Open-ended questions focus on students' understanding, their ability to reason, and their ability to apply knowledge in less traditional contexts. Such questions can communicate levels of student achievement more clearly than multiple-choice items and give better guidance for instruction.

Open-ended questions are not multiple-choice questions without options. They are not
questions that demand a single correct response. Nor are they questions where any response is acceptable.

Rather, open-ended questions address the essential concepts, processes, and skills that go beyond the specifics of instruction to define a subject area. In general, they require complex thinking and yield multiple solutions. Open-ended questions require teachers or evaluators to interpret and use multiple criteria in evaluating responses. Such questions also require more from students than simply memorizing facts.

In this digest, we give a rationale for using open-ended questions. Next, we discuss open-ended questions in reading, and finally, we outline some implications for the classroom.

**RATIONALE FOR OPEN-ENDED QUESTIONS**

During the past decade, how we view learning and instruction has changed. Cognitive researchers have provided evidence about the complexity of learning: Conceptual understanding is more than just an accumulation of knowledge. It depends on an active restructuring of old ideas to accommodate new experiences. These research findings, with their emphasis on personal accountability, have resonated in the practical world. As computers become repositories for information, both policy planners and business experts have noted an increasing need for people who can manage information, see patterns, identify needs, and solve problems. At the same time, people who know the most about the content itself have begun to re-examine what it means "to know" a discipline. In doing so, they are discovering common themes and concepts underlying the various content areas. Similar processes might be involved in learning and understanding any subject area.

So, today we're seeing the focus shift from learning as content knowledge per se to learning as the ability to use and interpret knowledge critically and thoughtfully. Subject matter has always dominated education. In elementary schools, the day is punctuated by shifts from reading to math to science to social studies, as students put away one set of books or papers and take out another. In middle schools and high schools, students move from class to class, subject to subject, without seeing how one subject relates to another. Even within subject areas, the layer-cake approach to curriculum obscures common ideas and themes, reinforcing the notion that subject-area knowledge consists of a set of discrete facts and theories.

Now, however, subject-area knowledge faces a serious challenge. Some experts argue that critical thinking is as relevant to literature as it is to science, social studies, and mathematics; that problem solving is not the sole purview of mathematics, and that hypothesis formulation is not limited to science.

This change in how we view the goals of education has implications for evaluation as
well as instruction. If subject knowledge in itself is not a sufficient criterion for achievement, judgments of correct and incorrect in response to simple tests of skills and knowledge are not enough either. To measure how well a student performs, teachers have to be able to examine the process, not just the final product. Furthermore, people try to make sense of their perceptions and experiences, and the associations that students make are often idiosyncratic and may differ considerably from the ones we intended. These views of student learning demand a more open-ended form of testing, along with a more complex scheme of evaluation.

OPEN-ENDED QUESTIONS IN READING

In the last few years, educators and philosophers interested in the reading process have refined and expanded the ideas and concept about reading and thinking. Two main themes have emerged from this research:

- Readers assume constantly shifting attitudes while trying to understand any text.
- Literature is a powerful context for teaching and learning critical thought.

Langer (1989) proposes four kinds of relationships that occur during the reading process as readers’ attitudes shift while they try to understand the text:

- Being out and stepping in. Readers use the information from the text and their background knowledge to get enough information to "step into" the author's vision. In literature, readers try to make an initial acquaintance with the character, plot, and setting; in exposition, they try to figure out what the topic is about.

- Being in and moving through. Readers immerse themselves in the author's vision, trying to understand the author's meaning. In exposition, readers take each new bit of information, trying to understand it and link it to what they already understand the text to say about the topic. In fiction, they use each new bit of information to go beyond what they already understand--asking questions about motivation, causality, and implications.

- Being in and stepping out. Readers relate the text to their own knowledge and experiences. Readers of fiction use what they read in the text to reflect on their own lives, on the lives of others, or on the human condition in general. In non-fiction, readers use the text information to rethink information they already know.

- Stepping out and going beyond. Readers distance themselves from the text and assume a critical stance, judging the text and relating it to other texts or experiences.

As readers construct their understanding of the text, interpretations are often not possible. In fact, as Norris and Phillips (1987) suggest, the essence of critical reading is raising alternative interpretations, weeding out interpretations to the extent that available information will allow, and then remaining with multiple possibilities. In their view, literary
thinking is a complex reasoning process that involves analyzing, synthesizing, reformulating, linking, and generalizing ideas.

Therefore, in evaluating students, we can no longer simply judge whether or not the reader's conclusions are similar to the teacher's or test constructor's. Instead, the quality of the reader's argument or justification becomes most important.

IMPLICATIONS FOR THE CLASSROOM

In large-scale testing programs, the information that open-ended questions provide justifies their use, despite the expense and time involved in scoring them. Unlike short-answer or multiple-choice questions, tasks that require students to construct their own responses open a window to students' thinking and understanding. Such tasks become vehicles for communicating actual achievement to parents, teachers, the public, and the students themselves. However, despite this obvious benefit, the most effective use of open-ended questions is in the classroom. Here, they model for students the kinds of thinking that we want to encourage. Further, open-ended questions give teachers the information they need to improve their own effectiveness.

In developing their own open-ended questions, we offer teachers some general guidelines:

- Stress communication. Continually ask students to explain and to expand on their ideas, both in discussion and in written form. Let language become a vehicle for thought. Often, it is only through language that we clarify our thinking.

- Have students apply their skills in practical contexts. Set problems in the context of current affairs or the immediacy of everyday decisions. That will motivate students, and you will help them realize the relevancy of their school learning and encourage them to begin transferring that knowledge to different contexts.

- Evaluate frequently. Testing encourages learning in at least two ways: It promotes review and consolidation, and it highlights what is valuable to learn. Frequent testing also gives the teacher important information: It helps focus instruction, and it provides evidence of students' understanding. To make valid and reliable judgments about levels of student attainment, we must use many different kinds of evidence in a range of contexts.

FURTHER READING


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