

Construction of Effective Assessment Questions

National Curriculum Council

Importance of well-constructed questions in gauging learning and understanding

- **Accurate Assessment:** Well-constructed questions ensure accurate measurement of what students have learned.
- **Learning Focus:** They guide learners' attention to key concepts and skills.
- **Critical Thinking:** Good questions stimulate critical thinking and problem-solving.
- **Fair Evaluation:** They provide equal opportunities for all students to demonstrate knowledge.
- **Feedback:** Effective questions enable valuable feedback for both teachers and learners.
- **Targeted Instruction:** Assessment informs tailored instruction to address areas of weakness.
- **Accountability:** Properly designed questions support accountability in education.
- **Improved Learning:** They promote deeper understanding and retention of content.

Types of Assessment Questions

1. Multiple Choice Questions (MCQs):

Purpose: To test knowledge, recall, and understanding of facts and concepts through the selection of the correct answer among options.

2. Short Response Questions (SRQs):

Purpose: To assess comprehension and critical thinking by requiring brief, open-ended written responses.

3. Extended Response Questions (ERQs):

Purpose: To evaluate in-depth understanding, analytical skills, and the ability to provide detailed, well-structured written responses to complex questions.

Multiple-Choice Questions (MCQs)

Tips for designing	Example
<p>Stem: Clear and concise question.</p> <p>Options: Correct answer(s) + Distractors.</p> <p>Distractors: Plausible and related to misconceptions.</p> <p>Clarity: Use straightforward language.</p> <p>Single Correct Answer: Specify if single or multiple answers.</p> <p>Randomize Choices: Prevent patterns.</p>	<p>Example (Single-answer MCQ):</p> <p>Question: What is the capital of France?</p> <p>A) London</p> <p>B) Berlin</p> <p>C) Paris</p> <p>D) Madrid</p>

MCQs for different cognitive level

Remembering (Knowledge-Based)	Understanding (Comprehension-Based)	Application (Application-Based)
<p>What is the chemical symbol for water?</p> <p>A) Wt B) W C) H₂O D) O₂</p>	<p>Which of the following best explains the process of photosynthesis in plants?</p> <p>A) The release of carbon dioxide into the atmosphere. B) The conversion of sunlight, water, and carbon dioxide into glucose and oxygen. C) The breakdown of glucose to release energy. D) The absorption of oxygen from the air.</p>	<p>In a market economy, what typically happens when the demand for a product increases while the supply remains unchanged?</p> <p>A) Prices decrease. B) Prices remain constant. C) Prices increase. D) Prices become unpredictable.</p>

Short Response Questions (SRQs):

Tips for Designing	Example
<p>Clarity: Clear, specific questions.</p> <p>Scoring Criteria: Define grading criteria.</p> <p>Word Limit: Specify if needed.</p> <p>Open-Ended: Allow some expression.</p>	<p>Question: Explain the water cycle in 1-2 sentences.</p> <p>Sample Answer: The water cycle is the continuous process of water evaporating from the Earth's surface, forming clouds, and then falling back to the ground as precipitation.</p>

SRQs for different cognitive level

Remembering (Knowledge-Based)	Understanding (Comprehension-Based)	Application (Application-Based)
Define photosynthesis in one or two sentences.	Explain in your own words how the water cycle works.	Imagine you are in charge of planning a school garden. Describe the steps you would take to ensure the plants receive adequate sunlight and water.

Extended Response Questions (ERQs)

Tips for designing	Example:
<p>Clear Prompt: Detailed question or prompt.</p> <p>Grading Rubric: Comprehensive criteria.</p> <p>Time Limits: Specify allowed time.</p> <p>Complexity: Encourage critical thinking.</p> <p>Real-Life Application: Relate to real scenarios.</p>	<p>Question: Explain the environmental impacts of deforestation in a specific region and suggest mitigation measures as an environmental scientist.</p> <p>This simplified format can be used for each type of question on individual PowerPoint slides to make it concise and visually appealing.</p>

ERQs for different cognitive level

Remembering (Knowledge-Based)	Understanding (Comprehension-Based)	Application (Application-Based)
Recall and describe three main events in the life of Abraham Lincoln.	Explain the cause and effect relationship between excessive deforestation and climate change.	Imagine you are a city planner. Describe a plan to make a busy intersection safer for pedestrians and cyclists, considering traffic flow, signage, and crosswalks