

Supporting Students' Independent Learning with Self-Assessment Strategies

During the current COVID-19 global health crisis and shift to distance learning, students are being asked to do more independent work outside of their time in class. Research suggests that when teachers explicitly teach the strategies of self-assessment — and students receive feedback on their use — students become better at independently using those skills.¹ Ultimately, practicing self-assessment should lead to a daily routine that students use to guide their learning.

Self-assessment:

- facilitates students' reflection on their learning
- provides information about where students are, what's going well, and where they need to be
- helps students become more aware of their thinking
- improves students' ability to problem solve

Three WWC Practice Guides provide evidence and strategies for supporting K–8 students' independent learning:

- Improving reading comprehension in kindergarten through 3rd grade: A practice guide²
- Teaching elementary school students to be effective writers: A practice guide³
- Improving mathematical problem solving in grades
 4 through 8: A practice guide⁴

Teachers can help students to practice self-assessment by:

Building students' habits of asking themselves questions while they are reading, writing, or solving problems



Providing support for students to **monitor their learning** and assess their progress

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Encouraging students to **act on their self-assessment** and identify what their next steps might be

Practice in Action

HAVE STUDENTS MONITOR THEIR READING (GRADES K-3)



Improving reading comprehension in kindergarten through 3rd grade

Teachers can teach comprehension strategies to help students pay attention to whether or not they understand what they are reading and to ask themselves questions when they get stuck.

>> See Recommendation 1, pages 12–13

For stories, students can ask themselves:

- When and where does the story take place?
- What is this part about?
- What is happening? What might happen next?
- Who is involved in what's happening?
- Why did the character do that?
- Why is that happening?

For informational text, students can ask themselves:

- What new information have I learned about this topic?
- What is the author's evidence?
- Why did the author write that?
- What is the author's argument?

Practice tip: Have students make and illustrate individual index cards with strategies to use when they get stuck. For example, they can make cards that prompt them to ask themselves questions from the list above or to re-tell what's happening in their own words when they encounter text they do not understand. Students who have already been introduced to the comprehension strategies of connecting to prior knowledge, predicting, making inferences, and visualizing can make cards for these strategies.

Practice in Action

HAVE STUDENTS EVALUATE THEIR WRITING (GRADES 3-6)



NCEE 2012-4058

• Teaching elementary school students to be effective writers

Evaluating is an important part of the writing process, which also includes planning, drafting, sharing, revising, editing, and publishing. Teachers can help students selfassess by encouraging them to ask themselves questions about their writing.

>> See Recommendation 2, page 16

Students can re-read their writing and ask:

- Are the ideas clear? Does this make sense?
- Does the writing connect with the • reader or audience?
- Is there a clear structure, a beginning, middle, and end?
- Are sentence types varied?

Older students might use a rubric to ask themselves questions about: the topic focus, organization of the text, content, sentence structure, language and mechanics.

Practice tip: Have students create a bookmark for their writing journals with self-evaluating questions. In addition to the questions above, consider generating questions with your students related to the text type (e.g., for older students, Is there clear evidence for my argument?) and audience (e.g., Does my writing have an engaging lead?). During writing conferences, teachers can use these questions to guide the conversation.

Practice in Action

EMPHASIZE MATHEMATICAL PROBLEM SOLVING (GRADES 4-8)



Improving mathematical problem solving in grades 4 through 8

Similar to reading and writing, providing students with questions to ask themselves before and while they solve math problems helps to scaffold their reflection, reasoning process, and awareness of what's working and not working.

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>> See Recommendation 2, pages 18–19

Sample question list*

Before problem solving:

- What is the problem asking?
- What do I know about the problem so far? What information is given to me? How can this information help me?
- Which information in the problem is relevant to being able to solve the problem?
- In what way is this problem similar to problems I have previously solved?
- What are the various ways I might approach the problem?

During and after problem solving:

- Is my approach working? If I am stuck, is there another way I can think about solving this problem?
- Does the solution make sense? How can I verify the solution?
- Why did these steps work or not work?
- What would I do differently next time?

Practice tip: Have students answer some of the "Before problem solving" questions in their math journals before they start to work on a problem. After students have solved a problem, have them write responses to the "During and after problem solving" question prompts or work in small groups to discuss a specific question like "Which strategy do you think is more efficient?"

*Note: Teachers don't need to select all of these for students — they may choose a reasonable number.

- 1 Graham, S., Harris, K., & Hebert, M. A. (2011). Informing writing: The benefits of formative assessment. A Carnegie Corporation Time to Act report. Alliance for Excellent Education.
 Guzman, G., Goldberg, T. S., & Swanson, H. L. (2018). A meta-analysis of self-monitoring on reading performance of K-12 students. School Psychology Quarterly, 33(1), 160–168.
 Klute, M., Apthorp, H., Harlacher, J., & Reale, M. (2017). Formative assessment and elementary school student academic achievement: A review of the evidence (REL 2017–259). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Central. https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=449
 Panadero, E., Jonsson, A., & Botella, J. (2017). Effects of self-assessment on self-regulated learning and self-efficacy: Four meta-analyses. *Educational Research Review*, 22, 74–98. doi:https://doi.org/10.1016/j.edurev.2017.08.004
- 2 Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P. D., Schatschneider, C., & Torgesen, J. (2010). Improving reading comprehension in kindergarten through 3rd grade: A practice guide (NCEE 2010–4038). National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. https://ies.ed.gov/ncee/wwc/PracticeGuide/14
- 3 Graham, S., Bollinger, A., Booth Olson, C., D'Aoust, C., MacArthur, C., McCutchen, D., & Olinghouse, N. (2012). *Teaching elementary school students to be effective writers: A practice guide* (NCEE 2012–4058). National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/writingpg062612.pdf
- 4 Woodward, J., Beckmann, S., Driscoll, M., Franke, M., Herzig, P., Jitendra, A., Koedinger, K. R., & Ogbuehi, P. (2012). Improving mathematical problem solving in grades 4 through 8: A practice guide (NCEE 2012–4055). National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. https://ies.ed.gov/ncee/wwc/PracticeGuide/16



This product was prepared under Contract ED-IES-17-C-0012 by Regional Educational Laboratory West, administered by WestEd. The content does not necessarily reflect the views or policies of IES or the U.S. Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.