Guides to Advance Teaching Evaluation (GATEs) in STEM Departments

This document provides actionable guidance for the long-term development of departmental practices for robust and equitable teaching evaluation.

Three voices inform teaching evaluation:
- **Peer voice** involves gathering data from peers about teaching and learning occurring in an instructor's class. This document focuses on peer observation.
- **Student voice** involves gathering data from students about their learning and perceptions. This document focuses on mandatory student evaluations AND other sources of data from students.
- **Self voice** involves a written narrative documenting a systematic self-reflection process.

For each voice, robust and equitable evaluation is:
- **Structured**: Evaluation that is structured ensures fairness and minimizes bias. Structure involves processes that are formalized (i.e., written down) and fair, training and support for faculty, and collective decision-making among department members to develop and enact policies and practices.
- **Reliable**: Evaluation that is reliable is informed by multiple sources of meaningful and trustworthy evidence.
- **Longitudinal**: Evaluation that is longitudinal is able to document improvement overtime and provide feedback to faculty about strengths and room for improvement.

The Guide for each voice has three components. These Guides:
- Specify **Target Practices,** which are long-term goals departments can work toward. These were developed based on research and successful practices at research-intensive institutions, and are formatted as a self-assessment.
- Characterize common **Starting Places** departments may be when they begin considering teaching evaluation practices.
- Provide ideas for **Starting Strong and Engaging Efficiently**, including quick-start ideas, "bundles" of target practices that may be efficiently accomplished together, and links to outside resources.
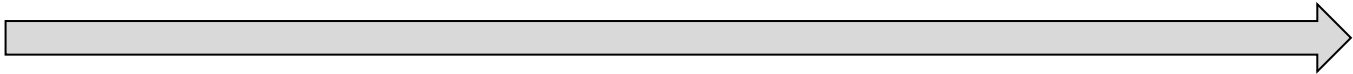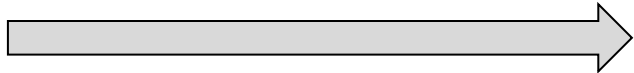
Student Voice Target Practices

Student voice involves gathering data from students about their learning and perceptions. Mandatory end-of-course evaluations are a common source of student voice. Evidence from students should go beyond course evaluations. This could include, but is not limited to: data on learning, grade anomalies or opportunity gaps, mid-term evaluations or classroom interviews, research-based assessment results, instructor-created surveys.

		Student Voice Target Practices: What is your status and what actions will you take?	Not right now	Want to work on it	Working on it	Fully in place
Structured	1	Department has formal standards for how and when instructors collect, analyze, and report student data (e.g., response rate expectation, standard quantitative and qualitative analysis).	☐	☐	☐	☐
	2	Department makes appropriate distinctions in their expectations about student data for different review periods (e.g., annual review, 3rd year review, promotions) and different levels of teaching experience with a given course.	☐	☐	☐	☐
	3	Department periodically discusses and improves expectations for collecting and analyzing data from students to maximize utility to instructors and the department.	☐	☐	☐	☐
	4	Department provides or arranges formal training, or other support, for instructors about collecting and analyzing student data, including achieving high response rates, analyzing quantitative and qualitative data systematically and appropriately, gathering data beyond mandatory evaluations, and making comparisons across time.	☐	☐	☐	☐
Reliable	5	Department expects instructors to do everything they can to achieve high response rates on mandatory student evaluations (e.g., course credit offered, class time set aside).	☐	☐	☐	☐
	6	Department recognizes known biases, such as bias against women, minoritized groups, and large class size, and limits comparisons of mandatory student evaluations between instructors.	☐	☐	☐	☐
	7	Department specifies that quantitative questions on mandatory student evaluations be analyzed as distributions of scores, rather than averages. Because quantitative questions often use an ordinal rating scale (excellent, very good, good, poor), average scores and standard deviations are inappropriate. We cannot assume the points on ordinal scales are equidistant.	☐	☐	☐	☐
	8	Department specifies which set of quantitative student evaluation questions are used for each review period (e.g., annual, promotion).	☐	☐	☐	☐
	9	Department specifies that student comments on mandatory evaluations be systematically examined to determine teaching strengths and room for improvement.	☐	☐	☐	☐
	10	Department expects instructors to collect, analyze, and interpret some data *beyond* mandatory student evaluations.	☐	☐	☐	☐
Longitudinal	11	Department expects instructors to document change (or consistently exemplary results) by comparing data from students across multiple timepoints.	☐	☐	☐	☐

ABSENT

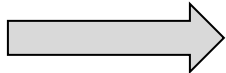Department does <u>not</u> use data from students to inform teaching evaluation.

BITS & PIECES

Department lacks standards or relies on inappropriate standards for using data from students in evaluating teaching.

Department accepts and/or relies on data from mandatory student evaluations, but does <u>not</u>:
- Attend to low response rates
- Use standard protocols for analyzing rating data (e.g., excellent, very good, good, poor). Such data should not be averaged.
- Use systematic guidelines to select student comments.

Department places little or no emphasis on changes in student evaluations or other student data over time.

CLOSER TO COHESION

Departmental expectations for the use of data from students rely on historical precedent or university-level policies without further specification or clarification. For example, the department may expect faculty to summarize results of mandatory student evaluations without any standards for which data are reported, when, and how they are analyzed.

Department explicitly encourages, but does <u>not</u> provide support faculty to:
- Achieve a high response rate on mandatory student evaluations.
- Analyze quantitative data from mandatory student evaluations using distributions rather than averages
- Analyze qualitative data from mandatory student evaluations by systematically selecting comments (e.g., randomly)
- Collect and analyze data *beyond* mandatory student evaluations, including data about student perceptions and learning

Department accepts and/or relies on data from multiple items on mandatory student evaluations.

Department explicitly encourages but does <u>not</u> provide support to help faculty to document growth by making some comparison(s) across time of some data from students.

Where is your department starting?

A, B, and C are common starting places for departments working to reform how they use **STUDENT VOICE** in teaching evaluation. Reflecting on current practices can illuminate what target practices are a good next step. **Does A, B, or C best align with the current practices in your department?**

TARGET PRACTICES

Starting Strong and Engaging Efficiently with Student Voice

Based on experiences with STEM departments, we suggest potential entry points for expanding target practices. We also provide "bundles" to highlight how work on one target practice can be leveraged to achieve other target practices.

Legend
Colors refer to Target Practices that are:
Structured
Reliable
Longitudinal

Two Quick Start Ideas

Explore solutions to increase response rates** on mandatory student evaluations (#5)

Learn about and determine how to account for known biases** (#6)

**Go to: https://tinyurl.com/GATEsExtraResources for info about:
(1) increasing evaluation response rate
(2) bias on student evals
(3) analyzing quantitative data
See sheet labeled "Student voice resources"

Two Potential Bundles

Set standards (#1) for mandatory student evaluations about how:

...instructors attempt various options to increase response rate (#5)

....a standard set of quantitative items (#8) are analyzed** with distributions rather than means (#7)

...student comments for open response items are systematically analyzed (#9)

Set expectations for faculty to gather data *beyond* mandatory student evaluations (#10).

Support faculty in gathering and analyzing these data through training (#4)

Support faculty to compare these data over time to document growth (#11)