

RESEARCH

[Research Home](#)[Outstanding Doctoral
Dissertation Awards](#)[Teachers' Polls](#)[Publications](#)[Search Archives](#)[Publications>](#)

Research Bulletin

Phi Delta Kappa Center for Evaluation, Development, and Research
August 2000, No. 27

Learner-Centered Professional Development

by Willis D. Hawley and Linda Valli

After decades of debate, educators and policymakers, as well as the general public, are coming to the realization that the most powerful influence on students' learning is the quality of teaching that students experience. This recognition, coupled with the belief that comprehensive school reform requires changes in structure, culture, and capabilities, is leading federal, state, and local policymakers to invest more heavily in teachers' continuing professional development. However, if we spend more time and money on traditional forms of professional development, such as workshops, conferences, presentations, and courses remotely related to the daily challenges of teaching, we can expect little return on our investments.

Fortunately, a new model of professional development is gradually taking hold that recognizes schools as complex organizations, learning as an interactive process, and teachers as competent learners. While particular strategies for enhancing teachers' capabilities will vary with the context in which professional development is to be implemented, our review of relevant research, policy documents, and school change processes indicates that there is agreement about nine basic principles that can serve to guide the development, implementation, and evaluation of effective learning opportunities for teachers.¹ We call these guidelines *design principles for learner-centered professional development*.²

LEARNER-CENTERED DESIGN PRINCIPLES

1. *The content of professional development focuses on what students are to learn and how to address the different problems students may have in learning that material.* The content of professional development is critically important to its effectiveness. While the content will vary with the goals of the school or district, professional development should address directly what students are expected to learn and the instructional strategies best suited to teach that content.

Professional development should be aligned closely with the specific content students are to learn. Providing teachers with general information about an instructional procedure, for example, how to use cooperative learning techniques, or enrichment courses on subject material, such as new developments in biology, usually does not result in improved teaching. Instead, professional development should focus on the specific content that students are expected to learn, problems students might confront in learning the content, and instructional strategies that address anticipated problems or issues. While teachers must know substantially more about a subject than their students, higher level content knowledge should be tied to the particular lessons students are to learn if teachers are expected to use this knowledge to enhance student learning. Teachers also need to learn how to adapt instructional strategies to variations in student needs and learning contexts. Teaching teachers that there is only one way to teach a lesson can be counterproductive.³

2. Professional development should be driven by analyses of the differences between (a) goals and standards for student learning and (b) student performance. Such analyses will define what educators need to learn, make professional development student centered, and increase public confidence in the use of resources for professional development. Educators can then use these analyses to explore the usefulness of alternative strategies for student learning and school improvement, paying close attention to the gains made by diverse types of learners.

The importance of this student-centered focus seems obvious, but it has not been standard practice. Too often, new teaching strategies, curricular redesign, or organizational restructuring, pursued as goals in and of themselves, have diverted attention from the school's central goal. Moreover, school-level educators frequently are given little help in developing analytic capacity for continuous school improvement and discouraged from engaging in systematic analysis by bureaucratic structures. A study of a change effort in the Chicago Public Schools, for example, found diminished capacity because the central school office assumed the functions of identifying problems, creating responsive programs, and evaluating their effectiveness. School-based educators will be more motivated to learn if they themselves identify the problem, dilemma, or need on the basis of their understanding of how well students are learning.

3. Professional development should involve teachers in the identification of what they need to learn and, when possible, in the development of the learning opportunity and/or the process to be used. This engagement increases educators' motivation and commitment to learn, encourages them to take instructional risks and assume new roles, and increases the likelihood that what is learned will be relevant to particular contexts and problems. If teachers are denied input to their own professional development, they are likely to become cynical and detached from school improvement efforts.

Because there are so many learning possibilities, school leaders must keep attention focused on what teachers most need to learn in order to close the gap between school goals and school performance. For example, teachers are not likely to identify their need for subject matter knowledge or pedagogical content knowledge. Professional credibility and teaching effectiveness depend on teachers "knowing" the material they teach students. Yet, understandings of mathematics, science, history, and the arts and how to teach those subjects have changed radically in recent years. School leaders must create organizational cultures in which everyone feels the importance of needing to learn. They must, however, protect teachers from unnecessary and unproductive involvement, unreasonable expectations, and burnout.

4. Professional development should be primarily school based and integral to school operations. This does not mean denying teachers' access to out-of-school learning experiences through professional associations or networks, graduate study, or teacher centers. However, the most powerful opportunities to learn are often connected with the recognition of and solution to authentic and immediate problems (see Principle 2). Motivation to learn and to engage in school change efforts increases when these efforts are linked to improving and assessing daily practice. The optimal workplace is one in which learning arises from and feeds back into work experience, where learning is considered to be part of work.

This type of "job-embedded" learning not only links learning to problems, but also allows teachers to see new strategies modeled, practice them, engage in peer coaching, acclimate students to new ways of learning, use new teaching and learning strategies on a regular and appropriate basis, and see the effects of newly learned behaviors. Because teachers need a significant amount of instruction with follow-up days of technical assistance to develop new pedagogical skills, teacher learning time must be built into the school day. This can be achieved in many ways, including flexible and creative scheduling and by extending the school year.⁴

5. Professional development should provide learning opportunities that relate to individual needs but are, for the most part, organized around collaborative problem solving. Even though collaborative cultures facilitate school improvement and teacher

learning, most schools provide teachers with little opportunity for purposeful, professional interaction. Teachers are too often asked to change their instruction in isolation and without support. Collaborative problem-solving activities can vary from interdisciplinary teaming to curriculum development and critique to collaborative action research to study groups. In each case, however, educators working together to address issues of common concern facilitate the identification of both the causes and potential solutions to problems.

When conducted skillfully, collaborative problem solving leads to the clarification of learning needs and the sharing of knowledge and expertise. It breaks down teacher isolation, empowers teachers, creates an environment of professional respect, and develops a shared language and understanding of good practice. School cultures that promote a genuine sense of collective purpose and provide support systems motivate teacher engagement in continuous learning.⁵

6. Professional development should be continuous and ongoing, involving follow-up and support for further learning, including support from sources external to the school that can provide necessary resources and outside perspectives. As what is learned from professional development is implemented, learners often discover what they need to be successful. If that need for learning, resources, and support is not met, increased professional competence and student achievement are unlikely to be experienced, and the motivation to engage in additional professional development will be diminished. While most professional development should be school based, educators also need to enrich this learning with new ideas and knowledge gained from sources beyond the school. Innovation is constrained if informed only by those who share similar ideas and experiences.

Pedagogical change also requires time, including time to establish trust and shared meanings with those inside and outside the school organization. For example, a study of a large-scale training program related to student grouping concluded that a three- to five-year time frame was needed to bring about significant change in educational practice.⁶ Ongoing support is especially critical in the first two years of implementation. Unfortunately, many policymakers and the public expect to see quick changes in schools and concrete evidence of improvements in student achievement. Educators must be prepared to satisfy the perceived need for near-term accountability while maintaining a commitment to long-term goals.⁷

7. Professional development should incorporate evaluation of multiple sources of information on outcomes for students and processes that are involved in implementing the lessons learned through professional development. Teachers' knowledge and experiences, as well as research studies and outside consultants, should be valued sources of information. The evaluation can be conducted by school-based educators, outside evaluators, or a joint team, which is probably best. It must be nonthreatening, conducted throughout various stages of implementation, and help teachers think carefully about their classroom practice. As noted above, there should be sufficient time for implementation, with periodic process evaluation and feedback. Changes in teaching should be assessed along with changes in student learning. Knowing the extent to which professional development has influenced student achievement should then contribute to the design of and incentives for further professional learning.

8. Professional development should provide opportunities to engage in developing a theoretical understanding of the knowledge and skills to be learned. Results of research, in comprehensible forms, need to be made accessible to teachers, who often cite lack of understanding and limited access as reasons why they do not put theory into practice. Teacher thinking and classroom behavior are deeply influenced by teachers' knowledge and beliefs. Thus an important component of professional development needs to be the expansion and elaboration of teachers' professional knowledge bases. Broadly speaking, this would include general pedagogical knowledge, subject matter knowledge, and pedagogical content knowledge and would address such areas as classroom management, conceptions of teaching a subject, and students' understandings and potential misunderstandings of subject matter.⁸

New knowledge in itself does not bring about change, however. Professional development must engage teachers' beliefs, experiences, and habits. Providing opportunities for teachers to learn new practices requires an understanding of how teachers gain perspectives on their own beliefs and actions when confronted with new theories and practices. Effective professional development may require that teachers reconsider fundamental beliefs. Teachers must experience different types of learning themselves, spend time adapting their instruction, and see positive results in their students. However, since beliefs filter knowledge and guide behavior, significant transformations of teaching practice are unlikely to occur if related beliefs and theories about teaching and learning do not change.⁹

9. Professional development should be integrated with a comprehensive change process that addresses impediments to and facilitators of student learning. Teachers are asked frequently to learn things they cannot act upon because there is no organizational commitment to continuous experimentation and improvement. Professional development must be part of a systemic change effort that includes district, school, and individual components, as well as the intervention of external facilitators and technical advisors. Otherwise, professional development has little probability of changing school norms and teaching practice. This collective approach to teacher learning means that professional development activities are not left primarily to an individual incentive system. Rather, they are part of the structure, culture, and reward system of the workplace.

EFFECT OF LEARNER-CENTERED PROFESSIONAL DEVELOPMENT ON STUDENT LEARNING

Implementing learner-centered professional development will be hard work. Will the effort lead to higher student achievement? Existing research on professional development, expert consensus, and research on learning provide good reasons to believe that teachers who participate in professional development characterized by these design principles will be better able to facilitate student learning.

Research on Professional Development. The very essence of learner-centered professional development design principles is their intent to directly link student learning and teacher learning. Thus the ultimate test of the efficacy of the design principles is whether such teacher learning activities lead to changes in teaching that contribute to improved student learning. This is no mean task, because professional development usually occurs in the context of other potential explanations for student learning. There are only a handful of studies that directly link professional development to student achievement, and none of the professional development activities studied embody all nine design principles. However, the research that has been conducted provides evidence that the design principles move professional development in productive directions.¹⁰

Expert Consensus. Often researchers disagree about the meaning of research, and educators wonder about the relevance of research findings. But in the last few years, we have witnessed the development of consensus among both researchers and expert educators about the essential characteristics of effective professional development.¹¹ To be sure, research findings and policy statements of national organizations and government agencies use different words to describe the implications of research and proposals for improvement, but there is a remarkable convergence on the ideas that are embedded in what we have called learner-centered professional development.

Research on Learning. Research on cognitive development has significantly altered fundamental understandings of how and why people learn. While those who conduct research on cognition differ on many issues, there appears to be consensus on a number of core beliefs related to how people learn.¹² This research provides a solid theoretical base for the learner-centered design principles. From their comprehensive review of research on learning, Patricia Alexander and Karen Murphy identified five broad principles:¹³

- A person's existing knowledge serves as a foundation for all future learning by guiding the acquisition, organization, and representation of knowledge and by

filtering all new experiences.

- The ability to reflect upon and regulate one's thoughts and behaviors is essential to learning and development.
- Learning, while ultimately a unique adventure for all, proceeds through common stages of development influenced by both inherited and experiential/environmental factors.
- Motivational or affective factors, such as intrinsic motivation, attributions for learning, and personal goals, as well as the motivational characteristics of the learning tasks, play a significant role in the learning process.
- Learning is a socially, as well as an individually, constructed enterprise.

These learning principles explain why most traditional professional development activities are relatively ineffective. It is not often that such activities build on prior knowledge, actively involve teachers in the learning process, acknowledge factors that inspire teachers to learn, attend to individual stages of development, or embed learning in authentic, collaborative contexts. If these principles of learning shaped the opportunities to learn that are available to educators, professional development would look quite different than it does now.

CONCLUSION

Too often, professional development is thought of as a way to enhance the capabilities of individuals. While this is important, improvements in individual performance can be impeded by organizational structure and cultures that do not support changes in teaching practice. Moreover, shared vision and collaborative action are critical to school effectiveness.¹⁴ Thus, it is not surprising that one of the most persistent findings from research on school improvement is the close relationship between professional development and school improvement efforts. The two processes are so tightly woven that their effects are almost impossible to disentangle.

The essential characteristic of effective professional development is that it involves continuous teacher and administrator learning in the context of collaborative problem solving. Thus it occurs in planned, structured ways and in ways that are incidental and informal. When professional development is seen as a program or series of formal scheduled events or is otherwise disconnected from authentic problem solving, it is unlikely to have much influence on teacher or student learning.

Despite virtually unanimous criticism of most traditional forms of professional development, these ineffective practices persist.¹⁵ One reason for this is that traditional approaches meet the needs of those who have authority and responsibility to provide teachers with professional development, even if such approaches do not meet the needs of students. Even if this were not the case, however, the task of implementing professional development that reflects learner-centered design principles would be daunting. Substantially strengthening teachers' opportunities to improve their teaching will require nothing less than school restructuring, new professional cultures, the reallocation of resources and time, and changes in the role of school districts and popular conceptions of how students and teachers learn.

ENDNOTES

1. This Research Bulletin is based on Willis D. Hawley and Linda Valli, "The Essentials of Professional Development: A New Consensus," in *Teaching as the Learning Profession: Handbook of Policy and Practice*, eds. Linda Darling-Hammond and Gary Sykes (San Francisco: Jossey-Bass, 1999), 127-50. This synthesis of research was supported by the Office of Educational Research and Improvement, U.S. Department of Education.

2. Examples of how these design principles have been applied in schools can be seen at www.npeat.org under "National Dialogue."

3. David K. Cohen and Heather C. Hill, *Instructional Policy and Classroom Performance: The Mathematics Reform in California* (Philadelphia: Consortium for Policy Research in

Education, 1998), ERIC, ED 417942; M. Kennedy, *Form and Substance in Inservice Teacher Education*, Research Monograph No. 13 (Madison, Wis.: National Institute for Science Education, 1999).

4. See National Partnership for Excellence and Accountability in Teaching, *Revisioning Professional Development* (Oxford, Ohio: National Staff Development Council, 2000); Nancy Adelman, M. B. Haslam, and B. Pringle, *The Uses of Time for Teaching and Learning* (Washington D.C.: Office of Educational Research and Improvement, 1996); National Education Association, *It's About Time* (Washington, D.C., 1994).

5. The difficulties of implementing and sustaining processes and habits of collaborative problem solving in American schools are substantial and will be overcome only with considerable commitment. See Deborah Loewenberg Ball and David K. Cohen, "Developing Practice, Developing Practitioners: Toward a Practice-Based Theory of Professional Development," in *Teaching as the Learning Profession: Handbook of Policy and Practice*, eds. Linda Darling-Hammond and Gary Sykes (San Francisco: Jossey-Bass, 1999), 3-32; and Suzanne Wilson and Jennifer Berne, "Teacher Learning and the Acquisition of Professional Knowledge: An Examination of the Research on Contemporary Professional Development," *Review of Research in Education* 24 (1999): 173-209.

6. Helen L.B. Hodges, "Using Research to Inform Practice in Urban Schools: Ten Key Strategies for Success," *Educational Policy* 10, no. 2 (1996): 223-52.

7. Students of organizational change warn of "implementation dip." Performance may actually decline as people develop new capabilities and learn how to apply them. This short-term cost is essential to long-term gain, although this reality is not politically correct.

8. Ball and Cohen, "Developing Practice."

9. John D. Bransford, Ann L. Brown, and Rodney R. Cocking, eds., *How People Learn: Brain, Mind, Experience, and School* (Washington, D.C.: National Academy Press, 1999).

10. See the analysis in Kennedy, *Form and Substance*. While Kennedy focuses on the importance of content in professional development, the examples that she classifies as most effective embody many of the learner-centered design principles discussed here.

11. Researchers whose conclusions approximate those reflected in the design principles are cited in Hawley and Valli, "The Essentials of Professional Development." See also Wilson and Berne, "Teacher Learning." Among the national agencies and organizations that have adopted policy statements similar to the design principles are the American Federation of Teachers, National Education Association, National Staff Development Council, National Institute for Science Education, U.S. Department of Education, and National Governors' Association.

12. Bransford et al., *How People Learn*.

13. Patricia A. Alexander and P. Karen Murphy, "The Research Base for APA's Learner-Center Principles," in *How Students Learn: Reforming Schools Through Learner-Centered Education*, eds. Nadine M. Lambert and Barbara L. McCombs (Washington, D.C.: American Psychological Association, 1998).

14. Fred M. Newmann and Gary G. Wehlage, *Successful School Restructuring: A Report to the Public and Educators* (Madison, Wis.: Center on Organization and Restructuring of Schools, 1995), ERIC, ED 387925.

15. Susan Mundry et al., *Working Toward a Continuum of Professional Learning Experiences for Teachers of Science and Mathematics*, Research Monograph No. 17 (Madison, Wis.: National Institute for Science Education, 1999); A. Porter et al., "National Evaluation of the Eisenhower Program" (paper presented at the annual

meeting of the American Educational Research Association, Montreal, Canada, April 1999).

WILLIS D. HAWLEY is professor of education and public affairs and LINDA VALLI is associate professor of curriculum and instruction at the College of Education, University of Maryland.

PDK  PHI DELTA KAPPA *International*

[PDK Home](#) | [Site Map](#) | [Search](#)

Last modified 18 July 2005

<http://www.pdkintl.org/research/rbulletins/resbul27.htm>

PDK International respects your [privacy](#)

© 2005 Phi Delta Kappa International