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Education Policy Research Unit

SCHOOL REFORM PROPOSALS: THE RESEARCH EVIDENCE

PROFESSIONAL DEVELOPMENT

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Research Quality

Empirical literature on professional development is sparse, and studies linking it to achievement more so. Confounding variables make it difficult to establish a direct relationship among development, improvements in teaching, and student achievement.

Research Findings

The Status Quo: Most educators participate in limited staff development. The complexity of teaching and learning is incompatible with the narrow, short-term focus of much of traditional development. Development includes training; experiences embedded in work; networks of educators; and professional development schools.

Professional Development Effects: Development outcomes can be seen in teacher knowledge, teacher attitudes and beliefs, teaching practice, school-level practice, and student achievement. The relationship between professional development and student achievement reflects quality of the professional development *processes and activities* and the efficacy of the *substance* of professional development.

Limitations: A study of a high-quality science professional development program consisting of 110 hours of in-service over four years found teachers changed their practices to use the program's methods, but student achievement did not improve; professional development processes alone are not enough to influence achievement.

Evidence for Development: Two-thirds of teachers in a national survey reported that professional development led them to change teaching methods. Teachers participating in professional development focused on standards described teaching in ways consistent with the standards. Development focused on objectives results in more teaching practices consistent with those objectives. Money spent on professional development has been associated with greater increases in student achievement than money spent on reducing class size or raising teacher salaries.

Development and NAEP: Achievement data from more than 7,000 eighth graders who took the National Assessment of Educational Progress (NAEP) Mathematics and Science exams was correlated with data from surveys of their teachers; associations were found between professional development and higher achievement, and between professional development and certain teaching methods and activities.

Some Guiding Principles: A consensus in the research:

- 1: Decisions about professional development should be made within schools rather than at the district level.
- 2: Professional development must be focused on instruction and student learning.
- 3: Professional development initiatives must take place over an extended period of time.
- 4: Professional development activities should model effective pedagogy.
- 5: Professional development workshops must be supported by modeling and coaching in order to attain a higher degree of effectiveness.
- 6: Professional development should focus on communities of practice rather than on individual teachers.
- 7: Effective professional development requires that continuous inquiry be embedded in the daily life of the school.
- 8: Principals and other school leaders must provide proactive support for professional development and the initiatives upon which it is focused.

Recommendations

- Professional development should be viewed as part of the school's daily life.
- More time and resources should be devoted to professional development.
- When a specific curricular or instructional initiative is being implemented, training should be supplemented by continued coaching and inquiry.
- The relationship between professional development initiatives and teacher growth should be clearly articulated.
- Schools should consider the relationships between professional development initiatives and other parts of the system: schedules, curricular goals, student and teacher evaluation, curricular materials, and expectations.
- State laws mandating curriculum and school time and governing financing should accommodate more extensive and sophisticated development.
- The preparation of principals as instructional leaders should include training in how to initiate and facilitate the development of cultures of inquiry in their schools.

The foregoing is a summary of a chapter in the book *School Reform Proposals: The Research Evidence* (Information Age Publishing, 2002), edited by Alex Molnar. The full chapter can be viewed at:

<http://www.asu.edu/educ/epsI/EPRU/documents/EPRU 2002-101/Chapter 12-Reitzug-Final.pdf>