

Stratenotes

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EFFECTIVE PROFESSIONAL LEARNING FOR ADULTS Part 1: Principles of Adult Learning and Effective Practices

This article, focused on fundamentals of professional learning, was submitted to a journal focused on professional development. You can download the original white paper from our [website](#); this version contains updated references including the June 2017 Learning Policy Institute meta-analysis, Effective Teacher Professional Development.

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Professional learning is defined as on-going engagement through a comprehensive, sustained and intensive approach to improve participants' effectiveness by advancing their skills or expertise (Darling-Hammond, Hyler, Gardner & Espinoza, 2017; Hirsch, 2009). Research tells us teachers can effectively master new knowledge and skills and transfer what they learn to their classrooms through a combination of effective practices (Joyce & Showers, 1995, 2002). Thus, we present a professional learning (PL) framework that rests on research of (a) principles of adult learning, (b) effective practices, and (c) structural elements.

HIGH-QUALITY PROFESSIONAL LEARNING FRAMEWORK

For educators, PL is ultimately concerned with improving student outcomes. However, our PL framework has three more immediate goals: educators' mastery, high-quality practice, and on-going learning. Mastery is considered a key factor for improved students outcomes (Desimone, 2009) and occurs when educators learn a method as intended. High-quality practice occurs when educators implement a new method with fidelity and do not drift away from an effective method. The third goal, on-going learning, takes place when educators are able to change and adapt in collaboration with others or apply the method to new situations. The tension among these goals requires that PL processes be thoughtfully designed and guided by principles of adult learning.

GUIDING PRINCIPLES OF ADULT LEARNING

PL fosters change, yet adults and institutions tend



to resist change (Kotter, 1995). Individuals work to maintain equilibrium with current practices to preserve their view of who they are (identity) and what they do (role) (Reid, 1987; Robinson, 1998). When an expert instructs teachers in new skills and administrators expect teachers to simply use these skills, the PL is based on an assumption that the new skills exist separately from teachers' identities, roles, values, experiences, perspectives, attitudes, and behavioral norms. This type of PL leads to superficial implementation, at best, because of a phenomenon identified as the conservation principle (Spillane, Reiser, & Reimer, 2002). The conservation principle holds that as people receive new information, they connect it with information they already possess. This connection is necessary because the new information can support what educators already know and do. When making connections, however, an educator might modify the new information or skill to fit with their current knowledge or practice before operationalizing it as researched or intended. Such adaptation introduces error into a new method, reducing or nullifying its effect. Our PL framework takes into account three

adult learner needs that counter-balance the negative effects of the conservation principle.

Need for orientation and motivation. Principles of adult learning emphasize the readiness to learn and the value of such activities as critical reflection, autonomous learning, active participation, real life application, and a content focus (Brookfield, 1995; Darling-Hammond, et. al., 2017; Knowles, Holton, & Swanson, 1998; Merriam, 2001; Sticht, 1988). Kanfer (2009) additionally notes that adults' orientation and motivation to learn varies by the stages of PL. For example, prior to PL, if adults feel a sense of control over the decision to participate, they will generally allocate more time and effort to learning and spend more time engaged in on-task learning activities.

Motivation to participate during PL is influenced by such factors as perceived relevance of the materials and engagement. Better outcomes are achieved when participants have an opportunity to be engaged through active rather than passive learning activities such as listening to a lecture or observing a demonstration (Fullan, 2007). Active learning includes opportunities for modeling, practice, practice with feedback, real life application, role-playing and problem solving (Dunst & Trivette, 2013; Dunst, Trivette, & Hamby, 2010; Joyce & Showers, 1995).

After a PL session, teachers' attention may shift to transferring what they learned to their school environments. The two strongest influences to support transfer are the organizational support and the immediate supervisor's support for utilizing the new competencies.

Need for human sense making. Research indicates that adult learning experiences are more effective when they balance the

need for change with recognition of the individuals' expertise and knowledge. Through a process referred to as human sense making (Spillane et al., 2002), teachers come to understand how new skills or knowledge change their view of themselves as professionals. Therefore, PL designs should address how teachers may adapt new practices to align with their view of themselves as educators (personal theories, beliefs, attitudes and work roles—the what, when, purpose, and how of their instructional practices and guidance to others). Opportunities for discussions and personal reflection about the intent, supports, and challenges of implementation need to take place throughout PL to support human sense making (Reid, 1987; Spillane et al., 2002).

Need for content focus and coherence. The content focus of PL may be the most influential feature for participants (Desimone, 2009). Several studies confirm that PL is most successful if the activities stress how students will learn the content. Darling-Hammond and colleagues (2017) point out that an intentional focus for math, science, and literacy should be on their discipline-specific curricula and pedagogy. Hence, PL also must also reflect coherence—the extent to which the new knowledge aligns with participants' knowledge and beliefs, and reflects the policies, practices and procedures of the district or school (Desimone, 2009). For example, teachers are more likely to apply a new reading technique if it is coherent with the district's curriculum or teacher evaluation tool.

EFFECTIVE PRACTICES FOR PROFESSIONAL LEARNING

These guiding principles of adult learning are reflected in seven research-based PL practices included in our framework. Effect size (ES) indicates the magnitude

of the educational impact of an intervention (Hattie, 2009). A larger effect size indicates a greater educational impact.

DURING PLANNING AND LEARNING

Introductory Activities, Information Preview, or Presentation of Theory.

Engaging learners in a preview of the material, knowledge, or practice can lay the groundwork for them to begin to make sense of a new idea or information. Effect sizes for introduction/preview range from .68-1.02 in 58 studies reviewed. Information preview includes pre-tests, introductory videos, or readings outside or prior to a learning event (Allen, J.P., Hafen, C.A., Gregory, A.C., Mikami, A.Y. & Pianta, R., 2015); Antiniou, P. & Kyriakides, L., 2013); Meissel, K., Parr, J.M., Timperley, H.S., 2016); Dunst et al., 2010). For example, in a flipped learning process, teachers may independently review a video or read a written description of a new instructional method before they participate in deeper engagement focused on practice and application of the method.

[Examples with highest effect sizes: pre-class exercise, out of class activities and self-instruction, in-class lectures and workshops]

Illustration and Demonstration.

Seeing how a new skill or method might apply to one's work is important for human sense making. Demonstration through instructor simulations and learner input are effective for illustrating how a skill could be used in context (Dunst & Trivette, 2013; Dunst et al., 2010; Joyce & Showers, 1995; Meyers, C.V., Molefe, A., Brandt, W.C. Zhu, B., & Dhillon, S., 2016; Polly, D., McGee, J., Wang, C., Martin, C., Lambert, R., & Pugalee, D.K., 2015). Although participants may discuss or provide input during a demonstration, they are not themselves engaged in the activity, which can lead to high knowledge acquisition (ES = 1.65)

but low skill development (ES = .26).

[Examples with the highest effect sizes: Instructor demonstrations, role-playing/ simulations, real-life examples + role-playing, learner informed lecture content]

DURING APPLICATION

Application, Modeling, and Active Learning. Modeling is a research-based practice designed for teachers to reach mastery of the new material, knowledge, or skill. Instructors describe and model (including thinking aloud) the techniques and engage participants in applying the novel skills in an authentic setting (Dunst & Trivette, 2013; Dunst et al., 2010; Grandzol & Grandzol, 2006). Research confirms what many would consider obvious: applied use of knowledge alone or paired with role-play is superior to providing information or demonstration alone (Dunst & Trivette, 2013; Dunst et al., 2010; Fullan, 2007; Joyce & Showers, 1995). Even so, this practice is effective in skill development only (ES = .72), and transfer of the skill is not assured.

Self-Reflection, Self-Assessment, and Feedback. Self-reflection, self-assessment, and feedback are important activities throughout PL. PL designs that allow participants time to reflect on the knowledge or skill being learned can ensure their 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. This period of reflection provides an opportunity to engage in human sense making. The PL process may prompt such questions as, "Is this consistent with my practice and my view of myself as a professional?" "Does this change my role?" This PL practice supports the initial implementation

of a method and sets the stage for successful integration.

Reflection and Dialogue. PL extends into the classroom when educators purposefully reflect on what they learned and how they are implementing the new knowledge or skill. Mechanisms for reflection include performance improvement reviews, learner journaling with instructor behavioral suggestions, and group reflection (Dunst & Trivette, 2013; Dunst et al., 2010). Activities with the greatest impact (ES = .89 - 1.65) could be classified as expert-guided and expert-facilitated reflection. 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 PL and perception of mastery. Both activities give the learner room to make sense of the new practice and knowledge.

Dialogue describes the interaction that occurs when participants discuss and reflect on their application of the new knowledge or skill with other professionals in a supportive and collaborative atmosphere. Many studies describe this process as conversation-based PL (e.g., Levine & Marcus, 2010; Nelson & Slavit, 2008; Prestridge, 2009; Tillema & Orland-Barak, 2006). Likewise, other studies have examined the beneficial role of dialogue within various learning communities (e.g., Doppelt, Schunn, Silk, Mehalik, Reynolds, & Ward, 2009; DuFour, DuFour, Eaker, & Many, 2006; Hindin, Morocco, Mott, & Aguilar, 2007; Little, 2003; Servage, 2008). Dialogue incorporated into PL recognizes that adult learning is socially constructed and that dialogue is a necessary process to move a learner toward higher-level understanding.

Performance Assessment. Self assessment of performance against

a standard or performance checklist is a successful PL technique that results in sustained learning (Dunst & Trivette, 2013; Dunst et al., 2010). Guskey (2000) recommends that during PL, participants should engage in intentional, ongoing, and systematic evaluation and assessment of new learning. Because adult learning is often a social event, collaborative feedback can be a successful strategy for assessment; this approach is most effective when performance assessment is de-privatized so that everyone is working collaboratively to continuously improve instruction through peer observations, conversations, and feedback (Fullan, 2007). When practice is de-privatized, observing others and being observed by others can become the accepted and desirable practice for improvement.

Coaching. Coaching is a feedback strategy for successful implementation of new practices for transfer of learning (ES = 1.68) (Joyce & Showers, 1995). A meta-analysis of feedback indicated that coaching is one of the most powerful influences on learning and achievement (Hattie & Timperley, 2007). Feedback should be in relation to specific behaviors and tasks, and help learners fill the gaps between what they understand and the targeted practice (Hattie, 2009). Coaching is more effective when the perceived threat to self-esteem is low, such as in a dialogue or with cues that reinforce the learned skill (Kluger & DeNisi, 1996). Knight, et al., (2015) developed a three-step coaching cycle that fosters improvement in student learning and engages teachers and coaches in a partnership for improvement in student learning.

Read Part 2 of this article, EFFECTIVE PROFESSIONAL LEARNING FOR ADULTS: Structural Elements in the next issue of StrateNotes.

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KEYNOTE: DOUGLAS FISHER, PH.D.

Last year, Dr. John Hattie shared his research about how people learn with conference participants. This year, Douglas Fisher will make the connection between Hattie's research and effective practice. Dr. Fisher's recent publications include: *Teaching Literacy in the Visible Learning Classroom* & *Visible Learning for Literacy* with co-authors Dr. Nancy Frey and John Hattie.

Dr. Fisher conducts visible learning research with Drs. Nancy Frey and John Hattie. He sums up the essence of visible learning as, "...knowing that you have an impact on students' learning. It's about figuring out what that impact is and monitoring that impact so that you know you are making a difference. Visible learning makes the learning process obvious, clear, and notable for you as the teacher as well as for your students."

During his keynote and follow-up session, he will guide us through:

- How to apply the principles of Visible Learning research
- The most effective types of assessment and how each can motivate students to higher levels of achievement
- How to use the right approach at the right time and intentionally design classroom learning experiences - surface, deep, and transfer of learning.
- Creating a classroom culture where errors are viewed as opportunities to learn
- The learning strategies that fuel student progress with real world examples of strategies and tools at work
- Practices that have the greatest and least impact on student growth

Frey, Hattie and Fisher's new book -[*Developing Assessment-Capable Learners*](#) is an excellent resource for anyone attending the conference.

Full Conference Schedule and Topics can be found online at: <https://kucrl.ku.edu/kucrl-learning-conference>

We hope to see you there!

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