Online Learning: What to Assess and What Tools to Use

A Short Guide for Georgia Tech Faculty, Coordinators, Directors and Chairs

Georgia Tech Office of Assessment

Some Characteristics of Online Learning

- Traditional Classroom
  - instructor-centered
  - sage on a stage
  - face to face interaction
  - instantaneous communication and feedback
  - Peer pressure as motivator
  - Lectures on set schedule
- Online Course
  - learner-centered
  - instructor as facilitator
  - text-based interaction
  - mostly asynchronous communication and feedback
  - Self-motivated learner predominates
  - 24/7 learning

What is important to measure in online learning? Among other things...

- Learner characteristics and background
- Student learning
- Feedback
- Student satisfaction
- Faculty experience
- Human Interaction
- Interaction with material
- Comparative performance, progress, etc.

What Tools Do We Use?

- Surveys
- Inventories, diagnostic instruments
- Focus groups
- Online assignments
- Rubrics for evaluating student projects/work/presentations
- Electronic portfolios
- Content analysis coding schemes

What Tools Do We Use?

- Online simulations, pop-up quizzes, to assess content grasp
- Online testing (or proctored testing)
- 360 degree ratings: self, peers, faculty, outside rater
- Passive back-end data collected with course software (e.g., hits, duration, links, test quiz results, etc.)

Learner Characteristics: What to Assess

- Create learner profile:
  - demographic information (gender, ethnicity, etc.)
  - Motivation, educational goals
  - prior DE experience
  - perceptions/expectations about DE
  - native language
  - computer skills/technical background
  - learning style preferences
- Track and relate to course/program success

Learner Characteristics: How to Assess

- Screening tool (e.g., NVCC's self-test, "Is DE for me?" at http://eli.nv.cc.va.us/eliforme/deforme.asp)
- Front-end pre-course or pre-program surveys
- Drexel University uses a pre-program essay for their online MSIS program

Student Learning: What to Assess

- Interactivity, collaborative learning
- Collective construction of knowledge
- Deep learning (critical thinking, reflective learning)
- Course content mastery
- Program-level student learning objectives

Student Learning: How to Assess

- Evaluation of collaborative projects (such as co-webs) via rating rubrics; peer ratings
- Frequency/timing/duration of participation and interaction via passive data collection
- Content analysis of dialogue (Newman, Webb and Cochrane, 1995) using coding schemes
- Course content mastery: Online quizzes, tests, practice quizzes, simulations

Feedback: What to Assess

- Frequent feedback on progress facilitates learning and is often requested in the online environment
  - instructor feedback on questions
  - instructor feedback on assignments
  - feedback on postings, dialogue (such as in collaborative online activities)
  - opportunity to self-test via practice quizzes online

Feedback: How to Assess

- Develop baseline expectations from pre-course survey
- Use Cyber-CATS during course (online classroom assessment techniques, such as clearest point/muddiest point)
- Assess satisfaction at end of course via post-course survey, course evaluation form
- Group projects: structured peer feedback

Student Satisfaction: What to Assess

- Need to assess expectations, perceptions, and personal goals up front.
- Assess satisfaction with all aspects of course, such as instructional methods, interaction and feedback, collaboration, course material, organization, technical support, accessibility, relevancy to student goals.
- Are there needs for improvement? Ask them!

Student Satisfaction: How to Assess

- Pre/post course surveys
- Mid-course focus groups (might be online!)
- Telephone interviews
- Course evaluation forms
- Objective data: repeat enrollments

Faculty Experiences: What to Assess

- Course preparation time
- Technical challenges encountered
- Satisfaction with support, instructional technology
- Perceptions of student learning in DE/online vs. classroom courses
- Perceptions of interactions
- Workload issues

Faculty Experiences: How to Assess

- Open-ended interview protocol (online, in person, or telephone)
- Survey (email works well)
- Forum

Human Interaction: What to Assess

- Interaction with instructor
- Levels of participation in collaborative learning experiences
- Interaction with classmates
- Access to help desk/resolution of technical difficulties

Human Interaction: How to Assess

- Expectations, prior experiences: pre-course survey
- Mid-course survey/focus group
- Post-course survey or course evaluation
- Passive data collection using course software
- Track record of emails
- Peer interaction: use online focus group

Interaction with Instructional Materials: What to Assess

- Access to and usage of appropriate connections and instructional technologies
- Engagement with course materials
  - frequency
  - duration
  - quality

Interaction with Instructional Materials: How to Assess

- Access to/usage of instructional technologies/connections:
  - surveys
  - track calls to help desk and type of problems encountered
  - email, other ongoing dialogue with students
  - tracking through courseware
- Engagement:
  - use courseware to track frequency and duration
  - use content analysis or rubric to assess quality

Comparative Performance: What to Assess

- Assess performance of online students in relation to on-campus students:
  - course performance
  - retention/repeat enrollments
  - progression
  - graduation

Comparative Performance: How to Assess

- course performance: use rubrics to do group-level assessment of key learning activities
- retention/repeat enrollments: institutional data
- progression: institutional data
- graduation: institutional data