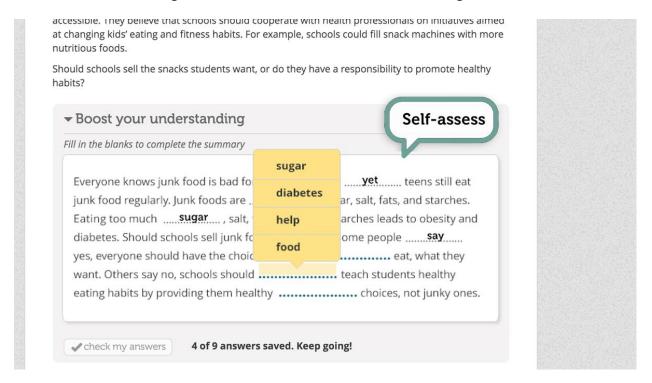
Technology Feature Brief

Comprehension Checks

How can students check their own understanding of a piece of text? How can teachers quickly get a sense of student understanding to determine what to reteach or what feedback to give? Embedded comprehension checks can be formative assessments that help teachers and students understand what students are understanding, provide feedback, and help instructors make informed decisions on when to move ahead to new content or revisit challenges.

In this example, a maze assessment with answer choices is embedded within a reading passage. Students receive just-in-time feedback on response accuracy and opportunities to revise answers, while teachers get immediate data on student understanding.



Research

Several studies have found an association between formative assessment and improved academic achievement. The literature review linked below summarizes 9 studies that reported the benefits of formative assessment for student achievement in a range of grade levels and subject areas. Of these, 5 studies are especially relevant because they evaluated the impact of formative assessments without additional in-person supports (e.g., teacher support). These 5 studies, mostly in undergraduate populations, found

greater academic gains among students who took a formative assessment. However, these 5 studies did not include control groups, so other factors could explain reported gains.

Hanover Research, 2014

Online comprehension checks may support teacher practice and learning for students with disabilities. A study found that teachers who used online curriculum-based measurement (CBM, a form of comprehension check) viewed data, designed interventions, and modified supports 3 times more frequently than teachers using offline CBM. Students with learning disabilities made more significant learning gains when using online CBM than when using offline CBM.

Hall, Cohen, Vue & Ganley, 2015

- Comprehension check features may affect students' performance.
 - The type of feedback matters. A meta-analysis of computer-based item-level feedback found that elaborated feedback (providing an explanation) produced greater learning gains than feedback regarding the correctness of the answer or providing the correct answer.
 - Van der Kleij, Feskens, & Eggen, 2015
 - Images may be helpful for elementary students. A study among 7-8 year-old general education students found that students performed better on multiplechoice assessments that included relevant images than on a multiple-choice assessment without images.

SanJosé, Lizandra, Vivó, & Abad, 2016

Related Guidelines

Comprehension checks are referenced in existing guidelines, frameworks, and best practices, including the Universal Design for Learning (UDL) Guidelines. Connections include:

- <u>UDL Guidelines Checkpoint 6.4</u>: Enhance capacity for monitoring progress
- UDL Guidelines Checkpoint 9.3: Develop self-assessment and reflection

Embedded Comprehension Check Examples

For more on embedded curriculum-based measurement, see CBMreading for an example of CBM in practice. For a different example of how to use comprehension checks, see Reading Rockets' tool, Target the Problem!, which helps point to students' reading challenges.







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