



Developing “Assessment Capable” Learners

If we want students to take charge of their learning, we can't keep relegating them to a passive role in the assessment process.



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and John Hattie**

Assessment is conventionally thought of as something we *do* to students. We measure their progress and report it to them, their families, and the public.

Enlightened teachers take it a step further, using assessment results within a systematic formative process to make decisions about future instruction. Groups of these educators may even band together in professional learning communities to make data-driven decisions for their grade level or department. But there is one person whose input is left out of these processes—the student. The person at the center of the discussion is relegated to a passive role.

When we leave students out of assessment considerations, it is akin to fighting with one arm tied behind our backs. We fail to leverage the best asset we have: the learners themselves. What might happen if students were instead at the heart of the assessment process, using goals and results to fuel their own learning? What if they were more *assessment capable*? (Absolum et al., 2009).

What does it mean for students to be assessment capable? Here's a rundown:

- They are aware of their current level of understanding in a learning area.
- They understand their learning path and are confident enough to take on the challenge.
- They can select tools and resources to guide their learning.
- They seek feedback and recognize that errors are opportunities to learn.
- They monitor their own progress and adjust course as needed.
- They recognize what they're learning and can teach others.

In short, assessment-capable learners enact the deep knowledge we now possess about the significant roles that motivation,

goal setting, self-regulation, and feedback play in learning. And here's the secret: Assessment-capable learners are cultivated by teachers and school leaders who intentionally foster these skills. Let's take a closer look at each of these underlying capabilities and how they are developed.

The Evidence Base

For purposes of this discussion, we'll highlight evidence of learning using a statistical measure called an effect size. Effect sizes are calculated by measuring the impact of an approach, condition, or intervention on learning. John created a database of nearly 300 million students worldwide to determine what factors influence student achievement. He calculated that an effect size of 0.40 represents a year's worth of growth in learning for a year in school (Hattie, 2012). So effect sizes that exceed 0.40 accelerate learning. Each of the factors we've associated with assessment-capable learning offers the potential to accelerate learning.

Motivation. The catalyst for learning is motivation. It enables students to stick with a challenging problem, seek out new information on their own, set goals for themselves, and follow through (Locke & Latham, 2002). Although motivation can't be easily measured, the right conditions can foster it, and the good news is that we can control these conditions. It begins with building a strong and positive climate that emphasizes learning over performance. Thus, teachers who nurture assessment-capable learners build relevancy into every lesson and capitalize on student interest to elevate critical thinking. Getting the degree of challenge just right is crucial: not too hard, not too boring. The effect size of this so-called "Goldilocks" level of challenge is 0.72, nearly doubling the speed of learning (Hattie, 2012).

Goal Setting. Imagine getting in your car and driving without knowing where you are

headed. Your passenger knows, but doesn't reveal it. She simply gives you turn-by-turn directions. Your ability to navigate is diminished because you are completely dependent on the passenger. Not ideal, right? Yet we create a similar condition when we don't share the learning destination and work with our students to establish goals to get there. Instead of being equipped to take command of their learning, students are often dependent on adults to inform them when they have learned something. Clearly communicated goal setting, on the other hand, drives learning and achievement

space in the learning day for students to appraise their work and examine their progress toward their goals. Self-questioning, a key part of component of self-regulation, has an effect size of 0.64, meaning it accelerates learning at a rate of nearly one and a half years of growth.

Feedback. This may be the most underutilized tool we have as teachers. Effective feedback from teachers to students has an effect size of 0.75, meaning that it is a robust method for spurring learning. But if the feedback is not timely, specific, understandable, and actionable, the promise of

goal-setting, self-regulation, and feedback have on student learning. In sum, their classrooms are structured to create the conditions that allow their students to articulate the expectations they hold for themselves. And that's the most compelling evidence we know for creating assessment-capable learners: According to John's analysis, students' ability to report thoughtfully on their own performance (another way of saying they are assessment capable) has an effect size of 1.44, meaning that it more than triples the speed of learning.

Practices That Build Assessment-Capable Learners

If students are to become assessment-capable, then we need to reduce the emphasis on telling them what they need to know, and in turn increase the time students have to reflect on their progress and engage with peers and their teachers on *how* to learn—not just what to learn. Let's refer back to the attributes of assessment-capable students, and look at some examples of how we can help students get there.

Students are aware of their current level of understanding. Assessment capability begins with students understanding their current learning status. We don't just mean knowing their reading level or their grade in biology. Rather, students must have a means to gauge what they know and don't know. They need time to assess their own background knowledge about a subject in advance of instruction. Second grade teacher Miranda Nuñez¹ gives her students "I can" statements at the beginning of every lesson so that each child can self-assess. Before beginning a series of writing lessons, her students assess their prior knowledge, using statements such as *I can use linking words in my writing to connect my reasons to opinions.* "That

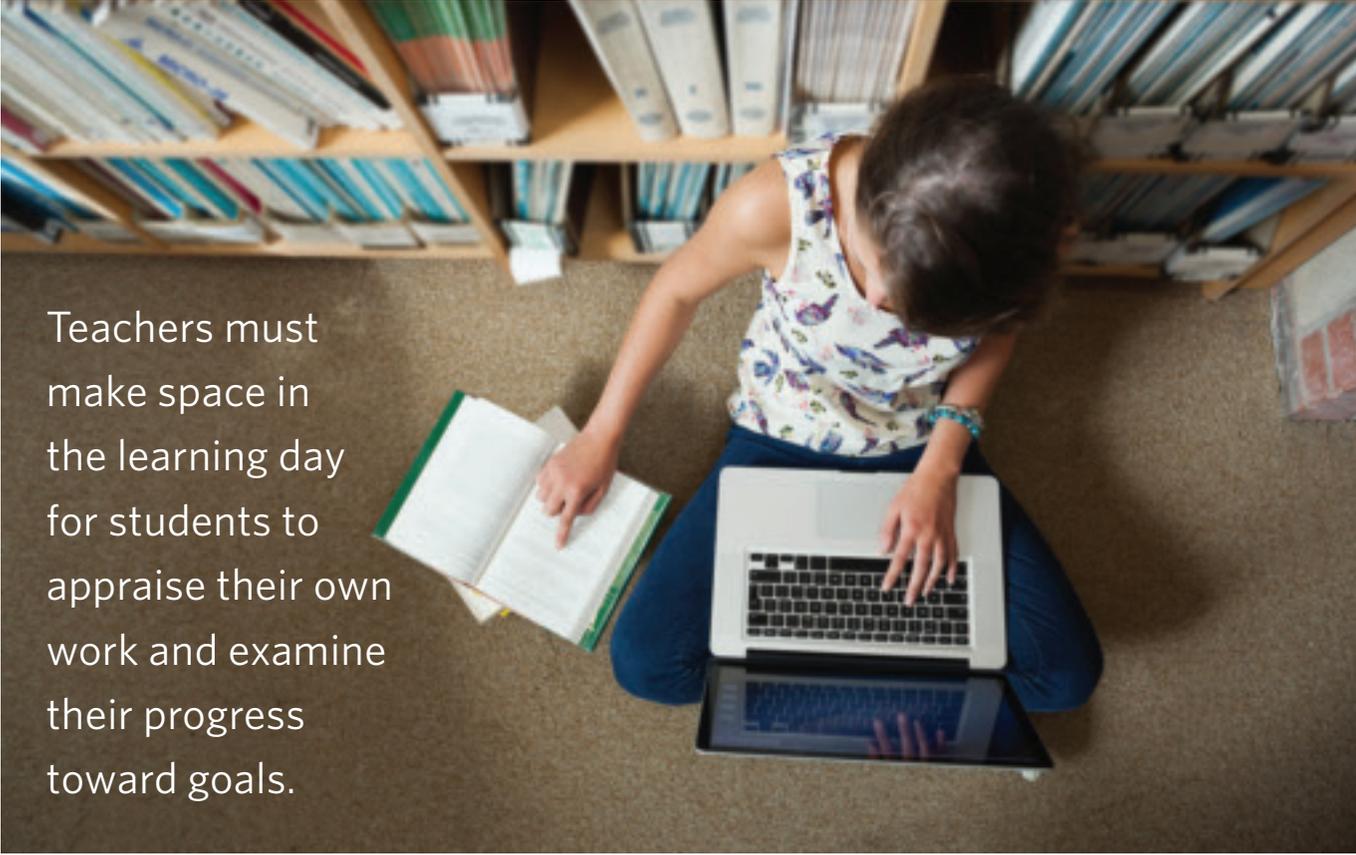
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(Locke & Latham, 2002). When teachers and students share established goals for learning, the effect size is 0.56.

Self-regulation. Self-regulation lies at the heart of the ability to manage one's own learning. Students who can self-regulate consistently are able to persist in tasks, deploying cognitive strategies and study skills. Most of all, they can engage in the kind of introspection that allows them to self-observe, self-judge, and self-react (Bong, 2013). Teachers interested in developing assessment-capable learners create regular opportunities for students to build their self-regulatory capacity. That is, they make

feedback will not be realized. Intent is also crucial. If the feedback offered is only corrective ("Take a look at this problem again, because it's wrong"), but doesn't provide an opportunity to consider the processes used ("Which part of this problem are you feeling most confident about, and why?") or the task itself, ("Let's revisit this. Ask yourself, 'What is the problem asking me to solve?'"), then the effects are muted. With effective feedback, on the other hand, students become knowledgeable consumers of teachers' input and learn to monitor their progress.

Teachers who develop assessment-capable learners harness the powerful influences that motivation,



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one prompted lots of discussion,” said Nuñez. “What are linking words? How are reasons different from opinions?” Each day I had them revisit these statements and report their level of confidence.”

Students understand their learning path and are confident in taking on the challenge. To know where they are headed—and to move forward with confidence—students must be armed with information not only about their current level of understanding, but also about the expected signposts ahead in a learning domain. Assessment-capable learners need teachers who have a clear understanding of the learning intentions and the success criteria and can communicate them to students.

Middle school social studies teacher

Alberta King explains, “The success criteria is what guides students so they can see their own learning journey.” Her success criteria includes a grade-level writing rubric. In a lesson in which her students were writing their analyses of a speech delivered by a historical figure, Ms. King identified several aspects that would suggest the writing was successful, including the following:

- Topic is developed with multiple facts, definitions, and details.
- Accurate information is provided with evidence from textual sources.
- Sentences have clear and complete structure, with appropriate range and variety.

Such criteria can not only help students better understand what they have to do to develop their work, but

also make learning more relevant to them. As Ms. King told her students, “Writers have power to influence the thinking of others. And when the writing is strong, people take note. We can make our writing strong by focusing on the qualities in the success criteria.”

Students select tools to guide their learning. When we continually pair a particular strategy or tool with a text or problem, we rob learners of the decision-making skills they need to advance their own learning. Teachers of assessment-capable learners create opportunities for students to learn *how to learn*. Take study skills as one example. We can teach students rehearsal techniques like studying flashcards and notes, but they need to be able to make choices about which

tools to use in particular situations. Toward this end, 5th grade teachers at an elementary school two of us, Douglas and Nancy, work with instituted Math Mastery Mondays for their students to revisit the previous week's assignments. Students select at least one problem they answered incorrectly and rework it. Teacher Denise Chatterjee says her students can use the written feedback they received, their textbooks, their peers, and other resources in the room. She also has them write about what tools they used. "For me, that's the most important part," she said. "I want them to see how tools and strategies work in their own hands. And I want them to understand that sometimes a tool doesn't work. It's a matter of the right fit for the right job."

Students seek feedback and recognize that errors are opportunities to learn. Feedback is often considered solely through the lens of the teacher, but this narrow view limits its usefulness. Consider that feedback sources can also include oneself and peers. Classroom systems that cause students to check in with themselves and with others expand feedback opportunities. Of course, students need to be taught how to provide solid feedback. High school chemistry teacher Dave Stein includes peer feedback questions on his lab assignments to build the habit of seeking feedback. Before finalizing their assignment, students meet in pairs to analyze each other's work and answer specific questions in writing.

"They advise each other about accuracy and completeness. They don't always have all the answers for each other. That's what I'm for," said Mr. Stein. "They call me over when they need more technical feedback. But here's the thing. In the process of learning to give [feedback] to each other, they internalize a framework for



analyzing their own work."

Students monitor their progress and adjust course as needed. Goal setting is a powerful tool to propel learning, but not if students don't return to their goals to adjust their learning. Regular intervals of conferring with students can keep a student's goals current. For example, teachers can meet briefly with each student monthly to examine reading logs together and compare the amount of outside reading they are doing with progress on informal reading assessments. At the high school where Nancy and Douglas work, every adult in the building has a list of about a dozen students whom they mentor. They meet with their individual students regularly to examine academic and non-academic data in light of the students' college and career aspirations. Often this can help students see where they have gone off course and need to adjust their actions.

Students recognize their learning and teach others. It can be difficult to know where you are in your learning when assessment is only used for summative purposes. But the evidence on formative use of practice tests is

mounting. A recent meta-analysis of the effectiveness of formative practice testing found that such testing, especially if paired with effective feedback, has strong value in prompting students to reflect on their results (Adesope, Trevisan, & Sundararajan, 2017).

Fourth grade teacher Adi Jennings regularly gives her students a practice test a few days before the unit test. The test items aren't the same, but are aligned to the content knowledge students will be accountable for. After scoring their practice tests, students gather into self-selected groups based on their performance on each section and their self-assessments of their needs.

Ms. Jennings meets with the group of students who have self-assessed that they are lost and need re-teaching. Students who have determined that they are capable of peer tutoring on the content are paired to meet with those who need consultation. "Each round takes about 15 minutes," she explained. "Then we reassess for the next section." The practice test and the tutoring opportunities have elevated performance on the unit tests. "Two years ago, I would only have a handful of students reach mastery," she said. "Now, it's becoming unusual for anyone to not be at that level of knowledge."

Transforming Instructional Practice

We limit our potential to reach school achievement goals when we fail to involve students deeply in the assessment process. As the examples we've highlighted show, by fostering assessment capability, we make it possible for students to take the lead on their learning, and thus on their performance.

We challenge you to consider your goals in this light: As a teacher or

school leader, how do you foster assessment capability in students? How could greater attention to this issue transform your practice—and your students' potential? **EL**

¹Teacher names used in this piece are pseudonyms. The examples of classroom practices given are drawn from our observations in schools in San Diego.

References

- Absolum, M., Flockton, L., Hattie, J., Hipkins, R., & Reid, I. (2009). *Directions for assessment in New Zealand (DANZ): Developing students' assessment capabilities*. Wellington, New Zealand: Ministry of Education.
- Adesope, O. O., Trevisan, D. A., & Sundararajan, N. (2017). Rethinking the use of tests: A meta-analysis of practice testing. *Review of Educational Research*, 87(3), 659–701.
- Bong, M. (2013). Self-efficacy. In J. Hattie

& E. M. Anderman (Eds.), *International guide to student achievement* (pp. 64–66). New York: Routledge.

Hattie, J. (2012). *Visible learning for teachers*. London and New York: Routledge.

Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57, 705–717.

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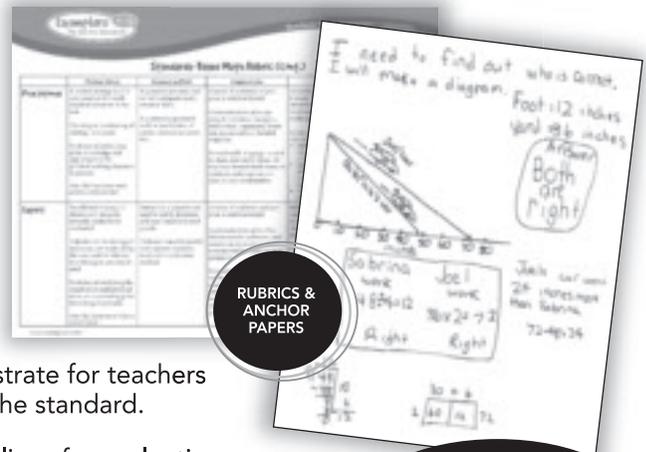
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