

Understanding Rubric Rating Scales on Rubric Generation Function

Brief Description of Rating Scales

Bloom's Taxonomy

Classifies educational goals based on cognitive complexity, progressing from basic recall to higher-order critical thinking. The hierarchical framework helps instructors identify, classify, and outline what students are expected to learn in the course.

Advancement Levels

Describes the progression of skill mastery from beginning stages to advanced proficiency. This scale helps teachers track student growth over time and identify appropriate next steps in the learning journey.

Reaching Standard

Focuses on how well students meet established learning targets or standards. This scale emphasizes the quality of work in relation to clear expectations (Below Standard → Approaching Standard → Meeting Standard → Exceeding Standard).

Depth of Knowledge

Assesses the complexity of thinking required for a task, from recall of information to extended strategic thinking. This scale measures cognitive demand rather than difficulty and helps ensure appropriate challenge levels.

Custom Scales

Allows educators to define personalized rating criteria specific to their subject, teaching approach, or learning context.

Detailed Explanations of Rating Scales

Bloom's Taxonomy

Bloom's Taxonomy, developed by Benjamin Bloom in 1956 and revised by Anderson and Krathwohl in 2001, provides a framework for categorizing educational goals according to cognitive complexity. The

taxonomy helps teachers design assessments that measure various levels of student thinking, from basic recall to sophisticated creation.

The revised taxonomy includes these levels, from lower to higher order thinking:

1. **Remember (Level 1):** Retrieving relevant knowledge from long-term memory
 - Key verbs: identify, recall, recognize, list, define
 - Example: Recalling vocabulary terms or historical dates
2. **Understand (Level 2):** Constructing meaning from instructional messages
 - Key verbs: interpret, exemplify, classify, summarize, compare
 - Example: Explaining concepts in their own words or comparing related ideas
3. **Apply (Level 3):** Carrying out or using a procedure in a given situation
 - Key verbs: execute, implement, use, demonstrate
 - Example: Solving a mathematical problem using a learned formula
4. **Analyze (Level 4):** Breaking material into constituent parts and determining relationships
 - Key verbs: differentiate, organize, attribute, deconstruct
 - Example: Examining how parts of a text contribute to its overall theme
5. **Evaluate (Level 5):** Making judgments based on criteria and standards
 - Key verbs: check, critique, judge, assess
 - Example: Evaluating the credibility of a scientific claim using evidence
6. **Create (Level 6):** Putting elements together to form a coherent whole or new structure
 - Key verbs: generate, plan, produce, design
 - Example: Creating an original composition or designing an experiment

Pedagogical Intent: Bloom's Taxonomy helps educators design assessments and learning experiences that target specific cognitive processes, ensuring appropriate challenge levels and skill development. The taxonomy encourages teachers to include higher-order thinking tasks that develop critical thinking and creative problem-solving abilities.

External Resources:

- [Revised Bloom's Taxonomy \(Anderson & Krathwohl\)](#)
- [Using Bloom's Taxonomy to Write Effective Learning Objectives](#)

Advancement Levels

Advancement Levels focus on the progression of skill development, showing how students move from novice to expert understanding within a domain. This scale emphasizes growth and improvement over time. This scale builds on the Dreyfus Model of Skill Acquisition, developed by Stuart and Hubert Dreyfus in 1980, and provides a framework for understanding how students progress from novice to expert through distinct stages. This model emphasizes the transition from rule-based to intuitive performance as expertise develops.

Typical advancement levels include:

1. **Beginning:** Shows initial understanding with substantial guidance needed
 - Student is becoming familiar with basic concepts and procedures
 - Work demonstrates partial or incomplete understanding
 - Student requires significant support and scaffolding
2. **Developing:** Shows growing competence with some independence
 - Student can apply basic concepts in straightforward situations
 - Work shows increased accuracy but may contain errors
 - Student needs occasional guidance and support
3. **Proficient:** Demonstrates solid competence with independence
 - Student applies concepts correctly in various contexts
 - Work is accurate and complete with minor errors
 - Student works independently with minimal guidance
4. **Advanced:** Shows sophisticated understanding and mastery
 - Student applies concepts flexibly in complex situations
 - Work demonstrates thorough understanding and innovation
 - Student works independently and can guide others

Pedagogical Intent: This rating scale helps educators understand the qualitative changes in thinking and performance as students develop expertise. It recognizes that advanced learning involves not just accumulating more knowledge but transforming how students approach problems. This model encourages teachers to adapt instructional methods and evaluation criteria as students progress, moving from providing explicit rules for novices to creating environments where more advanced students can develop intuition through varied experiences.

External Resources:

- [The Dreyfus Model of Skill Acquisition \(Wikipedia\)](#)
- [From the Educational Bench to the Clinical Bedside: Translating the Dreyfus Developmental Model to the Learning of Clinical Skills](#)

Reaching Standard

Reaching Standard scales measure student performance against established criteria or standards. This approach clearly communicates expectations and helps students understand how their work aligns with learning targets.

Common levels in this scale include:

1. **Below Standard:** Work falls significantly short of grade-level expectations
 - Missing key elements or contains significant misconceptions
 - Does not demonstrate required skills or understanding
2. **Approaching Standard:** Work partially meets grade-level expectations
 - Includes some required elements but may be incomplete

- Demonstrates partial understanding with some errors
- 3. **Meeting Standard:** Work fully satisfies grade-level expectations

- Includes all required elements with appropriate quality
- Demonstrates solid understanding with minimal errors
- 4. **Exceeding Standard:** Work surpasses grade-level expectations

- Exceeds requirements in quality, depth, or complexity
- Demonstrates exceptional understanding and skill application

Pedagogical Intent: The Reaching Standard scale clarifies performance expectations and helps students understand what constitutes quality work. It supports standards-based grading approaches by directly connecting assessments to learning standards. This scale helps teachers communicate clear goals and provides transparent feedback about student achievement relative to grade-level expectations.

External Resources:

- [Standards-Based Grading Practices \(ASCD\)](#)

Depth of Knowledge (DOK)

Developed by Norman Webb in 1997, Depth of Knowledge focuses on the complexity of thinking required by tasks, rather than their difficulty. DOK examines how deeply students must engage with content and the cognitive demand of academic challenges.

The four DOK levels include:

1. **Level 1 - Recall and Reproduction:** Basic recall of facts, terms, or simple procedures
 - Key activities: memorize, list, identify, define, calculate using a single step
 - Example: Recalling a formula or defining a term
2. **Level 2 - Skills and Concepts:** Use of information or conceptual knowledge
 - Key activities: classify, organize, estimate, make observations, compare
 - Example: Comparing characters in a story or organizing data in a table
3. **Level 3 - Strategic Thinking:** Reasoning, planning, using evidence
 - Key activities: justify, formulate, construct, hypothesize, investigate
 - Example: Writing an original argument with supporting evidence
4. **Level 4 - Extended Thinking:** Complex reasoning over extended periods
 - Key activities: design, connect, synthesize, critique, analyze multiple sources
 - Example: Conducting a research project that draws from multiple sources

Pedagogical Intent: DOK helps teachers ensure assignments require appropriate cognitive complexity, not just difficulty. It encourages educators to design tasks that develop deeper understanding and critical thinking skills. This framework supports curriculum alignment by ensuring assessments match the intended depth of learning.

External Resources:

- [Webb's Depth of Knowledge Guide \(Wisconsin Center for Education Research\)](#)
- [A Depth of Knowledge Rubric for Reading, Writing, and Math](#)

Creating Your Own Scales

Customized rating scales allow you to tailor assessment criteria to your specific educational context, subject area, or teaching philosophy. When creating your own scales, consider the following guidelines:

1. Identify Your Purpose

Begin by clarifying what you want your scale to measure:

- Are you assessing content knowledge, skills, habits of mind, or multiple dimensions?
- Is your goal to track progress, measure achievement against standards, or both?
- How will the scale align with your teaching approach and learning objectives?

2. Define Your Criteria

Develop clear, specific criteria that describe what you're measuring:

- Use concrete, observable language that describes student performance
- Focus on key aspects of learning that matter most in your context
- Ensure criteria are measurable and directly connected to learning goals

3. Establish Performance Levels

Create meaningful distinctions between performance levels:

- Decide on the number of levels (typically 3-5) based on needed precision
- Use descriptive labels that communicate clear meaning (e.g., "Emerging," "Developing," "Proficient," "Exemplary")
- Avoid vague qualifiers like "good" or "poor" in favor of specific descriptions

4. Write Level Descriptors

For each level and criterion, write clear descriptions of what performance looks like:

- Use parallel structure across levels for consistency
- Include concrete examples or indicators when possible
- Describe positive attributes at each level, not just deficiencies
- Ensure clear differentiation between adjacent levels

5. Test and Refine

Before fully implementing your custom scale:

- Test it on sample student work to ensure it captures meaningful differences
- Get feedback from colleagues on clarity and usability
- Consider having students review the scale to ensure they understand expectations
- Revise as needed based on actual use and feedback

6. Document Your Rationale

When implementing your custom scale in Colleague AI:

- Provide a clear name and brief description explaining the scale's purpose
- Include notes about when this scale is most appropriate to use
- Document connections to learning standards or educational frameworks
- Consider creating exemplars that demonstrate each performance level

By following these guidelines, you can create rating scales that meaningfully capture student performance in ways that align with your educational values and context.

External Resources:

- [Getting Started with Standard-Based Grading](#)
 - [Rubric Design \(Carnegie Mellon University\)](#)
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