Back To School!

Dennis-Yarmouth RSD

Instruction Office Newsletter

The Potential and Downsides of Pre-Assessments

(Originally titled
"Pre-Assessment: Promises and Cautions")
Why give students pre-assessments? ask Thomas Guskey (University of Kentucky) and Jay McTighe (author/consultant) in this *Educational Leadership* article. The most common reasons are:

- ✓ ***To see what students know and are able to do before embarking on a lesson, curriculum unit, or course;***
- ✓ ***To get baseline data against which to measure students' progress;***
- ✓ ***To communicate course or unit expectations to students up front and allow them to self-assess against models of expert performance;***
- ✓ ***To focus students on the learning targets and get them thinking about how they will improve as a result of the lesson, unit, or course;***
- ✓ ***To get a sense of students' preconceived notions, misunderstandings, misconceptions, and knowledge gaps;***
- ✓ ***To identify students' interests, likes and dislikes, talents, and preferred ways of learning (surveys with questions like these also tell students that their teacher cares about them as people).***

Notwithstanding these potential benefits, say Guskey and McTighe, pre-assessments can have the following downsides:

• ***Beginning on a bad note*** – "If pre-assessments simply demonstrate to students how little they know, this exercise may negatively affect their disposition toward the upcoming event," say the authors.
Teachers' messaging needs to emphasize that a pre-assessment won't count against students and the

Continued on page 2

September 2016

Volume 4, Issue 1

IMPORTANT DATES

August 30	Opening Day
August 31	Professional Development Day
September 1	Professional Development Day
September 5th	Labor Day Holiday
September 6th	Opening day for students
September 7-	SAE Open House
September 8-	MMS Open House
September 13-	NHWi Open House
September 15-	DYH Open House
September 22-	EHBi Open House
September 28-	First day of autumn
September 28-	District Meeting @ DHY Auditorium- Calmer Choice (2:20-3:05; 3:20-4:05; 4:15-5:00)
September 29-	MES Open House

IMPORTANT NOTICE:

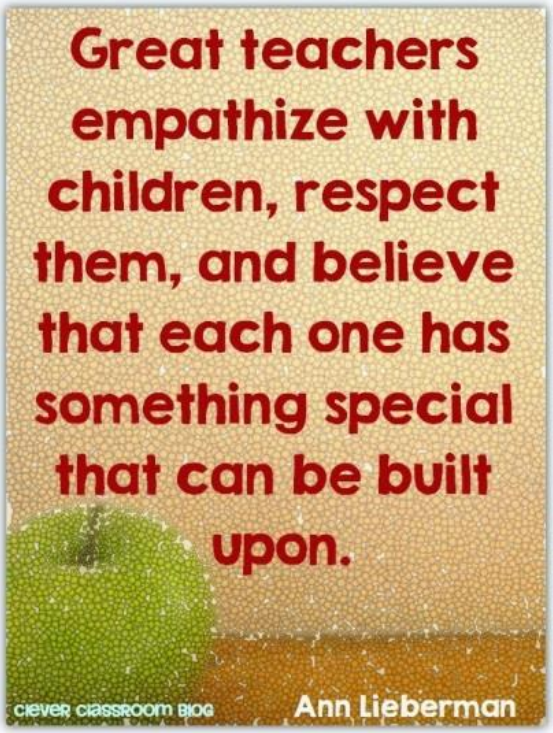
Central office is a **fragrance-free zone** so please be respectful and plan accordingly when you visit.

Due to one of our members at the CO being highly sensitive to any type of fragrance, we ask that staff visiting/meeting at the Administration building refrain from using any scented products. Fragrances from personal care products, air fresheners, laundry and other cleaning products have been associated with adversely affecting a person's health. We ask that we all work together to make the environment a safe and healthy workplace for everyone. Thank you very much for your cooperation!

Continued from page 1

purpose is to help make lessons more effective and fun, highlight what's going to be learned, and allow students to set goals.

• ***Wasting instructional time*** – The results of pre-assessments are often not news to teachers, especially if a unit has been carefully planned to anticipate errors and misconceptions. To avoid giving pre-assessments that add little value, teachers should use them only when necessary, keep them short, using multiple-choice questions where possible, and limit questions to areas where the teacher genuinely doesn't know how students will perform.



• ***Creating management challenges*** – A thorough unit pre-assessment might well reveal four levels of student preparation in a single classroom: students who know the intended outcomes up front; students who have partial knowledge; students who have little or no knowledge; and students who have significant misconceptions. Trying to differentiate for all these students is a classroom management nightmare for even the most creative teacher. Guskey and McTighe suggest a compromise, with some highly engaging whole-class presentations and then significant decentralization and choice with frequent checks for understanding.

• ***Consuming precious time looking at data*** – Written pre-assessment responses can take a lot of teacher time to score and analyze, slowing down the launch of instruction (especially for secondary teachers with multiple classes). When possible, teachers should gather pre-assessment data with individual student dry-erase boards, clickers, or other methods that allow for rapid student input and teacher analysis and decision-making. KWL charts can also be helpful (getting students to brainstorm at the outset what they know and want to know, and then at the end of the unit what they learned).

Guskey and McTighe conclude with three guidelines to ensure that pre-assessments are practical, provide useful data, and enhance student learning:

• Teachers should be clear about the purpose, both for themselves and their students. What new and helpful data will be gathered? Do students know why they are doing the pre-assessment?

• Decide how the information will be used. "Pre-assessment without associated action is like eating without digestion," say Guskey and McTighe. Possible follow-ups include reviewing essential knowledge and skills with the whole class, addressing misconceptions, providing targeted instruction, linking content to students' interests, and differentiating for individuals or groups.

• Use pre-assessments judiciously and efficiently. They're not necessary for every new unit, say the authors – only when they can really add value and only if they're short and can produce data that can be assessed quickly. Guskey and McTighe recommend against giving pre-assessments for individual lessons.

"Pre-Assessment: Promises and Cautions" by Thomas Guskey and Jay McTighe in *Educational Leadership*, April 2016 (Vol. 73, #7, p. 38-43), available for purchase at http://bit.ly/1SVdGVj; the authors can be reached at Guskey@uky.edu and jmctigh@aol.com.

A Compendium of Key Teaching Principles from Cognitive Science

In this article in *Kappan*, Benjamin Riley reports on a paper recently published by the Deans for Impact (a group of education-school leaders) summarizing cognitive science principles essential to effective teaching and learning. The ideas, developed with Daniel Willingham (University of Virginia) and Paul Bruno (a former middle-school teacher), are organized around six essential questions, with practical implications for the classroom:

A. How do students understand new ideas?

• ***Students learn new ideas by linking them to what they already know.*** This means it's essential for teachers to develop and refer to prior knowledge. Teachers should also make frequent use of analogies, elaborate on them, and help students see how prior knowledge connects to what is to be learned.

• ***Students must transfer information from working memory to long-term memory.*** Because working memory has limited capacity, students can be overwhelmed if too much information is presented at once. Effective teachers make content explicit through carefully paced explanation, modeling, and examples; present new information through multiple modalities; and make good use of worked problems.

• ***Learning doesn't progress through a fixed sequence of age-related stages.*** Rather, the mastery of new concepts happens in fits and starts. "Content should not be kept from students because it is 'developmentally inappropriate,'" says the report. "To answer the question 'is the student ready?' it's best to consider 'has the student mastered the prerequisites?'"

B. How do students learn and retain new information?

• ***Information is often withdrawn from memory just as it went in***. For students to remember what information means and why it is important, we need to get them thinking about meaning when they encounter to-be-remembered material. Effective teachers assign tasks that require explanation or require students to organize material in meaningful ways. Stories and mnemonics are also helpful in getting students to impose meaning on hard-to-remember content.

• ***Practice is essential to learning new facts, but not all practice is equally effective.*** For long-term mastery, it's best to space practice over time and interleave questions from different content areas. Frequent quizzes with low stakes, and students testing themselves; help establish long-term retention through the "retrieval effect." At a metacognitive level, it's good for students to understand this principle of long-term memory.

C. How do students solve problems?

• ***Each subject has basic facts that support higher-level learning by freeing working memory and illuminating applications.*** In reading, these include phonics and letter-sound pairings; in math, they include basic facts such as the multiplication tables.

• ***Effective feedback is often essential to acquiring new knowledge and skills.*** Good feedback is specific and clear, focused on the task rather than the student, explanatory, and directed toward improvement rather than merely verifying performance.

D. How does learning transfer to new situations in or outside the classroom?

• ***To transfer learning to a novel problem, students need to know the problem's context and its underlying structure.*** It's important for students to have sufficient background knowledge to appreciate a problem's context.

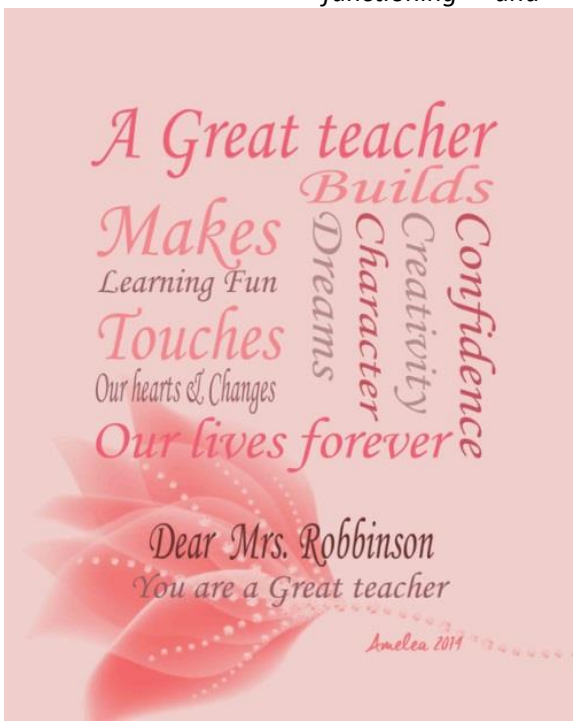
• ***Examples are helpful to learning new ideas, but it's often hard to see the link to other examples.*** Having learned to find the area of a table top, a student might not see how this applies to finding the area of a soccer field. Explicitly comparing the examples helps students remember the underlying similarities. With multi-step procedures, students need to identify and label the sub-steps so they can apply them to similar problems. It's also helpful to alternate concrete examples and abstract representations.

E. What motivates students to learn?

• ***Beliefs about intelligence are important predictors of student behavior in school.*** Motivation is improved if students believe that intelligence and ability can be improved through hard work, and if adults respond to successful work by praising effective effort rather than innate ability. It's also helpful for teachers to set learning goals (e.g., mastering specific material) rather

than performance goals (competing with others or vying for approval).

- ***Intrinsic motivation leads to better long-term outcomes than extrinsic motivation***. Teachers need to keep their eye on whether a task is one that students are already motivated to perform; whether a reward is verbal or tangible; whether a reward is expected or unexpected; whether praise is for effort, completion, or quality; and whether praise or a reward occurs immediately or after a delay.
- ***It's difficult to gauge one's own learning and understanding.*** That's why students need to learn how to monitor their own learning through assessments, self-testing, and explanation.
- ***Students will be more motivated and successful when they believe they belong and are accepted.*** Teachers should reassure students that it's natural to have doubts about belonging – but those feelings will diminish over time. Teachers can also encourage students to see critical feedback as a sign that others believe in their ability to meet high standards.



F. What are common misconceptions about how students think and learn?

- Teachers need to recognize and dispel a set of incorrect beliefs about teaching and learning:

Misconception #1:
Students have different "learning styles."

Misconception #2:
Humans use only 10 percent of their brains.

Misconception #3:
People are preferentially "right-brained" or "left-brained" in how they think.

Misconception #4:
Novices and experts think in all the same ways.

Misconception #5:
Cognitive development progresses in age-related stages.

"The Value of Knowing How Students Learn" by Benjamin Riley in *Phi Delta Kappan*, April 2015 (Vol. 97, #7, p. 35-38), www.kappanmagazine.org; the full Deans for Impact report, *The Science of Learning,* is at http://www.deansforimpact.org/the_science_of_learning.html

Twenty Psychological Principles for Successful Teaching and Learning

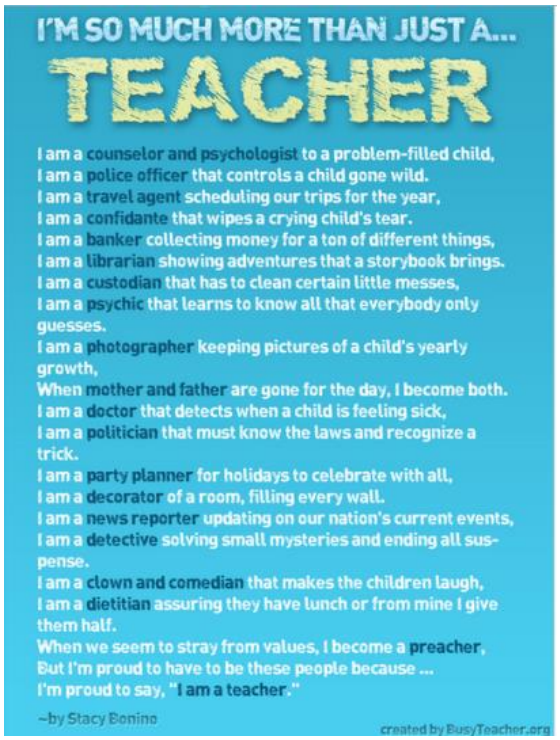
In this report from the American Psychological Association, Joan Lucariello and nine colleagues synthesize key psychological principles and explain their implications for PreK-12 educators. The full report (see link below) has considerable detail on each one.

- **Principle #1:** *Students' beliefs and perceptions about intelligence and ability affect their cognitive functioning and learning*. Students with an "incremental" or "growth" mindset tend to focus on learning goals and are willing to take on challenging tasks to expand their intelligence or ability. Students with a "fixed" or "entity" view of intelligence feel the need to continually demonstrate or prove their ability and are hesitant to take on difficult challenges. Teachers can foster a growth mindset by encouraging students to attribute success and failure to effort and strategy and avoiding ability-based praise or criticism.
- **Principle #2:** *What students already know affects their learning*. Prior knowledge can be "Velcro" for new knowledge, but what students "know" may also be erroneous. Teachers can gain insights on students' current knowledge – and their misconceptions and knowledge gaps – by giving pre-assessments and putting the data to work in unit and lesson planning. Getting students to change their misconceptions requires especially careful lesson planning.
- **Principle #3:** *Students' cognitive development and learning are not limited to general stages of development*. Recent research has debunked earlier stage theories of learning and shown that students are capable of advanced thinking if specific knowledge and

skills are in place. Baseline assessments are helpful in guiding how instruction should proceed, and heterogeneous grouping can foster peer learning.

• **Principle #4**: *Learning occurs within a specific context (e.g., a classroom, a lab, a textbook) and transferring or generalizing learning will not happen by itself.* Teachers need to make real-world connections, teach in multiple contexts, and take the time to develop students' understanding of deep, underlying concepts that can be applied in new contexts.

• **Principle #5:** *Acquiring long-term knowledge and skill is largely dependent on practice*. Students experience a plethora of stimuli every day that lodge in short-term or working memory. Moving the most important items into long-term memory takes deliberate practice – attention, rehearsal, practice testing (the retrieval effect), spaced repetition over time, and interleaving material from different subject areas.



• **Principle #6:** *Clear, explanatory, and timely feedback to students is important for learning*. Specific learning goals are the starting point, followed by feedback on what students have right and wrong that guides them to knowing what to do, becoming self-correctors, and taking ownership for their own learning.

• **Principle #7:** *Students' self-regulation assists learning, and self-regulatory skills can be taught*. Students need to learn planning, attention, self-control, and memory strategies.

• **Principle #8:** *Creativity can be fostered.* Being able to generate ideas that are new and useful in a particular situation is an important 21st-century skill, and it's not a fixed trait that you either have or you don't. Teachers should allow for a wide range of student approaches to completing tasks or solving problems (*create, invent, discover, imagine if, predict*), emphasize the value of different approaches, and avoid the tendency to see highly creative students as disruptive.

• **Principle #9:** *Students tend to enjoy learning and do better when they are more intrinsically rather than extrinsically motivated.* The long-term goal is to get students to the point where they engage in activities for their own sake – where success and mastery are sufficient motivation to work hard and stick with the task.

• **Principle #10:** *Students persist in the face of challenging tasks and process information more deeply when they adopt mastery rather than performance goals*. Mastery goals are about acquiring new skills and improving levels of competence, while performance goals are about showing one's ability and doing better than others. Teachers should emphasize progress over past performance (versus normative evaluation and comparison to others), deliver feedback privately, get students working in cooperative groups, and encourage students to see mistakes as opportunities to learn versus evidence of low ability.

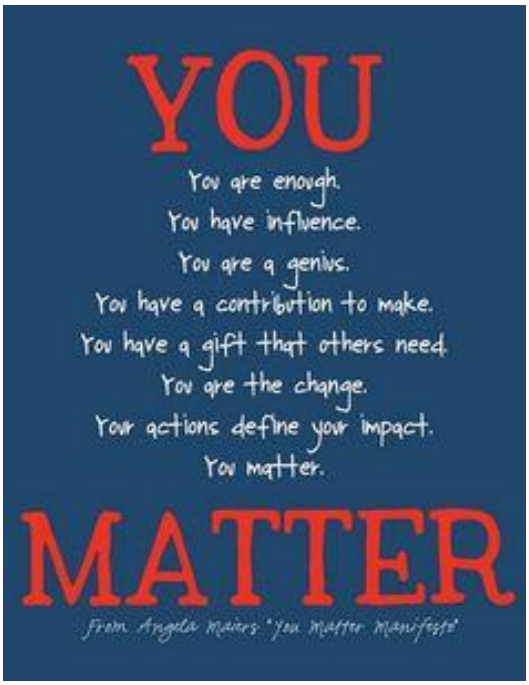
• **Principle #11:** *Teachers' expectations about their students affect students' opportunities to learn, their motivation, and their learning outcomes*. "These beliefs shape the kinds of instruction delivered to students, the grouping practices that are used, anticipated learning outcomes, and methods of evaluation," say the authors. "If faulty expectations are communicated to a student (whether verbally or nonverbally), that student may begin to perform in ways that confirm the teacher's original expectation." Teachers need to continuously self-check, for example: Where are students sitting the classroom? Are all students participating in discussions? Is written feedback delivered equitably?

• **Principle #12:** *Setting goals that are short-term, specific, and moderately challenging enhances motivation more than establishing goals that are long-term, general, and overly challenging*. At least until middle adolescence, students aren't skilled at thinking concretely about the distant future (e.g., succeeding in

college). Teachers need to set goals that move students toward high achievement and gradually "stretch" the goals.

• **Principle #13:** *Learning is situated within multiple social contexts*. These include families, peer groups, neighborhoods, communities, and the larger society. The more teachers know about the different contexts, the better they will do at creating a classroom culture that facilitates learning.

• **Principle #14:** *Interpersonal relationships and communication are critical to both the teaching-learning process and the social-emotional development of students*. "Given their social nature, classrooms provide a critical context for teaching social skills such as communication and respect for others," say the authors. "Developing successful relationships with peers and adults is highly dependent on one's ability to communicate thoughts and feelings through verbal and nonverbal behavior."



• **Principle #15:** *Emotional well-being influences educational performance, learning, and development*. Teachers' choice of vocabulary, effective modeling, and explicit teaching can help students develop a healthy self-concept and self-esteem; self-efficacy and locus of control; happiness, contentment, and calm; a capacity for coping in healthy ways with everyday stresses; understanding, expressing, and controlling one's own emotions; and perceiving and understanding others' emotions.

• **Principle #16:** *Expectations for classroom conduct and social interaction are learned and can be taught using proven principles of behavior and effective classroom instruction*. Teachers need to start at the very beginning of the year and re-teach behavioral expectations throughout the year. Certain well-established programs like PBIS are very helpful.

• **Principle #17:** *Effective classroom management is based on structure and support at the classroom and schoolwide level*. This means teachers are: (a) setting and communicating high expectations; (b) consistently nurturing positive relationships with a high ratio of positive to negative statements; and (c) providing a high level of student support.

• **Principle #18:** *Both formative and summative assessments are important and useful, but require different approaches and interpretations*. Formative assessments are on-the-fly and used to improve instruction and learning in real time. Summative assessments measure learning at certain points in the year. Clear learning targets are important to both.

• **Principle #19:** *Students' skills, knowledge, and abilities are best measured with assessments that have well-defined standards for quality and fairness*. Some important questions on the validity of formative assessments:

How much of what you want to measure is actually being measured?

How much of what you didn't intend to measure is actually being measured?

What are the intended and unintended consequences of the assessment?

What evidence do you have to support your answers to the first three questions?

Reliability is another key criterion of good assessments – are they consistent indicators of students' knowledge, skills, and abilities?

• **Principle #20:** *Making sense of assessment data depends on clear, appropriate, and fair interpretation*. This comes back to what the assessment was designed to measure, ensuring that the data are used in ways that improve teaching and learning.

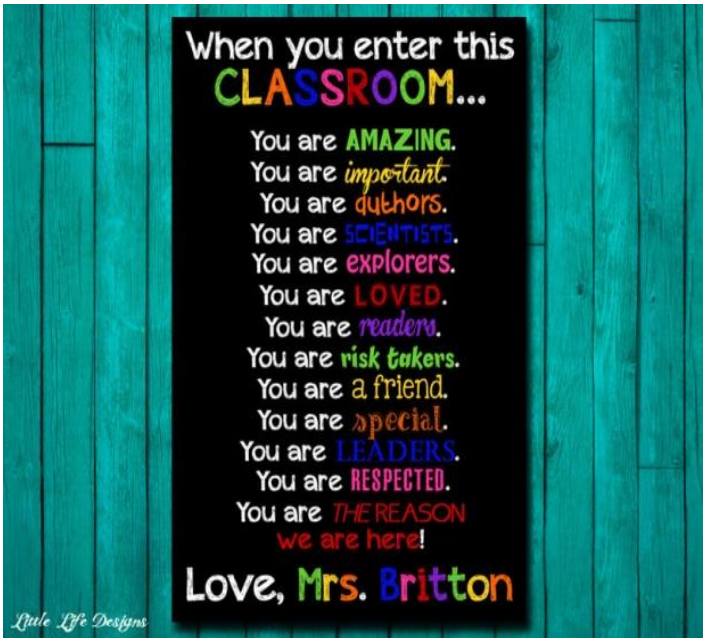
"Top 20 Principles from Psychology for Pre-K-12 Teaching and Learning" by Joan Lucariello, Sandra Graham, Bonnie Nastasi, Carol Dwyer, Russ Skiba, Jonathan Plucker, Mary Pitoniak, Mary Brabeck, Darlene DeMarie, and Steven Pritzker for the American Psychological Association, 2015, https://www.apa.org/ed/schools/cpse/top-twenty-principles.pdf

Using Reading Recovery Techniques in Guided Reading Groups

In this article in *The Reading Teacher*, Sara Helfrich (Ohio University/Athens) and Jamie Lipp (a former Reading Recovery teacher and currently a curriculum specialist and doctoral candidate) suggest several practices used in one-on-one Reading Recovery lessons that can be effective in guided reading sessions in the regular classroom:

Focusing on fluency:

- ***Familiar reading*** – Have students warm up by whisper-reading a book at their independent or instructional level that they've read at least once, and monitor them for fluency.
- **Anchor text** – Each student should have a very familiar book that he or she can read fluently, and use it to practice reading smoothly and with expression.
- **Modeling fluent reading** – When students are reading in a choppy, staccato fashion, the teacher should read with them, showing what fluent reading sounds like. Prompts include: *Are you listening to yourself? Put them all together so that it sounds like talking. Reread. Did it sound smooth?*
- **Weaning from finger pointing** – "Emergent readers often use finger pointing long after it is needed," say Lipp and Helfrich. "Once early behaviors such as one-to-one matching, return sweep, and locating known words are firmly established, it is important to ask students to read with their eyes only." Pointing should be used only when necessary.



Providing a supportive book introduction:

- **Contagious excitement** – Psych students up for each new book, introducing it in ways that connect with their interests and make them feel it will be fun to read on their own.
- **Covering all the bases** – "We must make students familiar with the story, the plot, unfamiliar phrases, unusual names, new words, and old words used in an unusual way," say Lipp and Helfrich. "Reading Recovery teachers often ask questions that allow students to think beyond the text, making predictions, and creating suspense by not revealing up front the ending of the text."

Prompting as students read the book individually:

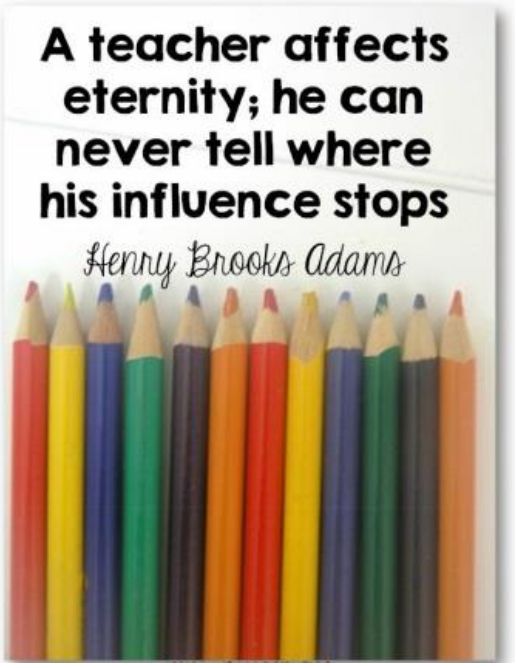
- **Goldilocks challenge level** – New books introduced in guided reading should be at the edge of students' instructional level, not too hard but not easy.
- **Minimal teacher talk** – "Reading Recovery teachers are trained to know how to say enough without saying too much," say Lipp and Helfrich. "Too much teacher talk can impede learning." Brief, gentle interventions might include: *Do this. What did you notice? Why did you stop? Think about what you know that might help*.
- **The right prompts** – "We must remain flexible with our prompting to ensure we are creating readers who skillfully integrate meaning, structure, and visual information to interpret texts," say Lipp and Helfrich.

Observing and analyzing carefully:

- **Listening closely** – "To prevent reading failure teachers must take time to observe what children are able to do," said Marie Clay, the creator of Reading Recovery. This includes listening, chatting with children

about a story, and using running records.

- **How does the reading sound?** Are students putting words and phrases together so the reading flows? Are they spending too much time on word solving? When they slow down to figure out a difficult word, do they speed right up again?
- **Using strengths** – "Building off readers' strengths is a foundation piece of the Reading Recovery lesson," say Lipp and Helfrich. Watch for things they are doing better and use those to support further learning.
- **Noting struggles** – Are they making haphazard attempts at high-frequency words? Do they need more practice?
- **Interpreting a "told" word** – When a student is stuck and the teacher has to tell a word, what caused the problem? Those words or patterns may need to be practiced.
- **Who is doing the work?** "[T]he hardest shift for teachers to make is to think about teaching as assisting the student's problem solving," said Lyons, Pinnell, and DeFord. "Reading Recovery teachers are taught to balance strategic teaching with high expectations of accountability for students," say Lipp and Helfrich. "Reading, to most students, can appear like a puzzle in need of careful solving. Helping students to understand and gain control of the skills and strategies to do their own puzzle solving will decrease their dependence on you as the teacher for constant support… Make sure that you are not jumping in right away to rescue students each time they pause or falter." When students are right, ask them, *Were you right?* When they're wrong, ask, *How do you know?*



"Key Reading Recovery Strategies to Support Classroom Guided Reading Instruction" by Jamie Lipp and Sara Helfrich in *The Reading Teacher*, May/June 2016 (Vol. 69, #6, p. 639-646), available for purchase at http://bit.ly/257sags; the authors can be reached at jamielipp@sbcglobal.net and helfrich@ohio.edu.

Five Keys to Effective Teaching

In this *Edutopia* article, editor Rebecca Alber spotlights five classroom practices identified by John Hattie in *Visible Learning for Teachers* (Routledge, 2011) that make the biggest difference to student learning:

- ***Clarity of purpose*** – At the beginning of a curriculum unit or project, students need to see why they're doing it, the learning goals, the criteria for success, and models of high-quality end products.
- ***Classroom discussion*** – "Teachers need to frequently step offstage and facilitate entire-class discussion," says Alber. "This allows students to learn from each other. It's also a great opportunity for teachers to formatively assess (through observation) how well students are grasping new content and concepts."
- ***Feedback*** – Students need to know how they're doing as individuals and as a class. They also need opportunities to give their teachers feedback to allow for adjustments in pedagogy and materials.
- ***Formative assessments*** – Minute-by-minute, day-by-day, and week-by-week checks for understanding are essential to students knowing how they are doing with respect to the ultimate learning goals.
- ***Metacognitive strategies*** – Students need opportunities to plan, organize, direct, and monitor their own work – and to reflect as they proceed. "When we provide students with time and space to be aware of their own knowledge and their own thinking," says Alber, "student ownership increases. And research shows that metacognition can be taught."

"5 Highly Effective Teaching Practices" by Rebecca Alber in *Edutopia*, February 27, 2016, http://www.edutopia.org/blog/5-highly-effective-teaching-practices-rebecca-alber