

# 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.

Contact Tessa Andrews ([tandrews@uga.edu](mailto:tandrews@uga.edu)) for more information. These guides were created by the DeLTA Project at the University of Georgia with support from the National Science Foundation (DUE 1821023). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

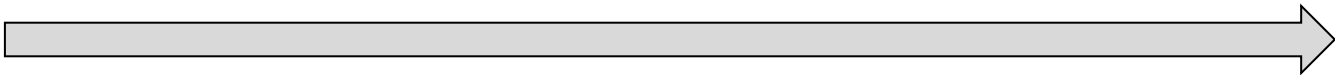
## Peer Voice Target Practices

**Peer voice** involves gathering data from peers about teaching and learning observable in class. Peer observation incorporates multiple steps:

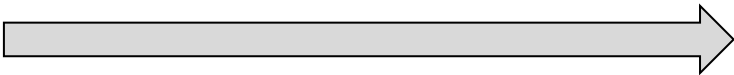
- Pre-observation meeting to discuss lessons to be observed
- Collection & review of class materials (e.g., syllabi, exams, homework, slides, handouts)
- Observation of lessons
- Post-observation meeting to hear instructor reflections, debrief, and provide feedback

<b>Peer Voice Target Practices: What is your status and what actions will you take?</b>		Not right now	Want to work on it	Working on it	Fully in place			
<b>Structured</b>	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.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2	Department has a formal template for writing a report based on peer review, potentially distinguishing between formative and summative review.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3	Department uses formal processes or criteria to select peer observer(s) for all instructors.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4	Department enacts policy about the number of peer observations & observers during a review period and/or across review periods.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5	Department designates a coordinator, leader, or committee to carry out and refine peer observation practices.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	6	Department has a process for allocating and recognizing workload related to coordinating and conducting observations.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	7	Department periodically discusses and improves peer evaluation practices to maximize utility to instructors and the department.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	8	Department provides or arranges formal training about the departmental peer review process for peer observers.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Reliable</b>	9	Department relies on multiple observations for all instructors, such as using multiple observers, observing multiple lessons, and/or observing multiple courses.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	10	Department specifies which class materials (e.g., syllabi, exams, homework, slides, handouts) are collected and evaluated as part of peer observation.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	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.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Longitudinal</b>	12	Department conducts peer observation over multiple time points in a review period for all instructors to document teaching improvements.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	13	Department ensures that the peer observation process provides feedback to instructors via follow-up discussion that covers strengths and areas for improvement.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>ABSENT</b>	Department does <u>not</u> use peer evaluation to inform teaching evaluation.
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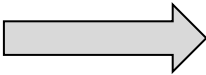
<b>BITS &amp; PIECES</b>	Peer evaluation occurs without any explicit departmental policies or practices.
	Department relies on just one source of evidence for peer observation, such as a single observation of a single lesson.
	Department does <u>not</u> expect peer observation to be conducted more than once.



**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?**

<b>CLOSER TO COHESION</b>	<p>Department enacts peer observation process that falls back on historical precedent or is idiosyncratic to each observer and candidate regarding:</p> <ul style="list-style-type: none"> <li>• The logistics of peer observation (e.g., selection of observers, number of observers, when observed)</li> <li>• The observation criteria</li> <li>• The report produced by observer(s)</li> </ul> <p>Department provides some coordination, possibly inconsistent, of peer observations.</p>
	<p>Department expects more than one source of evidence for peer observation. For example:</p> <ul style="list-style-type: none"> <li>• More than one observer</li> <li>• More than one lesson observed in the same course</li> <li>• More than one course</li> <li>• Collection and evaluation of class materials</li> <li>• Conversations between candidates and observers</li> </ul>
	<p>Department documents teaching improvements for <i>some</i> candidates by conducting peer observation over multiple time points. For example, this may only occur for:</p> <ul style="list-style-type: none"> <li>• Faculty with majority teaching EFT</li> <li>• Junior faculty</li> <li>• Faculty with consistently low student evaluations</li> <li>• Faculty with peer observations that indicate areas of concern</li> <li>• Other: _____</li> </ul> <p>Department does <u>not</u> ensure that the peer observation process provides feedback on strengths and suggestions for growth to faculty.</p>

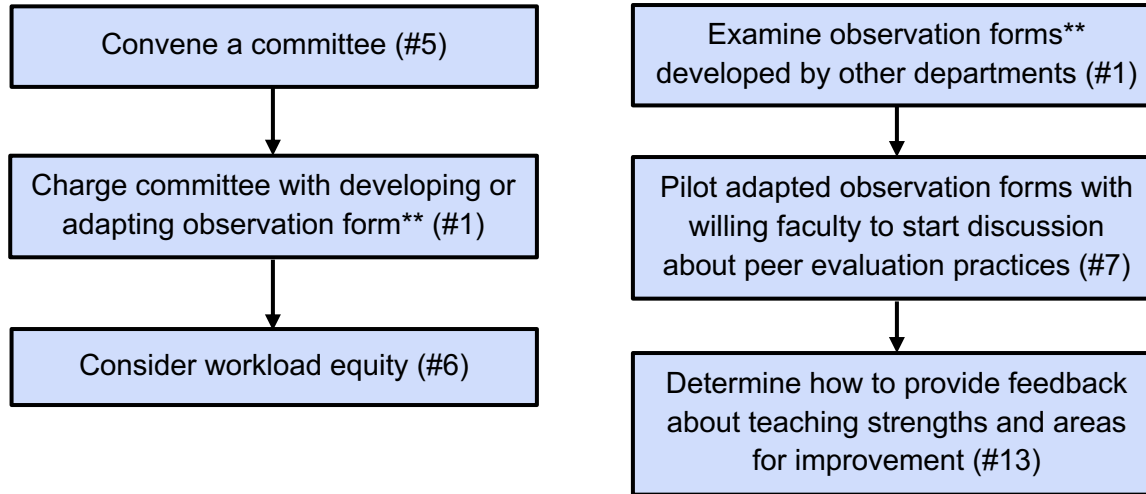


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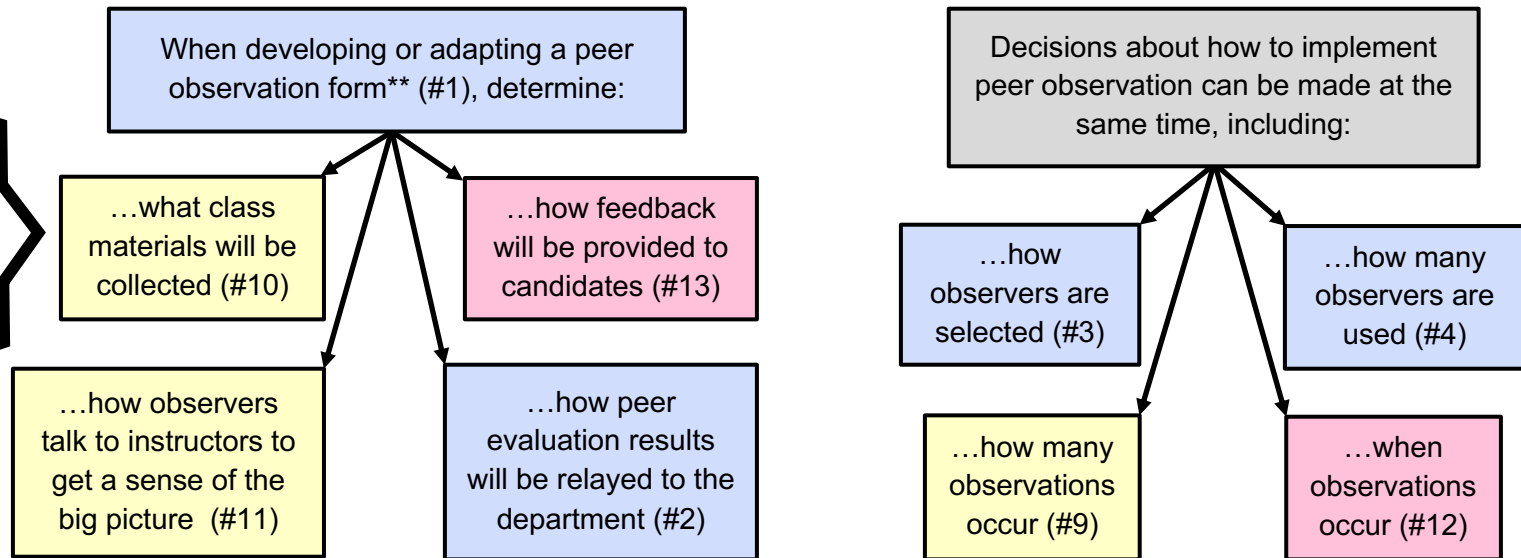
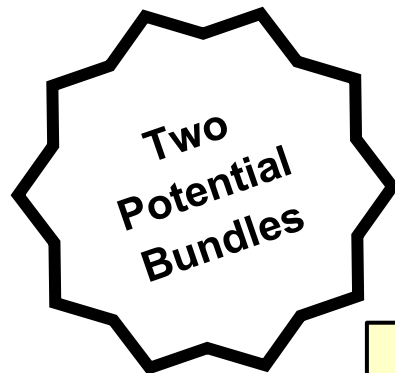
# Starting Strong and Engaging Efficiently with the Peer Voice

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**



\*\*Go to: <https://tinyurl.com/GATEsExtraResources> for links to example peer observation forms. See sheet labeled “Peer voice resources”

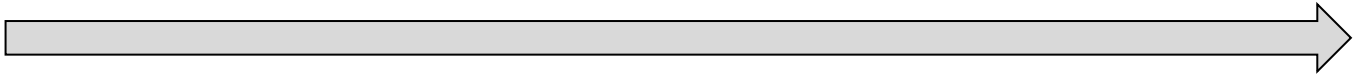


## Student Voice Target Practices

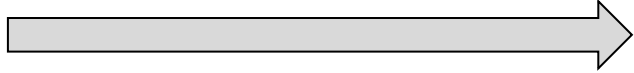
**Student voice** involves gathering data from students about their learning and perceptions. Mandatory end-of-course evaluations are a common source of student voice. Evidence from students should go beyond course evaluations. This could include, but is not limited to: data on learning, grade anomalies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

<b>Student Voice Target Practices: What is your status and what actions will you take?</b>		Not right now	Want to work on it	Working on it	Fully in place				
<b>Structured</b>	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).				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	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.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3	Department periodically discusses and improves expectations for collecting and analyzing data from students to maximize utility to instructors and the department.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	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.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Reliable</b>	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).				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	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.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	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.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	8	Department specifies which set of quantitative student evaluation questions are used for each review period (e.g., annual, promotion).				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9	Department specifies that student comments on mandatory evaluations be systematically examined to determine teaching strengths and room for improvement.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	10	Department expects instructors to collect, analyze, and interpret some data <i>beyond</i> mandatory student evaluations.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Longitudinal</b>	11	Department expects instructors to document change (or consistently exemplary results) by comparing data from students across multiple timepoints.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>ABSENT</b>	Department does <u>not</u> use data from students to inform teaching evaluation.
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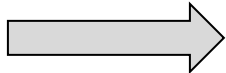
<b>BITS &amp; PIECES</b>	Department lacks standards or relies on inappropriate standards for using data from students in evaluating teaching.
	Department accepts and/or relies on data from mandatory student evaluations, but does <u>not</u> : <ul style="list-style-type: none"> <li>• Attend to low response rates</li> <li>• Use standard protocols for analyzing rating data (e.g., excellent, very good, good, poor). Such data should not be averaged.</li> <li>• Use systematic guidelines to select student comments.</li> </ul>
	Department places little or no emphasis on changes in student evaluations or other student data over time.



**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?**

<b>CLOSER TO COHESION</b>	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: <ul style="list-style-type: none"> <li>• Achieve a high response rate on mandatory student evaluations.</li> <li>• Analyze quantitative data from mandatory student evaluations using distributions rather than averages</li> <li>• Analyze qualitative data from mandatory student evaluations by systematically selecting comments (e.g., randomly)</li> <li>• Collect and analyze data <i>beyond</i> mandatory student evaluations, including data about student perceptions and learning</li> </ul> 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.



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# 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**

\*\*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”



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

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



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

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

...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)

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

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

## Guide to Self Voice Practices

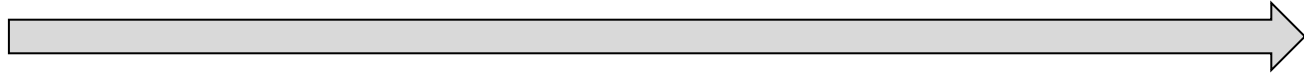
**Self voice** involves a written narrative documenting the self-reflection process. Self-reflection helps faculty continuously improve their teaching by critically considering evidence. Formal documentation of this process can provide valuable information for evaluating teaching, and in particular can 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.

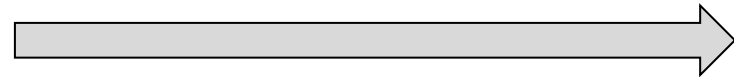
<b>Self Voice Target Practices: What is your status and what actions will you take?</b>		Not right now	Want to work on it	Working on it	Fully in place				
<b>Structured</b>	1	Department uses a formal self-reflection form to guide the scope and content of written self-reflection narratives, including standards for what constitutes evidence-based self-reflection. Forms may be adopted or adapted from other departments.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2	Department periodically discusses and improves standards for written teaching reflections to maximize utility to instructors and the department.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	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.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Reliable</b>	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).				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5	Department expects the self-reflection process, and written documentation thereof, to rely on the systematic analysis of evidence about student learning and experiences.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	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).				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Longitudinal</b>	7	Department expects that written reflections discuss how instructors have built on prior self-reflections, including the outcomes of planned improvements and innovations.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	8	Department expects that written reflections discuss efforts to grow and learn as educators. This can include learning from both successes and failures.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



<b>ABSENT</b>	Department does <u>not</u> use written self-reflections to inform teaching evaluation.
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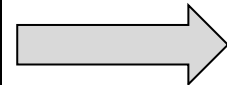
<b>BITS &amp; PIECES</b>	Department lacks standards for written teaching reflection.
	Department asks faculty to submit written reflection on teaching activities but does <u>not</u> expect faculty to reflect on evidence or systematic observations.
	Department does <u>not</u> expect written descriptions 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?**

<b>CLOSER TO COHESION</b>	Department suggests, but does <u>not</u> mandate, standards for written teaching reflection.
	Department explicitly encourages but does <u>not</u> expect nor support faculty to: <ul style="list-style-type: none"> <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 <u>not</u> expect nor support faculty to write reflections that describe changes over multiple semesters of teaching, including innovations and improvements.



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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.

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

\*\*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”

