

DOCUMENT RESUME

ED 412 610

EA 028 667

TITLE Transforming Teacher Knowledge: A 21st Century Policy Challenge.
INSTITUTION National Inst. on Educational Governance, Finance, Policymaking, and Management (ED/OERI), Washington, DC.
REPORT NO GFI-97-9510
PUB DATE 1997-10-00
NOTE 8p.
PUB TYPE Collected Works - Serials (022) -- Information Analyses (070)
JOURNAL CIT Policy Forum; v1 n1 Oct 1997
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Curriculum Development; Educational Finance; Educational Policy; Elementary Secondary Education; *Faculty Development; *Federal Government; *Professional Development; *Research and Development; *School Restructuring

ABSTRACT

Education reform efforts across the United States are dramatically raising expectations for student achievement. However, the Consortium for Policy Research in Education (CPRE) found that teachers have not been adequately prepared for the changes in practice needed to meet new student learning goals. This publication briefly examines research findings regarding teacher professional development and the implications for policy and practice. A CPRE research team suggested that an ambitious curriculum-development federal initiative, based on the new content standards and the realities of teaching practice, may be the best place to start. The publication also reports on CPRE's new grant from the National Institute on Educational Governance, Finance, Policy Making, and Management to study issues in school reform, policy and governance, and school finance; and describes the institute's support of new federal research-and-development initiatives. Information about the institute and its publications is provided. (LMI)

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THE
POLICY FORUM

National Institute on Educational Governance, Finance, Policy Making, and Management

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A 21st Century Policy Challenge

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THE POLICY FORUM

National Institute on Educational Governance, Finance, Policy Making, and Management

Transforming Teacher Knowledge: A 21st Century Policy Challenge

Education reform efforts across the nation are dramatically raising expectations for student achievement. Research conducted by the Consortium for Policy Research in Education (CPRE), an R&D Center which is funded by this Institute, found that *teachers have not been adequately prepared for the changes in practice needed to meet new student learning goals.*¹

Significant Research Findings

In all subjects, especially math and science, research indicates that many teachers do not understand the substance well enough to teach concepts, problem formulation and solving, and other higher order thinking skills now expected as learning outcomes. Teachers need opportunities to improve their content knowledge and learn new methods of teaching. Yet neither policy makers nor teachers themselves generally perceive how crucial the quality of teacher knowledge is to the success of education reform.

A major investment in professional development—not just more of it but a very different kind—is necessary to expand and deepen teacher knowledge. Typical approaches to professional development are not aligned with student learning goals and do not reflect what we know about teachers as learners. According to CPRE's 50 State Profile, "current professional development policies are inefficient and expensive."

A curriculum for each subject and grade level that is consistent with high expectations and new standards is another missing piece in the reform puzzle. Standards do not translate easily into everyday lessons. Although it is the school curriculum that concretely outlines the knowledge teachers need to teach students effectively, appropriate curriculum units and text-

books generally have not been developed. Yet curriculum should be the substantive foundation for teacher professional development as well as teaching practice. *Without a marriage of new curricula and teacher learning, reform rhetoric will not be translated into everyday classroom practice.*²

Implications for Policy and Practice

What is the significance of these research findings for policy makers? A team of CPRE researchers, Susan Fuhrman, David Cohen, Tom Corcoran, and Deborah Ball, offered practical recommendations at a recent briefing on Capitol Hill.

David Cohen, from the University of Michigan, said "we have only begun to imagine ways this problem might be solved. The problem of teacher knowledge is of such magnitude that we need a 10-year plan."

The CPRE research team suggested that *an ambitious curriculum development initiative, based on the new content standards and the realities of teaching practice, may be the best place to start. Teacher professional development could then be built around the school curriculum.* Given the immensity of the development task, a few strands might be phased in each year. A common curriculum tied to high standards can potentially provide a basis for teacher professional communities as well as for a community of future citizens.

To effectively develop appropriate curricula and transform professional development, policy makers need to make substantial, long-term resource commitments. Any initiative should go beyond the usual channels, work within and outside government agencies, and broaden the roles that stakeholders might play.

¹Related CPRE publications are: *Policies and Programs for Professional Development of Teachers: A 50 State Profile* and *Helping Teachers Teach Well: Transforming Professional Development*. For ordering information see p. 2. See also National Commission on Teaching and America's Future. 1996. *What Matters Most: Teaching for America's Future*. New York, NCTAF.

²Ball, D.L. and Cohen, D. 1996. Reform by the Book: What Is-or Might Be-the Role of Curriculum Materials in Teacher Learning and Instructional Reform, *Educational Researcher*, 25, 9, 6-8.

The National Institute on Educational Governance, Finance,
Policy Making, and Management Funds CPRE:
An "Exciting Venture"

THE CPRE CONSORTIUM

University of Pennsylvania ● Harvard University ● Stanford University
University of Michigan ● University of Wisconsin

The application that won a major new grant for the Consortium for Policy Research in Education (CPRE) described it as "an exciting venture to improve reform effectiveness through research." Policy makers and practitioners are often overwhelmed by the many slogans associated with education reform. CPRE is shaping its research agenda to address the need for sound knowledge of those who must make practical choices about policies likely to produce improved student outcomes.

CPRE's research is built upon several key assumptions about effective education reform. Reform should:

- *focus* on teaching and learning,
- create a *coherence* of policy and practice around that focus,
- incorporate individual and organizational *incentives*, and
- enhance the *capacity* of people and institutions.

CPRE is a consortium of five of the nation's leading universities. With their 5-year \$14 million grant from the Institute, CPRE is conducting research in three program areas.

School Reform. CPRE researchers believe that a major shortcoming of past reforms is failure to connect broad policies with the core of education that takes place every day within schools. All the projects in this research area will advance knowledge, and improve its relevance for practice, by concretely linking reform policies with teaching and learning. Studies will examine how schools can be changed to improve instruction for students, how to deal with schools that consistently fail to meet expectations, and how to effectively scale-up reforms.

Policy and Governance. Research in this area will study the implementation of standards-based reform "from Congress to the classroom." Studies will be more sensitive than earlier research to the varied contexts in which reforms are implemented and will attend more carefully to the influence of nongovernmental actors. Several new reform strategies will be explored, including large-scale shifts in authority between states and districts, private sector con-

tracting as a management tool, and various types of student incentives.

School Finance. School reform today demands a different kind of school finance knowledge. CPRE research will move the field of school finance beyond its traditional emphasis on the equitable distribution of dollars across districts toward a focus on how resources can produce high levels of achievement for all students at the school level. Studies will design a school-based finance system, consider how the concept of "adequacy" (i.e., sufficient resources to achieve some educational outcome) can be used in finance formulas, and examine how teacher compensation can be tied more closely to reform.

Research findings will be available from CPRE throughout the 5-year grant period. A recently published report, *Persistence and Change*, from an earlier study of the implementation of standards-based reform, can be ordered now.

ORDERING INSTRUCTIONS FOR CPRE PUBLICATIONS

Persistence and Change: Standards-Based Reform in Nine States. 1997. Diane Massell, Michael Kirst, and Margaret Hoppe. Available in two forms: (1) CPRE Policy Brief, 12 pp. Single copies free, (2) CPRE and Report, 72 pp.: price \$10.

Policies and Programs for Professional Development of Teachers: A 50 State Profile. 1997. Each 3-4 pp. Prices: one profile, \$3; ten profiles, \$20; and set of 51 profiles, \$50.

Helping Teachers Teach Well: Transforming Professional Development. 1995. Thomas B. Corcoran. CPRE Policy Brief, 12 pp. Single copies free.

To obtain copies of these publications write: CPRE Publications, Graduate School of Education, University of Pennsylvania, 3440 Market Street, Suite 560, Philadelphia, PA 19104-3325. All orders must be prepaid by check with U.S. funds. Prices include shipping and handling. The e-mail address is cpre@nwfs.gse.upenn.edu. Phone 215-573-0700, x0.

The Federal Role in Developing the "Best Teachers"

President Clinton made education the centerpiece of his 1997 State of the Union Address. As a major part of his 10-point call to action, he said "to have the best schools, we must have the best teachers."

The teaching quality issue has emerged from a number of research findings (see p. 1) and policy initiatives including the 1996 report of the National Commission on Teaching and America's Future entitled *What Matters Most: Teaching for America's Future*. The Commission report found that "most schools and teachers cannot produce the kind of learning the new reforms demand—not because they do not want to, but because they do not know how, and the systems they work in do not support them in doing so." It provides a blueprint for recruiting, preparing, and supporting excellent teachers involving multiple stakeholders.

In response to the National Commission's report, the President issued an executive order directing the U.S. Department of Education (ED) to assist states and local communities in improving the quality of teaching. ED has identified federal resources available to promote excellence and accountability in teaching. A new Title V of the Higher Education Act focused on recruitment, preparation, and support for beginning teachers in high poverty urban and rural communities has been proposed. ED is working to expand its support for the National Board for Professional Teaching Standards, improve existing professional development programs, develop indicators of teacher quality through the National Center for Education Statistics, and strengthen support for research and development (R&D).

The Institute is contributing to these objectives by supporting several important new R&D initiatives:

National Commission on Teaching and America's Future. We are funding an 18-month \$604,411 grant to the Commission for research in 12 partner states to create a knowledge base to inform policy initiatives in teacher professional development. This grant supports: (1) networks of state policy teams to share strategies, progress, and experiences, (2) development of an inventory of state-level indicators of the conditions of teaching, (3) assistance to states in using the indicators to deepen public and practitioner understanding of the issues, and (4) creation of state-level strategic action plans to link teacher development and student achievement.

Center on Policy and Teaching Excellence. In August 1997 we made an award to a consortium headed by the University of Washington for a new R&D center to be funded for \$7.5 million over a 5-year period. The Center will conduct sustained research on the full range of policy issues relevant to teaching excellence. The findings of the Center will inform policy at all levels of the education system.

Partnership for Excellence and Accountability in Teaching. Using funds from several sources, including the Institute, the Office of Educational Research and Improvement plans to invest up to \$24 million in a 5-year comprehensive national initiative to involve the major stakeholders in improving preparation, induction, and professional development for K-12 teachers.

The Institute will be sponsoring five invitational research planning conferences over the next six months. Topics are:

- Out of School Learning
- School Leadership
- Community Renewal and Education Reform
- Charter Schools and Education Reform
- Third International Math and Science Study (TIMSS) Policy for Systemic Reform

The Director's Column

The National Institute on Educational Governance, Finance, Policy Making, and Management is launching a quarterly newsletter to improve communication with our customers. The mission of the Institute is to provide leadership and support for research and development that will be useful to policy makers, practitioners, and researchers. In this first newsletter we are reprinting our brochure (pp. 4-5), which describes our mission, staff, and current programs. We hope you will remove it and keep it for future reference.

In this and each subsequent newsletter, we hope to provide you with at least one article that will summarize important research findings, discuss their significance and utility, and provide you with sources of more information on the topic. Our newsletter will also keep you abreast of research grants made, upcoming grant competitions, national policy initiatives, and other news of interest.

Your ideas about the substance of our program or about communication mechanisms are always welcome.

Deborah Inman

National Institute on Educational Governance, Finance, Policy Making, and Management

The National Institute on Educational Governance, Finance, Policy Making, and Management is part of the Office of Educational Research and Improvement (OERI) in the U.S. Department of Education. The Institute was created by the Education Research, Development, Dissemination, and Improvement Act of 1994.

Mission

The Institute's mission is to provide leadership and support for research and development examining the critical governance, finance, policy making and management aspects of teaching and learning. The purpose of the work is to unearth findings with long-term consequences for policy makers and educators and to disseminate those findings in the most useful ways to help them design, implement, and sustain effective education reforms. The legislation authorizes the Institute to:

- support research directly and through contracts,
- design and manage grants to operate national research and development centers,
- support field-initiated studies,
- provide technical assistance,
- create a senior fellows program in the Institute, and
- award dissertation grants and fellowships to support graduate study by minorities.

National Research and Development Centers

The Consortium for Policy Research in Education (CPRE)—University of Pennsylvania, Harvard University, Stanford University, the University of Michigan, and the University of Wisconsin-Madison. CPRE is supported by the Institute to conduct a five-year program of education research and development under The National Center on Increasing the Effectiveness of State and Local Reform Efforts. The Center's research focuses on such topics as building state and local capacity for reform, systems of accountability, coherence of policy approaches, student and teacher standards, education governance, school finance, and teacher compensation.

The Center on Policy and Teaching Excellence—University of Washington, Stanford University, Teachers College/Columbia University, and University of Michigan. This Center is supported by the Institute to conduct research and development on a range of policy issues associated with achieving the goal of teaching excellence and the effects that such policies have on continuous school improvement, teacher performance, and student learning.

Field-Initiated Studies Research Grants

Under this program, the Institute in FY96 awarded five multi-year grants to study the following topics: professional development in low achieving schools, state mandated accountability for reform, the effects of school choice on student achievement and opportunity, school leadership and racial and ethnic harmony, specialization and reform of mathematics instruction, and charter schools and professional development schools.

Sponsored Research

Teacher Professional Development

This research is a collaboration among the National Commission on Teaching and America's Future, the National Governors Association, the National Conference of State Legislatures, and the Consortium for Policy Research in Education. The ultimate purpose of this work is to help states design, implement, and sustain successful policies and practices that will improve the quality of America's teachers, in response to the recommendations of the National Commission on Teaching and America's Future.

**National Institute on
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National School Finance Study

The Institute has contracted with the National Academy of Sciences to conduct a comprehensive National Study of Education Finance. This 3 1/2 year project focuses on financing K-12 education in the United States and addresses the following key question: How can education finance systems be designed to assure that all students achieve high levels of learning and that education funds are used in the most productive manner?

National Study of Charter Schools

This four-year study, conducted by RPP International, takes a comprehensive look at the operation and effects of charter schools by surveying all charter schools in the nation annually and conducting site visits and assessing student achievement in a large sample of charter schools.

Developing High Performance Learning Communities

These studies, conducted by RPP International and the Learning Research and Development Center, develop prototypical strategies and procedures, solidly grounded in theory and empirical evidence to build schools where all students perform at high levels.

Work with Constituent Groups

The Institute is collaborating with the National Governors Association, the National Conference of State Legislatures, and the Education Commission of the States to make research more useful for education policy makers. Work in this area will focus on the topics of teacher professional development, the policy impacts of the Third International Math and Science Study (TIMSS), policy issues related to the development and implementation of charter schools, educational accountability, and the concept of educational adequacy as it relates to education finance and education reform.

Outreach

The Institute continuously works with national organizations, associations, and government agencies engaged in supporting or monitoring education reform, both to advance the field and to establish a regular, systematic means for assessing clients' information needs. The Institute also maintains an on-going program of activities designed to inform clients about education research developments related to governance, finance, policy making and management.

For More Information

The National Institute on Educational Governance, Finance, Policy Making, and Management has a World Wide Web site which contains more detailed information located at:

<http://www.ed.gov/offices/OERI/GFI/>

The street and e-mail addresses for the Institute are:

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Field-Initiated Studies Grants Awarded

This Institute will announce new grantees for its Field-Initiated Studies Program in fall 1997. Six grants totaling \$885,773 for the first year of projects lasting up to 3 years were funded in 1996. Current grants are:

Rosemary Henze (ARC Associates, Oakland, CA) is studying how exemplary school leadership fosters unity and respect for diversity while reducing conflict in schools. The results of this 3-year study will be useful to school principals, especially those facing problems of racial and ethnic divisiveness.

Douglas Archbald (The University of Delaware) is investigating the effects of school choice policies on student achievement in urban school districts. The 3-year study, based on a 350 district sample drawn from national data bases, will contribute hard evidence to a hotly debated issue.

Paul J. Baker (The Illinois State University) is examining why local educators respond positively or negatively to state mandates for school improvement using Illinois' new accreditation system as a case study. The results of this research will enable state and other policy makers to craft more effective strategies for change.

David Plank and Gary Sykes (Michigan State University) are comparing two education reform strategies: (1) professional development schools which involve partnerships between public schools and universities, and (2) charter schools which rely on parental choice to create voluntary communities around shared values. The findings will inform policy by articulating the educational, social, and political implications of each theory, how it has been implemented, and the effects on student achievement.

Jane Hannaway (The Urban Institute, Washington, DC) is comparing the professional knowledge and teaching practices of elementary mathematics teachers who are specialists with those who are generalists. The findings, which will indicate whether specialization results in more effective teaching practices and/or produce higher student achievement, could influence the organization of elementary mathematics teaching.

Fred Newman (The University of Wisconsin) is studying the promise and problems of using professional development to build organizational capacity in low achieving schools serving low income students. The results of the study will assist policy makers to generate more effective professional development strategies tailored to the needs of these schools.

GFI 97-9510



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