



Ready, Set, Go to School!

Kindergarten teachers agree: aspects of self-regulation—like controlling impulses and following directions—are more important for school readiness than academic aspects like letter knowledge.^{1, 2} Unfortunately, many kindergarten teachers report that over half their students start school lacking self-regulation skills.³ The good news is that self-regulation skills can be taught,⁴ and helping preschoolers develop these competencies will prepare them for a better transition to school.⁵

Self-Regulation and School Readiness

What is self-regulation and how does it help get children ready for school? In a nutshell, self-regulation

Helping preschoolers develop self-regulation skills will prepare them for a better transition to school.

is the ability to monitor and manage emotions, thoughts, and behaviors.^{6, 7} It's what helps children focus their attention on learning when they might be distracted by others, upset by a problem, or excited about an upcoming event. The ability to self-regulate helps children get along better with teachers and their peers.⁸ It's a key to school readiness that supports children's ability to be successful in both academic and social situations.⁹⁻¹¹

What is Self-Regulation?

The ability to monitor and manage emotions, thoughts, and behaviors

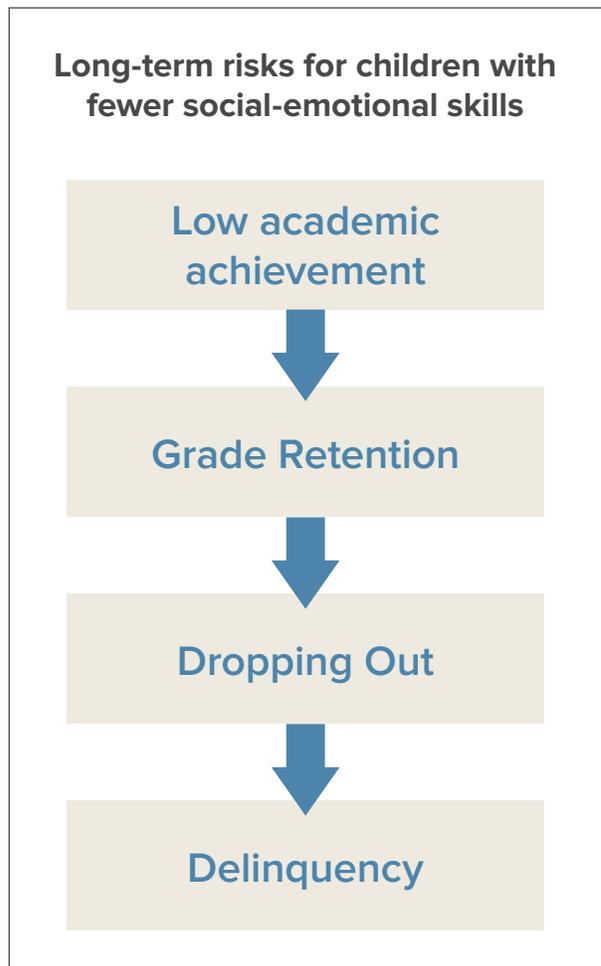
Studies suggest that early childhood represents a sensitive period for the development of self-regulation.^{12,13} According to recent research, preschoolers experience sizeable growth in the prefrontal cortex, the brain region most closely linked to self-regulation skills.¹³ Evidence further suggests that self-regulation lays the groundwork for school achievement. Considering this, it's not surprising that the ability to self-regulate during preschool represents an important foundation for children's school readiness.

Self-regulation and academic achievement. Not only is self-regulation associated with school success during early childhood, it is also linked to achievement beyond these years.^{9,14,15} Research suggests that self-regulation is foundational for school success in that it helps children navigate structured learning environments, avoid distractions, pay attention, stay on task, and persist through difficult activities.¹⁶ Some research suggests that children with stronger self-regulation skills in preschool and elementary school also score higher on measures of achievement.¹⁷ Early self-regulation is associated with long-term academic achievement, such as high school and college completion.^{18,19} Together, this research highlights the importance of self-regulation for academic success and indicates that improving self-regulation in preschool may have long-term effects.

Self-regulation and social-emotional competence. Self-regulation skills play an important role in building social-emotional competence—another essential ingredient for a successful transition to school.^{8, 20} Children who can self-regulate have skills that help them manage their emotions and behavior and interact successfully with others—all elements of social-emotional competence.²¹ Children beginning kindergarten with good

social-emotional competence are more likely to be successful at transitioning into school, develop positive attitudes about school, and have higher grades and achievement in elementary school.^{20, 22, 23}

And yet many children do not have the basic self-regulation and social-emotional skills necessary for successful transition to school, or even to be successful in preschool.^{11, 24, 25} In the short term, children with these skill deficits experience high rates of expulsion from preschool classrooms.²⁶ In the long term, they are at greater risk for low academic achievement, grade retention, dropping out of school, delinquency, and criminal behavior.²⁷ But with a focus on developing children's self-regulation and social-emotional competence, early learning settings can help prevent these negative outcomes and get children ready to succeed in school.



The *Second Step* program helps children build self-regulation skills



Teaching Self-Regulation Skills

When creating the *Second Step* Early Learning program, we recognized the importance of developing young children’s self-regulation skills. So the program is designed to increase children’s school readiness and social success by building their social-emotional competence and self-regulation skills. The program does this in four ways.

1. Brain Builder Games

Children develop skills foundational to self-regulation by playing short, five-minute games called Brain Builders. The games are specifically designed to build the areas of children’s brains that help them focus their attention, use their memory, and manage their behavior—skills known together as executive-function skills. Research links these skills to school readiness⁵ and later academic achievement,^{9, 28–31} and it also indicates that games like Brain Builders can be successfully used to improve children’s self-regulation skills.^{25, 32, 33}

2. Skills for Learning

The *Second Step* Early Learning program is designed to promote the development of self-regulation skills with its focus on skills for learning. Students learn four self-regulation skills they need to be successful learners: focusing attention, listening, using self-talk, and being assertive. These skills support school readiness and academic achievement. The benefits of the four self-regulatory skills taught in the program go beyond school readiness; the skills also support the remaining program content by providing a critical foundation for the development of social-emotional competence.²⁰

3. Emotion Management and Problem Solving

The *Second Step* Early Learning program includes even more content designed to strengthen children’s self-regulation and, in turn, prepare them for school success. Managing emotions is a central component of self-regulation,^{20, 34} and activities in the Emotion-Management Unit help children develop skills to manage strong emotions. Problem-solving skills also contribute to self-regulation. The activities in the Friendship Skills and Problem-Solving Unit reinforce the use of emotion-management skills; children are taught that when they are having a problem with peers, it is useful to calm down first and then to apply the program’s Problem-Solving Steps to help them solve the problem safely.

4. Transitioning to Kindergarten

The *Second Step* Early Learning program also helps get children ready to transition successfully to kindergarten with the Transitioning to Kindergarten Unit. Children review the skills and concepts learned throughout the program and think about how these skills will help them in kindergarten.



Ready for School Success

Helping children succeed in school starts well before they get there. School readiness and a successful transition to kindergarten lay the groundwork for children’s later school success. Being ready to succeed in school requires more than simply being able to recite the alphabet or hold a pencil. Children need a solid foundation of self-regulation skills to help them stay focused on their learning, get along with others, and work independently and cooperatively in the classroom. Self-regulation skills place children on the road to school readiness. Teaching these skills in early learning classrooms will help get children ready for school success.

Children need a solid foundation of self-regulation skills to help them stay focused on their learning, get along with others, and work independently and cooperatively in the classroom.

Second Step: Social-Emotional Skills for Early Learning (ages 4–5)

Help preschool and Pre/K students harness their energy and potential by teaching them to listen, pay attention, control their behavior, and get along with others. When students enter kindergarten with the self-regulation and social-emotional skills taught in the research-based *Second Step* program, they’re set up for success.



To learn more about the *Second Step* Suite of programs, visit SecondStep.org.

To discuss how your students may benefit from the *Second Step* program, contact the *Second Step* team at Committee for Children:

800-634-4449
support@secondstep.org

REFERENCES

1. Lewitt, E. M., & Baker, L. S. (1995). School readiness. *Future of Children*, 5(2), 128–139.
2. Lin, H. L., Lawrence, F., & Gorell, J. (2003). Kindergarten teachers' views of children's readiness for school. *Early Childhood Research Quarterly*, 18, 225–237.
3. Rimm-Kauffman, S. E., Pianta, R. C., & Cox, M. J. (2000). Teachers' judgments of problems in the transition to kindergarten. *Early Childhood Research Quarterly*, 15(2), 147–166.
4. Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., ... Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the National Academy of Sciences*, 108(7), 2693–2698.
5. Clancy, B. (2002). School readiness: Integrating cognition and emotion in a neurobiological conceptualization of child functioning at school entry. *American Psychologist*, 57(2), 111–127.
6. Barkley, R. A. (2004). Attention-deficit/hyperactivity disorder and self-regulation: Taking an evolutionary perspective on executive functioning. In R. F. Baumeister & K. D. Vohs (Eds.), *Handbook of self-regulation: Research, theory, and applications* (pp. 301–323). New York: Guilford Press.
7. McClelland, M. M., Ponitz, C. C., Messersmith, E. E., & Tominey, S. (2010). Self-regulation: The integration of cognition and emotion. In R. Lerner (Series Ed.) & W. Overton (Vol. Ed.), *Handbook of lifespan human development, Vol. 4. Cognition, biology, and methods* (pp. 509–533). Hoboken, NJ: Wiley.
8. McKown, C., Gumbiner, L. M., Russo, N. M., & Lipton, M. (2009). Social-emotional learning skill, self-regulation, and social competence in typically developing and clinic-referred children. *Journal of Clinical Child & Adolescent Psychology*, 38(6), 858–871.
9. Blair, C., & Razza, R. P. (2007). Relating effortful control, executive-function, and false belief understanding to emerging math and literacy ability in kindergarten. *Child Development*, 78(2), 647–663.
10. McClelland, M., Acock, A. C., & Morrison, F. J. (2006). The impact of kindergarten learning-related social skills on academic achievement at the end of elementary school. *Early Childhood Research Quarterly*, 21, 471–490.
11. Raver, C. C., & Knitzer, J. (2002). Ready to enter: *What research tells policymakers about strategies to promote social and emotional school readiness among three- and four-year-olds* (Policy Paper No. 3). New York: National Center for Children in Poverty.
12. Carlson, S. M., Zelazo, P. D., & Faja, S. (2013). Executive function. In P. D. Zelazo (Ed.), *The Oxford handbook of developmental psychology, Vol. 1: Body and mind* (pp. 706–743). New York, NY: Oxford University Press.
13. Schmitt, S. A., McClelland, M. M., Tominey, S. L., & Acock, A. C. (2015). Strengthening school readiness for Head Start children: Evaluation of a self-regulation intervention. *Early Childhood Research Quarterly*, 30, 20–31.

14. Casey, B. J., Somerville, L. H., Gotlib, I. H., Ayduk, O., Franklin, N. T., Askren, M. K., ... Shoda, Y. (2011). Behavioral and neural correlates of delay of gratification 40 years later. *Proceedings of the National Academy of Sciences, 108*(36), 14998–15003.
15. McClelland, M. M., Cameron Ponitz, C. E., Connor, C. M., Farris, C. L., Jewkes, A. M., & Morrison, F. J. (2007). Links between behavioral regulation and preschoolers' literacy, vocabulary, and math skills. *Developmental Psychology, 43*, 947–959. doi:10.1037/0012-1649.43.4.947
16. McClelland, M. M., Geldhof, J., Cameron, C. E., & Wanless, S. B. (2014). Development and self-regulation. In W. F. Overton, & P. C. M. Molenaar (Eds.), *Handbook of child psychology and developmental science, Vol. 1: Theory and method*. Hoboken, NJ: Wiley.
17. Cameron Ponitz, C., McClelland, M. M., Matthews, S. S., & Morrison, F. J. (2009). A structured observation of behavioral self-regulation and its contribution to kindergarten outcomes. *Developmental Psychology, 45*, 605–619.
18. Breslau, J., Miller, E., Breslau, N., Bohnert, K., Lucia, V., & Schweitzer, J. (2009). The impact of early behavior disturbances on academic achievement in high school. *Pediatrics, 123*(6), 1472–1476.
19. McClelland, M. M., Acock, A. C., Piccinin, A., Rhea, S. A., & Stallings, M. C. (2013). Relations between preschool attention span-persistence and age 25 educational outcomes. *Early Childhood Research Quarterly, 28*, 314–324. doi:10.1016/j.ecresq.2012.07.008
20. Denham, S. A. (2006). Social-emotional competence as support for school readiness: What is it and how do we assess it? *Early Education and Development, 21*(5), 652–680. doi:10.1080/10409289.2010.497450
21. Collaborative for Academic, Social, and Emotional Learning. (2007, December). Background on social and emotional learning (SEL). *CASEL briefs*. Retrieved from http://www.peacefulschools.com/index.php/download_file/view/111/146/
22. Birch, S. H., Ladd, G. W., & Blecher-Sass, H. (1997). The teacher-child relationship and children's early school adjustment: Good-byes can build trust. *Journal of School Psychology, 35*, 61–79.
23. National Scientific Council on the Developing Child. (2004). *Young children develop in an environment of relationships* (Working Paper No. 1). Retrieved from <http://developingchild.harvard.edu/wp-content/uploads/2015/04/Young-Children-Develop-in-an-Environment-of-Relationships.pdf>
24. Boyd, J., Barnett, W. S., Bodrova, E., Leong, D. J., & Gomby, D. (2005). *Promoting children's social and emotional development through preschool*. New Brunswick, NJ: National Institute for Early Learning Education Research. Retrieved from <http://nieer.org/resources/policyreports/report7.pdf>
25. Morrison, F. J., Ponitz, C. C., & McClelland, M. M. (2009). Self-regulation and academic achievement in the transition to school. In S. Calkins & M. Bell (Eds.), *Child development at the intersection of emotion and cognition* (pp. 203–224). Washington, DC: American Psychological Association.
26. Gilliam, W., & Shahar, G. (2006). Pre-kindergarten expulsion and suspension: Rates and predictors in one state. *Infants and Young Children, 19*(3), 228–245.

27. Raver, C. C. (2002). Emotions matter: Making the case for the role of young children's emotional development for early school readiness. *Social Policy Report*, 16(3), 3–18. Retrieved from <https://steinhardt.nyu.edu/scmsAdmin/uploads/001/784/Raver%20SPR%20Emotions%20Matter.pdf>
28. Duncan, G., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., ... Japel, C. (2007). School readiness and later achievement. *Developmental Psychology*, 43(6), 1428–1446. doi:10.1037/0012-1649.43.6.1428
29. Howse, R. B., Lange, G., Farran, D. C., & Boyles, C. D. (2003). Motivation and self-regulation as predictors of achievement in economically disadvantaged young children. *Journal of Experimental Education*, 71(2), 151–174.
30. Trentacosta, C. J., & Izard, C. E. (2007). Kindergarten children's emotion competence as a predictor of their academic competence in first grade. *Emotion*, 7, 77–88.
31. St.Clair-Thompson, H. L., & Gathercole, S. E. (2006). Executive functions and achievements on national curriculum tests: Shifting, updating, inhibition, and working memory. *Quarterly Journal of Experimental Psychology*, 59, 745–759.
32. Bodrova, E., & Leong, D. J. (2007). *Tools of the mind: The Vygotskian approach to early childhood education* (2nd ed.). New York: Prentice-Hall.
33. Tominey, S. L., & McClelland, M. M. (2011). Red light, purple light: Findings from a randomized trial using circle time games to improve behavioral self-regulation in preschool. *Early Education and Development*, 22(3), 489–519.
34. Eisenberg, N., Valiente, C., & Eggum, N. D. (2010). Self-regulation and school readiness. *Early Education and Development*, 21, 681–698. doi:10.1080/10409289.2010.497451