

## S3 Assessment Criteria for Operational Questions

The S3 Assessment Criteria for Operational Questions serve as a guide by which students can measure the quality of the questions they generate, and as indicators to assist teachers with assessing those skills. The criteria may be modified into a rubric format for use as a scoring guide. To help students build upon their question generating skills, the criteria should be shared with them both during early stages of a unit that employs question generation as well as later evaluation stages.



According to the S3 Assessment Criteria, an effective operational question is:

**Salient:** The degree to which a question is salient depends on what is being asked. A question is salient if:

- The question focuses on important concept variables or phenomena that, when better understood, will directly enhance understanding of a more comprehensive concept or theory. The aspects are essential to understanding the concept.
- The question focuses on an area of learning need, not just for the individual but also for others who may have a stake or be impacted by the new findings. This is different than strategically targeting specific purpose, as it deals with the value of the investigation and research as a whole, and can be useful in occasionally reorienting the student to why they are investigating the concept to begin with.

**A question is salient if...**

...it focuses on things that are important and things that we need to learn about.

**Strategic:** The degree to which a question is strategic depends on how it is being asked. A question is strategic if:

- The question is asked in such a way as to address the appropriate scope (e.g., capture larger units of meaning, and integrate general aspects and information across observations, texts, investigation summaries, and/or experimental studies). Adopting a broad pattern facilitates memory (recall) of summary data and text, and lends itself to gradual expansion or narrowing in focus as the investigation proceeds.
- The question is asked in such a way as to be consistent with the observations made during a prompt, and with the ideas that emerge as a result of discussing

**A question is strategic if...**

...it asks things that are consistent with what is known, at an appropriate scope, and with an immediate purpose in mind.

those observations. As an investigation proceeds, these criteria must necessarily expand or be refined to include requirements for consistency with information and prior studies related to the concept or larger theory being investigated.

- The question is asked in a way that directly targets the immediate purpose, leaving no ambiguity as to what information is needed at that point in the investigation. If purposefully constructed, the investigations that ensue lead to more highly targeted and specific operational questions.

**Solvable:** The degree to which a question is solvable depends on whether or not it can be addressed. A question is solvable if:

- The question can be investigated in a way that will provide useful results. This may mean that an experimental design from which information can be obtained is within reach (capability), that the available information can be read and comprehended, and that there is sufficient information and time to access it.

- The question provides answers that can either be corroborated or refuted via experimentation or research information acquired during the investigation. However, not immediately yielding proven data does not mean a question is not solvable. It may be that the answers or learning acquired through investigation lead to further questions addressing the viability or credibility of those answers.

- The question provides answers that can either be corroborated or refuted via experimentation or research information acquired during the investigation. However, not immediately yielding proven data does not mean a question is not solvable. It may be that the answers or learning acquired through investigation lead to further questions addressing the viability or credibility of those answers.

- The question itself is measurable, and there are clear indications that result if and when the question is fully addressed. Given the need for self-regulation in the skills employed toward generation of questions, knowing where and how a strategy failed or succeeded is of key importance if improvement is to occur.

**A question is solvable if...**

...it can be investigated within human and material limitations, gives answers that can be confirmed or disconfirmed, and gives clear indications of when and to what extent it has been addressed.

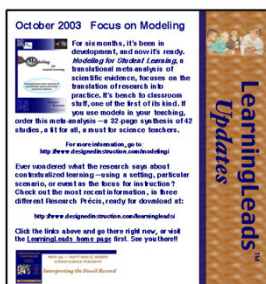


Go to the **Questioning strategies overview page**

Go to the **LearningLeads™ homepage**

<http://www.designedinstruction.com/learningleads/questioning.html>

<http://www.designedinstruction.com/learningleads/>



**Want Regular Updates?**

I would like to receive an e-mail update when new materials are available. I understand that my contact information will never be shared with anyone.

Take me to the [signup form at:](#)

<http://www.designedinstruction.com/learningleads/updates.html>