

# Science MATTERS!

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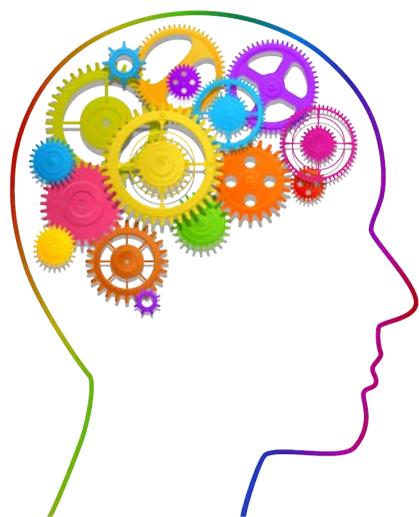
NIE ACTIVITY

## Improving Education with Applied Psychology Research



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Students often hear that earning good grades is important for attending college and building a successful career. However, there is a lot more to success than academic skills in subjects like math, English language arts, and science. Strong social and emotional skills are also an important part of being successful in school, a job, and in other aspects of life.

As a **psychologist**, I work to find ways to help children and youth develop these social and emotional skills. There are many types of psychologists, but in general, we are all interested in studying or improving how people think, feel, and behave. **Applied psychologists**, like myself, are interested in taking what has been learned from psychological research and using it to solve problems. One area of my work focuses on **social and emotional learning**, the process of learning skills like self-control of behaviors and emotions, as well as skills that are important for developing positive relationships.

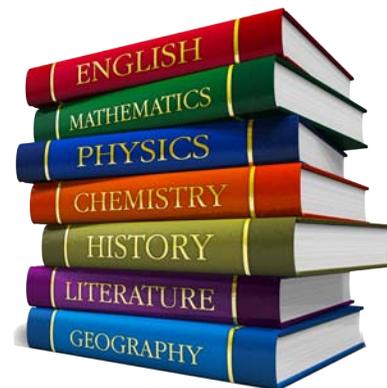
Consider the example of self-control. Young children tend to blurt out whatever is on their mind, and they may have a tantrum if they can't have what they want. As children age, they learn to consider the expectations of the people around them when they speak and act. Eventually, most older children and adults develop the ability to control their words and actions, at least most of the time. This kind of self-control improves relationships



by helping us to behave in ways that consider others. It also helps us reach our goals because self-control allows us to set aside our short-term desires to focus on our long-term goals.

My work in this area focuses on using psychological knowledge to understand what schools, teachers, and parents can do to support students in developing important social and emotional skills. Can we teach students these skills through classroom instruction? What beliefs or approaches help teachers to develop social and emotional learning skills in their students?

Since these questions cannot be answered in a research laboratory, my research is done in real-life settings. My team partners with school districts and other organizations to study the impact of programs and approaches on student success. By doing research in real-life settings, our goal is to improve education by producing findings that are useful for teachers, school leaders, and policymakers. The educational settings we work in require understanding a complex web of factors that impact students' success, such as differences in students' abilities, the classroom and school culture, teachers' expectations of students, and educational policies. This can be very challenging, but it's also what makes our work exciting and relevant as we strive to learn what works for students.



### SKILLS AND KNOWLEDGE

To be an applied psychologist, you need knowledge of how human behavior is influenced by our biology, minds, culture, and social environments. You also need strong scientific thinking and other scientific skills that are important research skills, such as statistics. Becoming an applied psychologist requires an undergraduate degree as well as an advanced degree, like a Doctorate of Philosophy (PhD) or a Doctorate of Psychology (PsyD).



### WORDS to know

**Psychology:** the scientific study of the mind and behavior

**Psychologist:** someone who is trained in psychology

**Applied psychologist:** a psychologist who uses knowledge about the mind and behavior to solve practical problems involving children, youth, and adults.

**Social and emotional learning:** the process of developing the knowledge, attitudes, and skills necessary to understand and manage emotions, reach goals, show empathy for others, build positive relationships, and make responsible decisions. For more information, see <http://www.casel.org/what-is-sel/>

### Hyperlinks:

Videos about the importance of growth mindset and perseverance, and how to develop them <https://ideas.classdojo.com>

Background information on growth mindset <https://www.mindsetworks.com/science/Impact>

Video about the power of passion and perseverance [https://www.ted.com/talks/angela\\_lee\\_duckworth\\_grit\\_the\\_power\\_of\\_passion\\_and\\_perseverance](https://www.ted.com/talks/angela_lee_duckworth_grit_the_power_of_passion_and_perseverance)



### For Students and Teachers Making Curriculum Connections, see the following:

#### Connecticut State Department of Education (CSDE) - Common Core State Standards (CCSS): Mathematics

- CCSS.Math.Practice.MP1 Make sense of problems and persevere in solving them
- CCSS.Math.Practice.MP3 Construct viable arguments and critique the reasoning of others
- CCSS.Math.Practice.MP5 Use appropriate tools strategically

#### CSDE - Next Generation Science Standards: Scientific and Engineering Practices

- Asking questions and defining problems; developing and using models; planning and carrying out investigations; analyzing and interpreting data; using Mathematics and computational thinking; constructing explanations and designing solutions; engaging in argument from evidence; and obtaining, evaluating, and communicating information.