

1a DEMONSTRATING KNOWLEDGE OF CONTENT AND PEDAGOGY

In order to guide student learning, teachers must have command of the subjects they teach. They must know which concepts and skills are central to a discipline and which are peripheral; they must know how the discipline has evolved into the 21st century, incorporating issues such as global awareness and cultural diversity. Accomplished teachers understand the internal relationships within the disciplines they teach, knowing which concepts and skills are prerequisite to the understanding of others. They are also aware of typical student misconceptions in the discipline and work to dispel them. But knowledge of the content is not sufficient; in advancing student understanding, teachers must be familiar with the particularly pedagogical approaches best suited to each discipline.

The elements of component 1a are:

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.

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.

Knowledge of content-related pedagogy

Different disciplines have “signature pedagogies” that have evolved over time and been found to be most effective in teaching.

Indicators include:

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

UNSATISFACTORY • LEVEL 1

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.

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.

POSSIBLE EXAMPLES

- *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.*
- *And others...*

BASIC • LEVEL 2

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.

- 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.

- *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.*
- *And others...*

PROFICIENT • LEVEL 3

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.

- The teacher can identify important concepts of the discipline and their relationships to one another.
- The teacher provides clear explanations of the 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.

- *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.*
- *And others...*

DISTINGUISHED • LEVEL 4

The teacher displays extensive knowledge of the important concepts in the discipline and how these relate both to one another and to other disciplines. The teacher demonstrates understanding of prerequisite relationships among topics and concepts and understands the link to necessary cognitive structures that ensure student understanding. The teacher’s plans and practice reflect familiarity with a wide range of effective pedagogical approaches in the discipline and the ability to anticipate student misconceptions.

- 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.

- *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.*
- *And others...*