

**INSTITUTE OF EDUCATION
SCIENCES FUNDING**

SHAYNE B. PIASTA

DECEMBER 1, 2016


INSTITUTE OF EDUCATION SCIENCES (IES)

- <http://ies.ed.gov/funding/overview.asp>
- “research that contributes to improved academic achievement for all students, and particularly for those whose education prospects are hindered by inadequate education services and conditions associated with poverty, race/ethnicity, limited English proficiency, disability, and family circumstance.”
- Organized by program and topic

PROGRAMS

- Research Training Programs
 - Pathways, Predoctoral, Postdoctoral, Early Career, Methods, Edu Research Use and Practice
- Statistical and Research Methodology in Education
- Partnerships and Collaborations Focused on Problems of Practice or Policy
 - Researcher-Practitioner Partnerships, Continuous Improvement, Evaluation of State and Local Education Programs and Policies

PROGRAMS

- Research and Development Centers (NCER/NCSEER)
 - Research Networks
 - Supporting Early Learning
 - Scalable Strategies to Support College Completion
 - Exploring Science Teaching in Elementary School
 - Low-Cost, Short Duration Evaluation of Education/Special Education Interventions
 - Other/Unsolicited
- 

PROGRAMS

- Education and Special Education Research
 - “identifying, developing, and validating effective education programs, practices, policies, and approaches as well as understanding the factors that influence variation in their effectiveness such as implementation.”
- Focus on student outcomes
 - School readiness
 - K-12 core academic outcomes (reading, writing, math, science) plus behaviors and social skills that support learning and successful transitions
 - Post-secondary enrollment and completion
 - Adult basic skills, functional outcomes for students with disabilities
- Organized by topic and goal structure
 - Each topic has identified “gaps” to be addressed and requirements re sample, outcomes, and setting
 - Goal guides research questions/design

EDU/SPED RESEARCH PROGRAM TOPICS

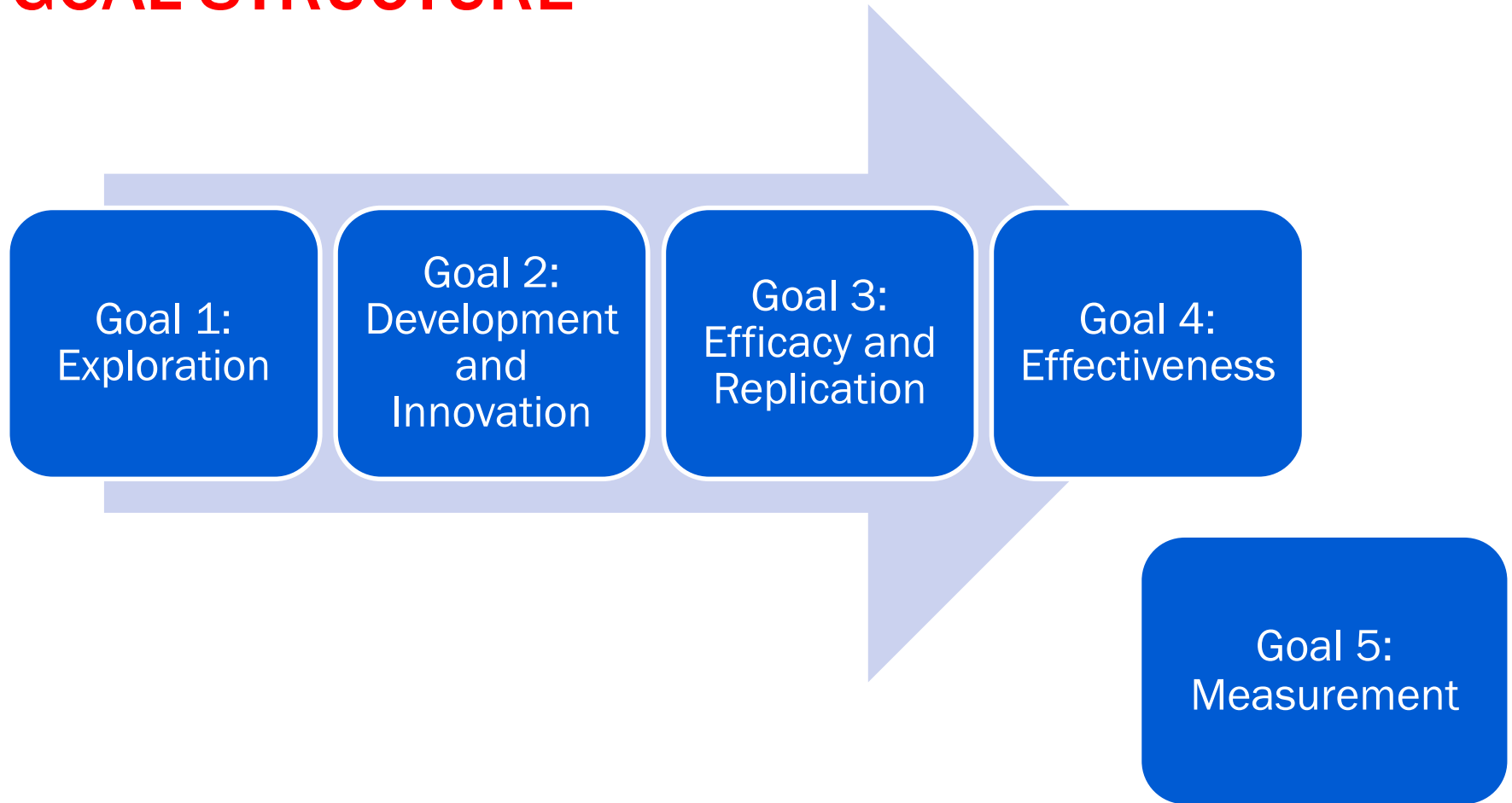
NCER

- 1) Cognition and Student Learning
- 2) Early Learning Programs and Policies
- 3) Education Technology
- 4) Effective Teachers and Effective Teaching
- 5) English Learners
- 6) Education Leadership
- 7) Improving Education Systems
- 8) Mathematics and Science Education
- 9) Postsecondary and Adult Education
- 10) Reading and Writing
- 11) Social and Behavioral Context for Academic Learning
- 12) Special Topics

NCSER

- 1) Autism Spectrum Disorders
- 2) Cognition and Student Learning in Special Education
- 3) Early Intervention and Early Learning in Special Education
- 4) Families of Children with Disabilities
- 5) Mathematics and Science Education
- 6) Professional Development for Teachers and Other Instructional Personnel
- 7) Reading, Writing, and Language Development
- 8) Social and Behavioral Outcomes to Support Learning
- 9) Special Education Policy, Finance, and Systems
- 10) Technology for Special Education
- 11) Transition Outcomes for Special Education Secondary Students

GOAL STRUCTURE



GOAL 1: EXPLORATION

- “identify malleable factors associated with student education outcomes and/or the factors and conditions that mediate or moderate that relationship.”
- “intended to build and inform theoretical foundations to support future applied research efforts such as (1) the development of interventions...or the evaluation of interventions... or (2) assessment frameworks for the development and validation of assessments”
- May involve primary or secondary data
- 2 to 4 years in duration; \$600,000 to \$1.4 mil **total** costs (dependent on type of data)

GOAL 2: DEVELOPMENT AND INNOVATION

- “supports the development of new interventions and the further development or modification of existing interventions that are intended to produce beneficial impacts on student education outcomes when implemented in authentic education settings.”
- Must use iterative development process that results in
 - A fully developed intervention
 - Data showing usability/feasibility/fidelity of implementation by end users
 - Pilot data showing promise for student outcomes
- Up to 4 years; \$1.4 mil total costs

GOAL 3: EFFICACY AND REPLICATION

- “supports the evaluation of fully developed education interventions to determine whether they produce a beneficial impact on student education outcomes relative to a counterfactual when they are implemented under ideal or routine conditions by the end user in authentic education settings.”
- Must use design that meets WWC standards, document fidelity of implementation, and include cost analysis
- Should inform theory of change
- Four types of studies: Efficacy, Replication, Efficacy Follow-Up, Retrospective
- 3 to 5 years; \$700,000 to \$3.3 mil total costs (dependent on type of study)

GOAL 4: EFFECTIVENESS

- “supports the independent evaluation of fully developed education interventions with prior evidence of efficacy to determine whether they produce a beneficial impact on student education outcomes relative to a counterfactual when they are implemented by the end user under routine conditions in authentic education settings.”
- Requires at least one prior efficacy study, implementation under routine conditions (limits funds for implementation support), evaluation by researchers independent of the intervention developers/distributors, using a design that meets WWC standards, and documentation of fidelity of implementation
- Two types: Effectiveness, Effectiveness Follow-Up
- 3 to 5 years; \$1.4 to \$3.8 mil total costs (dependent on study type)

GOAL 5: MEASUREMENT

- “supports (1) the development of new assessments or refinement of existing assessments...or (2) the validation of existing assessments for specific purposes, contexts, and populations”
- “All measurement projects must link the assessment to student education outcomes”
- Must use iterative development/refinement process that results in
 - A fully development measurement tool (e.g., academic or behavioral assessments, observational tools, informal assessments, school quality indicators)
 - Well-specified assessment framework including validation activities
 - Evidence of reliability/validity
- 4 years; \$1.4 mil total costs

COMPONENTS OF APPLICATION

- SF-424, budget, budget justification
- Project Abstract (must include topic and goal)
- Project Narrative (25 pages, single-spaced)
 - Significance including theory of change and description of intervention/measure as applicable
 - Research Plan (design, sample, analysis)
 - Power analysis as applicable; required for Goal 3
 - Cost analysis for Goal 3
 - Personnel
 - Resources including dissemination plan
- Appendices
 - Response to previous reviewer comments (if applicable; 3 pages)
 - Figures, charts, tables, examples of measures to supplement narrative (15 pages)
 - Examples of intervention materials, assessment items (10 pages)
 - Letters of support (no page limit)
 - Data Management Plan (Goals 3 & 4 only; 5 pages)
- References
- Human Subjects Narrative
- Biosketches

REVIEW PROCESS

- Panels based on program/topic
 - All include substantive experts and methodologists
- Review process
 - Initially assigned to 2 or 3 primary reviewers who identify strengths/weaknesses and provide initial score
 - If scored high enough, assigned for full panel review
- Scoring
 - Criterion ratings of 7 (excellent) to 1 (poor) for significance, research plan, personnel, resources
 - Overall score of 1 (outstanding) to 5 (poor)
 - Budget, data management plan, and human subjects narrative reviewed but not scored