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. Read about the develoment in Krishnan *et al*. (2022) at:
https://www.lifescied.org/doi/10.1187/cbe.21-08-0198

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.

Peer Voice Target Practices

Peer voice involves gathering data from peers about teaching and learning observable in class. Peer observation incorporates multiple steps:
- Pre-observation meeting to discuss lessons to be observed
- Collection & review of class materials (e.g., syllabi, exams, homework, slides, handouts)
- Observation of lessons
- Post-observation meeting to hear instructor reflections, debrief, and provide feedback

		Peer 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 uses a formal observation form to guide what is observed and which other data are collected (e.g., class materials, assessments, pre-observation meeting). Forms may be adopted or adapted from other departments.	☐	☐	☐	☐
	2	Department has a formal template for writing a report based on peer review, potentially distinguishing between formative and summative review.	☐	☐	☐	☐
	3	Department uses formal processes or criteria to select peer observer(s) for all instructors.	☐	☐	☐	☐
	4	Department enacts policy about the number of peer observations & observers during a review period and/or across review periods.	☐	☐	☐	☐
	5	Department designates a coordinator, leader, or committee to carry out and refine peer observation practices.	☐	☐	☐	☐
	6	Department has a process for allocating and recognizing workload related to coordinating and conducting observations.	☐	☐	☐	☐
	7	Department periodically discusses and improves peer evaluation practices to maximize utility to instructors and the department.	☐	☐	☐	☐
	8	Department provides or arranges formal training about the departmental peer review process for peer observers.	☐	☐	☐	☐
Reliable	9	Department relies on multiple observations for all instructors, such as using multiple observers, observing multiple lessons, and/or observing multiple courses.	☐	☐	☐	☐
	10	Department specifies which class materials (e.g., syllabi, exams, homework, slides, handouts) are collected and evaluated as part of peer observation.	☐	☐	☐	☐
	11	Department expects observers to talk with instructors to properly contextualize observations and review of materials. This might include discussing course goals, lesson goals, class structure, and students.	☐	☐	☐	☐
Longitudinal	12	Department conducts peer observation over multiple time points in a review period for all instructors to document teaching improvements.	☐	☐	☐	☐
	13	Department ensures that the peer observation process provides feedback to instructors via follow-up discussion that covers strengths and areas for improvement.	☐	☐	☐	☐

ABSENT

Department does not use peer evaluation to inform teaching evaluation.

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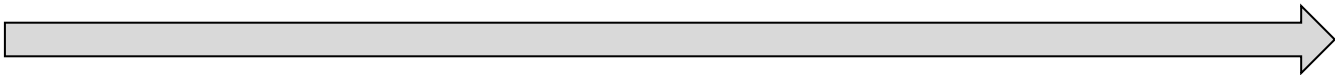
BITS & PIECES

Peer evaluation occurs without any explicit departmental policies or practices.

Department relies on just one source of evidence for peer observation, such as a single observation of a single lesson.

Department does not expect peer observation to be conducted more than once.

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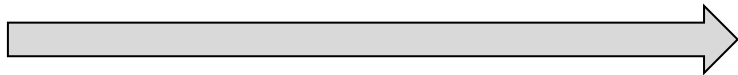
Where is your department starting?

A, B, and C are common starting places for departments working to reform how they use **PEER 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?**

CLOSER TO COHESION

Department enacts peer observation process that falls back on historical precedent or is idiosyncratic to each observer and candidate regarding:
- The logistics of peer observation (e.g., selection of observers, number of observers, when observed)
- The observation criteria
- The report produced by observer(s)

Department provides some coordination, possibly inconsistent, of peer observations.

Department expects more than one source of evidence for peer observation. For example:
- More than one observer
- More than one lesson observed in the same course
- More than one course
- Collection and evaluation of class materials
- Conversations between candidates and observers

Department documents teaching improvements for *some* candidates by conducting peer observation over multiple time points. For example, this may only occur for:
- Faculty with majority teaching EFT
- Junior faculty
- Faculty with consistently low student evaluations
- Faculty with peer observations that indicate areas of concern
- Other: _____

Department does not ensure that the peer observation process provides feedback on strengths and suggestions for growth to faculty.
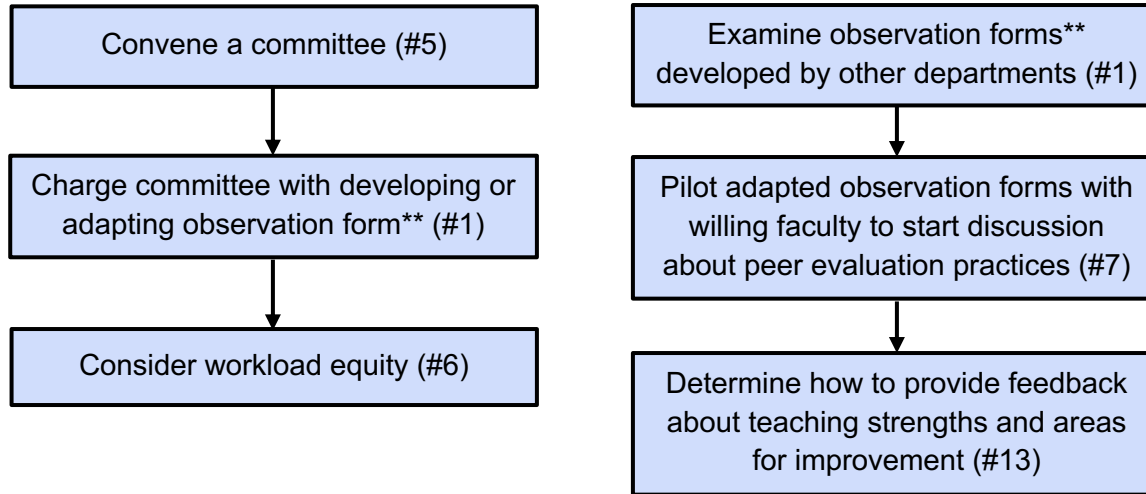
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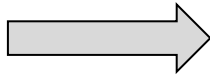
TARGET PRACTICES

Starting Strong and Engaging Efficiently with the Peer 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

Convene a committee (#5)
↓
Charge committee with developing or adapting observation form** (#1)
↓
Consider workload equity (#6)

Examine observation forms** developed by other departments (#1)
↓
Pilot adapted observation forms with willing faculty to start discussion about peer evaluation practices (#7)
↓
Determine how to provide feedback about teaching strengths and areas for improvement (#13)

**Go to:
https://tinyurl.com/GATEsExtraResources for links to example peer observation forms.
See sheet labeled "Peer voice resources"

Two Potential Bundles

When developing or adapting a peer observation form** (#1), determine:
- …what class materials will be collected (#10)
- …how feedback will be provided to candidates (#13)
- …how observers talk to instructors to get a sense of the big picture (#11)
- …how peer evaluation results will be relayed to the department (#2)

Decisions about how to implement peer observation can be made at the same time, including:
- …how observers are selected (#3)
- …how many observers are used (#4)
- …how many observations occur (#9)
- …when observations occur (#12)