Critical factors in helping struggling learners to remember

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Note: This is Part 2 in a series on memory strengthening. View Part 1 here.

If you teach special education or have a child in need of remedial or special help, you may soon start asking “Why does he keep forgetting? What’s wrong with him?”

Maybe he forgets because he doesn’t attend to or understand the important information, concepts or processes. And maybe, in full or part, he’s a struggling learner with memory problems. But physically, directly, legally and morally, you can’t get into his brain to rearrange his memory cells and synapses as he’s a real child, not an android in a bizarre science-fiction movie. So, you’re helpless. Right?

Wrong. You’re not. In many cases, it’s a matter of teaching him to remember. Yes, it’s that complex and simple word, teaching. For you to help struggling learners strengthen specific memories, you’ll need to understand and routinely and systematically stress the five critical REMOS factors.
What is REMOS and its five factors?

REMOS is not a method, but a reminder for teachers and parents to regularly take critical actions that strengthen memory. REMOS is also good news. It accurately implies that you have substantial control over the REMOS factors of Repetition, Elaboration, Meaning, Organization and Spacing – also called Distributed Practice.

You can make comments and plan activities that support them. You can make them fit your preferences as well as the needs of struggling learners and their peers. And unplanned and opportunistically, you can use them throughout the day.

But first, let’s look at how history, novelty and importance can affect REMOS. Understanding and using these will often increase the power of REMOS, just like how smart advertising increases sales.

What are history, novelty, and importance?

History. Children are usually interested in new things similar to what they’re already interested in. Generally, the more they’re interested in something, the more they’ll attend to it, the more they’ll remember about it. So, if you want struggling learners and other children to remember a story for an oral book report, let them choose books on topics that interest them. And, make sure the books and levels of difficulty resemble those on which they’ve had recent success.

Consider instructional factors, such as the difficulty of the words, the books’ length, the degree of abstraction, the assignment’s writing and speaking tasks, the peers with whom the struggling learners might work, the learners’ abilities to work both independently and cooperatively, and their history of overcoming unexpected academic problems.

Novelty. Show the struggling learners some books similar to those they’ve successfully read and enjoyed. Here, similar means alike in many ways, but slightly different or new in a few ways. Too many differences often produce anxiety and disinterest. Slightly different suggests newness or novelty that struggling learners and most children believe they can successfully read and enjoy. This creates interest, which can help to improve attention and memory.

Importance. If struggling learners have difficulty with reading comprehension, you might use novel books to help them better comprehend and remember the meaning of manageable units of learning, such as short and somewhat longer paragraphs. Then discuss how understanding and using the RAP strategy, which teaches them the important steps for improving their reading comprehension, will make them better readers, lessen their struggles, increase their satisfaction, and help them achieve personally important goals.
In this section you’ll also get an overview of how you might use Self-Regulated Strategy Development (SRSD) to teach RAP. Because of SRSD’s logic, simplicity, and strong support from research, it may well prove of great benefit to teachers, parents, tutors, and struggling learners.

Here, in slightly simplified and modified form, are the basic SRSD steps for teaching RAP (Hagaman, Luschen, & Reid, 2010).

- Help the learners develop the background knowledge needed to understand the book(s). Briefly explain how background knowledge will help their reading comprehension.

- Show and discuss the steps in RAP: Read the paragraph, Ask yourself, “what is its main idea?” and one or two supporting details; Paraphrase (or Put) this in your own words.

- Model and discuss RAP in ways that improve the struggling learners’ understanding of it and when and how to use it. If a struggling learner has previously mastered RAP, have him model RAP while explaining its steps. Immediately after he successfully models it, visibly reinforce him. Vicarious reinforcement like this can immediately strengthen learners’ short-term motivation to use and master RAP.

- Help struggling learners correctly master RAP’s three steps. In some instances, small, clearly-illustrated cue cards can help, as can encouraging feedback and visible reinforcement for learners’ efforts and correct use of RAP.

- Encourage struggling learners to practice using the RAP strategy and sustain its use by immediately providing them with support that’s strong, explicit, instructionally responsive, and emotionally sensitive.

- Support struggling learners’ frequent and independent use of RAP. You can do this by showing them how it can help them achieve their personally important short- and long-term goals.

- Remember that change is almost always difficult. Be patient. It may take struggling learners several weeks or more for RAP to become as automatic for them as writing their name. Focus on small improvements.

To increase the importance of RAP for some struggling learners, it may be necessary to tie it to their personally important short- and long-term goals. If struggling learners don’t have clear goals, help them develop some. This involves getting to know them. If this proves too difficult, ask yourself, “Right now, what will encourage them to identify, understand, and remember the
paragraph’s main and most important supporting points?" Then, consider negotiating a contract with them, such as “For achieving X, you will earn Y." If they want Y so much that they’ll make a moderate effort to achieve X. This creates a platform from which you and the learners can gradually create a set of personal, highly meaningful goals.

Creating and attaining personally important goals is not bribery. It’s a powerful, personally meaningful force that motivates struggling learners to earn what they get. This requires you to start with activities and materials on which they can comfortably succeed.

Over time, as they successfully use RAP to comprehend and remember much about books they like, you should gradually phase out reinforcers and phase in new topics and books that are somewhat different, but attractive to them. While doing this, it’s helpful to guide struggling learners to create new, personally motivating goals they can achieve, if they make a moderate effort and correctly use the right strategies.

For different struggling learners, the definitions of short-, medium- and long-term can differ dramatically as can the substance of their goals. Short-term goals might mean two minutes, two hours, two days, or two weeks — it depends on the struggling learners’ age, maturity, and comfort with delayed gratification. For some struggling learners, a short-term goal might mean earning extra recess time or points for a pizza party. Others might want extra time to read books.

In addition to the reinforcement that struggling learners get from achieving personally important goals, their motivation for using RAP and achieving their long-term goals often increases when they realize that they’ve now moved closer to achieving their personally important long-term goals. Tracking and sharing their progress on colorful charts illustrates this and helps solidify their efforts.

What’s involved in each of the REMOS factors

To strengthen struggling learners’ memories, try to combine the five REMOS factors without overwhelming learners. But remember, other factors, like proper diet, sufficient, restorative sleep, and daily aerobic exercise are also critical for strengthening memory.

As with any lesson, for any learner or group of learners, you must first capture and then keep their attention. In different ways, for different learners, you should then help them engage in REMOS activities that focus on the important information and understandings they need to remember. More specifically, struggling learners need numerous opportunities to Repeat It, Elaborate or Explain it, Make it Meaningful, Organize it, and engage in Spaced or Distributed Practice.
In practical terms, you need to create developmentally appropriate situations for struggling learners to:

- **Repeat It.** If you want to remember something, repeat it or lose it. Struggling learners are the same. You need to give them numerous opportunities to repeat and practice what they need to remember. But to remember different kinds of information, the nature of repetition may differ. If they struggle to quickly and accurately recognize new words on sight, repeating requires more than just seeing and orally repeating the new words two or three times. Success may require a process similar to Grace Fernald’s Visual-Auditory-Kinesthetic-Tactile method, commonly called V-A-K-T. It may require struggling learners to:

  - See a few dissimilar-looking targeted words (e.g., desk, table, mouse) *in his speaking vocabulary,* along with many known sight words, some 10, 20, 30 or more times;

  - Trace each targeted word while slowly saying it aloud; and during a later stage of the process, replace tracing with visually examining each targeted word for 10 to 15 seconds and then correctly copying it three or four consecutive times;

  - Write the targeted words from memory, after successfully tracing or visually examining and copying them.

Notice the previous phrase, *in his speaking vocabulary.* Asking struggling learners to repeat what they don’t understand offers no-to-little benefit. Like most people, they’ll quickly forget what they don’t understand or find meaningful. Elaboration can improve understanding and make things meaningful. And often, it’s best that background instruction and elaboration precede repetition.

- **Elaborate on It.** To enhance understanding, meaningfulness and memory, struggling learners should have numerous opportunities to describe, explain, and discuss important new ideas, concepts, processes, and information and to indicate how they’re similar or different from what they knew or expected. To support this, instruction should create numerous opportunities for learners to talk about it, discuss it, talk about it, and discuss it. If they’re learning about and discussing the causes of the Civil War, they might switch between causes for the South and North. They might debate the morality and importance of each cause. Talk and discussion are important, especially if learners find it meaningful, identify what they accurately and inaccurately know, and listen to what their peers might teach them. The more meaningful that learners find something, the more likely they’ll work to better understand and remember it.

- **Make It Meaningful.** You can give meaning to an abstract concept by helping struggling learners relate it to their lives. To reinforce and extend the meaning of the words *practical* and
impractical, you might begin a discussion by asking, "In your house or near it, what do people do that's practical?... What makes it practical?" After discussing it, you might ask learners to "take five minutes to draw a picture of someone doing something practical and something impractical." To make practical and impractical even more meaningful, you might have learners share and discuss their two pictures: "Take about three minutes to show your two pictures to your neighbor. Tell him or her why one is practical and the other impractical. But first, let's take four to five minutes of quiet time for you to examine your pictures, think about them, and jot down what you're going to say."

Here's another idea from Educational Leadership. "Like most people, struggling learners are far more motivated to achieve their goals than yours. If they believe successfully completing a task is worthless or beyond their abilities, don't expect meaningful effort, persistence, and deep cognitive engagement. Typically, goals arise directly from learners' lives. If, like one [minority] teenager I knew of, they don't want to read Frederick Douglass's My Bondage and My Freedom, thinking him 'a wimp ...an ancient old guy,' explicitly [help them] connect its importance to their goals and lives. If it's at their proper instructional level, this may well increase their effort, persistence, and cognitive engagement."

- Organize the Information. When you help struggling learners, such as children with reading disabilities, to organize information — in ways they're apt to find meaningful and memorable — they're likely to remember the information better than if it's random or unorganized.

Here's a random, unorganized list of ten common words that most struggling learners and their peers will quickly and easily forget: "fix, with, glass, plate, paper, their, fall, siding, toast, them."

In contrast, here's another list that they can easily reorganize and better remember: "pineapple, collie, cantaloupe, Chihuahua, bulldog, apple, grape, terrier, boxer, peach." If struggling learners, or most learners, try to remember all the words as one list, they may not remember it as well as if they organize the words into the categories of dogs and fruit. Even their mistakes will fall into one of the two groups. In any case, they'll remember many more words in the second, easily reorganized list, than in the list of random words.

- Engage in Spaced or Distributed Practice. As a group, struggling learners tend to quickly forget much of what was taught. Thus, you need to frequently monitor their progress and provide numerous opportunities for them to engage in spaced or distributed practice.

In a general sense, progress monitoring refers to assessing the effects of instruction a day to a month or so after initial instruction and then re-teaching learners the important new ideas, concepts, processes, and information they didn't remember or still need to master. Such
frequent monitoring of progress helps teachers, parents, and tutors to target what needs to be re-taught or re-emphasized.

Like progress monitoring, spaced or distributed practice aims to help struggling learners and other learners minimize forgetting by remembering what’s important. To maximize learning and remembering, it usually reintroduces words, concepts, and whatever else needs to be remembered after initial instruction. One example is assigning independent-level homework about two specific and important concepts, one, two, and fifteen days after they’ve been taught. A second is having struggling learners play a sight word game three, six, and nine days after they first learned the words in the game.

In contrast to spacing efforts after initial instruction are efforts to improve students’ retention of what’s taught during initial instruction. One idea is to shorten lessons. Instead of one 18 minute lesson to teach three new sight words, divide the lesson’s 18 minutes into three six-minute blocks, aimed at mastering three new words in a group of 10 previously mastered ones.

These examples of spacing — time devoted to different concepts or activities between teaching specific concepts or words — are not sheer philosophy. Instead, they’re supported by an impressive body of more than 100 years of research (see Carpenter, Cepeda, Rohrer, Kang, & Pashler, 2012).

Spacing is not always easy to do. So, should teachers use spaced or distributed practice? If the information or ability is important to remember, yes. Here, from the research, are two reasons:

First, it usually works: “Studying information across two or more sessions that are separated (i.e., spaced apart or distributed) in time often produces better learning than spending the same amount of time studying the material in a single session.” (Carpenter et al., p. 370, 2012)

Second, it’s powerful. It’s far more powerful than taking aspirin to prevent heart attacks, according to AFT: “According to Donovan and Radosevich’s meta-analysis [a study of studies] of spacing studies, the effect size for the spacing effect is $d = .42$. To put this effect size in perspective, consider [taking aspirin to prevent] future heart attacks. The effect size ... is a puny $d = .03$. ... [Thus,] ... it seems that a strategy [like spacing] with a $d = .42$ effect is worth taking very seriously."

Is memory instruction good news?

As you probably surmised, my answer is “yes.” But to me, “yes” is an understatement. It’s “very good,” even great news.
The very good news about gaining and maintaining struggling learners’ attention and using REMOS is that the five REMOS factors are easily understood and applied. Teachers can use and modify them — easily, opportunistically, and immediately. So can parents and tutors.

Other good news about memory-strengthening strategies is that they’re fun to teach, many struggling learners like to learn and use what some learners have called “memory secrets,” and they can make learning and life better for struggling learners and their peers. And if teachers and parents coordinate their efforts to use the same five REMOS factors to strengthen the same memories, learning and memory, and in some cases generalization, will probably progress more quickly and smoothly.

**Will REMOS work for you?**

It might work well for you and your students or child, if ...

If you learn as much as you can about the factors and different strategies for making them work. A good place to start is with the resources listed below.

If you carefully and gradually implement activities that stress each factor, one or two at a time, collect feedback on what you did well and what you can improve. Then, continue doing what you did well while gradually implementing the improvements.

If you’re patient. As time goes by, and you continue to monitor your feedback to improve your understanding and facility with the factors and activities that you and the struggling learners enjoy and benefit from, odds are you’re going to get better and better and feel more and more satisfied. Many of your learners may also get better at remembering and feel more satisfied. This philosophy of patience, feedback, and adaptation certainly helped me. (And by nature, I’m impulsive.)

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