

EXCERPT

Effective Professional Development

A recent white paper prepared by Center for Research on Learning researchers establishes a framework for quality professional development. Here are excerpts from the paper. You may download the complete paper at http://kucrl.org/simville/pd/PD-whitepaper-6_20_12.docx. (Note: You will need the SIMville user name and password to download this document.)

Effective Professional Development for Adult Learners, excerpts from the white paper by Patty Graner, Marilyn Ault, Daryl Mellard, and Robin Gingerich.

BACKGROUND

For this paper and for our work, *professional development* is defined as ongoing learning through a comprehensive, sustained and intensive approach to improve participants' effectiveness by advancing their skills or expertise.^{1,2} Professional development (PD) addresses all staff. PD for teachers, instructors and others is about improving their practices to improve student achievement and outcomes.^{3, 4, 5, 6, 7} PD is not about dissemination, one-shot sessions or training; it is about applying research-based experiences regarding structures, activities, and supports to ensure that participants can implement the behaviors or interventions with fidelity and to produce deep changes in their instructional practice. Research evidence indicates that student achievement increases when teachers participate in PD that concentrates on increased, meaningful and relevant learning for students,⁸ as well as ways of helping students to develop deep understanding of content, to think critically and solve problems.⁹

The PD framework described here is evidence-based

and systemic. The framework supports participants' (a) learning and (b) implementation. The framework also addresses two important outcomes: institutionalization and sustainability of new information or practice. This PD framework is intended for application across all PD topics or foci and has three important components: guiding principles, practices, and structural elements.

GUIDING PRINCIPLES OF ADULT LEARNING

1. Need for Orientation and Motivation

Prior to the PD event, the learner has a motivational perspective about his/her incentive to participate. When participants feel they have a sense of control or decision about participation, they allocate more time and effort and spend more time engaged in on-task learning activities. Another influence on the decision to participate in PD is tied to meeting current or expected work role demands. As one might expect, the more the PD is connected to role demands, the stronger the motivation is to engage in the PD.

Participation *during* PD is influenced by a number of factors including work climate, the sense of progress in learning the materials, and engagement. A supportive environment is an important determinant for maintaining motivation during the PD. In high quality PD, participants must have an opportunity to be engaged through active learning rather than passive learning that may be characterized as a lecture or observation of demonstrations.¹⁰ Regularly building in opportunities for active engagement, modeling, practice, practice with feedback, real life application, role playing and problem solving can ensure transfer of the learning to the classroom.^{11, 12, 13}

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After the PD is completed, the focus shifts to the transfer of learning to the work environment. The two strongest influences to support transfer are the organizational support and the immediate supervisor's support for utilizing the new competencies. **An interesting consideration is that regardless of the learners' mastery of the new knowledge and skills, the successful application depends on the support of external influences** (e.g., policy, administrative & collegial support, technical assistance).

2. *Need for Human Sense Making*

An effective PD process allows and supports human sense making, which occurs at the personal level. While PD facilitators are overtly teaching a method or practice, they must also attend to how the participants are adapting these new practices to align with their personal theories, beliefs, attitudes and work roles—the what, when, purpose, and how of their instructional practices and guidance to others.^{14, 15} Thus, opportunities for staff discussions and personal reflection about the intent, supports, and challenges of implementation must take place during and after the PD session to support their human sense making. Providing the opportunity to reflect on and evaluate one's learning has been shown to be a successful PD practice and is a powerful component in supporting human sense making.

3. *Need to Balance Content and Coherence*

Each PD session must have a *content focus*, and, according to Desimone, this may be the most influential feature for participants.¹⁶ A number of studies confirm that PD delivered to educational professionals is most successful if activities in which participants engage are focused on how their students will learn the informa-

tion, gain the knowledge and skills thus increasing student achievement. PD must reflect also *coherence*, which emphasizes the extent to which the learning is consistent with participants' knowledge and beliefs, and reflects the policies and reforms of the organization.¹⁶

DURING PD: PRACTICES THAT REFLECT GUIDING PRINCIPLES

Following are four practices important to improving mastery through the PD experience. The practices are intended to move the participant from a surface introduction of the principle or practice through implementation and self-assessment and reflection.

Practice #1. Information Preview, Introductory Activities, and Presentation of Theory

Engaging learners in a preview of the material, knowledge, or practice can lay the groundwork for participants to begin to make sense of a new idea or information.

Information preview can include providing participants with a pre-test, introductory videos, readings, or warm-ups before a PD session. Dunst, et al., refer to introductory activities that are often used before or at the beginning of a session as a means to introduce new information to participants.¹³ In their research, out-of-class activities and introductory workshop presentations were most effective for familiarizing participants with new knowledge and presenting theory.

Practice #2. Demonstration and Illustration

Participants are able to see the applicability to their daily work via demonstrations of how the material, knowledge, or practice will be used. These demonstrations are important for human sense making. Demon-

stration and illustration of a practice through instructor simulations and learner input, perhaps reflecting their own experiences, are effective for demonstrating what a practice should look like.^{11, 12, 13}

Practice #3. Modeling, Application, Active Learning

Practice, practice, practice makes perfect. In this PD practice, the participants must be engaged in activities that allow them to apply the material, knowledge, or practice in order to reach mastery. This involves the instructor modeling the use of the material or practice and the participants' application and active involvement. Research confirms what many would consider obvious, that real life or applied use of knowledge or a practice alone or paired with role play, is superior to just informing or demonstrating for participants a method and instructing them to apply the knowledge.^{10, 11, 12, 13} However, observation and engagement in interactive feedback and discussion is key to successful application.

Practice #4. Self-Reflection, Self Assessment and Feedback

Self-reflection, self-assessment and feedback are all important activities during and after PD. Allowing time during PD to reflect on the knowledge, skill or practice being learned can ensure participants' engagement and learning. This time allows them to ask themselves questions about what they did well, what was challenging for them, what they can do better and ensures an opportunity for feedback with an expert.

AFTER PD: PRACTICES THAT REFLECT GUIDING PRINCIPLES

Once the actual PD sessions, whether face-to-face or online, are completed, more work lies ahead for the learners and for the professional developer.

This follow-up work is a distinguishing feature and hallmark of effective PD.

Practice #1. Reflection

Subsequent to the initiating PD session, participants should reflect on what they learned and how they are implementing the new knowledge, skill or practice. Dunst and his colleagues identified three reflective activities: performance improvement reviews, learner journaling with instructor behavioral suggestions, and group reflection on instructor feedback.^{12, 13} The practice with the greatest effect size (ES = .89 - 1.65) included expert-guided and expert-facilitated reflection. The distinction between the two practices involves the role of the leader in the reflective process. In expert-guided reflection, the expert takes the lead in providing feedback about the learner's performance. In expert-facilitated reflection, the learner takes the lead in discussing the impact of the professional development and perception of mastery.

Practice #2. Performance Assessment

Learner self-assessment of the application of a method was an effective means of evaluation.^{12, 13, 17} Having learners self-assess their performance against a standard or performance checklist is an application strategy that is a successful PD technique and results in sustained learning.^{12, 13} Professional developers and participants should engage in

intentional, ongoing, and systematic evaluation and assessment of new learning.⁴

Practice #3. Coaching, Technical Assistance, and Feedback

Coaching and technical assistance are essential to successful implementation of new practices. As described by Joyce and Showers, effect sizes for transfer of PD when only introduction of theory, demonstration and practice are included is .00.¹¹ When feedback and coaching are added as PD practices, the effect size for transfer of PD increases to 1.68. Hence, wide scale, successful application of instructional methods requires a combination of modeling, observation, feedback and coaching as components of the PD within a comprehensive system of learning and improvement.¹⁸

STRUCTURAL ELEMENTS IN SUPPORT OF PD

Decisions about the structure of the professional learning opportunities also influence the effect size of the intended outcome.

Structure #1: Collective Participation

Adult professional learning is most successful when the PD occurs in authentic settings, within a social, collaborative environment, when educators routinely collaborate with trusted colleagues to solve the problems. Those conducting PD must plan for and facilitate the means and opportunities to ensure collective

participation, communities of learners, communities of practice, and collegial support networks.

Structure #2: Duration

Arriving at the goals of PD takes time. No shortcut exists. Duration is defined as the span of time over which the PD activity is spread.¹⁹ PD requires sustained and intensive contact across a period of time in order for teachers and other adult learners to absorb, acquire, and practice newly acquired knowledge and skills.^{4, 20, 21} Larger effect sizes were reported when participants were engaged for longer periods of time: 1-10 hours (.21), 11-40 hours (.55), and more than 40 hours (.60).^{12, 13} In fact, 20 hours of PD, in which four to five of the practices were integrated yielded the highest effect size.^{12, 13}

Structure #3: Group Size

When planning for PD, attending to the size of the group that will be learning, practicing and engaged in activities together is imperative. Small groups, such as nine to 34 participants, had higher effect sizes than medium sized (35-75) or large (76-300+) groups. Small groups resulted in an average effect size of .91, nearly twice that of medium sized groups, at .48, and nearly three times that of large groups, with an average effect size of .33.^{12, 13} Clearly, to actively engage participants in the level of analysis, reflection, and practice necessary, the ratio of professional developers to learners must allow for such

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interaction. Research suggests that online PD should be limited to group or cohort sizes of 20 or fewer in order to provide optimum facilitation.

Structure #4: Setting

Setting is an important factor in supporting job embedded, local PD as effect sizes were, on average, twice as large when the PD was conducted at the participant's work setting.^{12, 13} As mentioned above, adult professional learning is most successful when the PD occurs in authentic settings, within a social, collaborative environment, in which educators routinely collaborate with trusted colleagues to solve the problems. Effective professional learning is intensive, ongoing, focused on the classroom or instructional setting, and occurs during the participant's workday.²²

Structure #5: Instructional Integration of Technology (On-line Delivery)

Finding the optimal balance of face-to-face and online PD activities can be difficult. The research suggests that PD delivery be a blended and multi-modal, dynamic, and responsive process supported by online resources and technologies as well as face-to-face interactions. The intent is to provide ongoing, embedded professional learning opportunities and resources that will be open, accessible, and accommodate flexible delivery options. Many collaborative technologies, facilitated or independent, allow participants to engage in teamwork and utilize online resources, such as videoconferencing, online learning, social networking, and instant messaging. The thoughtful use of collaborative technologies can engage and extend the learning experience, providing access to support at a time and place convenient for the learner.

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