Elevating Student Voice in Higher Education: Mid-semester Feedback & UDL

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Abstract

Many postsecondary institutions offer a mid-semester option for providing faculty with feedback before their current students leave their class. However, few universities have viewed mid-semester feedback (MSF) as a rich source of student voice data. The University of Kentucky's (UK's) Universal Design Consultant, Jennifer Pusateri, has begun to evaluate the collective mid-semester feedback (MSF) data in a whole new way: through a UDL lens. Pusateri analyzed MSF data from the past few years and sorted these data by Universal Design for Learning (UDL) Guideline and Checkpoint to look for trends in the student voice. Through this analysis, three Guidelines emerged, highlighting possible gaps in instructional practices and student support programs. This breakout session is designed to: 1) outline UK's mid-semester feedback service, 2) demonstrate the coding and sorting process, 3) present findings, and 4) reveal how the Center for the Enhancement of Learning and Teaching (CELT) is using student-voice data to inform current and future workshop offerings.

Keywords
Student voice; Feedback; Student data

INTRODUCTION

In recent decades, education has begun to move away from the traditional one-size-fits-all model of instruction to a more personalized learning experience, and the role of student voice has risen to a place of prominence. The University of Kentucky (UK) provides all instructors with Teacher Course Evaluations (TCEs) at the end of each semester, and like many colleges, UK uses student evaluation data as a factor influencing tenure and hiring decisions. The UK Center for the Enhancement of Learning and Teaching (CELT) also provides an option for instructors to receive student feedback in the middle of the semester, thus allowing faculty to make changes while the same students are still in their course.

COLLECTING DATA

CELT's Mid-semester Feedback Process

The Center for the Enhancement of Learning and Teaching (CELT) has used the same mid-semester feedback (MSF) process for over 10 years. This process is simple and yields information that is very helpful to instructors wishing to improve their teaching. The following sections describe how the MSF is conducted, and how the data is collected and used at the University of Kentucky.

The Mid-semester Feedback Process

1. **POSE MAIN QUESTIONS:** Students are asked two questions:
   a. What is helping you learn in this class?
   b. What suggestions do you have to enhance your learning?
2. **BRAINSTORM:** Students brainstorm answers and we construct two lists of comments.
3. **VOTING:** The students vote privately and confidentially using index cards indicating if they agree (√) or disagree (×) with each comment. If they are neutral, they indicate this with a dash (-). See Figure 1.
4. **INDIVIDUAL COMMENTS:** Students have the option to add additional, individual comments on the back of the index cards.

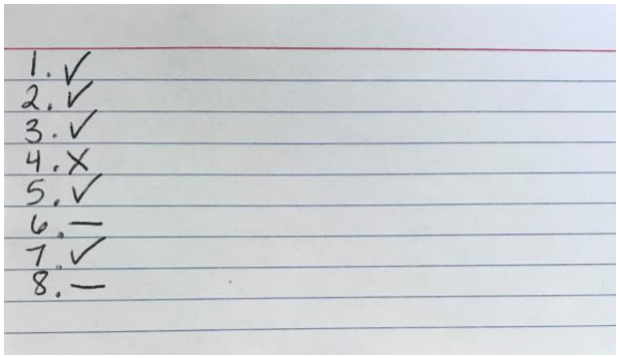
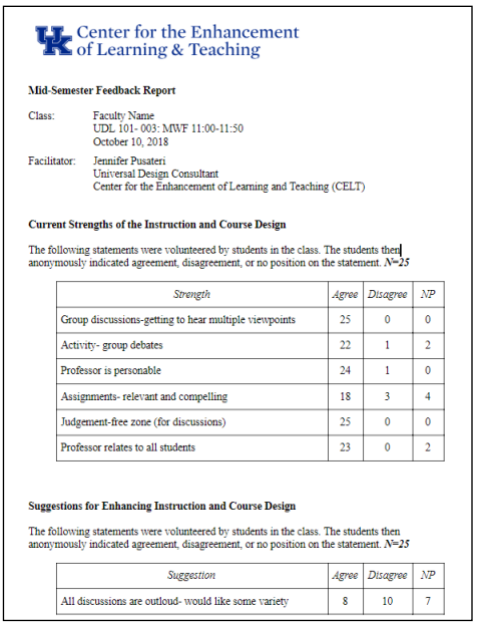


Figure 1. Mid-semester Feedback Completed Index Card

Data Analysis

Upon the completion of the MSF session, I recorded the comments along with their corresponding numbers, and tallied the total number of students who agreed (√) with, disagreed (×) with, or felt neutral about (-) each comment. Once all data were calculated, I compiled all the information into a report (see Figure 2), including the number of student votes in each column (agree, disagree, neutral) and any individual discursive comments students may have written on the back of the cards. When the report was completed, I contacted the faculty member and scheduled a follow-up meeting to discuss their student data.



Center for the Enhancement of Learning & Teaching

Mid-Semester Feedback Report

Class: Faculty Name
UDL 101- 003: MWF 11:00-11:50
October 10, 2018

Facilitator: Jennifer Pusateri
Universal Design Consultant
Center for the Enhancement of Learning and Teaching (CELT)

Current Strengths of the Instruction and Course Design

The following statements were volunteered by students in the class. The students then anonymously indicated agreement, disagreement, or no position on the statement. *N=25*

Strength	*Agree*	*Disagree*	*NP*
Group discussions-getting to hear multiple viewpoints	25	0	0
Activity- group debates	22	1	2
Professor is personable	24	1	0
Assignments- relevant and compelling	18	3	4
Judgement-free zone (for discussions)	25	0	0
Professor relates to all students	23	0	2

Suggestions for Enhancing Instruction and Course Design

The following statements were volunteered by students in the class. The students then anonymously indicated agreement, disagreement, or no position on the statement. *N=25*

Suggestion	*Agree*	*Disagree*	*NP*
All discussions are outloud- would like some variety	8	10	7

Figure 2. Sample Mid-semester Feedback Faculty Report

DATA ANALYSIS

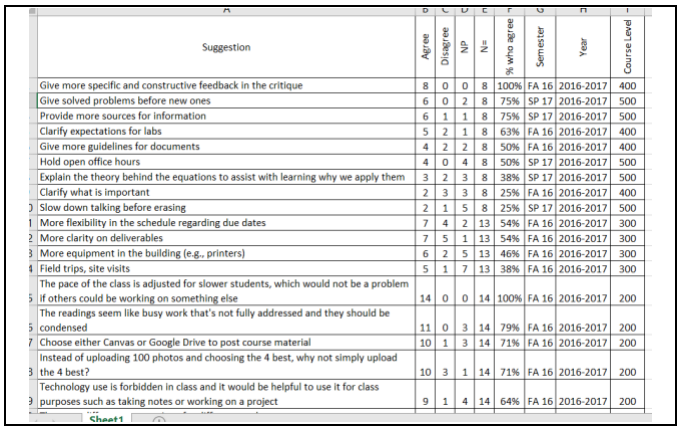
Sorting Data

For the purposes of this research, I chose to use only the student recommendations, leaving the comments on the course's strengths for another study.

Once I retrieved the data from the 2015-2016, 2016-2017, and 2017-2018 school years, I began copying and pasting information from each instructor's report into an Excel file. Each row of the Excel spreadsheet was comprised of one brainstormed student comment, and the columns contained the following information from left to right (See Figure 3): student suggestion, number of students who agreed with the suggestion, number of students who disagreed with the suggestion, number of students who were neutral (marked as NP for "no preference"), N size (marked as "N="), percentage of students in the class who agree, semester, school year, and course level.

I decided to only count suggestions on which more than half of the class agreed. Including comments made by only one student or a handful of students did not convey the spirit of consensus or the idea of trend-tracking I was attempting to evaluate. Data were then sorted by the percentage of students agreeing with the suggestion, in the order of highest to lowest percentage. All suggestions with which 50 percent or fewer students agreed were thrown out.

In order to protect the anonymity of the individual instructors, all personally identifying information, including instructor name, course name, and department, were removed from the spreadsheet.



	Suggestion	Agree	Disagree	NP	N=	% who agree	Semester	Year	Course Level
2	Give more specific and constructive feedback in the critique	8	0	0	8	100%	FA 16	2016-2017	400
3	Give solved problems before new ones	6	0	2	8	75%	SP 17	2016-2017	500
4	Provide more sources for information	6	1	1	8	75%	SP 17	2016-2017	500
5	Clarify expectations for labs	5	2	1	8	63%	FA 16	2016-2017	400
6	Give more guidelines for documents	4	2	2	8	50%	FA 16	2016-2017	400
7	Hold open office hours	4	0	4	8	50%	SP 17	2016-2017	500
8	Explain the theory behind the equations to assist with learning why we apply them	3	2	3	8	38%	SP 17	2016-2017	500
9	Clarify what is important	2	3	3	8	25%	FA 16	2016-2017	400
10	Slow down talking before erasing	2	1	5	8	25%	SP 17	2016-2017	500
11	More flexibility in the schedule regarding due dates	7	4	2	13	54%	FA 16	2016-2017	300
12	More clarity on deliverables	7	5	1	13	54%	FA 16	2016-2017	300
13	More equipment in the building (e.g., printers)	6	2	5	13	46%	FA 16	2016-2017	300
14	Field trips, site visits	5	1	7	13	38%	FA 16	2016-2017	300
15	The pace of the class is adjusted for slower students, which would not be a problem if others could be working on something else	14	0	0	14	100%	FA 16	2016-2017	200
16	The readings seem like busy work that's not fully addressed and they should be condensed	11	0	3	14	79%	FA 16	2016-2017	200
17	Choose either Canvas or Google Drive to post course material	10	1	3	14	71%	FA 16	2016-2017	200
18	Instead of uploading 100 photos and choosing the 4 best, why not simply upload the 4 best?	10	3	1	14	71%	FA 16	2016-2017	200
19	Technology use is forbidden in class and it would be helpful to use it for class purposes such as taking notes or working on a project	9	1	4	14	64%	FA 16	2016-2017	200

Sheet1

Figure 3. 2016-2017 MSF Excel Spreadsheet

Coding Data

Once all data were sorted, I began the process of coding. Coding, a process of methodically grouping and sorting data, is a means of divining themes, concepts and relationships that might not be obvious at first glance.

Open Coding

In coding these data, I sought first to categorize student recommendations by using the three Universal Design for Learning (UDL) principles (engagement, representation, and action/expression) as a basis for open coding. I began this process by reading through each recommendation, looking for comments that could easily be categorized under one of the three aforementioned principles. For example, one comment said, "Add summary slides, main takeaways, and review questions to PowerPoint slides." This comment fits in very neatly with the Comprehension Guideline 3.2: Highlight patterns, critical features, big ideas, and, relationships. In the first round of open coding, I simply highlighted each recommendation comment with the color corresponding to the related UDL Principle (See Table 1).

Table 1. Open Coding Color Codes

Highlighted Cell Color	**Corresponding UDL Principle**
Green	Engagement
Purple	Representation
Blue	Action & Expression

Axial Coding

I began the second round of coding, called axial coding, by analyzing the description sections for each UDL Guideline from the CAST UDL Guidelines webpage (CAST, 2018), and pulling out key words. I then made a graphic organizer to lay out key words according to which UDL Guideline they fell under (see Appendix).

The graphic organizer was used to further sort student recommendations by UDL Guideline. After adding three new columns to the spreadsheet; Guideline, Checkpoint number, and Checkpoint text, I sorted the data into the

corresponding Guideline and Checkpoint, using different tints of green, purple and blue to indicate each of the nine Guidelines (see Table 2).

PRELIMINARY FINDINGS

After sorting and coding all data into Guideline categories, I counted the number of student recommendation comments for each Guideline which I organized into a table by school year (Table 2).

Table 2. Student Recommendations by UDL Guideline

UDL Guidelines		2015-2016	2016-2017	2017-2018	2018-2019	All Years
Recruiting Interest		13	8	10	5	40
Sustaining Effort & Persistence		2	7	2	0	11
Self Regulation		0	1	0	0	1
Perception		1	2	4	1	8
Language & Symbols		7	3	3	1	15
Comprehension		5	22	15	4	47
Physical Action		1	2	1	0	4
Expression & Communication		0	0	4	0	4
Executive Functions		16	28	21	6	71

I then used this table to create pie charts for each year in order to create a visual representation of the data. When I compiled data for all years of mid-semester feedback sessions, I found that most student comments seemed to fall within three distinct areas:

1. Recruiting Interest
2. Comprehension
3. Executive Functions

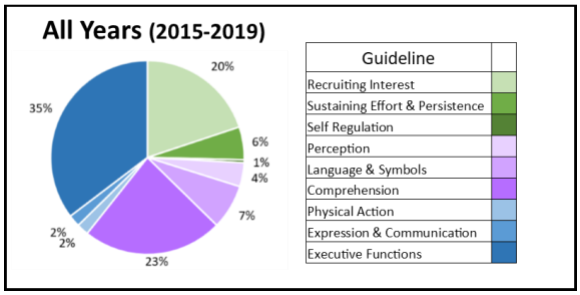


Figure 4. Percentage of comments by UDL Guideline

Recruiting Interest

Over the course of three and a half school years, the category of Recruiting Interest accounts for 20% of the comments. Most of the comments aligned with two UDL Checkpoints, 7.2: Optimize relevance, value, and authenticity (16 comments), and 7.3: Minimize threats and distractions (24 comments).

The following are examples of student comments relating to Engagement-Recruiting Interest:

7.2: Optimize relevance, value, and authenticity

- "Connect the theories to the real world"
- "Clarify how videos connect to the class"
- "Eliminate the outdated textbook"

7.3: Minimize threats and distractions

- "Be aware of how you talk to your students in terms of sounding annoyed or condescending"
- "Slow down on text-heavy slides"
- "Be more accepting of different responses"

Comprehension

The UDL Guideline, Comprehension, garnered 23% of all student comments from 2015-2019. Most of the comments were related to the following Checkpoints: 3.1: Activate or supply background knowledge (11 comments), 3.2: Highlight patterns, critical features, big ideas, and relationships (16 comments), and 3.3: Guide information processing (20 comments).

The following are examples of student comments relating to Representation-Comprehension:

3.1: Activate or supply background knowledge

- "Give sufficient background knowledge and don't assume students know the topic"
- "Do a quick review of the previous class"
- "Provide more background"

3.2: Highlight patterns, critical features, big ideas, and relationships

- "Provide a lecture outline with important points emphasized"
- "Provide a handout on the main points"
- "Have a group discussion of key points prior to an exam"

3.3: Guide information processing and visualization

- "Provide guided reading questions to help with understanding the difficult text"
- "Give us some practice exam questions"
- "Organize the PowerPoint slides better"

Executive Functions

The UDL Guideline, Executive Functions, received the most student comments, comprising 35% of all recommendations. The three Checkpoints receiving the most comments, within Executive Functions were 6.2: Support planning and strategy development (14 comments), 6.3: Facilitate managing

information and resources (17 comments), and 6.4: Enhance capacity for monitoring progress (31 comments).

The following are examples of student comments relating to Action & Expression-Executive Functions:

6.2: Support planning and strategy development

- "Post the problem sets earlier than one week"
- "More flexibility in the schedule regarding due dates"
- "Test on what you teach in class"

6.3: Facilitate managing information and resources

- "Tell us where to look on Canvas [UK's Learning Management System] for course content versus having to search"
- "Better align the notes (which are simple) with the test questions (which are difficult)"
- "Provide a study guide for the exam"

6.4: Enhance capacity for monitoring progress

- "Give class work and homework back before the exam"
- "Give better explanations for the homework and projects"
- "Create a rubric for the assignments"

USING THE DATA AT CELT

At CELT we have already begun to plan workshops and presentations around information gleaned from this study. Here are a few of our Spring 2019 workshops that are designed to respond to students' need for help with recruiting interest, comprehension, and executive functions:

- Creating Rubrics to Reduce Grading Time
- Why Students Struggle with Soft Skills and What You Can Do About It
- Creating Modules to Organize Course Materials
- Rethinking Slide Design

We are also using these data in individual consultations with faculty, highlighting ways to build student interest and support comprehension and executive functions within their existing course. We can point to this study as evidence that students need assistance in these areas, and present faculty with UDL-based solutions.

REFERENCES

CAST (2018). Universal Design for Learning Guidelines version 2.2. Retrieved from http://udlguidelines.cast.org

APPENDIX

Axial Coding Key Words and Phrases

Recruiting Interest • Choice • Relevance, authenticity • Autonomy– timing, sequence • Interests • Active participation • Novelty • Creative • Pacing • Reduce threats & distractions	**Perception** • Display • Formats • Modalities • Representation • Adjustable • Accessible • Speech-to-text/text-to-speech • Visual representations • VAKT • Captioning • Alt-text • Videos	**Physical Action** • Variability in timing, rate, speed, with instructional materials • Alternatives for physical response • Alternatives for writing • Alternatives for reading • Tech options • Assistive Technologies
Sustaining Effort & Persistence • Goals • Objectives • Long-term & Short-term goals • Remembering goals • Degree of difficulty • Challenge • Cooperative • Groups • Communities • Peers • Feedback • Timely feedback	**Language & Symbols** • Vocabulary • Symbols • Acronyms • Patterns • Properties • Simulations • Graphics • Activities • Multi-media	**Expression & Communication** • Respond in multiple ways • Physical manipulatives • Social media • Interactive tools (discussion forums, chats, presentations) • Solve problems with a variety of strategies • Spell-check, grammar checkers • Text-to-speech, dictation • Calculators • Apps • Scaffolds
Self Regulation • Expectations • Self-reflection • Ownership of learning • Coping skills • Internal control • Inhibitory control • Monitoring own behavioral changes • Progress monitoring of self	**Comprehension** • Background knowledge • Review/ KWL • Concept maps • Pre-teach prerequisite concepts • Cross-curricular connections • Key elements • Graphic organizers/ Outlines • Examples/Non-examples • Checklists/Organizers/E-reminders • Mnemonic devices/chunking • Practice and review • Gradual release • Remove unnecessary stuff	**Executive Functions** • Prompts, Scaffolds to estimate effort, resources and difficulty • Examples of goal-setting • Guides, checklists for goal-setting • Post goals, objectives, and schedules in obvious place • Guides for breaking long-term into short-term goals • Graphic organizers and templates • Checklists and guides for note-taking • Representations of progress (charts, etc.) • Rubrics • Examples of student work