Ensuring Quality in Technology–Focused Professional Development

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INTRODUCTION

Few would argue that teachers exposed to technology-focused professional development are better prepared to effectively and systematically integrate computers, peripherals and software into their classrooms than those without any formal training. However, one must necessarily assume that *quality* matters … that teachers participating in *high-quality* professional development are more likely than those engaged in *token* or *perfunctory* training to use technology well (for instructional preparation, delivery and assessment); to be cognizant of technology's advantages and limitations; and to situationally model both hardware and software (Hirsh & Sparks, 2000).

BACKGROUND

Professional Development: The Conceptual View

Unfortunately, a high-quality professional growth experience does not occur by happenstance. According to Norman (1999), top-notch programs, no matter what their topic or purpose, are always focused on students as the critical stakeholder group.[1] Teachers are more likely to enthusiastically embrace efforts that directly or indirectly aim to "… strengthen student performance on reading, reasoning, problem-solving, and related tasks drawn from state curriculum standards" (McKenzie, 2002, p. 34). Clearly, however, other stakeholders play prominent roles in the design, implementation and assessment of program quality—among them, teachers, the principal and other key administrators, parents, the school board and community members (Payne & Wolfson, 2000).

A sound grounding in the theoretical underpinnings of professional development can positively inform program planning. Conceptually driven planning is strategic, not merely tactical; application-specific skills are far less important than curriculum, instructional strategies and techniques, and assessment (Bybee, 2001). Activities are well funded, allowing for training customization, ongoing mentoring and follow-up (Hirsh & Sparks, 2000). There is a focus on metacognition and learning awareness that leads to replicable communities of practice (Burns, 2002). Finally, assessment is fully integrated into program activities; both staff and participants recognize that evaluation helps to ensure program relevance, identify points of resistance that might thwart success or reduce impact, pinpoint opportunities for instructional enrichment or remediation, and suggest strategies to build sustainability and/or replicability (Mulqueen, 2001).

Professional Growth: A Spectrum of Possibilities

Pedagogy is the art, science or profession of teaching; it attends to the approaches and strategies that guide instruction as well as the theories that frame them. Clearly, then, changes in instructional pedagogy cannot be divorced from the professional growth efforts in which teachers are engaged. But Bellanca (1995) takes this position one step further, distinguishing *professional development* from activities that teachers attend by mandate or choice.

Staff development, he argues, is the "… effort to correct teaching deficiencies by providing opportunities to learn new methods of classroom management and instruction, or to 'spray paint' the district [or school] with hoped-for classroom innovations" (Bellanca, 1995, p. 6). Staff development often unfolds over several days, and may include demonstrations and opportunities for guided practice. While attendees are encouraged to apply what they have learned, no formal follow-up activities are specifically scheduled, and evidence of changed classroom practices is neither required nor expected.

In-service is the "… scheduling of awareness programs, usually of short duration, to inform teachers about new ideas in the field of education or, in the worst case scenario, to fill mandated institute days with any available topic or speaker" (Bellanca, 1995, p. 6). Simply put, in-services tend to be brief, often a day or less—the audience captive. The content tends to be general, structured to conform to lecture-style delivery. It is often left to the individual attendee to determine how the information relates to his or her discipline (e.g., science) or student population (e.g., 4th graders; children with special needs).

Professional development, then, is what allows for constructive educational change and reasoned accountability. It is a planned, comprehensive and systemic *program* of goals-driven, competency-based activities that promotes productive change in individuals and school structures. Behavioral and attitudinal change is both expected and supported; although differential involvement among staff is accepted, an array of incentives and rewards promote commitment. Because the effort is systemic, activities are interrelated and cumulative. As important, they complement the school's and district's vision/strategic mission and reflect all key constituencies.

Professional Growth: Underlying Drivers

The views of Sparks and Hirsh (1997) mesh well with Bellanca's (1995). They argue that today's schools—and the professional growth opportunities that occur within them—are driven by three powerful ideas: results-driven education, systems thinking and constructivism.

A school or district focused on *results* "… judges the success of schooling not by the courses students take or the grades they receive, but by what they actually know and can do as a result of their time in school" (Sparks & Hirsh, 1997, p. 4). Not surprisingly, a results-driven environment means changed thinking about what constitutes successful professional development; indicators that target benefits to students (cognitive, behavioral or attitudinal) outweigh such quantifiables as number of 'sessions' offered, seat time or number of attendees.

A school that thinks *systematically* looks at school reform holistically. Reactive thinking that attends to hot spots and quick fixes is replaced by a proactive mindset promoting an interconnectedness among school functions and personnel. Not surprisingly, a school environment with a systems view promotes multileveled, well-coordinated professional development that affects everyone, from the janitor to the principal.

A school that is *constructivist* recognizes that knowledge is "built" in the mind of the learner— whether a child or staff member. The implications of constructivism for professional development are fairly profound. Eclectic classrooms that promote active learning and student autonomy/initiative *are not created* via professional growth activities premised on the transmittal view of learning. A constructivist bent to staff development promotes a collaborative spirit, action-oriented agenda and reflective practices.

Professional Development: Reflecting Teaching Responsibilities

Danielson (1996) advocates a framework for professional practice that brings clarity to new theoretical paradigms for staff development. Organized into four domains of teaching responsibilities,[2] the framework makes a definitive statement about teaching as a field on par with others we hold in high regard: physicians, accountants, architects. By establishing definitions of expertise and procedures to certify both novice and advanced practitioners, educators guarantee to the larger community that its members "hold themselves and their colleagues to the highest standards" (Danielson, 1996, p. 2). Though some might argue the simplicity of the rating scale (*unsatisfactory*, *basic*, *proficient*, *distinguished*), the structure Danielson advocates attends well to the complexities of teaching as well as its physical and mental demands. It "offers the profession a means of communicating about excellence" (p. 5) and different paths its practitioners may take to reach their potential.

TECHNOLOGY-FOCUSED PROFESSIONAL DEVELOPMENT: DESIGN AND IMPLEMENTATION

To what should high-end, technology-focused professional development attend? Forward-looking program developers plan in phases and dimensionally – relying on sound instructional design principles to guide their work (Richey, Fields, Foxon, Roberts, Spannaus

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