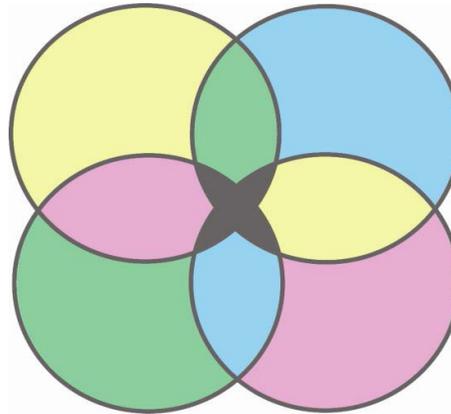


Domain 1: Planning and Preparation

1a: Demonstrating Knowledge of Content and Pedagogy



The Framework for Teaching
Charlotte Danielson

Objectives

1 a: Knowledge of Content and Pedagogy

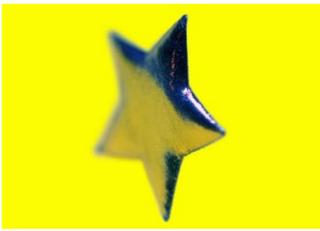
- ▶ Understand the elements of 1 a
- ▶ Distinguish the difference in levels of performance
- ▶ Review examples of 1 a behavior
- ▶ Identify my level of performance on 1 a
- ▶ Incorporate strategies to improve my level of performance in 1 a

Why Is “Knowledge of Content and Pedagogy” an Important Component of Effective Teaching?

- ▶ Teachers must have command of the subjects they teach.
- ▶ Teachers must know which concepts and skills are central to a discipline and which are peripheral.
- ▶ Teachers must know how the discipline has evolved into the 21st century, incorporating issues such as global awareness and cultural diversity.

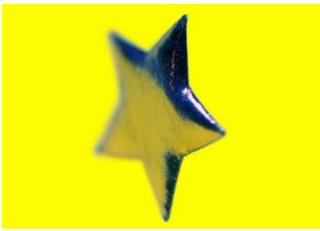
Why Is “Knowledge of Content and Pedagogy” an Important Component of Effective Teaching?

- ▶ Accomplished teachers understand internal relationships within the disciplines they teach, knowing prerequisite concepts and skills.
- ▶ Teachers are also aware of typical student misconceptions in the discipline, and they work to dispel them.
- ▶ Knowledge of content is not sufficient; in advancing student understanding, teachers must be familiar with particular pedagogical approaches best suited to each discipline.



The Elements

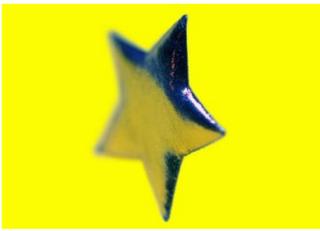
- 1. Knowledge of content and the structure of the discipline**
 - ▶ Every discipline has a dominant structure, with smaller components or strands, as well as central concepts and skills.



The Elements

2. Knowledge of prerequisite relationships

- ▶ Some disciplines—for example, mathematics—have important prerequisites; experienced teachers know what these are and how to use them in designing lessons and units.



The Elements *(cont'd)*

3. Knowledge of content-related pedagogy

- ▶ Different disciplines have "signature pedagogies" that have evolved over time and been found to be most effective in teaching.

Specific Pedagogies

- ▶ On a Post-it, identify the specific pedagogies that work well in your classroom for your content area.
- ▶ Identify three pedagogies that you have heard about that you would like to know how to use.

Performance Grounded in Evidence

- ▶ Lesson and unit plans that reflect important concepts in the discipline.
- ▶ Lesson and unit plans that accommodate prerequisite relationships among concepts and skills.
- ▶ Clear and accurate classroom explanations.



Performance Grounded in Evidence (*cont'd*)

- ▶ Accurate answers to students' questions
- ▶ Feedback to students that furthers learning
- ▶ Interdisciplinary connections in plans and practice



Evidence for 1 a

- ▶ How might you provide evidence of your effectiveness in this component?
- ▶ What written materials could you provide?
- ▶ What could be observed in your classroom that connects to 1 a?
- ▶ These items could be used as artifacts.

Relevant because...

- ▶ The teacher's plan indicates that students need to know how to add and subtract fractions before doing this lesson.

Relevant: This reflects the element knowledge of prerequisite relationships.

- ▶ During class time, three students ask the teacher to tell them where to go next after completing the first station.

Not Relevant: This reflects 3a: Communicating with Students-directions for activities.

Relevant because...

- ▶ The middle school science teacher has a degree in biology.

Relevant: This reflects the element of knowledge of content and the structure of the discipline.

- ▶ Ms. P, the eighth-grade teacher, does not know whether students have learned the seventh-grade curriculum.

Relevant: She does not know what she can build on if she does not know their prior knowledge.

Relevant because...

- ▶ In science Ms. S's class is studying the solar system. She made arrangements for them to visit the city's planetarium to extend their understanding.

Not Relevant: This reflects 1d Demonstrating Knowledge of Resources.

Performance Levels

- ▶ You will read four classroom observation descriptions.
- ▶ After each of the four descriptions, jot down on a post-it what performance level you would assign it and why.
- ▶ After all four, compare with your table and discuss specific reasons why you rated it as you did.

What Is the Level?

A. The teacher is familiar with the important concepts in the discipline, but displays a lack of awareness of how these concepts relate to one another.

The teacher indicates some awareness of prerequisite learning, although such knowledge may be inaccurate or incomplete.

The teacher's plans and practice reflect a limited range of pedagogical approaches to the discipline or to the students.

Teachers read scenarios at tables.

What Is the Level?

B. In planning and practice, the teacher makes content errors or does not correct errors made by students.

The teacher displays little understanding of prerequisite knowledge important to student learning of the content.

The teacher displays little or no understanding of the range of pedagogical approaches suitable to student learning of the content.

What Is the Level?

C. The teacher displays extensive knowledge of the important concepts in the discipline & how these relate both to one another and to other disciplines.

The teacher demonstrates understanding of prerequisite relationships among topics & concepts and understands the connection to cognitive structures that ensure student understanding.

The teacher's plans & practice reflect familiarity with a wide range of effective pedagogical approaches in the discipline and the ability to anticipate student misconceptions.

What Is the Level?

D. The teacher displays solid knowledge of the important concepts in the discipline and how these relate to one another.

The teacher demonstrates accurate understanding of prerequisite relationships among topics.

The teacher's plans and practice reflect familiarity with a wide range of effective pedagogical approaches in the subject.

Level of Performance Answers

- ▶ A. Basic (Level 2)
- ▶ B. Unsatisfactory (Level 1)
- ▶ C. Distinguished (Level 4)
- ▶ D. Proficient (Level 3)

Any surprises?



Level 3: Proficient Critical Attributes

- ▶ The teacher can identify important concepts of the discipline and their relationships to one another.
- ▶ The teacher provides clear explanations of content.
- ▶ The teacher answers students' questions accurately and provides feedback that furthers their learning.
- ▶ Instructional strategies in unit and lesson plans are entirely suitable to the content.

Level 2: Basic Critical Attributes

- ▶ The teacher's understanding of the discipline is rudimentary.
- ▶ The teacher's knowledge of prerequisite relationships is inaccurate or incomplete.
- ▶ Lesson and unit plans use limited instructional strategies, and some are not suitable to the content.

Level 1: Unsatisfactory Critical Attributes

- ▶ The teacher makes content errors.
- ▶ The teacher does not consider prerequisite relationships when planning.
- ▶ The teacher's plans use inappropriate strategies for the discipline.

Level 4: Distinguished Critical Attributes

In addition to the characteristics of a level of performance 3,

- ▶ The teacher cites intra- and interdisciplinary content relationships.
- ▶ The teacher's plans demonstrate awareness of possible student misconceptions and how they can be addressed.
- ▶ The teacher's plans reflect recent developments in content-related pedagogy.

Level 4: Distinguished Evidence Examples Check

- ▶ In a unit on 19th-century literature, the teacher incorporates information about the history of the same period.
- ▶ Before beginning a unit on the solar system, the teacher surveys the students on their beliefs about why it is hotter in the summer than in the winter.

Level 3 Proficient Evidence Examples Check

- ▶ The teacher's plan for area and perimeter invites students to determine the shape that will yield the largest area for a given perimeter.
- ▶ The teacher has realized her students are not sure how to use a compass, and so she plans to have them practice that skill before introducing the activity on angle measurement.
- ▶ The teacher plans to expand a unit on civics by having students simulate a court trial.

Level 2: Basic Evidence Examples Check

- ▶ The teacher plans lessons on area and perimeter independently of one another, without linking the concepts together.
- ▶ The teacher plans to forge ahead with a lesson on addition with regrouping, even though some students have not fully grasped place value.
- ▶ The teacher always plans the same routine to study spelling: pretest on Monday, copy the words five times each on Tuesday and Wednesday, test on Friday.

Level :1 Unsatisfactory Evidence Examples Check

- ▶ The teacher says, "The official language of Brazil is Spanish, just like other South American countries."
- ▶ The teacher says, "I don't understand why the math book has decimals in the same unit as fractions."
- ▶ The teacher has his students copy dictionary definitions each week to help them learn to spell difficult words.

Levels of Performance

Unsatisfactory	Basic	Proficient	Distinguished
<p>Not No Not clear Unaware Does not respond Poor Not congruent</p>	<p>Some Attempts to Limited Moderate Uneven Inconsistent Rudimentary</p>	<p>Consistent High quality Timely Accurate Appropriate Clear Effective High expectations</p>	<p>All students Highly effective Entirely appropriate Adapted for individual students Fully aligned Extensive</p>

Lesson Plan

Does your lesson plan. . .

- ✓ identify the state standard (or appropriate CCSS)?
- ✓ identify prerequisite student knowledge or skills needed for this work?
- ✓ identify your assessment strategy?
- ✓ clearly fit within the overall unit plan and learning goals for the year?

Lesson Plan (*cont'd*)

Does your unit plan. . .

- ✓ focus on a key standard or set of standards for the grade level and subject area you teach?
- ✓ identify a series of lessons that build on each other?
- ✓ include both formative and summative assessments?

Unit Plan

Does your unit plan. . .

- ✓ focus on a key standard or set of standards for the grade level and subject you teach?
- ✓ identify a series of lessons that build on each other?
- ✓ include both formative and summative assessments?

Unit Plan *(cont'd)*

Does your unit plan. . .

- ✓ integrate other subjects?
- ✓ identify prerequisite skills?
- ✓ include a strategy for addressing common misconceptions and errors?

Observation of Lesson

When observing a lesson in your classroom, your principal or other evaluator/observer may look for the following:

- ▶ How clearly and accurately you explain concepts and procedures
- ▶ Whether or not you make any content or conceptual errors
- ▶ Evidence of students' understanding of concepts, procedures, and skills addressed in the lesson
- ▶ Evidence that student questions are being addressed appropriately
- ▶ How you respond to student errors

Planning Conference

Before being observed, you may be asked these questions in a planning conference:

- ▶ What are you planning to teach in your lesson? Why?
- ▶ What is the learning objective?
- ▶ Is this a key learning objective? How do you know?
- ▶ What prerequisite knowledge or skills do the students need for this lesson?
- ▶ How does this lesson fit within the overall unit plan as well as the goals for the year?
- ▶ How will you know if students understand the lesson?
- ▶ What common misconceptions do you expect to see?

Remember

Our performance goal is to LIVE
in 3...

And vacation in 4.



Discussion

- ▶ After reviewing the Performance Levels for **Domain 1a: Demonstrating Knowledge of Content and Pedagogy**, explain some methods you have used to improve your content knowledge?
- ▶ How will you improve your content knowledge to teach CCSS?
- ▶ How have you learned new pedagogy to use with CCSS?
- ▶ What new pedagogical ideas can you share with colleagues?

