

Transforming the Future of Education With Research

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Scientists across all subfields of psychology have theories and findings on how students learn and on factors within the education system that can improve student outcomes. In addition, psychological scientists have experience with a rich set of methodologies and data analysis techniques that have the potential to be useful for education research. However, much of that knowledge has not been applied to or tested in classroom or school contexts.

The Institute of Education Sciences (IES) funds research with the broad goals of improving academic achievement for all students, reducing the achievement gap between high-performing and low-performing students, and increasing opportunities for postsecondary education. Many of IES's funding opportunities can provide psychological scientists with the resources they need to bridge the gap between theory and practice in a way that is meaningful for practitioners and policymakers as well as informative for theory building and hypothesis generation.

Relevant funding opportunities for researchers in developmental psychology, cognitive science, education, and related fields are located within two IES Centers — the National Center for Education Research (NCER) and the National Center for Special Education Research (NCSE). In particular, psychological scientists may be interested in NCER's [Cognition and Student Learning](#) topic. From 2002–2013, IES awarded 121 grants through this topic, the majority to interdisciplinary teams of researchers whose goal was to take principles of cognitive science into the classroom. Some examples of questions that IES-funded researchers are addressing include the following:

- What can teachers do to effectively capture students' attention and focus students on critical information?
- What are the best ways to present material to students so that they can integrate it with their prior knowledge and encode it effectively?
- What instructional practices and study strategies will lead to the best long-term retention of information?
- What factors of instruction and curriculum will lead to the broadest transfer of knowledge and skills to novel situations?
- What cognitive processes underlie core academic content areas (i.e., reading, writing, mathematics, and science)?

The research findings generated from the Cognition and Student Learning topic have illuminated potential ways to improve education based on established work in the cognitive sciences and have also significantly advanced the theoretical understanding of basic principles that support learning. This interplay between the laboratory and the classroom has become a successful model for both improving our practical understanding of the best ways to improve student learning and generating new theoretical questions.

Researchers interested in applying recent advances from cognitive science to improve developmental outcomes for infants and toddlers with or at risk for disabilities and promote learning for students with or at risk for disabilities may also be interested in the [Cognition and Student Learning in Special Education](#) topic.

Other topics under NCER's Education Research Grants competition and NCSE's Special Education Research Grants competition include:

- [Social and Behavioral Context for Academic Learning](#);
- [Social and Behavioral Outcomes to Support Learning](#);
- [Early Learning Programs and Policies](#);
- [Early Intervention and Early Learning in Special Education](#);
- ; and
- [Families of Children with Disabilities](#).

Additional IES topics include those on reading, writing, and language development; math and science education; English learners; postsecondary education; adult education; transition outcomes for secondary students with disabilities; education technology; and policy, systems, and leadership, among others.

In addition to providing funding across a wide range of topics, both NCER and NCSE support projects across a spectrum of research aims. Researchers can conduct exploratory research to identify factors that may affect education outcomes; develop and pilot innovative education interventions; establish the efficacy of newly-developed and existing education interventions, programs, policies, and practices; evaluate whether interventions are effective when implemented under typical conditions; and develop and validate measurement instruments intended to screen, monitor progress, or assess education outcomes.

The Institute also offers other grants competitions in addition to those highlighted above, including competitions for [National Research and Development Centers](#), [Research Training Programs](#), and [Partnerships and Collaborations Focused on Problems of Practice and Policy](#). Investigators who would like to develop practical statistical and methodological tools that can be used by education researchers will be interested in the [Statistical and Research Methodology in Education](#) competition.

Psychological science has the potential to transform our understanding of how students learn and identify what works in education and for whom. Visit the IES website at ies.ed.gov/funding for current information about our grants competitions. Requests for Applications (RFAs) are available on our website. IES program officers are able to provide valuable feedback to applicants about all aspects of their proposals (e.g., ideas, research plans, projects' fits for the grant competition, topics, and goals). Researchers who are interested in any of these competitions are encouraged to contact the program officer listed in the RFA early in the application process.

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