

# Formative Learning Feedback

A Companion to 'Student Perceptions of Learning Experience: Rationale and Broad Principles of Design'

Sub-Committee of the Ad Hoc Committee on Student Perceptions of Teaching Effectiveness

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# Preamble

*This document was prepared by a sub-committee of the Ad Hoc Committee on Student Perceptions of Teaching Effectiveness as a companion resource. It has not been formally adopted by the full committee and is offered for consideration by the Academic Senate Instruction Committee and the Center for Teaching, Learning and Technology.*

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This document describes and proposes **Formative Learning Feedback** — a flexible, voluntary feedback process to be potentially offered through the Center for Teaching, Learning and Technology (CTLT) and designed to give instructors actionable information about how students are experiencing the learning environment while the course is still in progress.

Three foundational principles govern the formative feedback process:

- a. **Opt-in.** Formative Learning Feedback is entirely voluntary. No instructor is required to use it, and no administrator may mandate its use.
- b. **Results only to the instructor.** Feedback is shared only with the instructor. It is not included in the personnel file, not reported to department chairs or deans, and not used for retention, tenure, promotion, or any other employment decision.
- c. **Developmental, not evaluative.** The purpose of formative feedback is to help the instructor improve the learning environment in real time. It is not a tool for summative evaluation and should never be framed as one.

Because formative feedback is developmental and shared only with the instructor, it can also be the appropriate home for general-purpose **open-ended questions** — the kind of unstructured, in-their-own-words feedback that is most useful when the instructor can still act on it, and that the literature identifies as too susceptible to bias for inclusion in a summative personnel file.

Formative Learning Feedback is entirely separate from the **Student Perceptions of Learning Experience (SPLE)**, which is the summative instrument whose results enter the personnel file. The two serve fundamentally different purposes and operate under different rules.

# Chapter 1

## Why Formative Feedback?

### 1.1 Purpose and scope

This document describes a feedback process designed to give instructors actionable information about the learning environment while the course is still in progress.

The formative feedback process is **developmental only**:

- Results are shared **only with the instructor**
- Results are **not** included in the personnel file
- Results are **not** used for retention, tenure, promotion, or any other employment decision
- Results are **not** reported to department chairs, deans, or any administrative unit

### 1.2 The case for feedback throughout the term

Traditional mid-semester evaluations offer a single snapshot — typically around weeks 6–8 — that arrives too early for some concerns and too late for others. Students entering a new subject may not have enough experience at week 6 to report on how practice and feedback are supporting their learning, while by week 8 it may be too late to address confusion about how course elements connect.

A more effective model provides **multiple touchpoints** across the term, each targeting the dimensions of learning most relevant at that stage:

- **Early in the term (weeks 2–3)**: Students are orienting to the course. Feedback on whether the course is building on what they already know and whether they can see how the pieces fit together is most actionable here.
- **Mid-term (weeks 6–8)**: Students have enough experience to report on motivation, the quality of practice and feedback, and the classroom climate.
- **Late in the term (weeks 11–12)**: Students can reflect on whether the course has helped

them develop mastery and self-directed learning skills — and there is still time for the instructor to adjust the final weeks.

Faculty choose which touchpoints to use and which dimensions to ask about. The instrument is a menu, not a mandate.

### **1.3 Evidence base**

The formative feedback process draws on a well-established literature on feedback practices in higher education.

#### **1.3.1 Classroom Assessment Techniques (CATs)**

Angelo and Cross (1993) developed a comprehensive set of Classroom Assessment Techniques — brief, usually anonymous, in-class activities designed to give instructors rapid feedback on student learning and experience. The most widely used CATs include the Minute Paper, the Muddiest Point, and the One-Sentence Summary. The design principles underlying CATs — brevity, anonymity, low stakes, instructor-initiated — inform the formative feedback process proposed here (see also Diamond, 2004, for a practical overview of classroom feedback techniques).

#### **1.3.2 Small Group Instructional Diagnosis (SGID)**

The SGID method, developed at the University of Washington (Clark and Redmond, 1982), uses a trained facilitator to gather structured feedback from small groups of students during class time, with the instructor absent. The facilitator synthesizes the responses and meets privately with the instructor. SGID is more resource-intensive than a written check-in but produces richer, more contextualized feedback. Institutions with active SGID programs include Indiana University (Center for Innovative Teaching and Learning), UCLA, and the University of Massachusetts Amherst.

#### **1.3.3 Oregon Mid-Semester Experience Survey (M-SES)**

The University of Oregon operates a two-survey model: a formative **Midway Student Experience Survey (M-SES)** and a summative End-of-term Student Experience Survey (E-SES). The M-SES is administered during week 4 of the 10-week quarter (equivalent to approximately weeks 6–7 of a 15-week semester) and asks students about their learning experience to date. Instructors are encouraged to provide 10 minutes of class time for completion. Results are shared only with the instructor (University of Oregon TEP). Notably, Oregon’s Senate motion US18/19-14 phased out traditional “course evaluations” in favor of learning-focused “Student Experience Surveys” — and pilot data showed that personal comments about instructors dropped from 21% to 1.5% of all comments under the new instrument. The Oregon model demonstrates that mid-semester feedback can be institutionally supported without being tied to personnel decisions.

### 1.3.4 Harvard Bok Center

Harvard's Derek Bok Center for Teaching and Learning recommends that instructors collect early feedback in weeks 3–5 of the semester, using brief anonymous surveys or structured class discussions. The emphasis is on actionable feedback that can inform adjustments before the midpoint of the course ([Bok Center](#)).

### 1.3.5 Indiana University CITL

The Center for Innovative Teaching and Learning at Indiana University offers both SGID facilitation and a mid-semester feedback template that instructors can administer independently. The CITL model emphasizes “closing the loop” — the instructor's public response to the feedback received — as essential to the process's effectiveness ([Indiana CITL](#)).

### 1.3.6 UCLA Center for the Advancement of Teaching

UCLA's Center for the Advancement of Teaching provides mid-semester evaluation resources including facilitated SGID sessions and self-administered survey templates. The program is framed explicitly as a developmental tool with no connection to personnel review ([UCLA CAT](#)).

## 1.4 Theoretical backbone: Ambrose et al. (2010)

The formative feedback instrument is organized around the seven research-based principles of learning identified by Ambrose et al. (2010) in *How Learning Works: Seven Research-Based Principles for Smart Teaching*. These principles synthesize decades of cognitive and educational research into a practical framework for understanding how students learn. Each principle is framed as a question — *How does students' prior knowledge affect their learning?* — and each suggests specific dimensions of the learning experience that students are positioned to observe and report on.

The mapping of these seven principles to candidate feedback items draws on work by Committee Member Patrick O'Sullivan (CTLT), who identified the teaching practices associated with each principle that students can directly experience and comment on. This mapping also connects the formative dimensions to the TEval framework (Austin et al., 2025), providing a coherent link between the formative feedback process and the broader evaluation of teaching.

The seven dimensions — Prior Knowledge, Knowledge Organization, Motivation, Mastery, Practice and Feedback, Student Development and Course Climate, and Self-Directed Learning — are described in detail in Chapter 2.

## Chapter 2

# Integrating Effective Teaching Practices Into the Formative Learning Feedback

The formative feedback instrument is organized around seven dimensions of learning, each drawn from the research-based principles identified by Ambrose et al. (2010). For each dimension, we provide:

- The **guiding question** from Ambrose et al.
- A brief description of **what it captures**
- A note on **why the dimension is appropriate formatively but not summatively**

All candidate items to be offered to Faculty are phrased as student-experience statements about observable teaching practices. Faculty select which dimensions and items to include based on their course, their goals, and the timing of the feedback. They can also include their own items.

*Foundations — what students bring and how the course builds on it:*

1. **Prior Knowledge**
2. **Knowledge Organization**

*Engagement — what drives and sustains the learning process:*

3. **Motivation**
4. **Mastery**
5. **Practice and Feedback**

*Environment and autonomy — the climate for learning and beyond:*

6. **Student Development and Course Climate**
7. **Self-Directed Learning**

## 2.1 Dimension 1: Prior Knowledge

**Guiding question:** *How does students' prior knowledge affect their learning?*

**What it captures:** Whether the instructor creates opportunities for students to connect new material to what they already know — including opportunities to surface and correct misconceptions.

! Why formative, not summative?

Whether an instructor effectively activates prior knowledge requires understanding the content and the pedagogical choices involved. Students can report on whether opportunities were provided — a valuable formative signal — but cannot judge whether the strategies were appropriate for the subject matter.

## 2.2 Dimension 2: Knowledge Organization

**Guiding question:** *How does the way students organize knowledge affect their learning?*

**What it captures:** Whether the course helps students see how concepts relate to one another — through explicit organizational frameworks, concept maps, or other structuring activities.

! Why formative, not summative?

Judging whether a course's organizational structure is effective requires pedagogical expertise. Students can report on whether organizational support was provided, but the quality and appropriateness of that support depend on disciplinary context that students are not positioned to evaluate summatively.

## 2.3 Dimension 3: Motivation

**Guiding question:** *What factors motivate students to learn?*

**What it captures:** Whether the instructor helps students understand the value and purpose of learning activities, supports students' sense of efficacy, and fosters a climate conducive to engagement.

! Why formative, not summative?

Motivation is influenced by many factors beyond the instructor's control — including the student's own goals, preparation, and external circumstances. Students can report on whether the instructor took actions to support motivation, which is valuable formative feedback. But summative evaluation of motivational support risks confounding the instructor's practices with factors outside their influence.

## 2.4 Dimension 4: Mastery

**Guiding question:** *How do students develop mastery?*

**What it captures:** Whether the course provides opportunities for students to acquire, practice, and integrate component skills toward increasingly complex performance.

! Why formative, not summative?

Whether a course effectively scaffolds skill development toward mastery requires understanding the disciplinary goals and the appropriateness of the progression. Students can report on whether practice and integration opportunities were provided — actionable feedback for the instructor — but cannot judge whether the progression was well-designed for the learning goals of the course.

## 2.5 Dimension 5: Practice and Feedback

**Guiding question:** *What kinds of practice and feedback enhance learning?*

**What it captures:** Whether students receive goal-directed practice with clear criteria for success, and whether feedback is timely and specific enough to guide improvement.

! Why formative, not summative?

The quality and timeliness of feedback is something students can directly experience and report on, making it excellent formative data. However, summative evaluation of feedback practices risks conflating the *experience* of feedback (which may feel harsh or generous regardless of quality) with its *effectiveness* (which requires pedagogical judgment). The well-documented disconnect between perceived and actual learning (Deslauriers et al., 2019) applies directly here.

## 2.6 Dimension 6: Student Development and Course Climate

**Guiding question:** *Why do student development and course climate matter for student learning?*

**What it captures:** Whether the classroom climate promotes a sense of belonging and whether norms for interaction support mutual respect — climate as it supports the learning process.

! How Dimension 6 relates to the SPLE

This dimension overlaps with the summative SPLE, which also addresses class climate. The overlap is intentional: climate is important enough to warrant both a formative check (visible only to the instructor, actionable mid-course) and a summative record (entered in the personnel file at term's end). The two serve different institutional

purposes even when they touch the same territory.

## 2.7 Dimension 7: Self-Directed Learning

**Guiding question:** *How do students become self-directed learners?*

**What it captures:** Whether the instructor models and supports metacognitive practices — helping students assess what they know, identify what they still need to learn, and develop strategies for continued learning.

! Why formative, not summative?

Self-directed learning is a developmental outcome that unfolds over time and across courses. Students can report on whether metacognitive support was provided in a specific course — helpful formative feedback — but cannot assess whether those practices were effective in building lasting self-regulation skills.

## Chapter 3

# Relationship to the Summative SPLE

### 3.1 Comparison

The formative feedback process is **not** a practice run for the summative SPLE, and it should not be framed as one. The two instruments differ in every relevant dimension:

Table 3.1: Comparison of formative and summative instruments

Dimension	Formative Learning Feedback	Summative SPLE
<b>Purpose</b>	Developmental: help the instructor improve the course in real time	Evaluative: provide data for the personnel file
<b>Audience</b>	Instructor only	Instructor, department chair, personnel committee
<b>Timing</b>	Throughout the term (weeks 2–3, 6–8, 11–12)	Last two weeks of instruction before finals week
<b>Content</b>	Seven dimensions of learning (Ambrose et al., 2010)	Six aspects of class climate
<b>Format</b>	Flexible: structured items, open-ended questions, or both; faculty choose dimensions	Standardized: Likert-scale items and structured open-ended prompts
<b>Anonymity</b>	Anonymous	Anonymous
<b>Personnel file</b>	No	Yes
<b>Required</b>	No (instructor's choice)	Yes (institutional requirement)

Dimension	Formative Learning Feedback	Summative SPLE
<b>Input for self-reflection and iterative growth</b>	Yes	Yes

The formative feedback process exists because some of the most useful feedback students can provide — what is working, what is not, what they wish were different — is most valuable *before* the course ends, when the instructor can still act on it. The summative SPLE, by contrast, captures the student’s experience of the full term and provides data for institutional evaluation. **These are complementary but distinct functions.** Both instruments provide input for self-reflection and iterative growth (Dimension 5 of the TEval framework) — the formative process by giving instructors actionable feedback while the course is still in progress, and the summative instrument by revealing patterns across terms that inform longer-term development.

### 3.2 Formative feedback as the home for open-ended questions

The SPLE committee voted to retain open-ended questions on the summative instrument under structured prompts and guardrails designed to minimize the equity bias that the literature documents in unstructured responses (see the SPLE proposal for the full evidence base). Open-ended questions also play a central role in the formative feedback process. In the formative context, results go only to the instructor, so potentially biased comments cannot influence personnel decisions. In a formative context:

- Results go only to the instructor, so biased comments cannot influence personnel decisions
- The instructor can contextualize comments with their knowledge of the class
- The developmental framing encourages constructive rather than evaluative responses
- There is no need to standardize or compare across instructors

Open-ended questions serve their intended purpose — giving students a voice and giving instructors actionable information — without the risks that attend their inclusion in the personnel file.

### 3.3 Optional structured check-in on SPLE dimensions

Instructors may optionally include a brief structured component — a “temperature read” on the six aspects of the SPLE — to get a quick snapshot alongside the formative items. This is **not** the SPLE itself; it is a lightweight check-in that uses the same conceptual dimensions.

💡 Optional: Quick check-in on learning environment dimensions

*Please indicate how you have experienced each of the following so far in this course.*

Response options: **Positive experience, Mixed experience, Negative experience, Not sure / Not applicable**

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Dimension

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<b>Regard for Students</b> — feeling treated with regard	<input type="radio"/> Positive <input type="radio"/> Mixed <input type="radio"/> Negative <input type="radio"/> N/A
<b>Consistent Communication and Enforcement of Expectations</b> — feeling that all students are treated equitably	<input type="radio"/> Positive <input type="radio"/> Mixed <input type="radio"/> Negative <input type="radio"/> N/A
<b>Perceived Course Coherence</b> — seeing how course elements connect	<input type="radio"/> Positive <input type="radio"/> Mixed <input type="radio"/> Negative <input type="radio"/> N/A
<b>Participatory Climate</b> — feeling comfortable asking questions and sharing ideas	<input type="radio"/> Positive <input type="radio"/> Mixed <input type="radio"/> Negative <input type="radio"/> N/A
<b>Access to Instructor and Instructor Resources</b> — feeling able to access help when needed	<input type="radio"/> Positive <input type="radio"/> Mixed <input type="radio"/> Negative <input type="radio"/> N/A
<b>Responsive Learning Environment</b> — feeling that the learning environment is responsive to all students	<input type="radio"/> Positive <input type="radio"/> Mixed <input type="radio"/> Negative <input type="radio"/> N/A

This structured component serves two purposes: it gives the instructor an at-a-glance summary of the dimensions they will be evaluated on at the end of the term, and it helps students become familiar with the conceptual framework before they encounter the summative SPLE. It is **not** scored, reported, or retained beyond the instructor's own use.

### 3.4 What the Formative Learning Feedback is *not*

To prevent misunderstanding, the following points should be communicated clearly to both instructors and students:

- The formative feedback process is **not** the Student Perceptions of Learning Experience instrument. The SPLE is the summative instrument administered at the end of the term.
- The formative feedback process is **not** part of the personnel file. No administrator, department chair, or personnel committee will see the results.
- The formative feedback process is **not** required. It is a tool available to instructors who want real-time feedback on the learning environment in their course.
- The formative feedback process is **not** anonymous feedback about the instructor's

teaching ability. It is anonymous feedback about the student's learning experience — the same conceptual framing as the SPLE, but in a developmental rather than evaluative context.

- The formative feedback process **does not** replace the SPLE. Students will still complete the summative instrument at the end of the term regardless of whether formative feedback was collected.

## Chapter 4

# Administration and Closing the Loop

### 4.1 Three touchpoints model

The formative feedback process can be used at **any point in the term** — once, twice, or at multiple touchpoints. Different dimensions of learning are most actionable at different stages, and the framework below suggests which dimensions fit naturally at each stage.

Table 4.1: Recommended dimensions by touchpoint

Touchpoint	Timing	Recommended Dimensions	Rationale
<b>Early</b>	Weeks 2–3	Prior Knowledge, Knowledge Organization	Students are orienting to the course; feedback on whether the course is connecting to what they know and how it is organized is most actionable here
<b>Mid</b>	Weeks 6–8	Motivation, Practice & Feedback, Student Development & Course Climate	Students have enough experience to report on engagement, the quality of practice and feedback, and the classroom climate

Touchpoint	Timing	Recommended Dimensions	Rationale
<b>Late</b>	Weeks 11–12	Mastery, Self-Directed Learning	Students can reflect on skill development and metacognitive growth; there is still time for the instructor to adjust the final weeks

This is a framework, not a prescription. An instructor might use only the mid-term touchpoint. Another might use all three but select only one or two dimensions at each. The instrument is a menu: faculty choose the dimensions that match their course goals and the timing that makes sense for their schedule.

## 4.2 Mode

Two modes are recommended. Instructors should choose the one that best fits their course:

### 4.2.1 Option A: In-class administration (~5 minutes)

1. The instructor distributes a brief paper form or displays a link/QR code to an online form
2. Students complete the feedback anonymously during class time (approximately 5 minutes)
3. The instructor may remain in the room (unlike the summative SPLE, the formative feedback process is not an evaluative instrument and does not require the instructor to leave)
4. If using paper, the instructor collects the forms; if using an online form, responses are submitted digitally

### 4.2.2 Option B: Online administration (3-day window)

1. The instructor sends students a link to an anonymous online form (Google Forms, Qualtrics, or similar)
2. The form is open for 3 days
3. The instructor sends one reminder during the window
4. Responses are anonymous

In-class administration is preferred because it typically produces higher response rates and takes only a few minutes. However, online administration may be more practical for large-enrollment courses or courses with irregular meeting patterns.

### The technology already exists

Several universities have deployed online platforms that allow instructors to build and deploy formative feedback surveys in minutes. UC Irvine’s [EEE Evaluations system](#), for example, lets instructors select dimensions, choose items, set a collection window, and view results — all through a self-service web interface. Implementing a similar tool at Cal Poly would not require building from scratch; the CTLT could adapt existing survey infrastructure to offer a comparable experience.

## 4.3 Anonymity

All responses must be anonymous. The feedback should not collect names, student IDs, or any other identifying information. If using an online platform, the instructor should verify that the platform’s settings do not record respondent identities or email addresses.

## 4.4 Supplementary open-ended items

In addition to the structured items drawn from the seven dimensions, instructors may include open-ended questions at any touchpoint. The following three types of items are recommended as a starting set:

### Item 1: What is working

An open-ended item asking students to identify aspects of the course that are helping their learning. This provides positive reinforcement and helps the instructor understand which practices to continue.

### Item 2: What could change

An open-ended item asking for constructive suggestions about the learning experience. The framing should keep the focus on the student’s experience rather than inviting a judgment of the instructor.

### Item 3: Open channel

An open-ended item providing space for concerns that may not fit neatly into the first two — issues of climate, inclusivity, accessibility, or anything else the student wants the instructor to know.

These open-ended items serve their intended purpose — giving students a voice and giving instructors actionable information — in the formative context where results go only to the instructor. As discussed in Chapter 2, this is the appropriate home for unstructured

feedback.

## 4.5 Closing the loop

The most critical step in the formative feedback process is **closing the loop** — the instructor’s public response to the feedback received. Without this step, the feedback is a data-collection exercise that may actually *reduce* student trust if students feel their feedback was ignored.

### 4.5.1 What “closing the loop” means

Within one week of collecting feedback, the instructor should dedicate **5–10 minutes of class time** to:

1. **Acknowledge the feedback.** Thank students for participating and confirm that the responses were read.
2. **Summarize the themes.** Identify 2–3 themes that emerged from the responses. Be specific: “Several of you mentioned that the pace of lectures is too fast” is more effective than “I got some feedback about the course.”
3. **State what will change (if anything).** If the feedback points to a change the instructor is willing and able to make, say so: “Starting next week, I’m going to pause more often during lectures for questions.”
4. **Acknowledge what will not change, and why.** This is as important as stating what will change. Students respect transparency about constraints. What erodes trust is silence. If the feedback points to something the instructor cannot or will not change, explain why: “A few of you asked for fewer assignments, but the assignment sequence is designed to build skills progressively, so I’m going to keep the current schedule. What I *can* do is provide clearer guidance on how to prioritize your time.”

### 4.5.2 Template for closing the loop

Instructors may find the following template useful for structuring their in-class response:

#### Closing-the-loop template

*Thank you for completing the feedback check-in. I read every response. Here is what I heard and how I plan to respond.*

#### **What’s working well:**

- [Theme 1, in the students’ words]
- [Theme 2]

#### **What you’d like to see changed:**

- [Theme 1]: Here is what I plan to do about this: [specific action]
- [Theme 2]: I understand this concern. Here is why the current approach is set

up this way: [brief explanation]. What I *can* adjust is: [specific action, if any]

**Other concerns raised:**

- [If applicable, address any climate or environment concerns with care and specificity]

*I appreciate your willingness to share your experience. If you have follow-up thoughts, my office hours are [time/place] and you can always reach me at [email].*

## 4.6 In sum

The **Formative Learning Feedback** process complements the summative **Student Perceptions of Learning Experience** by covering the dimensions of effective teaching that students can observe and report on but that fall outside what they can validly evaluate for personnel purposes. It is voluntary, developmental, and shared only with the instructor — making it the appropriate home for both structured feedback on teaching practices and the open-ended questions that the literature identifies as too susceptible to bias for inclusion in a personnel file. The seven dimensions, drawn from Ambrose et al. (2010), give faculty a research-grounded menu of feedback options they can deploy at any point in the term, on their own terms, in service of their own growth as educators.

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