

A Blueprint for Progress in American Education

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Washington DC 20208-7564

Tel: (202) 208-0692

E-mail: nerppb@ed.gov

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Executive Director

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Stanford, California
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Dear Colleague:

Since 1995, the 15-member National Educational Research Policy and Priorities Board has been working with the Assistant Secretary for the Office of Educational Research and Improvement (OERI) to forge a national consensus around a long-term agenda for educational research and improvement.

Today, as a new administration prepares to take office, Congress begins to review OERI's legislative authority, and a new century finds its feet, we want to share our thinking with you. We enclose a brief white paper, "A Blueprint for Progress in American Education."

In it, we argue that research, broadly defined, is the nation's most powerful instrument for improving student achievement. We lay out a vision of schools for the future in which *all* American children are learning at world-class levels. We establish reading, mathematics, and second-language learning as the north stars by which we guide a focused, high-quality, and practical research program for the next decade. And we provide a 10-point action agenda for advancing research, development, and dissemination in the service of learning.

We invite your reactions to this document. We are eager to work with you to implement it. And we look forward to receiving your comments.

Sincerely,

Kenji Hakuta

Enclosure

United States Department of Education



Office of Educational Research and Improvement

A Blueprint for Progress in American Education

Until the nation's educational research base improves, American students will never learn as much as they might. And our schools will never be as good as they can be. Those are the fundamental convictions reached by the National Educational Research Policy and Priorities Board after five years of analysis and on-going discussions with parents, teachers, administrators, and researchers.

Improving American schools and children's achievement will require many things. It will require safe schools, state-of-the art facilities, and the latest technologies. It will take for granted demanding performance standards and real school accountability. It will assume that state and local district policies are aligned with school curriculum, assessment, and student learning outcomes. It will rest on improved teacher training, more and better opportunities for ongoing teacher development, and premium school leadership. It will be accompanied by challenging new curricula that engage both students and teachers alike, and are supported by parent involvement. And it will surely require more money, distributed through equitable school finance policies.

Although the nation has made progress in each of these areas, it is not sure how to attain any of them, much less all of them. If it were, we would have solved these problems long ago. Meeting these challenges depends on new knowledge and new educational science. Research, broadly defined, is the most powerful instrument we possess to improve student learning. Without a sustained commitment to research, development, and dissemination, we will continue to advance more programs, regulations, and silver-bullet solutions without assurance of effectiveness.

A Vision of Schools for the Future

Imagine what schools in the United States might become. As the 20th century faded, it became apparent that two out of three of the jobs available in the United States already required some college education. As the 21st century takes shape, this new situation is likely to stabilize and perhaps accelerate. Our schools must prepare young people not simply for life immediately after graduation, but for a lifetime of learning.

To meet that imperative, American schools must become true learning organizations in their own right. In schools of the future:

- *All children will arrive at school ready to learn*, not just on the first day of school, but throughout their school careers. We are already the beneficiaries of remarkable progress in areas involving cognition, neuroscience, and early childhood development. Now is the time to secure these advances as they relate to the early years and extend them throughout the development of children and youth.
- *Our students will rank among the best in the world* at critical points such as grades four, eight, and twelve. Recent research indicates that “intelligence” itself is not fixed and that hard work more than compensates for ability.
- *The achievement of minority and majority Americans, or of the wealthy and the poor, will not be differentiated by their status.* Research also indicates that ability can be “learned.” Schools can socialize intelligence by routinely challenging students and encouraging them to engage in sustained problem solving while assessing their own performance.
- *The nation’s teachers and administrators will understand themselves to be part of a great national learning community.* Emerging evidence points to the wisdom of viewing teaching as a profession involving both science and craft. In this view, teaching should constantly recreate instruction to meet students’ individual learning

needs while serving as a feedback loop to define new frontiers for educational research.

- *Parents and communities will be meaningfully involved* in the learning and the emotional, social, and academic growth of children. From decades of educational research the most consistently robust finding is that parental or community support is the non-negotiable prerequisite for learning.

The U.S. Department of Education's Office of Educational Research and Improvement's role in this agenda is specialized, but vital. OERI cannot sustain the entire effort outlined above. Nor did Congress intend that it should. OERI's function, rather, is to link the worlds of research, policy, and practice, adding value to the work of all agencies, associations, and institutions involved with school research. In this regard, OERI has a great deal to offer as other agencies such as the National Science Foundation, the Department of Health and Human Services, and the National Institutes of Health frame their educational research and improvement programs.

Highest Priorities: Reading, Second-Language Learning, and Mathematics

The agency's vision of high achievement for all students will be focused on a research foundation emphasizing three priority areas: reading, second-language learning, and mathematics. Recent and emerging syntheses are available on mathematics, reading acquisition in young children, and achievement among language-minority children. They provide powerful bodies of new science on which to build. In each of these areas, more work is required to apply this new knowledge in schools. We need a better understanding of which specific factors are related to success or failure—and in what ways. How do students become competent readers as they move toward more complex texts in subjects such as history, mathematics, and science? What are the short- and long-term effects of specific interventions to help students move from their first oral language to English? Or from oral language to reading and academic disciplines? Why do some students appear

to experience so much difficulty moving from concrete mathematical operations (e.g., arithmetic) to the abstract (e.g., statistical concepts like chance and probability)?

In advancing these three priority areas, OERI will worry about student learning, especially across major *transitions* in children's lives where mastery in general aspects of understanding is often expected, but rarely formally taught. Here the agency's work will encompass both in- and out-of-school learning. It will also concentrate on *teaching in relation to learning* to link changes in teaching practice with improved learning and to connect professional development with teaching. Finally, it will *strengthen the links between research and school practice* by encouraging collaborative work among Federal agencies and improving linkages between Federal agencies and research and development centers and regional laboratories.

This is an agenda offering considerable promise of progress toward the goal of high achievement for all students. Educators today stand on the threshold of a vast new store of knowledge to help all students learn. Research is the key to laying open this store.

A Research Program Designed for Success

Five key ingredients are essential to attaining this vision: focus, high quality, utility, continuity, and adequate financial support.

Focus on a few important problems. Critical to the success of this agenda is the ability of OERI to retain focus on a few important problems. We have outlined the core issues above – reading, mathematics, and second-language learning. We would want to approach these issues in relationship with the field so that the contributions of both researchers and educators are acknowledged and honored. In addition, OERI considers it essential to pay special attention to cross-agency collaboration to coordinate research around targeted populations such as students with limited-English proficiency and Native-American, African-American, and other minority students.

Focus is essential. Otherwise we face the prospect that the agency's energies may be scattered to the four winds.

Quality assurance in the conduct and evaluation of research. Peer review of applications is the best guarantee of research quality. Peer review is taken for granted in research in the physical and biological sciences and medicine. It should be common practice in educational research as well. OERI and its Board have already adopted rigorous standards for evaluating applications, identifying promising programs, and assessing the performance of award recipients. Unfortunately, growing impatience in some quarters of the policymaking community would prescribe research practice and even earmark programs and recipients. Some members of Congress, for example, would mandate randomized trial experiments as the gold standard of evidence. OERI and the Board urge policymakers not to yield to this understandable impatience. They should be confident that rigorous standards, peer review, and methods appropriate to the subject being studied will produce research capable of generating powerful findings. We have sharpened our game at promoting high standards in research, and we have recruited important partners such as the National Academy of Sciences in solidifying our effectiveness in this area.

Another aspect of quality involves sustaining and reinvigorating the research community's capacity to conduct research. Working with key partners, OERI can encourage scholars and scientists from outside the field of education to enter the world of school research. And it can renew the vigor of schools of education by encouraging renewed attention to the principles of science and professionalism in graduate education and research.

Quality is critical. Otherwise we cannot be sure of the value of our results.

Utility to assure relevance to practice. Unlike medicine, education lacks a well-established tradition of accountability between research and practice. For the most part,

researchers study important questions, but their work is judged almost entirely by its quality as research instead of its relevance to educational practice. We need to find better strategies to ensure that research findings will have a wider impact in schools, families, and communities, particularly those with large numbers of low-income children. It must also be acknowledged that limited funding, earmarking, contention about budget allocations, and a history of discrete, small studies have contributed to a perception that somehow the research whole is less than the sum of its parts. It is time researchers accepted the responsibility for conducting their work in ways that will provide credible results, presented in understandable ways.

Utility must be a hallmark of the new OERI, even in the most basic research. Unless our efforts promise practical benefits, they will be irrelevant to teachers and administrators.

Continuity to sustain progress. A research enterprise requires long-term leadership. Staying the course over the long haul demands constancy. Throughout its history OERI has been hard-pressed to demonstrate much continuity. In the last five years, for example, five different individuals have either served as assistant secretary or acted in that capacity. At the same time, it is clear that the agency's responsibilities and duties have multiplied while, simultaneously, its staff has been drastically cut. (Since 1994, a single Office of Research has been divided into five separate institutes, while new responsibilities in areas such as technology have been added. Meanwhile, staff has been cut from 373 to 324, with senior positions declining from nine to five). This is no way to run a research agency.

America's schools are entitled to an OERI with leadership stability and staff adequate to advance its mission.

Financial support that meets the need. The simple truth is that the almost unbounded role envisioned for OERI in its 1994 authorizing legislation cannot be

sustained with current resources. The role itself and the span of activities it contemplates create unachievable ends given funding constraints. The result: too few resources have been spread too thin over a large number of topics and problems and across three major types of institutions—research and development centers, regional educational laboratories, and ERIC information centers. The agency has not received the funding required to help these institutions fulfill their ambitious roles properly. In recent years, the President’s Committee of Advisors on Science and Technology has suggested that 0.5% of the nation’s expenditures on elementary and secondary education should be spent on research, about \$1.5 billion annually. The Board judges this to be a feasible and sensible target.

Educational research, development and dissemination need more money. American corporations routinely spend between 4 and 20% of revenues on research and development. Surely devoting 0.5% of expenditures to school research is the least policymakers can do for America’s children.

10-Point Action Agenda

The Board makes the following recommendations to advance the vision of research for the future outlined above. Taken together they represent a 10-point action agenda for Congress and the new administration, a blueprint for progress in American education.

1. **Mission.** Affirm the broad role and mission of OERI as laid out in its 1994 authorizing legislation: “[it is] the policy of the United States to provide to *every individual* an equal opportunity to receive an education of high quality....” (Emphasis added.)
2. **Student Achievement.** Insist that reading, second-language learning, and mathematics are the foundation on which high quality education for all can be built.

3. **Priorities.** Eliminate statutory organizational mandates so that OERI units can support critical masses of quality work, consistent with board priorities. In this regard, legislation should authorize OERI to form management groups around the principal priorities identified by the board to advance research and focus resources on each of them.
4. **Quality.** State, as national policy, the goal of conducting research according to rigorous standards that reflect scientific principles and peer review and employ methodologies appropriate to the matters under investigation. The objective is to provide research that is powerful, credible, and valuable to teachers and administrators in schools as well as to other education stakeholders.
5. **Utility.** Insist that OERI develop a workable strategy for *dissemination* that moves from linear dissemination of results to collaboration among researchers, teachers, and school leaders in the definition of problems, their investigation, and reporting of results. This is an executive branch function, but Congress should insist that OERI perform it.
6. **Continuity in leadership.** Create a new Chief of Research for the U.S. Department of Education, to be appointed by the President for a six-year term and to report directly to the Secretary of Education.
7. **Continuity in staff.** Strengthen staffing within OERI so that the work of planning, financing, evaluating, and summarizing research can be properly supported.
8. **Continuity in research.** Sustain attention to important research problems by supporting study groups and research panels to document what has been learned, develop supportable research plans, and insist that research of the highest scientific quality be pursued according to plan instead of driven by fads. In collaboration with the National Academy of Sciences, the RAND Corporation,

NSF, NICHD, and the regional educational laboratories and research centers and others, OERI has already created important research agendas in reading and mathematics. This work must be sustained over time, not created and abandoned.

9. **Continuity in oversight.** In re-authorizing OERI, the President and Congress should provide for a policy board made up of policymakers, educators, researchers, and the general public, with members appointed to six-year terms, initially staggered.
10. **Financial Support.** Establish 0.5% of expenditures on K-12 education as the funding goal required for an adequate research program in OERI. As the goal is approached, accountability can be maintained by Congressional and board oversight of improvements in terms of focus, quality, continuity, and research utility. Simultaneously, remove existing funding and earmarking requirements from authorizing legislation, budget submissions, and appropriations so that OERI can better align its mission and resources.

Looking to the Future

As each generation of public leaders takes office, it must ask how its stewardship will be remembered. Will it be recalled because, on its watch, the administration, Congress, and OERI stood by as the nation's schools continued to fall short of their potential? Will historians wonder why it could not articulate a compelling vision of the nation's educational future? Will they wonder why this generation of leaders refused to take advantage of the most powerful tool at its disposal for improving student achievement, research and the generation of new knowledge?

Or will this generation of leaders be remembered in a very different way? It can live in honored memory because it insisted that education is the key to the American future. Scholars can document how it put forward a new vision of what education could be in United States. And citizens may forever be grateful because these leaders helped

rally the nation behind this promising new image and joined hands with the research community to make this vision a reality.

Those are the alternatives – and the choice is ours.

Additional Readings:

“Investing In Learning: A Policy Statement with Recommendations on Research in Education: A Policy Statement with Recommendations on Research in Education.” (National Educational Research Policy and Priorities Board, June 1999.)

“Investing In Research: A Second Policy Statement with Further Recommendations for Research in Education.” (National Educational Research Policy and Priorities Board, September 2000.)

Available at:

www.ed.gov/offices/OERI/NERPPB/plan.html

Readers are encouraged to respond to this blueprint and to address their comments to:

Rafael Valdivieso, Executive Director
National Educational Research Policy and Priorities Board
80 F Street, NW, Suite 100
Washington, DC 20208-7564
E-mail:
nerppb@ed.gov