# 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.

# Guide to Self Voice Practices

**Self voice** involves a written narrative documenting the self-reflection process. Self-reflection helps faculty continuously improve their teaching by critically considering evidence. Formal documentation of this process can provide valuable information for evaluating teaching, and in particular can document aspects of teaching that are not obvious to students or observers.
- The process of self-reflection involves the **collection of evidence and/or systematic observation**, and **analysis** of the evidence/observations to answer a question.
- The written narrative documents this process such that faculty **reflect** on the findings to make sense of them and plan next steps.

| | | Self 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 self-reflection form to guide the scope and content of written self-reflection narratives, including standards for what constitutes evidence-based self-reflection. Forms may be adopted or adapted from other departments. | ☐ | ☐ | ☐ | ☐ |
| | 2 | Department periodically discusses and improves standards for written teaching reflections to maximize utility to instructors and the department. | ☐ | ☐ | ☐ | ☐ |
| | 3 | Department provides or arranges formal training, or other support, for instructors about the self-reflection process and to help instructors meet departmental expectations for documenting self-reflection. | ☐ | ☐ | ☐ | ☐ |
| **Reliable** | 4 | Department expects instructors to engage in a self-reflection process, and written documentation thereof, that is focused on tackling teaching challenges (e.g., concerns raised in student evaluations or peer observation, student learning difficulties, lack of engagement). | ☐ | ☐ | ☐ | ☐ |
| | 5 | Department expects the self-reflection process, and written documentation thereof, to rely on the systematic analysis of evidence about student learning and experiences. | ☐ | ☐ | ☐ | ☐ |
| | 6 | Department expectations for self-reflection consider the experience level of instructors. For example, instructors new to a course or teaching may primarily rely on informal sources of data (e.g., notes, brief written feedback from students), whereas more experienced instructors rely on formal sources of data (e.g., assessment data) and systematic observation (e.g., feedback from trained peers). | ☐ | ☐ | ☐ | ☐ |
| **Longitudinal** | 7 | Department expects that written reflections discuss how instructors have built on prior self-reflections, including the outcomes of planned improvements and innovations. | ☐ | ☐ | ☐ | ☐ |
| | 8 | Department expects that written reflections discuss efforts to grow and learn as educators. This can include learning from both successes and failures. | ☐ | ☐ | ☐ | ☐ |

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|---|---|
| **A**BSENT | Department does not use written self-reflections to inform teaching evaluation. |

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|---|---|
| **B**ITS & PIECES | Department lacks standards for written teaching reflection. |
| | Department asks faculty to submit written reflection on teaching activities but does not expect faculty to reflect on evidence or systematic observations. |
| | Department does not expect written descriptions to address change over time. |
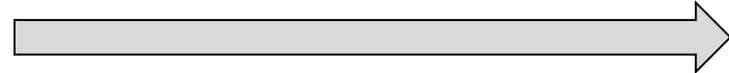
**Where is your department starting?**

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

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|---|---|
| **C**LOSER TO COHESION | Department suggests, but does not mandate, standards for written teaching reflection. |
| | Department explicitly encourages but does not expect nor support faculty to: <ul><li>Write reflections that consider some outside evidence or observations, such as concerns raised in mandatory course evaluations or peer observation.</li><li>Write reflections that describe how the instructor used evidence or observations to inform decisions about what and how to change.</li></ul> |
| | Department explicitly encourages but does not expect nor support faculty to write reflections that describe changes over multiple semesters of teaching, including innovations and improvements. |

**TARGET PRACTICES**

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# Starting Strong and Engaging Efficiently with Self Voice

Based on experiences with STEM departments, we suggest a potential entry point "bundle" to highlight how work on one target practice can be leveraged to achieve other target practices.

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

**Quick Start Bundle**

**Develop a form for self-reflection narratives** (#1) that…

…asks faculty to identify a teaching challenge (#4)

…gathers and makes changes based on data (#5 & $6)

…that allows faculty to reflect on and plan for their growth over time (#8 & #9)

**Go to: https://tinyurl.com/GATEsExtraResources for examples of self-reflection forms and rubrics to help evaluate self-reflections. See third sheet labeled "Self-voice resources"

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