Responses to the Request for Public Comment on NCER and NCSER Research Programs

Summarized by
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In August 2014, the National Center for Education Research (NCER) and the National Center for Special Education Research (NCSER) in the Institute of Education Sciences (IES) issued a request for public comment on their research programs and the needs of the field. The request was part of an ongoing effort to seek stakeholder input and to make improvements in NCER's and NCSER's research and training programs. For example, NCER and NCSER held a Technical Working Group (TWG) meeting with practitioners in February 2014 to elicit their perspectives on emerging research needs and ways to make the work of NCER and NCSER grantees more relevant and useful. Another TWG meeting was held in October 2014 with researchers to hear their views on how to strengthen IES research and research training grant programs. These TWGs allowed for an in-depth focus on issues, as well as an easy exchange of ideas among participants. Summaries of these TWG meetings can be found at 1.usa.gov/KaISTV.

The request for public comment was posted on the IES website (see appendix) and announced in a Newsflash. In addition, the NCER and NCSER Commissioners reached out to a variety of education research associations to make sure they were aware of the letter and to encourage their members to respond. The deadline for comments was on October 31, 2014. The request for public comment asked for responses to the following questions:

1. What are the characteristics of education and special education studies that have had the most influence on policy and practice during the past 10 years? What lessons can we draw from these studies to inform NCER's and NCSER's future work?
2. What are the critical problems or issues on which *new* research is needed?
3. How can NCSER and NCER target their funds to do the most good for the field?

This document summarizes the input NCER and NCSER received in response to the request for public comment. It begins with some descriptive information on the letters received, followed by a summary of the responses received for each of the questions posed.

Methods for Summarizing Responses

NCER and NCSER received 105 letters in response to the request for public comment. Of these, 70 were submitted from individuals, and 35 were submitted as the response from various organizations. There were three instances in which identical letters were submitted by different organizations or different divisions within an organization. In these instances, we counted the response only once. Four letters were excluded because they did not address the questions that were set forth in the initial letter. Thus, 98 distinct responses were used in producing this summary.

Table 1 shows that letters from individuals were primarily from individuals based at universities, whereas Table 2 shows that letters from organizations came primarily from associations representing special education.

Table 1. Affiliations of individual respondents to IES public comments request.

Affiliation	Responses from Individuals
Research Institution	
University	35[1]
Research Firm	5
Federal/State/Local Agency	7
School Administrators, Teachers, and Staff	7
Adult Education Center/Program	5
Community College	3
Other	5
Total	**67**

[1] Two distinct letters are from the same university.

Table 2. Affiliations of organizational respondents to IES public comments request.

Affiliation	Responses from Organizations
Special Education Association	15[1]
Research Institution (e.g., research firm, university)	4
Researcher Association	3
Other	9[2,3]
Total	**31**

[1] Seven distinct letters are from different divisions within the same overarching organization.

[2] Two distinct letters are from the same agency.

[3] Two distinct letters are from the same association.

The process underlying the summary of responses involved several steps. First, two research center staff separately read each response, screened the responses for relevance to the questions asked in the public letter, flagged duplicate letters, and began to identify themes based on the content of the responses. (Nonresponsive and duplicate letters were not used for the summary.) Second, a third staff member read through all the letters, refined the themes, and coded the themes in each letter. Third, the responses that addressed each theme were tallied. There were no inter-rater reliability checks for these steps. The summary of the responses from these individuals and organizations is presented below by question asked in the IES letter. This summary does not capture the content of every response received, but rather focuses on major themes that were mentioned by at least two respondents.

1. What are the characteristics of education and special education studies that have had the most influence on policy and practice during the past 10 years? What lessons can we draw from these studies to inform NCER's and NCSER's future work?

The Institute received 36 unique responses to this question. Of these, 16 were from individuals and 20 were from organizations. The responses are broken down into three categories: **Research Methods, Practitioner-Oriented Products,** and **Policy-Relevant Topics.** As some letters touched on more than one theme, the number of respondents noted per section exceeds 36 in order to capture the full range of responses.

Research Methods

Eighteen respondents discussed the influence and importance of rigorous research designs, especially the use of randomized control trials (RCTs) to estimate the causal effects of educational policies and program interventions. One respondent further elaborated on the importance of RCTs as a vehicle to provide evidence of principles or practices that can be applied in classrooms or schools to benefit student learning. The increased utilization of single-case designs was also mentioned as influential to special education researchers, especially when establishing strong evidence-based practices. Other influential methodological characteristics included longitudinal research designs, replication studies, large study samples to increase generalizability, experiments in natural and real-world contexts, and theory-based studies that address the processes underlying an intervention.

Practitioner-Oriented Products

Seventeen respondents noted the importance of studies that developed and encouraged the use of evidence-based practices in classrooms and schools. The responses emphasized the influence of models (e.g., multi-tiered systems of support, positive behavior interventions and supports) and concrete curricula and tools for practitioners to use in classroom or educational settings (e.g., a classroom management curriculum, digital tutoring system).

Policy-Relevant Topics

Thirteen respondents identified research in particular topic areas as having significant influence. Topics mentioned by at least two respondents include the following:

- early childhood (e.g., early learning, school service delivery);
- adult education (e.g., adult literacy and reading);
- special education (e.g., inclusion, impact of policies regarding students with disabilities, multiple levels of support to target student needs);
- cognitive abilities in math;
- race and socioeconomic status;
- social-emotional learning; and
- data use (e.g., data-driven decision-making).

2. What are the critical problems or issues on which new research is needed?

There were 95 unique responses to the second question. Of these, 64 were from individuals and 31 were from organizations. The responses are broken down into nine categories: **Early Childhood Education; Kindergarten through Grade 12; Postsecondary Education & Adult Education; Special Education; Special Populations; Professional Development for Teachers & Leaders; Policies, Systems, & Leadership; Research Methods; and Other Topics.** As some letters contained multiple themes, the number of respondents noted per section exceeds 95 in order to capture the full range of responses.

Early Childhood Education

Fourteen respondents addressed several different topics for further research in early childhood education, including the types of experiences (e.g., social-emotional, instructional) that matter for young children and contribute to effective instruction. Other research issues mentioned include examining the effects of various services and early intervention that some children receive prior to preschool, the long-term effects of early childhood programs on later development, and the role of parent engagement practices in children's development.

Kindergarten through Grade 12

School Content Areas. Ten respondents called for research on particular subjects in K-12, such as reading, math, science, and the humanities. Some respondents addressed the need to better understand how cognition supports learning across reading, math, and science. Other responses focused on STEM, including quantitative assessments for various constructs within mathematics learning; the learning trajectory of mathematics in the United States; and further research on females' attitudes and experiences in STEM while in the K-12 system.

College and Career Readiness. Nine respondents addressed the Common Core State Standards (CCSS) and standards testing as a critical area of research, especially with regard to the general impact of the standards on student learning. Suggested research questions include the following:

1. How well does K-12 curricula align with CCSS?
2. How much do teachers need to change their current practices and adopt new practices to meet CCSS?
3. Are teachers prepared to deliver the content required to meet the standards?
4. Can the same standards be applied to students with disabilities, and how are they affecting the content taught to students with disabilities?
5. How do administrators, teachers, students, and families feel about the changes that were adopted with the implementation of the CCSS?
6. How well do these standards align with what students will face in college or in career and technical education?

Career and Technical Education (CTE). Three respondents also addressed the need for CTE research that focuses on the following questions:

1. How does previous course enrollment in high school affect whether a student engages in a CTE pathway?

2. How can we align educational programs to jobs to better prepare students for the type of work they might be entering?

Social-Emotional Learning. Twelve respondents urged more research on how various social-emotional skills, such as persistence, motivation, stress management, self-regulation, goal setting, and resilience, affected student outcomes. One respondent called for further research on the assessment tools that are used to measure these skills and how they can be increased in various settings.

Technology. Eight respondents discussed the importance of further research on the impact of technology on student achievement. Recommended research questions include the following:

1. What are the effects of technology-embedded instructional models, such as blended learning or flipped classrooms?
2. How are games instrumental in student learning?
3. What models of online learning promote student achievement?

Data. Seven respondents discussed the importance of exploring various ways to use data effectively to make decisions in schools, districts, and states. More specifically, they asked about how teachers could use data to adapt their teaching and transform learning within classrooms or for individual students. Some respondents also encouraged further research on the effects of formative assessment, or the monitoring of student learning to drive modifications in teachers' instructional methods, on student achievement.

Postsecondary Education & Adult Education

Postsecondary Education. Six respondents addressed postsecondary education. Examples of proposed research questions include the following:

1. How well do community college programs perform?
2. What community college characteristics yield positive student outcomes?
3. How have tuition increases affected college affordability?
4. What policies need to be implemented to continue increasing access, completion rates, and quality of both 2- and 4-year colleges?
5. What are students gaining from their college education (e.g., knowledge, labor outcomes)?
6. How does the labor market impact decisions for programs of study?
7. What are the characteristics of students who attend community college or career and technical education courses after receiving a Bachelor's degree?

Adult Education. Thirteen respondents called for further research in the realm of adult education. They cited a lack of knowledge on various adult education programs (e.g., workplace adult education and competency-based adult education); the characteristics and training of adult educators; standards and requirements of certificate models; and whether certain certificate models work better than others (e.g., short-term vs. long-term programs). Some respondents called for research on the efficacy of interventions and models that work for students in the K-12 system when implemented in adult education programs, and for research on how technology (e.g., online learning) may support adult education.

Several respondents encouraged research in studying the barriers to learning, such as the following:

1. What are the factors that hinder adults from learning basic concepts in math or reading?

2. What are the characteristics of adults who drop out of the system and what can be done to retain them?
3. How can adult educators increase the efficacy and independence of adults who have returned to education?

Special Education

Forty-three respondents encouraged researchers to dive more deeply into various topics in special education.

Five respondents encouraged researchers to conduct longitudinal studies on students with disabilities. Research for students with moderate and severe disabilities has frequently been brief, leaving the long-term effects of interventions unknown. Three respondents encouraged researchers to study the long-term effects of interventions associated with the transition from adolescence to adulthood. Few studies have collected data for more than one semester following the interventions provided during this life transition.

Professional development and teacher effectiveness were recurring themes in 15 responses. Several respondents emphasized the importance of uncovering effective evidence-based teaching practices and to evaluate current models, such as co-teaching, to see what works under what contexts. Other respondents agreed on a need for research on teacher quality and measuring teacher effectiveness for teachers of students with disabilities. Other suggested areas for further research include a closer examination of the preparation that teachers receive to be special education teachers, ongoing professional development to strengthen teacher quality, and the factors that may affect recruitment and retention of special education teachers, especially in high-need areas. Another frequently asked question was: What are the consequences of implementing these value-added models for teachers of special education or teachers with students with disabilities as more schools link teacher effectiveness to student growth?

Five respondents called for more research on paraprofessionals, including examining the role of paraprofessionals in student learning. Approximately 40% of states have more paraprofessionals than special educators; yet, we know relatively little about the people who fill these positions or what supports they need to be more effective with students.

Five respondents also discussed the importance of examining systems and policies that influence student achievement. For example, how has the reauthorization of the Individuals with Disabilities Act (2004) and the inclusion of children with disabilities in general education classrooms affected student progress through the K-12 system and student outcomes in general?

There was also a call for further research in understudied populations. Three respondents addressed the need to learn more about students who are deaf and/or blind, and the types of technology and services that are effective in facilitating their learning. Other understudied populations mentioned include students with multiple disabilities, students with low-incidence disabilities, students with severe disabilities, adults with disabilities, and incarcerated students with disabilities.

Special Populations

Fourteen respondents indicated that new research was needed on special populations across the nation.

English Learners (ELs). Six respondents encouraged further research on the EL population. Areas of interest for this research include a better understanding of the poor performance of many ELs in schools, the factors that contribute to the achievement gap between ELs and non-ELs, and the programs (e.g., dual-language programs) and instructional practices (e.g., culturally-based practices) that are effective for ELs across the lifespan, from early childhood to adulthood.

Respondents also proposed further research questions regarding the following population groups:

1. **Rural populations** (three respondents): How can we encourage researchers to study these areas? How can we continue increasing access to good teachers and school-based services in these areas?
2. **Dropouts** (three respondents): How do we track and re-engage students that drop out of high school?
3. **Veterans** (two respondents): In what types of postsecondary education do veterans enroll? How does post-secondary education affect their achievement, goals, and general well-being?

Professional Development for Teachers & Leaders

Thirteen respondents addressed professional development for teacher and leaders as a critical area of future research.

Teacher Preparation. Nine respondents addressed the importance of teacher preparation in fostering high-quality teaching and teacher effectiveness. One frequently asked question was: how can we effectively prepare pre-service teachers to meet the needs of their students? In addition to pre-classroom preparation, some respondents expressed a need for research on incorporating professional development into teachers' practices throughout their careers. Others showed interest in understanding how teachers can develop or strengthen their ability to analyze and use research that has been shown to be effective for improving student outcomes. Some respondents highlighted the need to develop professional development programs that assist teachers in discerning good from bad research and to implement good practices in the classrooms.

Teacher effectiveness. Four respondents wanted to see further research in identifying the key characteristics of effective instruction for advancing student learning. Respondents were interested in the factors that contribute to successes (or failures) in implementing evidence-based practices. They also expressed a need for better measures that capture teacher effectiveness beyond student test scores.

School counselors. Two respondents addressed the need for further research in understanding the best practices and ensuring effectiveness in school counseling. While research has shown that school counselors play an integral role in fostering college readiness and college access, enhancing academic achievement, and promoting prosocial behaviors, one respondent noted the lack of knowledge in what school counseling practices are most effective for improving students' academic, behavioral, and college-going outcomes.

Policies, Systems, & Leadership

Eight respondents addressed a wide spectrum of topics regarding policies, systems, and leadership in education. Proposed research questions include the following:

1. What are the effects of school leadership on teacher outcomes (e.g., teacher retention, teacher effectiveness), and, indirectly, student outcomes? What are the factors and practices of school leaders who have successfully improved these outcomes?
2. What school turnaround strategies have been found to be effective?
3. How do school discipline policies affect students? For example, some schools have begun to implement discipline policies that are grounded in preventative practices, as an alternative to zero-tolerance policies.
4. What effects do school climate and school safety have on students and teachers and what facts promote school safety?
5. How can schools promote cultural competency among leaders and teachers?

Research Methods

Seven respondents addressed various issues concerning research methods and measurement research. They felt a need for the following:

1. reliable, valid, and appropriately normed measurements (e.g., math knowledge, teacher quality, social-behavioral outcomes);
2. closer examination of mediators and contextual variables in interventions in order to examine the characteristics of a successful intervention/practice and to allow for future replication;
3. meta-analyses aimed at identifying what works and discerning where the gaps are in education research;
4. innovation in measurements that can capture student behavior, teacher behavior, and contextual setting factors; and
5. research in how effects of interventions are sustained over time.

Other Topics

Respondents addressed the need for further research on the following:

1. mediating effects of parent practices and home environments on student outcomes (two respondents); and
2. the school-to-prison pipeline, such as developing supportive educational environments for incarcerated individuals (three respondents).

3. How can NCER and NCSER target their funds to do the most good for the field?

There were 62 unique responses to this question. Of these, 31 were from individuals and 31 were from organizations. Many of the respondents called attention to the critical issues they delineated in their responses for Question 2. Others discussed new areas in which NCER and NCSER could specifically target their funds. For the purposes of this report, the summary of responses below includes ideas and recommendations that were **not** discussed in Question 1 or Question 2. The responses are broken down into five categories: **Research & Investment Priorities, Training, Collaboration, Dissemination,** and **Other Comments.**

Research & Investment Priorities

Nine respondents encouraged NCER and NCSER to maintain regular engagement with stakeholders and organizations for future input so that NCER and NCSER can target funds effectively and help advance the field. Some of their suggestions for targeted funding include supporting methodologically rigorous studies in underfunded or "high needs" topic areas, and alternating years for competing some research topics in order to boost research in other underfunded areas.

Training

Eight respondents urged continued support for or expansion of training programs for education researchers, whether in pre-doctoral, post-doctoral, or early career programs. Respondents discussed prioritizing funding to

- ensure that future researchers are well-trained to carry out rigorous research to continue to advance knowledge in the education sciences;
- identify core competencies for educational researchers and students/early career scientists at each stage in their career trajectories and encourage them to develop these competencies;
- prepare students to conduct implementation and clinical practice research (especially in special education); and
- address the shortage of special education faculty at institutions of higher education by training future researchers in special education.

Collaboration

Eighteen respondents encouraged NCER and NCSER to target their funds towards projects that focused on collaborations. However, the nature of these collaborations varied across respondents. Broadly speaking, they include the following:

- interdisciplinary projects, in which researchers from different fields within and outside of education research could work on a particular research issue together;
- collaborations between researchers and advocacy groups; and
- partnerships between researchers and practitioners.

Dissemination

Ten respondents pushed for more funding to go towards the dissemination of research findings to researchers, policymakers, and practitioners. Two practical suggestions included adding the findings of funded projects in the online abstracts and providing summaries of funded research on the IES website beyond the structured abstracts.

Other Comments

Several other respondents commented on NCER and NCSER processes.

Changes in the Request for Applications. Seven respondents felt that research areas could be strengthened if the funding periods or requirements of the goals were changed, so that more projects could move from development to efficacy grants, and efficacy to effectiveness grants. (Currently, the maximum length of a development grant is four years and the maximum length of an

efficacy or a replication project is 5 years.) A particular concern raised by researchers who focused on professional development was the difficulty in capturing changes in student outcomes within the given time constraints. Some respondents urged a longer time frame to complete their studies or to have the option of focusing on teacher outcomes if changes in student outcomes are unlikely to occur during the study period.

Two respondents discussed the difficulty in progressing from a development project to an efficacy project when using a specific design. One example included the difficulty of a single-case design (SCD) development project moving to an efficacy study, due to the sampling requirements of an efficacy project using SCD. As a way to encourage researchers to continue testing and developing interventions that show promise, respondents encouraged NCER and NCSER to develop alternatives for researchers in these circumstances and to use some funding towards projects that meet the criteria for these alternative requirements. Another suggestion was to create a "fast-track" Goal 2 to Goal 3 program, where additional funding could be awarded to development projects that are ready for an efficacy study.

Two respondents also encouraged NCER to expand the age range for the early childhood portfolio from birth to age 5. Currently, the Early Learning Programs and Policies portfolio only accepts studies on prekindergarten children between ages 3 and 5.

Grant Process. Three respondents urged NCER and NCSER to hold two grant competitions per year and shorten the review time for applications. The respondents argued that such a change would allow applicants to make revisions and resubmit their applications in the same year. They also argued that this change would help increase the quality of projects, as well as maintain the projects' relevance to issues in the field.

Innovation & Replication. Three respondents discussed the importance of funding studies of new innovations and replication studies in roughly equal measure, to learn not only if interventions work in one setting, but also if they work in various contexts.

Next Steps

NCER and NCSER are appreciative of the thoughtful and wide-ranging comments received from both individuals and organizations. Where possible, the research centers have already begun to integrate the ideas provided by respondents into the research and research training grant competitions. Some of the recommendations require further discussion, particularly those that require more resources or a reallocation of existing resources. The research centers will continue engaging our stakeholders through various venues in the future and welcome further input on how NCER and NCSER can support research that addresses the most pressing needs of the nation's schools, teachers, and students.

Appendix

UNITED STATES DEPARTMENT OF EDUCATION
INSTITUTE OF EDUCATION SCIENCES

National Center for Education Research
National Center for Special Education Research

August 14, 2014

Dear Colleague,

We write to request your feedback on the focus and work of the Institute of Education Science's two research centers: the National Center for Education Research (NCER) and the National Center for Special Education Research (NCSER). We will use this feedback to help us plan our future work.

The mission of NCER is to support rigorous research that addresses the nation's most pressing education needs, from early childhood to postsecondary and adult education. Similarly, NCSER sponsors a comprehensive program of special education research designed to expand the knowledge and understanding of infants, toddlers, children, and youth with disabilities. NCER and NCSER accomplish their missions mainly by inviting applications for research grants in education or special education. Expert panels review and score the applications, and awards are made based on merit and available funds.

We are proud of the work we have funded to date and the accomplishments of NCER and NCSER grantees. At the same time, we want to make sure that the two centers are contributing to significant advances in research and building knowledge that is useful to education policymakers and practitioners. Looking forward, we want to make sure we do all we can to ensure that NCER- and NCSER-funded studies meet high scientific standards *and* contribute to meaningful improvements in students' school readiness and academic outcomes. We welcome your responses to the following questions:

- What are the characteristics of education and special education studies that have had the most influence on policy and practice during the past 10 years? What lessons can we draw from these studies to inform NCER's and NCSER's future work?
- What are the critical problems or issues on which *new* research is needed?
- How can NCSER and NCER target their funds to do the most good for the field?

Concrete suggestions that reflect the mission and goals of the two research centers will be most helpful. Please send your comments to Comments.Research@ed.gov by October 31, 2014. We also encourage you to forward this request to anyone interested in providing suggestions on how to make NCER and NCSER as effective as possible. We will use the feedback to help us make improvements in existing programs and plan future research competitions.

Sincerely,

Joan McLaughlin   Thomas Brock
Commissioner,   Commissioner,
National Center for   National Center for
Special Education Research (NCSER)   Education Research (NCER)