Contextualizing Student Feedback

Mashing Up Course Evaluations and Learning Interaction Data to Make Student Feedback More Meaningful

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A Little Background:

Course Evaluations at Berkeley are Decentralized:

- Multiple evaluation projects
- Multiple online eval platforms
- Multiple formats
- Run by multiple people

Campus Evaluation Project
Business Public Health Extension Engineering
Old-School Departments
The Self-Sustainers
The Third Parties

Explorance Paper In-House Qualtrics, Survey Monkey
A Little More Background

Student responses are varied:

- Departments (and faculty) have lots of autonomy
- Two mandatory questions:
  - Instructor effectiveness
  - Course effectiveness
- Beyond that, departments pick the questions on their evaluations
Instigation & Overview

- **Course evals are the primary opportunity to get *direct, measurable* feedback**
  - Informs how instructors iterate their teaching
  - Iterating a course takes semesters or years
  - Evaluation reports are tricky to interpret

- **Valuable analytics/data are going unused**
  - Instructors may not know the data is available
  - Instructors may not know when real-time data is useful
  - Data fatigue

- **Students aren’t great at evaluating their own learning**
Using Data to Benchmark our Question Bank

Which common evaluation questions can be contextualized with data we record?
How Do We Define Learning Interaction Data?

Any record of a student interacting with learning material

- Viewing an LMS page
- Submitting an assignment
- Watching a video
- Making a discussion post
What About On-Ground Courses?

A student’s digital footprint may be an adequate representation of the learning experience for a fully-online class.

What if my class doesn’t center around the LMS or other digital tools?
Our Data Sources

A great deal of analytical information is captured throughout the run of a course:

- Aggregate and anonymous analytics
- LMS interactions, learning analytics, third-party analytics
- Course evaluations

An end of course report is a document collecting this (and other relevant) information in a standardized manner with the goal of centralizing and contextualizing those pieces of data.
Who is this Report For?

Instructors?

Students?

What are Others Doing?

Outreach

Analytic Dashboards
1. Aggregate Analytics: Page views
   - By day, by hour
   - Time spent on course site
2. Learning Analytics: Discussion activity
   - Aggregate activity
   - Most active contributors
   - Other data/Third party analytics
3. Qualitative Data: Course Evaluations
Three Examples

1. The course was effectively organized
2. The instructor encouraged student questions and participation
3. The course made effective use of learning materials (e.g. readings, multimedia)
The course was effectively organized

Daily access info

Hourly access info
1. Organization > user flow

How easily were students able to navigate the Canvas site for [Course Name]?

Students may have found some aspects of this course site challenging to navigate. Students in this course took more time, clicks and backtracking to reach commonly used resources than in other UW Canvas courses. Consider streamlining and restructuring navigation in future courses to enable students to find resources more efficiently.

Your course scored lower than most UW courses for Submissions. It is recommended that you consider organizing future courses differently to help students to find content in these areas more easily.

How was this result calculated?

The result shown in the gauge to the left draws upon three measures: the number of clicks it took students to reach key Canvas features in your course, the amount of time it took students to reach those features, and the amount of “backtracking” they did along the way. Backtracking refers to the frequency with which students retraced their steps, returning to pages they had already visited in the same session. Taken together, these three measures can give you insight into how students navigated your course.

The result shown in the gauge reflects how students’ interactions with your course compared to that of all other UW courses active in Canvas in the same quarter. It is intended to provide you with feedback solely on course navigation and organization as described by our three measures, not teaching and learning or any other aspects of a successful online learning experience.

The gauges below show how your course compared to other UW courses on each of the three measures:

Abigail Evans
Can analytics improve instructional design?
https://www.youtube.com/watch?v=TZcOb6Z0lkO
The instructor encouraged student questions and participation

Discussion Activity Dashboard

Created by Martin Hawksey

http://tinyurl.com/CanvasDiscussionReports
The Course Made Effective Use of Learning Materials

“Attendance”

Media playback analytics

Other logs related to LTI or other tools used
Combine simple data sources to reveal new insights
3. Course Evaluations

Group similar comments together manually or automatically

- E.g. Comments related to communication

Identify themes, and use quantitative rating to compare

- If students had a hard time navigating course site, did they spend less or more time than comparable course sites?

Determine if anything noted can be quantified (retroactively, or going forward)

- “It would be great if we could keep track of...”
What are the Challenges?

Fitting our data to the course

- Filtering data streams for novel information
- Massaging data into a legible format

Processing qualitative data

- Identifying patterns, linking them to quantitative data
Automating

Initial reports were manually produced. How do we scale from 3 reports to 5000+?

Learning record store + Caliper events

explorance® Improvement at heart.

canvas

gradescope In-house LMS Integrations
UC Berkeley’s Learning Record Store

Sandeep Jayaprajash, UC Berkeley
Summary

**Aggregate data** can help visualize workload, when students are working.

**Learning analytics and third-party analytics** inform how students are engaging with course material.

**Course evaluations** can highlight and contextualize information that might otherwise be noise, and call attention to metrics worth exploring.
The Path Ahead / Questions

Slide deck: bluenotes.mileslincoln.com
Aside: Asking the Right Questions

Give students questions about their experience that they can answer honestly, instead of asking them to make a judgement:

Less: The course material was well-organized

More: I had difficulty finding course material
Aside: Question Bank

http://teaching.berkeley.edu/course-evaluations-question-bank

Created by our Center for Teaching and Learning

Encouraged, but not required

Beneficial for sharing data across departments