
Core Proposition 4: Teachers think systematically about their practice and learn from experience.

STANDARD INDICATOR 4.1

REFLECTIVE PRACTITIONER

The teacher analyzes sources of evidence as he or she continually reflects on professional practice, using information about the needs of students to make decisions about adjustments in practices and goal(s) for professional growth.

Accomplished teachers seek opportunities to cultivate their learning. As savvy students of their own teaching, they know the value of asking colleagues, administrators, and other educators to observe them and offer critiques of their instructional practices. They write about their work as well, and they solicit reactions to their teaching from students and families. Accomplished teachers develop strategies for gaining feedback and insights from a range of stakeholders so they can reflect meaningfully on their pedagogical choices and improve their practice.

Accomplished teachers are ready to incorporate ideas and methods developed by other educators to support their instructional goals—namely, the advancement of student learning and the improvement of their practice. Often, the demands of teaching present formidable challenges that defy simple solutions. To meet conflicting objectives, accomplished teachers regularly fashion compromises that will satisfy diverse parties. For example, a world history teacher attempting to reconcile the need for broad coverage and in-depth knowledge will do what is necessary to proceed from ancient civilizations to modern nations, while developing student understanding of history as a gradual evolution rather than a discrete series of chronological events. Likewise, a middle childhood generalist will find a way to teach students the fundamental principles of spelling and grammar, while introducing them to an appreciation of writing as a mode of communication and a thinking process. Accomplished teachers may approach circumstances such as those in different ways, but they all demonstrate the strength and flexibility to negotiate competing goals.

Teachers also may face situations that cause them to reprioritize their goals based on reflection, resulting in the modification of their instructional plans. For example, a teacher may delay part of a daily lesson to foster classroom relationships. Another instructor may address student misunderstandings by reteaching a critical concept instead of moving forward. Circumstances such as those call on teachers to employ their professional knowledge of what constitutes sound practice, giving students' interest the paramount consideration. Accomplished teachers may forge a variety of successful plans to balance rival objectives, but their decisions invariably will be grounded in established theories and reasoned judgment born of experience.

Adapted from NBPTS, *What Teachers Should Know and Be Able to Do*, 2nd ed. (2016, pp. 31–32).

Core Proposition 4: Teachers think systematically about their practice and learn from experience.

Key Elements of Teacher Practice Related to Standard Indicator 4.1

- Reflection on instructional decision making in order to modify and improve approaches and interactions, making decisions on the basis of student learning needs and best practice;
- Decisions that are grounded in established theory and reasoned judgment;
- Professional goals that are clear, prioritized, and aligned with student needs; and
- Professional goals that contain specific steps for implementation and monitoring.

Questions for Reflection and Planning

- Am I able to reflect on and assess the effectiveness of my practice accurately?
- Do I use those reflections to adjust my teaching on the basis of the needs of students and use of best practices?
- How do I develop unit and lesson planning goals, activities, and instructional strategies that are appropriate for the needs of particular individuals and groups of students?
- What do I consider when I make instructional decisions in relation to teaching for depth versus breadth?
- Are my professional goals based on my practice needs as well as the learning needs of my students?
- Do my professional goals contain specific steps for accomplishment and a monitoring plan that lets me know if I am moving toward the goal?

Core Proposition 4: Teachers think systematically about their practice and learn from experience.

4.1 LEVEL 1	
Standard Indicator 4.1. Reflective Practice. The teacher analyzes sources of evidence as he or she continually reflects on professional practice, using information about the needs of students to make decisions about adjustments in practice and goals for professional growth.	
Level 1, Ineffective	
Performance-Level Descriptors	<p>When prompted or required to do so, the teacher uses limited data or feedback to reflect on student learning and personal professional practice.</p> <p>The teacher writes goals for professional growth that may not be clearly linked to student learning. Action steps for accomplishing these goals are nonspecific, and the teacher does not engage in further reflection to evaluate progress on these goals.</p>
Critical Attributes	<ul style="list-style-type: none"> ■ The teacher collects or examines little student learning data or other sources of feedback to reflect on his or her practice. ■ The data examined does not provide information that can be used to accurately identify specific areas of professional practice that need to be addressed or improved. ■ Written goals lack specificity, measurability, and clear connections between student learning needs and areas of professional practice.
Possible Examples	<ul style="list-style-type: none"> ■ When asked about a lesson, the teacher is unaware that it was ineffective and is not able to provide any examples or evidence of student progress toward the intended learning. ■ At the end of the year, a teacher reflects on the progress of the students using only the results of the state test. ■ The high school science teacher senses that many of his students struggle with reading and understanding the science text but is not sure what they are struggling with and what to do. He does not consider teaching reading strategies in the content areas to be part of his teaching assignment. ■ A second-grade teacher writes a professional growth goal that states: Use more hands-on materials during math instruction.
Implications for Professional Learning (adapted from INTASC Learning Progressions 1.0)	<p><i>Develop the ability to:</i> Analyze multiple sources of evidence to evaluate the impact of instructional choices and identify areas for adjustment and growth in professional practice.</p>

Teaching practice is advanced through professional learning that will, for example:

Build skill in working with data.

- Use structured input (e.g., workshops, in-person or online courses, webinars) on using data analysis for planning.
- Seek coaching to identify questions to guide reflection on data.

Strengthen skills in analysis of, and reflection on, evidence related to learner needs and professional practice.

- Work with a coach or colleagues to guide reflective analysis and evaluation of practice.
- Keep a journal of learner growth using a variety of forms of data.

Core Proposition 4: Teachers think systematically about their practice and learn from experience.

Build skills in developing a professional growth plan.

- Examine your own teacher evaluation data and identify strengths and weaknesses.
- Work with a coach or experienced colleague to determine needs, set goals, and identify individually focused learning experiences to improve practice and student performance.

Core Proposition 4: Teachers think systematically about their practice and learn from experience.

4.1 LEVEL 2	
Standard Indicator 4.1. Reflective Practice. The teacher analyzes sources of evidence as he or she continually reflects on professional practice, using information about the needs of students to make decisions about adjustments in practice and goals for professional growth.	
Level 2, Developing	
Performance-Level Descriptors	<p>The teacher uses readily available sources of data or feedback to reflect on student learning and personal professional practice. Evidence or data may be examined in an isolated manner as opposed to a comprehensive whole.</p> <p>The teacher’s reflection on the data informs some instructional decision making and supports the writing of goals for professional growth that include action steps for accomplishing these goals and evaluating progress toward their achievement, but may not represent a clear link between professional practice and student learning needs.</p>
Critical Attributes	<ul style="list-style-type: none"> ■ The teacher collects data from several sources and uses this information to reflect on practice, but does not effectively make connections among the various sources of data that provide opportunities for a more comprehensive analysis. ■ Data collected is mostly summative in nature and provides general information that is used to identify areas of needed improvement and sometimes used to adjust instruction. ■ Written goals are based on teacher reflection about identified areas of needed improvement in student learning and professional practice and contain specific steps to monitor and accomplish them.
Possible Examples	<ul style="list-style-type: none"> ■ When reviewing the weekly quizzes and end-of-unit test, the teacher is aware of student average scores but has little information to determine specific reasons for why some students did well and others did not that could be used to incorporate ongoing targeted review or make adjustments to the instructional practice as she moves on to the next unit. ■ During instruction, the teacher is aware that some of the students are struggling with the concept of area and perimeter, but does not adjust instruction to address the misunderstandings and is surprised at how many of them are not able to solve the problem correctly on the exit slip. ■ As the teacher reviews her students’ final copies of the narrative writing assignment, she realizes that her students could have benefitted from more feedback during the revision process, and she might need to seek out some assistance on learning more about best practice in using the writing process. ■ A teacher realizes that about half of his eighth-grade students did not understand the major concepts from the unit on ratios and proportions. He spends one period going over the student errors with the whole class rather than using the data to implement a review targeted to the specific needs of his students. ■ After analyzing her students’ writing portfolios at the end of the year, the teacher realizes that she has not provided sufficient instruction and monitoring of each stage of the writing process and sets a goal to increase her knowledge in this area and implement strategies to provide more ongoing feedback to students.
Implications for Professional Learning (adapted from InTASC Learning Progressions 1.0)	<i>Develop the ability to:</i> Analyze multiple sources of evidence to evaluate the impact of instructional choices and identify areas for adjustment and growth in professional practice.

Core Proposition 4: Teachers think systematically about their practice and learn from experience.

Teaching practice is advanced through professional learning that will, for example:

Build skill in working with data.

- Use structured input (e.g., workshops, in-person or online courses, webinars) on using data analysis for planning.
- Seek coaching to identify questions to guide reflection on data.

Strengthen skills in analysis of, and reflection on, evidence related to learner needs and professional practice.

- Consult with grade-level or content area team for professional learning options that can support learners.
- Work with a coach or colleagues to guide reflective analysis and evaluation of practice.
- Keep a journal of learner growth using various forms of data.

Build skills in developing a professional growth plan.

- Examine your own teacher evaluation data and identify strengths and weaknesses.
- Work with a coach or experienced colleague to determine needs, set goals, and identify individually focused learning experiences to improve practice and student performance.

Core Proposition 4: Teachers think systematically about their practice and learn from experience.

4.1 LEVEL 3

Standard Indicator 4.1. Reflective Practice. The teacher analyzes sources of evidence as he or she continually reflects on professional practice, using information about the needs of students to make decisions about adjustments in practice and goals for professional growth.

Level 3, Effective

<p>Performance-Level Descriptors</p>	<p>The teacher systematically seeks out and uses multiple sources of data or feedback, such as that which is generated from student work, observations, surveys, or conversations with other professionals, to reflect on personal professional practice and its impact on student learning.</p> <p>The teacher's reflection on this data directly informs adjustments to the teacher's ongoing practice as well as the writing of clear, measurable goals for professional growth that are directly linked to student learning needs and that include action steps for accomplishing goals and evaluating progress toward their achievement.</p>
<p>Critical Attributes</p>	<ul style="list-style-type: none"> ■ The teacher collects and systematically organizes and analyzes multiple types of anecdotal, formative, and summative data. This comprehensive data summary informs teacher reflection on his or her practice and learner responses to instruction. ■ The teacher's use of both formative and summative assessment practices provides information that informs adjustments made during and following instruction. ■ The teacher uses a comprehensive analysis of student data and reflection on practice to inform the writing of goals that are directly aligned with identified student areas of need and needed improvements or refinements to teacher practice. Goals are clear and include specific action steps to monitor and accomplish them.
<p>Possible Examples</p>	<ul style="list-style-type: none"> ■ In reviewing the results of his second-grade students' reading at the end of the first quarter, the teacher has organized data showing each student's progress in vocabulary, word building, fluency, and comprehension to look for connections among the data and use this to inform adjustments to instruction and structure flexible groupings that address student needs and facilitate accurate next steps and appropriate resources for students. ■ The science teacher reflects on how the students were really engaged in the experiment but is disappointed in the quality of the journal entries that the students completed. He offers several specific ideas on how he could have provided better directions and shares a model of the expectations he has for the journal entry that he will provide to students. ■ In preparing for the week's lessons, the teacher considers the work in the student problem-solving journal and the quiz from the previous week to determine the content, resources, and grouping structures needed for the lessons. ■ As she is monitoring and providing feedback to students about their work, the ninth-grade English teacher encounters many students struggling with basic concepts about persuasive and realizes she will need to plan for more time with the current work on persuasive writing to focus on better use of supporting evidence and limit the time on narrative writing. ■ In identifying the focus for his personal growth goals for the year, the Grades K–5 music teacher looks back at her successes and challenges from the previous years, the developmental needs of the various ages, and ways to make connections to the academic content. She uses this analysis to

Core Proposition 4: Teachers think systematically about their practice and learn from experience.

prioritize several areas and writes two goals with specific steps to improve her instruction to meet learner needs.

Implications for Professional Learning
(adapted from InTASC Learning Progressions 1.0)

Develop the ability to: Collaborate with others to analyze multiple sources of evidence; evaluate the impact of decisions regarding curriculum, instruction, and assessment; and identify areas for adjustment and professional growth.

Teaching practice is advanced through professional learning that will, for example:

Expand and refine skill in working with data.

- Work with colleagues to guide reflective analysis and evaluation of practice.

Refine skills in analysis of, and reflection on, evidence related to learner needs and professional practice.

- Use protocols to guide reflective analysis and evaluation of practice.
- Work with colleagues to brainstorm ways to communicate and display data in a manner that is accessible and engaging to learners and parents.
- Keep a journal of learner growth using a variety of forms of data.

Expand skills in developing a professional growth plan.

- Examine your own teacher evaluation data and identify strengths and weaknesses.
- Consult with grade-level or content area team for professional learning options that can support learners.
- Share professional growth plan with key colleagues for feedback.

Core Proposition 4: Teachers think systematically about their practice and learn from experience.

4.1 LEVEL 4

Standard Indicator 4.1. Reflective Practice. The teacher analyzes sources of evidence as he or she continually reflects on professional practice, using information about the needs of students to make decisions about adjustments in practice and goals for professional growth.

Level 4, Distinguished

<p>Performance-Level Descriptors</p>	<p>The teacher seeks out, strategically selects, systematically organizes, and deeply analyzes multiple sources of data or feedback, such as that which is generated from student work, observations, surveys, or conversations with other professionals, to engage in ongoing reflection on their personal professional practice and its impact on student learning.</p> <p>This data reflection directly informs adjustments to the teacher’s ongoing practice as well as the writing of clear, prioritized, measurable goals for professional growth that are directly linked to student learning and include clearly sequenced action steps for accomplishing these goals and evaluating progress toward their achievement.</p>
<p>Critical Attributes</p>	<ul style="list-style-type: none"> ■ The teacher seeks out and strategically selects data sources that provide specific information about individual student progress and systematically organizes, and deeply analyzes this comprehensive data to inform teacher reflection on his or her practice and learner responses to instruction. ■ The teacher’s use of both formative and summative assessment practices provides information that informs adjustments made to instruction during and following instruction. The teacher sometimes solicits student input or feedback to inform adjustments. ■ The teacher uses a comprehensive analysis of student data and reflection on practice to inform the writing of goals that are directly aligned with identified student areas of need and needed improvements or refinements to teacher practice. Goals are clear and include specific action steps to accomplish them.
<p>Possible Examples</p>	<ul style="list-style-type: none"> ■ A middle school history teacher, who is working on providing multiple examples of and scaffolded practice for citing specific evidence to support analyses of historical texts, seeks data and input from the language arts teachers about student instructional reading levels, uses student interests to select and use supplementary texts, and uses student input about challenges with instruction and resources to reflect on this information and make decisions about how to effectively incorporate flexible grouping strategies, and support content instruction with specific reading strategies and appropriately leveled texts designed to provide more students with access to complex learning assignments.. ■ After the completion of a unit, the teacher reflects using data from a variety of sources, including a student pre- and postassessment, writing folder, and student self-assessment. On this basis, she offers specific alternative actions, complete with the probable success of different courses of action. ■ The teacher makes a thoughtful and accurate assessment of a lesson’s effectiveness and the extent to which it achieved its instructional outcomes, citing many specific examples from the lesson and weighing the relative strengths of each, and sharing reasons for making adjustments at various times during the lesson according to what was learned while listening to student responses and monitoring their work. ■ As the teacher reviews the results of student work in their mathematics problem-solving journals, on unit tests, having observed her fifth-grade students struggling and giving up on the problem of the

Core Proposition 4: Teachers think systematically about their practice and learn from experience.

day, and reviewing feedback from students about challenges they are experiencing, she realizes that adjustments to instruction involve more than academic and strategies knowledge. The teacher analysis points out that more time needs to be spent on developing the dispositions of the Mathematics Practice Standards in the Common Core, which will require her to revise her unit planning to incorporate this in her ongoing practice. She develops a goal to accomplish this containing specific steps for monitoring and accomplishment.

Implications for Professional Learning
(adapted from InTASC Learning Progressions 1.0)

Develop the ability to: Analyze multiple sources of evidence to evaluate the impact of instructional choices. Guide, mentor, and coach others in synthesizing data, evaluating impact of practice, and setting goals for improvement.

Teaching practice is advanced through professional learning that will, for example:

Expand and refine skill in working with data.

- Pursue advanced or graduate work in quantitative and qualitative data analysis and facilitation of data-driven conversations.

Expand and refine skills in analysis of, and reflection on, evidence related to learner needs and professional practice.

- Keep a journal on how teaching affects student learning.

Use protocols to guide reflective analysis and evaluation of practice.

- Work with colleagues to brainstorm ways to communicate and display data in a manner that is accessible and engaging to learners and parents.
- Expand skills in developing a professional growth plan.
- Examine your own teacher evaluation data and identify strengths and weaknesses.
- Consult with grade-level or content area team for professional learning options that can support learners.
- Share your professional growth plan with key colleagues for feedback.