RRSM Teacher Tool

Now What?

The RRSM can provide valuable data about your students' use of regulation-related skills in the classroom, but what can we do with that data? Are there evidence-based strategies for supporting further development of those skills?

Introduction

There is a vast breadth of scientific literature on self-regulation, executive function, and social-emotional learning (SEL). Research has also been used to determine the effectiveness of specific programs and curricula, such as *Tools of the Mind* (https://toolsofthemind.org/) and *Brain Games* (https://easel.gse.harvard.edu/brain-games), which are designed to promote development of the cognitive processes and behaviors that are foundational to self-regulation and executive function. Taken together, this research suggests that there are specific strategies, techniques, practices, and programs that can support students' development and use of the regulation-related skills (RRS) measured by the Regulation-Related Skills Measure (RRSM).



On the following pages, we outline several teaching practices that have been shown to promote these skills in preschool and elementary school classrooms. We also provide links to articles, websites, and other resources that we hope will help you identify and implement strategies that may be effective in your schools and communities, and with your unique groups of students.

We hope that you find these resources helpful!

For more on RRS and RRSM, see the RRSM Overview or visit our website (https://projects.iq.harvard.edu/rrsm/home)

A Note on Scientific Research

The research studies cited throughout this article demonstrate many ways that teachers can support young children's RRS, but we cannot offer one, definitive best practice that is guaranteed to bolster each specific skill measured by the RRSM for all children, in all early childhood classrooms, and in all cultural contexts.

There is <u>not</u> one right way to teach the many, diverse children enrolled in early childhood classrooms!

- 1. Much (though certainly not all) of the existing research in this area is corollary or associative that is, it *does not* demonstrate that a given teaching practice *causes* a given outcome, but rather that it is *correlated with*, *related to*, or *predictive of* that outcome.
- 2. Research has largely focused on small samples of children from particular demographic subgroups or contexts (e.g., rural). It is likely that the effectiveness of teaching strategies and curricula may vary based on children's differing backgrounds and needs.
- 3. There is not (yet) research that identifies strategies specific to each of the skills measured by the RRSM. Rather, the research tends to indicate strategies that are effective in the development of self-regulation and executive function more broadly.

We encourage you to *consider your school, cultural, and other contextual factors* as you select and implement a strategy, program, or curriculum, and to *continue using data to objectively monitor student progress* (e.g., conduct formative assessments).

10 Practices Associated with RRS Development

The following teaching practices have been positively associated with young children's

Several of these practices overlap, and all may be used in conjunction to provide ongoing support for young children's RRS in early childhood classrooms.

development and use of self-regulation and/or executive function in preschool and elementary school classrooms. Because many SEL programs also address RRS 1, particularly inhibitory control 8, some SEL strategies are included here as well.

On the following pages, we provide a brief explanation of each teaching practice, including alignment with specific RRSM items, practical examples, and links to several research-based programs. Please note that the examples included here do not represent an exhaustive list – there are many wonderful RRS programs and many opportunities throughout the school day to use these 10 teaching practices!





10 Teaching Practices to Support RRS in Early Childhood & Elementary School Classrooms

Teaching Practices	*While these teaching practices can be used to support any RRS, this column identifies skills that may be targeted particularly effectively by each practice.
1. Classroom Organization & Management	 2 (attention) 4 (ignoring disruptions) 5 (ignoring distractions) 8 (remembering multi-step instructions) 10 (rules & routines) 15 (waiting) 16 (conflict resolution)
2. Opportunities to Plan & Practice	 ✓ 1 (physical control) ✓ 3 (attention shifting) ✓ 6 (planning & monitoring) ✓ 11 (transitions)
 Explicit Instruction Integrated Instruction Developmentally Appropriate Instruction 	✓ any RRSM item
6. Positive Teacher-Student Interactions7. Positive Teacher-Student Relationships	✓ 7 (listening)
8. Positive Peer Relationships	✓ 9 (group rules & norms)✓ 16 (conflict resolution)
9. Teacher Use & Modeling of RRS 10. Professional (& Personal) Development	✓ 12 (inhibition)✓ 13 (modulation)✓ 14 (behavior regulation)

- 1. Classroom Organization & Management. A high level of organization support, such as strong, positive classroom management, has been associated with children's RRS 6, 14. Another important element of classroom organization and management is the creation of "predictable" routines that occur at the same time and in the same way each day (17, p.124). Children should be able to complete such routines on their own, with minimal instruction or cuing from adults.
 - ✓ Example: Model going through routines while "thinking aloud" about the steps and reasoning behind them 12. For example, while cleaning up after a drawing activity you might say, "I'm going to put the cap back on my marker so that it doesn't dry up. That way someone else can use it tomorrow!"

Example of a Research-Based Program: **CHICAGO SCHOOL READINESS PROJECT**

https://steinhardt.nyu.edu/ihdsc/csrp/ https://scholar.harvard.edu/danamccoy/chicago -school-readiness-project

- 2. Opportunities to Plan and Practice. Giving children the opportunity to practice RRS is one important way to promote their self-regulation and executive function 7, 10, 12. This occurs both through adult-directed, purposefully designed activities (such as the example below) and child-directed free and dramatic play, during which children have many opportunities to create and reinforce their own rules 10.
 - ✓ Example: Engage children in activities that require them to switch from following one rule to following a contradictory rule 7, 10. For instance, play a move & freeze game in which children dance when music is turned on and freeze when it is turned off. After

Example of a Research-Based Program: TOOLS OF THE MIND https://toolsofthemind.org/

a few rounds, reverse the rule so that children freeze when the music is on and move when it is off. Once children have practiced with both rules, play a version in which you switch the rule every few rounds.

- 3. Explicit Instruction. Many elementary school SEL programs use explicit instruction in SEL content 15. Instruction in RRS is important for all children in order to grow their skills 3.
 - ✓ Example: Set aside 5 minutes during morning circle to explicitly instruct children in the use of "I sentences" when resolving conflict, including an opportunity for children to practice.

Example of a Research-Based Program: **Preschool PATHS**

http://www.pathstraining.com/main/curriculum/

4. Integrated Instruction. Many elementary school SEL programs weave SEL content "into the academic curricula" (15, p.153). Integrated instruction can also occur outside the classroom,

Example of a Research-Based Program: **BRAIN GAMES**

https://easel.gse.harvard.edu/brain-games http://www.daylightdesign.com/work/brain-games/ and may be most effective when it is done consistently and enacted schoolwide 9. (See also, article #3 and article #4 under UK Resources Relating to Practice, below.)

- ✓ Example: Encourage children to relate to a character during a read aloud by asking, "How did [the main character] feel when...? Has there ever been a time when you felt this way? What did you do when you felt like this?" Ask children to think about these questions before you start reading so they can plan to "listen" with a purpose; this requires more regulation than simply answering with the first idea that comes to mind. Such a lesson could also be a great opportunity to teach and/or reinforce emotional vocabulary!
- **5. Developmentally Appropriate Instruction.** In a review of preschool SEL programs, Bierman and Motamedi (1) identify the need for SEL skills to be taught in ways that are "brief, engaging, experiential, and concrete", and include many "[o]pportunities to practice" (p.138).
 - Example: As part of a lesson on turn-taking, children rehearse standing in line and waiting to wash their hands. Provide specific praise and feedback to each child.
- 6. Positive Teacher-Student Interactions. "[T]he way that teachers interact with students" is a "core component" of SEL programming used in elementary school classrooms, which can be carried into all parts of the school day (15, p.153) and can provide ongoing RRS support. Another way to think about this is teachers' responsiveness to students 5 (for more on responsive caregiving, see article #2 by the HCDC below).

Having an authentic conversation with a child creates an opportunity to model listening

- ✓ Example: Use language that encourages motivation, such as specific praise. For example, instead of "great job drawing!" try saying, "Wow! I can tell that you really worked hard and took your time on this drawing!"
- 7. **Positive Teacher-Student Relationships.** "Closeness" between teacher and students has been linked to children's self-regulation development (4, p.14). In particular, student-teacher relationships can benefit low-income children, who may need more support in this area 13.
 - ✓ Example: Positive interactions, such as really listening when children share stories and facts about themselves, can help build positive student-teacher relationships 12.

Example of a Research-Based Program:
RESPONSIVE CLASSROOM
https://www.responsiveclassroom.org/

- 8. Positive Peer Relationships. Like teacher-student relationships, peer relationships provide an important opportunity for young children to learn and practice RRS 9. Indeed, one effective way that young children practice self-regulation is through "other-regulation" that is, the regulation of other children (10, p.16; 9).
 - is, the regulation of other children (10, p.16; 9).

 ✓ Example: When a child "tattles," respond by acknowledging and reinforcing the rule, rather than reprimanding either the tattler or the child being tattled upon (10, p.17). For example,

https://www.collaborativeclassroom.org/programs/caring-school-community/

CARING SCHOOL COMMUNITY

rather than reprimanding either the tattler or the child being tattled upon (10, p.17). For example, "That's right! You remembered that paper goes in the recycling bin instead of the trash can."

- **9. Teacher Use & Modeling of RRS.** Adults support self-regulation in children through their own use and modeling of self-regulation skills; for example, through "warm and positive interactions" with students, or the use of "strategies such as breathing deeply, self-reflecting, empathizing, and using positive language" (11, p.21; 12).
 - Example: Before beginning a science experiment with your students, pause and say, "I'm *very excited* for today's science experiment! So before we start, I'm going to take a deep breath to help myself feel calm and ready." Then model taking 2-3 deep breaths. After the first breath, invite the children to join you in breathing deeply.
- 10. Professional (& Personal) Development. It is important that adults, and particularly those who care for young children, have strong executive function and self-regulation skills so that they can support these skills in young children 5. Trainings that supports teachers' implementation of curricula and/or strategies, as well as their own use of regulation-related skills, can help support students' development and deployment of these skills as well 2.
 - Example: Enroll in a class emphasizing adult development of regulation-related skills. If appealing, you could also try yoga, meditation, deep breathing exercises, or other mindfulness and relaxation practices.



Additional Resources

The following is a list of website and articles, as well as a brief description of each, that we hope will help you find further information about RRS and supportive teaching practices. All of these articles are relatively short, synthesize scientific research into non-scientific language, and are available free of charge online.

- **RRSM website:** https://projects.iq.harvard.edu/rrsm/home
 - 1. RRSM Overview: https://projects.iq.harvard.edu/rrsm/overview

- 2. RRSM User's Guide: https://projects.iq.harvard.edu/rrsm/resources
- Tools of the Mind website: https://toolsofthemind.org/
 - Additional resources on Self-Regulation and Executive Function, Play & Playful Learning, and Educational Materials & Books https://toolsofthemind.org/learn/resources/
 - 2. Additional resources and references specifically designed to help parents learn more about self-regulation and executive function https://toolsofthemind.org/learn/resources/
- Harvard Graduate School of Education, Usable Knowledge (UK) website: https://www.gse.harvard.edu/uk A website containing many articles on the most up-to-date research on self-regulation, executive function, SEL, and much more! A few articles of particular relevance are described below:
 - Information on Regulation-Related Skills
 - 1. L. Shafer. (2016, December 1). Defining the skills for success: New report signals the difference between executive function and other regulation-related skills:
 - https://www.gse.harvard.edu/news/uk/16/12/defining-skills-success
 - 2. L. Shafer. (2016, December 5). Understanding core skills: For education stakeholders, four key features of fundamental nonacademic skills: https://www.gse.harvard.edu/news/uk/16/12/understanding-core-
 - Resources Relating to Practice

skills

- 1. L. Shafer. (2016, July 15). What makes SEL work? An effective social-emotional learning program has to be a whole-school initiative: https://www.gse.harvard.edu/news/uk/16/07/what-makes-sel-work
- 2. B. Walsh. (2014, October 20). The Art of Control: Activities and resources to enhance function in young children: https://www.gse.harvard.edu/news/uk/14/10/art-control
- 3. L. Shafer. (2016, August 29). Fun and (Brain) Games: Simple games, played intentionally, can make for powerful moments of social-emotional learning: https://www.gse.harvard.edu/news/uk/16/08/fun-and-brain-games
- 4. A. Matte. (2015, August 17). Kernels of learning: A new approach to social-emotional skills: bite-sized strategies and flexible resources: https://www.gse.harvard.edu/news/uk/15/08/kernels-learning
- 5. Usable Knowledge. (2017, November 14). How caregivers can boost young brains: Five simple steps for stimulating interactions with young children at home, in daycare, or in preschool: https://www.gse.harvard.edu/news/uk/17/11/how-caregivers-can-boost-young-brains

- Center on the Developing Child at Harvard University (HDCD) website: https://developingchild.harvard.edu/ The Center on the Developing Child has many resources for teachers, parents, and other caregivers. For more information about executive function, in particular, visit the first link below:
 - 1. Harvard Center on the Developing Child. Executive Function & Self-Regulation: https://developingchild.harvard.edu/science/key-concepts/executive-function/
 - 2. Harvard Center on the Developing Child. 5 steps for brain-building serve and return: https://developingchild.harvard.edu/resources/5-steps-for-brain-building-serve-and-return/
 - 3. Resource #5 (above) references a Guide, the full text of which is available at: https://developingchild.harvard.edu/resources/5-steps-for-brain-building-serve-and-return/
- 2013 CASEL Guide: https://casel.org/guide/ A guide produced by the Collaborative for Academic, Social, and Emotional Learning (https://casel.org/), which provides a brief description and evaluation of multiple SEL programs, many of which include components intended to promote the regulation-related skills measured by the RRSM.

References

Publicly available articles are indicated by an *
Books & book chapters are indicated by an *
All other references are published research studies

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