

Research Précis

READING COMPREHENSION: Question Generation

Question generation is the *purposeful* posing and answering of questions about what is read, typically to make inferences or reveal details (why, how, when, where, who, etc.) and specific information needed to deeply analyze a body of knowledge or process (e.g., investigation, experiment, classification, comparison or contrast), thus promoting progress toward improved reading comprehension.

Studies on effectiveness in improving reading comprehension indicate that question generation helps students to:

- alter focus or process of analysis and further questioning;
- flexibly employ question generation with other strategies; and
- know if they are understanding what they are reading.

When teaching question generation skills aimed at improving reading comprehension...

research evidence (National Reading Panel, 2000; Rosenshine and Meister, 1996) suggests that we should help students to:

Ask integrative questions that capture larger units of meaning and integrate various facets and information across the passage being read. The strategy has proven to improve text memory, ostensibly because of improved context. To scaffold learning experiences, gradually expand selections over which questions are generated.

Use question generation as part of a multiple strategy approach if possible. In addition to use with its logical follow-up—question answering—there are indications that use of question generation with other reading comprehension strategies is highly effective. For more information, see [Research Précis - Reading Comprehension: Combining Question Generation and Multiple Strategies](#).

Employ questioning strategies in various domain-specific disciplines, for instance as a pre-reading strategy (proven effective in aiding text memory retention, making reading tasks manageable rather than insurmountable, and focusing reading on the domain-specific goals at hand), or precursor and/or guide to further investigation, research, and/or experimentation. To find out about using question generation to emphasize the sourcing heuristic prior to reading a selection for its historical implications, see [Reading Comprehension and Historical Thinking: Classroom Realities in Building a Context Connection](#). To find out about generation of operational questions that can help to guide

scientific or historical investigations, see [Questioning and the Generative Student Investigation](#).

Measure (critique) the quality (and improvement in the quality) of their own questions and those of other students. Measurable criteria or critiquing points might include whether the question focuses on materials of importance, is integrative, and can be answered based on what is in the text being read. For more information on assessment of student-generated operational questions that serve to guide further analysis of a concept or topic, read about the [S3 Assessment Criteria for Operational Questions](#).

Key Caution:

Though question generation reinforces and is mutually complimentary to metacognition (e.g., self-regulation, self-selection of appropriate strategies, comprehension monitoring), this does not imply that students typically can *self-learn* questioning strategies that effectively meet the goal of targeting purpose. They must be *taught*. Appropriate attention and time must be devoted to generation of purposeful questions, whether by teachers or by students. Hasty development of questions can cause more misdirection and misunderstanding than benefit. Also, pay particular attention to what is subconsciously portrayed as important. For example, if we stress certain types of knowledge under testing conditions, this could lead students to subconsciously focus their questioning on those types of knowledge, regardless of whether these are the features or aspects that we intended for students to learn or understand as a result of the reading selection.