Teaching Self-Regulation Skills to Close the Income-Based Achievement Gap

The effects of childhood poverty are deep and long-lasting. They cut across all aspects of a child's development, leaving a legacy of damage that persists across the lifespan. Schools often feel powerless in the face of the pervasive, harmful impact of poverty on a child's ability to achieve in school. But although the school system may not be able to eradicate poverty for all children—and for all time—there are skills that can help students overcome the negative effects of poverty. Teaching self-regulation skills to students can help mitigate poverty's impact, giving all students a better chance at success in school and life.

Poverty Is on the Rise . . .

Recent headlines in the popular press paint a grim picture of the prevalence of childhood poverty in the United States.[1] The percentage of children living in poverty is reported to be 22 percent, roughly 16 million children.[2] All but two states reported increases in student poverty from 2009 to 2010 for school-age children between 5 and 17 years of age.[3] And it's even worse for minority children—almost three times higher for Hispanic children and three times higher for black children when compared with white

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children.[4] These troubling statistics should give us pause. Childhood poverty is linked to a lengthy list of negative life outcomes, including low academic achievement. It is therefore not surprising that as child poverty has grown, so too has the achievement gap between students from low- and high-income families. Since the 1960s, the achievement gap between low-income and high-income students has increased by nearly 40 percent, and it is now almost double the achievement gap between white and black students,[5] although minority children are still more likely to experience poverty.[6]

And It's Threatening Our Children's School and Life Success

The equalizing effect of an American education is threatened by the growing impact of poverty evidenced in the rapidly widening income-based achievement gap. Among the many challenges affecting poor students' ability to achieve are compromised brain development; lack of family ability to invest in children's cognitive development; skills deficits and behavior problems at school entry; and low self-regulation skills.

Compromised Brain Development

Advances in neuroscience have taught us much about how the brain develops. We know that the brain's plasticity means its structure and function are significantly shaped by early experience and environment. Children who grow up in poverty are much more likely to be exposed to negative environments that have direct and lasting effects on brain development, compromising their chances for success.[7] For example, the chronic and traumatic stress children experience in unsafe neighborhoods can adversely affect the development of regions in the brain responsible for managing stress and forming long-term memories. As a result, poor children are more likely to have trouble paying attention and concentrating and even more likely to develop mental illness.[7]

Exposure to childhood poverty also has implications for cognitive functions housed in the prefrontal cortex region of the brain. In particular poor performance on tests of executive function, including skills like flexible attention, working memory, and inhibitory control, has been linked to low parental socioeconomic status (SES).[8] Executive function is connected to a child's ability to self-regulate and achieve in the classroom;[9] however children living in impoverished communities are also less likely to experience the kind of structured school environment that fosters the development of executive-function and self-regulation skills, which presents an additional barrier to achievement.[7]

Lack of Family Ability to Invest in Children's Cognitive Development

An often-cited explanation for the income-based achievement gap is the lack of family ability to invest in the cognitive development of children living in poverty. Evans and Rosenbaum cite numerous studies that find that children from low-income families are at a decided disadvantage compared to those from higher-income families in terms of how much is invested in their children's cognitive development.[10] They describe a deprived environment lacking in both quality and quantity of parental speech and cognitively stimulating activities and materials.

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Reardon highlights recent evidence tying the growing income-based achievement gap to the increase in high-income and college-educated families' spending on their children's cognitive development.[5] The time and money higher-income families are able to invest in their children's development has risen sharply in the last 30 years, much more so than among poor families, and particularly during the preschool years. These differences in family investment and enriched home life leave poor children at a serious disadvantage when they enter kindergarten.

Gaps in Skills and Behavior at School Entry

In analyzing data from the Early Childhood Longitudinal Study, Kindergarten Class of 1998–1999, Duncan and Magnuson found that at school entry, children from low-SES families were already lagging behind their more affluent peers in terms of reading and math achievement,

attention, and behavior.[11] They found that the differences attributable to socioeconomic status were substantially larger than those linked to race, ethnicity, or gender. And these gaps persisted throughout the school years, particularly for black children and poor children. By fifth grade, none of the achievement gap had been closed for black or poor children, and their attention and behavior problems had worsened in comparison to white children from higher-SES families. What's worse, since children with low achievement skills, poor attention, and behavior problems tend to be concentrated in schools that serve disadvantaged populations, they're more likely to be in classrooms where teachers are overwhelmed by classroom management challenges. This presents another serious barrier to achievement for children from low-SES families.

Low Self-Regulation Skills

Evans and Rosenbaum recently supplied empirical support for another factor contributing to the income-based achievement gap—a child's ability to self-regulate.[10] They found that early childhood poverty can significantly damage the development of self-regulation skills. Self-regulation—the ability to monitor and manage one's thoughts, feelings, and behaviors[12,13]—is recognized as integral to students' academic and social success.[6,14,15] And yet many kindergarten teachers report that over half their students start school lacking good self-regulation.[16] Children from disadvantaged backgrounds with stronger self-regulation skills fare better than those with weaker skills.[6] This speaks to the potential for good self-regulation skills to mediate the effects of childhood poverty.

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Given the increase in childhood poverty, schools can expect more children to come through their doors lacking the skills they need to achieve. Children from impoverished families are more likely to have compromised brain development due to chronic and traumatic stress and their families' inability to invest optimal time and money in their cognitive development. As a result, poor children are more likely to start school with low math and reading ability, behavior problems, and a lack self-regulation skills. Low-SES children start school already behind their higher-SES peers, and that achievement gap will continue to widen unless schools do something to help close it.

What Can Schools Do?

How can schools help mitigate the effects of poverty on their students? Eradicating poverty itself seems the obvious solution, but that is a tall order—and not within the realm of reality for America's existing school system. Because of their kindergarten–twelfth grade structure, schools are necessarily limited in their ability to ameliorate children's early experiences and home environment. But schools need not stand powerless in the face of childhood poverty and the widening income-based achievement gap. Schools can provide a new path for children in poverty. That path engages schools in doing what they do best: teaching skills. We know that children in poverty are more likely to be lacking self-regulation skills. We also know that these skills can be taught,[17] thereby improving their achievement and life outcomes.

Developing Self-Regulation Skills with Second Step

When creating Second Step Social-Emotional Learning (SEL) for Early Learning through Grade 5, the program developers recognized the importance of teaching all children self-regulation skills. These skills can increase children's school success, reduce problem behaviors, and support the development of social-emotional competence. For impoverished children in particular, these program outcomes can significantly improve the chance of success. Brain Builder games, skills for learning, and emotion-management and problem-solving lessons are the Second Step SEL elements that help children develop self-regulation skills.

Brain Builders

From early learning to third grade, children develop behavioral aspects of self-regulation—known as executive-function skills—by playing Second Step Brain Builder

games. When playing these short, five-minute games, children must apply executive-function skills, including flexible attention, working memory, and inhibitory control[15] to the task of attending to the game's rules, remembering directions, and controlling their impulses. Research links executive-function skills to school readiness[14] and later academic achievement[9,18–22] and also shows that games like Brain Builders can be used successfully to improve children's self-regulation skills.[23–26] What's more, between the ages of two and seven, the parts of children's brains that carry out these skills are still developing.[7] So it's the perfect time to directly challenge and provide practice in these skills through the program's Brain Builder games.

Skills for Learning

Second Step further promotes the development of self-regulation skills with its focus on skills for learning. Students gain 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.[13] As key aspects of social-emotional competence,[27] the four self-regulatory skills taught in the program also support the rest of the program's skills and concepts.

Emotion Management and Problem Solving

Managing emotions is a central component of self-regulation[27,28] and Second Step emotion-management lessons help children develop skills to manage strong emotions. Problem-solving skills also contribute to self-regulation. The lessons in the Problem-Solving Unit reinforce the use of emotion-management skills; children are taught that when they are having a problem with their peers, it is useful to calm down first and then apply a set of problem-solving steps. Additionally, students practice making realistic plans and checking them against criteria for a good plan. Planning can help students develop self-regulation and handle both regular classroom challenges and problem situations.[23]

Helping Close the Gap with Self-Regulation Skills

Childhood poverty is on the rise in this nation, but schools do not have to let children's family income influence their ability to achieve in school. They can take steps to lessen poverty's impact on the academic achievement of children from disadvantaged backgrounds. Teaching all children self-regulation skills is one way to mitigate poverty's harmful effects on children's ability to achieve in school and life. The ability to self-regulate is a protective factor which, when developed in children, can help reduce the risks associated with compromised brain development, a lack of family ability to invest in children's cognitive development, or gaps in early skills and behaviors. In short, by teaching children self-regulation skills, schools can give all their students a better chance at success and help close the income-based achievement gap.

Second Step: Skills for Social and Academic Success

Universal, classroom-based Second Step SEL is designed to teach children how to understand and manage their emotions, control their reactions, be aware of others' feelings, problem-solve, and make responsible decisions. It includes short, easy-to-teach weekly lessons, engaging songs and games, and daily activities and take-home materials to reinforce learning in Early Learning through Grade 5.

The evidence-based Second Step SEL helps make it easy for teachers to integrate social-emotional learning into their classrooms, which decreases problem behaviors and increases whole-school success by promoting self-regulation, safety, and support. It aligns with many other school initiatives and standards, including Positive Behavior Interventions and Supports (PBIS), Response to Intervention (RTI), the American School Counselor Association (ASCA) Mindsets and Behaviors, academic standards, Restorative Practices, and trauma-informed practices.

Second Step SEL for Early Learning–Grade 5

Contact

Research-based Second Step SEL is a universal, classroom-based curriculum for Preschool through Grade 8 that teaches students the skills they need to be safe, succeed in school, and get along well with others.

Learn about more educators' experiences with Second Step SEL at SecondStep.org/success or call Committee for Children at 800-634-4449, ext. 1.

Who We Are

Though we're best known for our innovative SEL-centric programs for schools, Committee for Children is involved in all kinds of initiatives to improve the lives of children. Founded as a nonprofit in 1979 to help victims of child sexual abuse, we continue to advocate for policies and legislation to protect kids and provide equal opportunities for all. From our headquarters in Seattle, Washington, we partner with researchers, publishers, and nonprofits around the world. Our programs reach students in over 70 countries, and we work to make sure all children have a chance to thrive.

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