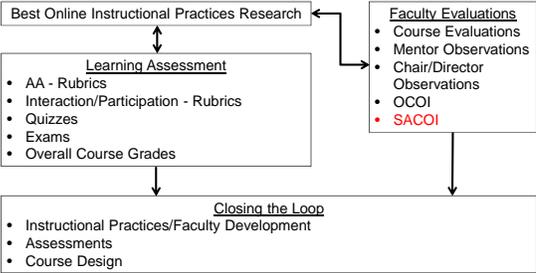


Overview

- A Model of Practice and Research
- Best Online Instructional Practices (BOIPS) Research – Brief Summary of Method and Key Findings
- Example of BOIPS Focused on Assessment Design
- Example of Recent Action Recommendations based on BOIPS
- Data Mining for Deeper Knowledge of Student Behavior



A Model for Practice and Research



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    graph TD
      A[Best Online Instructional Practices Research] <--> B[Learning Assessment]
      B --> C[Closing the Loop]
      D[Faculty Evaluations] --> A
      D --> C
      subgraph B [Learning Assessment]
        B1[AA - Rubrics]
        B2[Interaction/Participation - Rubrics]
        B3[Quizzes]
        B4[Exams]
        B5[Overall Course Grades]
      end
      subgraph D [Faculty Evaluations]
        D1[Course Evaluations]
        D2[Mentor Observations]
        D3[Chair/Director Observations]
        D4[OCOI]
        D5[SACOI]
      end
      subgraph C [Closing the Loop]
        C1[Instructional Practices/Faculty Development]
        C2[Assessments]
        C3[Course Design]
      end
  
```



BOIPS Research – Summary

- (1) voices of exemplary faculty - data collection from 300 exemplary online faculty members
 - used faculty reflective journaling and interviews
- (2) Developed Online Classroom Observation Inventory
- (3) identified best practices used in 90 classrooms with the OCOI and measured student learning, pass rates, and withdrawal rates

http://www.umuc.edu/outcomes/learningevaluation/best_practices.cfm



Best Practices: Key Findings

The following instructional practices:

- ✓ Continuous involvement & feedback from faculty (immediacy/presence)
- ✓ Incorporate learning modules (targeted and logically paced)
- ✓ Draw from experience and introduce students to cultures and subcultures
- ✓ Encourage multiple approaches to solving problems
- ✓ Encourage goal incorporation into the course
- ✓ Provide opportunities for collaborative learning

Each practice is associated with:

PASSING RATES 10-20%

WITHDRAWAL RATES 5-12%

LEARNING: Pre- and post-test results showed an average **increase** of one standard deviation (22 points, significant at the .002 level)



Example: BOIPS in Assessment Design



Required Undergraduate Library Skills Course (LIBS 150)

- Use course modules that are aligned to course competencies
- A variety of assessment formats (self-assessments, short quizzes, projects, and a final exam) are used and cover all of the course competencies, and Formative assessments align to the cumulative final exam
- Pace assignments to prevent work build-up & overwhelming students at one point in the semester



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A Few Actions Recommended Based on Recent Learning Assessment Results



- make sure students understand the outcomes they are expected to accomplish (i.e., Organization) by **opening a discussion about outcomes, assignments, and associated rubrics** (related to Writing results)
- **direct students to support resources** – Effective Writing Center (tutoring and feedback on drafts) **in multiple areas of the classroom** (e.g., announcements, gradebook feedback, conferences) **to make sure the resources available are visible** (related to Writing results)
- use multiple web technologies for interaction (facilitates greater interaction); **emphasize interactions that incorporate the instructor's real-world knowledge, the students' experiences, and focuses work on problem-solving and real-world applications** (related to Critical Thinking results)



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Ahead: Research Deepening Knowledge of Online Students



Identify **Best Online Assessments Methods** for better learning assessment data that can be used in UMUC's **\$1.2 million Kresge Foundation funded Data Mining Project**

Clearly directed use of BOIPS by analyzing data from:

- learning (formative & summative - pre-assessments, self-assessments, participation, quiz, exam and authentic assessment scores)
- previous student work (transfer credits); prior & experiential learning
- financial aid records
- outside of LMS behaviors (e.g., use of tutors, library use, and advisor contacts)
- inside LMS behaviors (time in modules, reading, on tasks; click paths)
- demographics and other SIS data



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