by Alicen Gaytley

The Seven Rs: Learning Beyond Content

How a teacher facilitates learning has a dramatically more significant effect on student achievement than a teacher's subject matter knowledge (Hattie, 2008). With the adoption of the Common Core State Standards, educators have been struggling to learn and cover the new content expectations. Meanwhile, increasing populations of students with disabilities, limited English proficiency, and those from low-income families are struggling to keep up. Although content must be understood and taught by teachers, it is time to re-evaluate our priorities. Now is the time to focus on the classroom conditions that support learning for all students: The Seven Rs (see Figure 1).

1. Relationships: Learn about your learners.

Education is a people business. Every piece of data reflects the learning of a student whose behaviors and development were influenced by relationships. Positive relationships should be fostered at all levels in a school, starting with the staff and extending through to parents and the community. The relationships that have the biggest impact on student achievement are developed within the classroom. Student-to-teacher relationships are among the highest of all teacher-domain factors that impact student achievement. Productive student-to-student relationships, embodied in reciprocal teaching and cooperative learning, have effect sizes within the top-10 of all in the teaching domain (Hattie, 2008). The bottom line is when we like and respect the people around us, we feel safe and ready to learn (Jensen, 2013).

Recommendations for Student-to-Teacher Relationships:

Study your students. Find out a few things about your students right away, and make it a priority to continue to collect information as you get to know them throughout the year.

Share about yourself. Tell a short personal story to help illustrate a point you are trying to make in class or replace details in story-problems with details about yourself such as what you like and respect.

Use Interactive Journals. Start by writing a letter to your students (whole group) in which you share something about yourself and have a question for the students to answer about themselves. Students write back in a journal about anything they want to share. Reply to them, modeling correct grammar and conventions, but never correcting their writing. You can plan for further instruction by recording elsewhere the types of writing and language errors made by the class (Egbert & Ernst-Slavit, 2010), or just use the writing to strengthen relationships. Reply to only a few students a day to keep it manageable.

Recommendations for Student-to-Student Relationships:

Create cooperative learning groups. Expect students to work together to solve problems. Tasks should require positive interdependence where all students are engaged and accountable (Kagan, 2011). Limit groups to three or four students to maintain positive effects (Marzano, 2007).

Teach interpersonal and social skills. Students need to know how to show empathy, caring, and respect. Choose a trait to focus on for a month or a unit, and brainstorm with students what it looks like and sounds like.

Facilitate short activities for students to get to know each other. Have the students find a partner to discuss a favorite hobby, etc.

Incorporate reciprocal teaching. Reciprocal teaching is a specific student-led metacognitive process that involves predictions, discussion, and summarization while reading. You can, however, get students to teach each other about any subject because teaching can increase student retention from 10% up to 95% (Tate, 2010).

2. Relevance: Get real.

Students are most likely to retain content when the teacher's instruction is clear and, more importantly, has meaning for the students (Sousa & Tomlinson, 2011). Meaning comes when the students connect the learning to something they already know, to another subject, or to a goal they have for the future. In other words, the content matters.

Recommendations for Relevance:

Make sure your students know why your lesson matters. Have a clear learning goal that answers the questions for your students, "What are we learning?" and "Why does it matter?"

Have clear content and language objectives. Students should know what they are trying to accomplish and how they can communicate it. Student populations with learning and/or language deficiencies are increasing, including students with limited English, students with disabilities (U.S. Department of Education, National Center for Education Statistics, 2015), and students from poverty (Layton, 2015). Content and language skills need to be explicitly taught by all teachers.

Keep it challenging. Higher-level processing or questioning with multiple solutions are more engaging and can be less stressful than rote recall (Sousa & Tomlinson, 2011). Never lower the expectations for students who need extra help. Instead, provide scaffolding (i.e., chunk content, ask it in a different way, etc.) so they can be successful at the highest levels of processing.

Include what you have learned about students' interests and lives. Change the first story problem of the day to include a real-life scenario with topics that are of interest and apply to your students (favorite sports, foods, cultural traditions, etc.), while modeling respect for the diversity in your class.

3. Responsiveness: Engage and be engaged.

The way teachers respond to their students, the way students respond to their teachers, and the way students respond to each other, dictates the tone in any classroom. Teachers' responsiveness to students requires deliberate planning. Remember, teacher responses make up at least half of all teacher-to-student interactions.

Recommendations for Responsiveness:

Talk less; listen more. The teacher should be talking less than 50% of the time (Jensen, 2013). Give students processing time in various flexible groupings appropriate to the tasks. Both teachers and students will learn more.

Presume positive intentions. Many times teacher responses are based on hidden assumptions about student intentions. One teacher may be irritated by students who ask too many questions assuming they are trying to derail the class discussion, while another teacher may assume the same students are just trying to better understand the content (Sousa & Tomlinson, 2011).

Accept student responses as feedback about your teaching. Pay attention to students' non-verbal cues (posture, eye contact, etc.) and adjust your instruction based on the responses from your students.

Engage at least every 5-10 minutes. Be proactive to avoid undesired student responses (boredom, etc). Set a timer for the average age of your classroom (up to 10 minutes). Each time your students engage in an activity (talking, moving, etc.) reset your timer. If your timer goes off and you are stumped for a way to engage students, have them tell a partner what they are learning and why.

4. Repetition: Repeat to remember; Remember to repeat. (Medina, 2014)

Repetition is a vehicle to help form long-term memories. Students will typically forget 90% of what is taught one day later (Medina, 2014). Repetition in and of itself will not necessarily build background or ensure information is stored in students' long-term memory; however, variety, elaboration, deeper processing, and intervals may be helpful.

Recommendations for Repetition:

Repeat information in various ways to engage the brain. Key concepts, vocabulary, phrases, and processes should be intentionally embedded and repeated after direct instruction. Grouped and individual activities may involve speaking, listening, reading, writing, visuals, movement and other brain-friendly strategies. For more ideas, see Tate (2010) and Jensen (2013).

Make repetition relevant. The information being repeated should be easily understood and have meaning to the learner. If the learner has made connections or associations with something else (elaboration), or if the learner is adding more detail to the information being repeated (deeper processing), it will more likely be stored in long-term memory (Marzano, 2004). The more personal it is to the student, the better it will be remembered (Medina, 2014).

Pay attention to the intervals. Information repeated within 30 seconds will get into working memory, but could fade if not repeated again within another 60 to 90 minutes (Medina, 2014). Most information requires spaced repetition with elaboration or deeper processing at least four times before it is stored in long-term memory. Avoid spacing repetition more than two days apart (Marzano, 2004).

5. Retrieval Practice: Teach to retain for long-term gain.

After you have read the question in the next sentence, close your eyes and visualize the answer before opening your eyes again. What are the first four of The Seven Rs? (Close your eyes.) Congratulations! You have just participated in a simple retrieval practice activity.

Retrieval practice is different from studying notes. It is recalling information from working memory. Retrieval practice of information previously taught has been found to be far more effective for long-term retention than reading notes or restudying the same material, even if there was no feedback provided from the teacher (Roediger & Butler, 2011). Note: Do not take down visual cues in your classroom, as they are critical resources for repetition. During short retrieval practice activities, tell students to temporarily ignore resources until they have retrieved everything from their brains first.

Recommendations for Retrieval Practice

Ask, "What are we learning?" and "Why is it important?" This should be a common question to ask your students. If your students are not able to retrieve this information on their own (without looking at a resource), work on Relevance.

Introduce four or fewer items at a time. For more than 50 years, it has been thought that brains can store about seven pieces of information (plus or minus two) in working memory at one time. Newer research, however, suggests that this number is closer to four, and probably fewer for preadolescents (Sousa & Tomlinson, 2011).

Use "quick writes" or learning logs after new content is introduced. Give students silent time to write out important vocabulary and concepts after a mini-lesson, as writing helps with retention (Tate, 2010). Scaffold by giving time to share what they intend to write about with a partner before they start, and encourage sketches that go along with the content.

Teach retrieval practice as a study skill. Give students a blank graphic organizer and have them write down everything they remember about a section

of learning before looking at a resource (see Figure 2).

6. Reinforcement: Stay positive and be specific.

Teachers should reinforce both behavior and academics by providing feedback in response to students' interactions and performance. Feedback is in the top-10 of all influencers on student achievement (Hattie, 2008). Everyone responds to feedback, but students growing up in poverty typically get half as much positive feedback as negative feedback at home, and 12 times less positive feedback than their higher-income peers (Jensen, 2013).

Recommendations for Reinforcement:

Follow the 4:1 rule. Notice students doing something good four times as much as you notice them doing something wrong. Recognize them with a verbal or non-verbal acknowledgement or a tangible award when appropriate (Marzano, 2007).

Focus on S-E-A (Strategies, Effort, and Attitude). Point out a specific strategy, effort, or attitude that helped the student be successful. "I noticed you never gave up on that story problem. That *effort* helped you solve the problem, and will help you achieve your goals" (Jensen, 2015). The exception here is to never compliment an effort if it resulted in absolute failure. That may cause the student to think their effort doesn't matter. (Jensen & Snider, 2013).

Help students track progress toward their goals. After a formative assessment, have students complete a goal tracker that includes their goals, current progress, and next steps (Hattie, 2008). Make sure you have taught some strategies and ideas for what they can do to be successful in their next steps.

7. Reflection: Focus on what you have learned.

Reflection is a powerful tool that allows both students and teachers to think about their learning. After a unit or lesson, ask students, "What did you do well?" and "What could you have done better?" (Marzano, 2007). Students should be able to cite a strategy, effort, or attitude such as, "I never gave up, even when I was having trouble understanding," or "I could have participated more in my group discussions."

Recommendations for Reflection:

Attribute success and failures to actions. Teach students that intelligence is not fixed (Dweck, 2006), and that success and failures are dependent upon actions, not IQ, social status, background, or special needs (Dweck, 1999). When self-reflecting, encourage students (and yourself as a teacher) to think about what actions led to success and/or failure, in order to decide what to do next.

Have students keep a journal. Students can write in it after an activity, and before or after a big test. Allow students to choose whether or not the teacher will read it (Tate, 2010). A study by Ramirez and Beilock (2011) showed students' test scores improved after writing how they felt about an upcoming test.

Make a KWLS chart for the unit. Each part of the chart tracks progress toward the learning goal: (a) Know, (b) Want to know, (c) Learned, and (d) Still want to learn. The first two parts are completed before the unit, and the last two are completed as a reflection during or after the unit. This is a good way to understand students' background knowledge as well (Egbert & Ernst-Slavit, 2010).

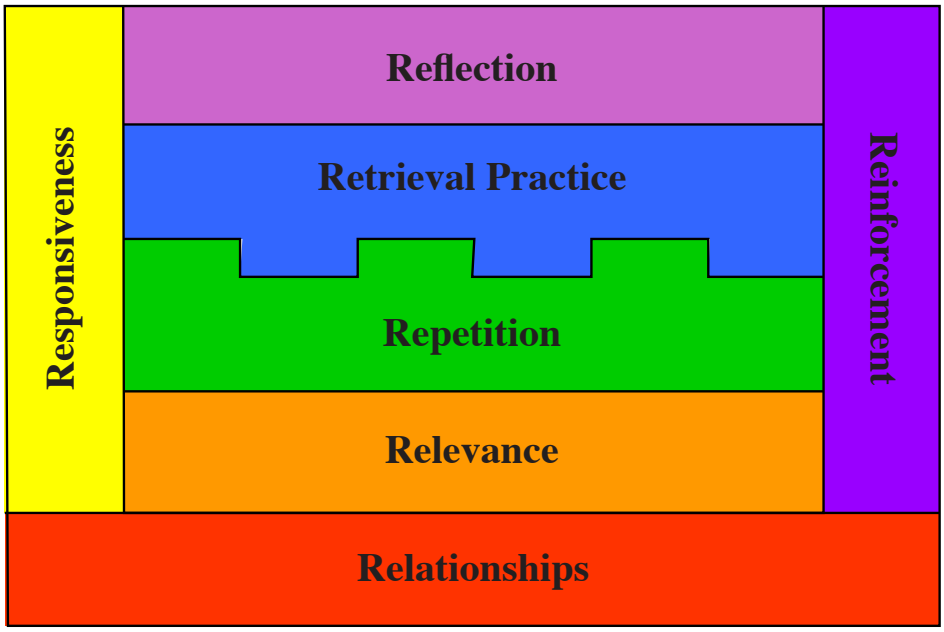

Figure 1. The Seven Rs.

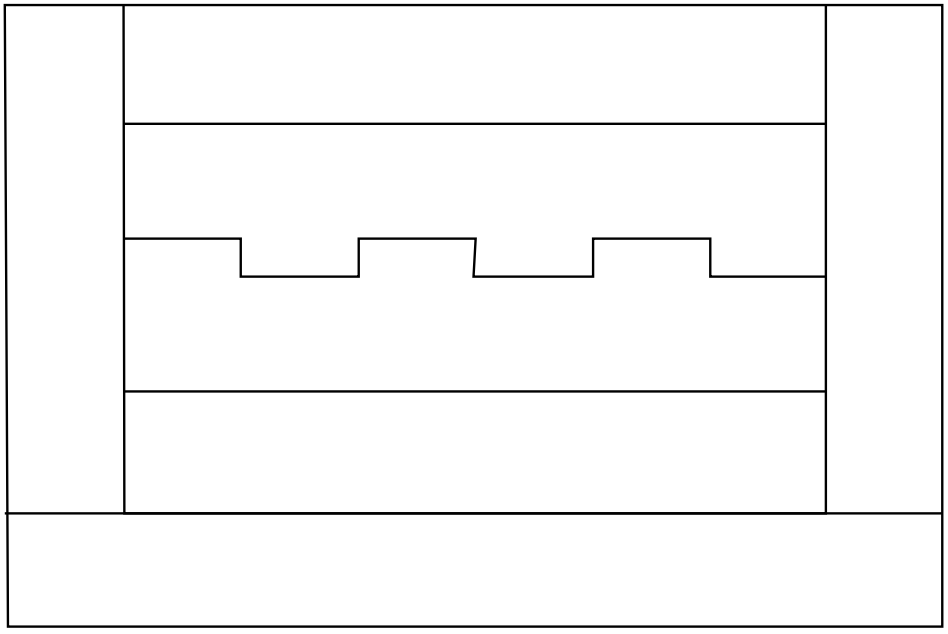

Figure 2. Blank Graphic Organizer.

Conclusion: Use The Seven Rs to engage ALL learners.

All students crave caring *Relationships*, and their brains are searching for *Relevance*. Teacher *Responsiveness* to each student's behavior dictates all students' responsiveness to learning. *Repetition* and *Retrieval Practice* maximize all students' abilities to retain what they have learned. Positive *Reinforcement* encourages and motivates all learners. *Reflection* is a mirror to the past and present to see how to progress forward for *ALL*.

Try this Retrieval Practice exercise.

Use the blank graphic organizer to complete as much as you can remember about each of The Seven Rs without looking back at the text. You can refer to Figure 1 for the names of The Seven Rs.

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