

PLEASE PRESS YOUR PAUSE BUTTON

Double Clicking: Reflect on your current practices related to learning designs.

1. How does our current planning process match professional learning goals with our student learning goals?
2. In my school, what are the ways we involve teacher leaders and other staff members when making decisions about the professional learning designs we use?
3. How many different learning designs are currently used during school-wide and team-based learning (e.g., workshops, protocols, peer observation, co-teaching, examining student work)?
4. How does our school's or team's professional learning include support for classroom implementation of new strategies and practices?

APPLY LEARNING THEORIES, RESEARCH, AND MODELS

There's nothing more practical than a good theory.

Kurt Lewin

Learning theories, research, and models describe what is known about how adults learn. In some cases, the work specifically focuses on how educators learn. These theories, research, and models also create a decision-making framework we need to use when making key decisions about professional learning designs. Next, we'll examine a variety of studies that consider how adults and, sometimes more specifically, how educators learn and explain some of the implications.

State of Professional Learning in the Learning Profession (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009)

One of the purposes of current professional learning research is to determine whether or not educator professional learning impacts

student outcomes. The reason for examining first whether professional learning impacts teacher and classroom practices is that there is little chance student learning will improve unless teachers' practices are enhanced or improved first. This relationship between adult learning and student impact is a fundamental belief of Learning Forward (formerly known as National Staff Development Council [NSDC], a national organization devoted to effective professional learning).

In 2009, an international study of professional learning, supported by Learning Forward, was published. This work described the characteristics, conditions, and types of professional learning processes that lead to changes in teacher knowledge, skills, and classroom practice, which, in turn, result in improved student learning. The findings are as follows:

1. Authentic and pervasive educator collaboration is necessary for effective classroom use of new instructional, curricular, and behavioral practices. This finding corroborates Fullan's findings that collaborative cultures, where educators deprivatize their classroom lessons, strategies, practices, assessments, and outcomes and share ideas with each other improves all teachers' practices. The collaborative interactions between and among educators result in educators learning from each other about how to improve instructional effectiveness.

Implication: Building strong collaborative relationships and school culture among educators at grade level, in content areas, and within the school supports and enhances instructional and curricular improvement. Collaborative relationships transcend congenial relationships where people are civil, respectful, and kind to each other. Those behaviors are the foundation of collaboration.

Collaboration includes sharing ideas, resources, materials, and lessons; trusting colleagues enough to ask for help; engaging in problem-solving; sharing successes and failures; being open to other's ideas; providing feedback; and reflecting with others on the work. Many educators have said that their only interaction with colleagues occurs at the coffee pot, mailbox, or lunchroom. There is little time within the day to talk about challenges, share ideas, or ask about new resources. This reality has

led some to view teaching as private practice. Collaboration calls educators to open up their classrooms and their teaching and to work with their colleagues—to deprivatize their practice. This is not merely an individual teacher issue but an organizational one as well. The organization assists in supporting collaboration by creating time for colleagues to meet within the day to discuss, plan, and learn together.

2. Impact on student learning requires deliberate, long-term support that assists educators in accomplishing high-quality implementation of new practices. The study's findings include that sustained and intensive professional learning for teachers is related to student achievement gains. What does this mean in practical terms? Intensive professional learning equals an average of 49 hours in a year. When this threshold is reached, it boosted student achievement by approximately 21 percent. This intensive work included building background content knowledge, demonstrations, practice and planning lessons, co-teaching with a coach or colleague, receiving feedback on the use of practice, and revising or amending strategies. It also can involve monitoring student work throughout the process to determine whether new strategies are making a difference in student learning.

Implication: The most effective professional learning supports teachers from beginning awareness of an innovation or program through skill development and continues through job-embedded support, in order to ensure teachers use new practices within the classroom with quality. If you “launch ’em and leave ’em” (Kanter, n.d.) the innovation will only be used by a few trailblazers within the system and not have a significant impact for most students.

Many principals can repeat the mantra that follow-up is necessary for effective professional learning but when pressed can't really give an example. Some of the tasks that need to be accomplished after beginning awareness and understanding have been developed include the following:

- *Clearly define new practice in operation.* What are the critical attributes (Marzano, Pickering, & Pollock, 2001) of the new practices or essential components? What components are nice but not essential? Is there a clear picture of

the new practice in operation? Critical attributes are essential characteristics of an instructional strategy. For example, the critical attributes for cooperative learning are (1) positive interdependence, (2) individual accountability, (3) face-to-face mutually beneficial interaction, (4) development of collaborative skills, and (5) process or debriefing (Marzano, Pickering, & Pollock, 2001). These components need to be in place before any small group can be considered a cooperative learning group.

The critical attributes of new strategies and models, or essential elements, need to be identified, reviewed, repeated, and accompanied by demonstrations or video examples until they are obvious and apparent to practitioners. (An Innovation Configuration map accomplishes this task; it is explained in depth in the Implementation volume of this series.)

- *Clarify misconceptions.* Despite our best efforts, adults walk away from good training with misconceptions about the new practice. For example, I found many educators believed that creating cooperative learning groups by counting off in Japanese (or some other interesting way) was a critical attribute. In fact, we consistently modeled interesting techniques during trainings, so it should not have been a surprise that this was misconstrued. Misconceptions reveal themselves as educators work with each other on learning tasks, planning, and observing classrooms.
- *Reinforce critical attributes (review using a new learning modality).* We might introduce critical attributes by giving a lecture accompanied by a video. The follow-up challenge is to create learning experiences that use different modalities—provide a video of a new strategy and engage small groups in labeling each critical attribute, or develop a written example of a lesson and cut it into components and ask staff members to reconstruct the lesson. You might ask small groups to create a metaphor for each critical attribute or make a poster that they could hang in their rooms, which reminds them of each essential part. This strategy also allows for differentiation by employing multiple intelligences within professional learning.

- *Plan for the use of new curriculum or strategies (with feedback).* According to Bruce Joyce and Emily Calhoun (2010) we are more likely to achieve successful implementation, especially of new curriculum, when we provide time for teachers to plan lessons, gather materials, and prepare for implementation. They found that educators are more likely to use new curriculum when they have had time to develop skills in planning lessons. These skills need to be at their fingertips and deeply understood, so they can use them with ease when planning courses and units of study, as well as individual lessons.

Central office administrators in Kentucky upped the ante by also reviewing and providing feedback to planning teams early in the process of adopting Common Core curriculum in their districts; this review provided needed refinements to lessons and also allowed central office staff to diagnose misconceptions (Learning Forward, n.d.).

- *Problem-solving.* When implementation begins, there will be problems of practice that educators might not have encountered before. It might be as simple as a quick way to distribute manipulatives to small student groups or larger issues of students' reaction to inquiry lessons. These problems—large and small—can stop implementation of new practices. There are problem solving protocols which PLCs or other small groups can use to address these challenges and generate a list of possible solutions. (See Appendix A for Problem Solving Protocol).
- *Coaching (monitor and give feedback).* Coaching strategies can be conducted by an instructional coach or a knowledgeable peer. The power of coaching lies within a common understanding of the critical attributes—the person being observed as well as the coach need to know the attributes or components that are being looked for during the lesson. There should be no surprises. A second skill also required is the ability to give constructive feedback. Constructive feedback helps the observed teacher be open to learning and making revisions to practice rather than feeling evaluated (Armstrong, 2012).
- *Celebrate progress.* Celebrations always seem to occur at the end of a project. Celebrations also need to occur

in-process, in order to acknowledge that educators and the organization are making progress, to signal that the organization has accomplished one of its intermediate benchmarks, and to recognize staff's efforts in making a change with the intention of impacting student learning. In an elementary school in Arizona, we stopped and celebrated their progress in improving reading achievement in the building. A decorated cake and sparkling apple cider were brought in during a staff meeting while the principal thanked staff members for their efforts towards meeting their school's goal of improved reading instruction. The cost was minimal—the impact on staff significant. (See Armstrong, 2013, for more on celebration.)

Research on the Components of Effective Training (Joyce & Calhoun, 2010; Joyce & Showers, 2002)

Bruce Joyce and Emily Calhoun's research on effective training (2010) identifies four essential components of an effective training program—particularly for new curriculum and models of teaching (see Figure 2.1). They were able to determine through a meta-analysis the impact of these components on participants.

Let's delve into each component. The study of rationale includes understanding the purpose of the new strategies and curriculum, as well as understanding when to use or not use those strategies. For example, participants will need to understand the theoretical underpinnings of inquiry learning within science instruction. Theory helps educators understand the purpose or rationale for use of new strategies or curriculum. The critical purpose of theory is to help educators make decisions about the use of the curriculum or strategies, as well as understand appropriate or inappropriate use. It is a decision-making tool. Unfortunately, the presentation of theory has gotten a bad name in many professional learning settings, perhaps because it is not followed by the other three components identified by Joyce and Calhoun. A quick look at Figure 2.1 may help us see why: Providing the rationale alone has minimal impact on short-term use (5–10%) as well as long-term use (5–10%).

Demonstrations of the curriculum or strategies in practice are also critical. Joyce and Calhoun found that at least 10 demonstrations are needed, and, if the innovation is complex, up to 25 or 30

Figure 2.1 Joyce and Calhoun's Training Components

<i>Training Element</i>	<i>Effects on Knowledge</i>	<i>Effects on Short-Term Use (% of Participants)</i>	<i>Effects on Long-Term Use (% of Participants)</i>
Study of Rationale	Very Positive	5–10%	5–10%
Rationale <i>Plus</i> Demonstrations (10 or more)	Very Positive	5–20%	5–10%
Rationale <i>Plus</i> Demonstrations <i>Plus</i> Planning of Units and Lessons	Very Positive	80–90%	5–10%
All of the Above <i>Plus</i> Peer Coaching	Very Positive	90%+	90%+

Source: Joyce & Calhoun (2010), p. 79. Used with permission.

may be required. These can be demonstration lessons that take place in a classroom and are observed by small groups of teachers. They could be videotaped lessons accompanied by a review of critical attributes. They could be case studies written by practicing teachers and include instructional materials. They might also be lessons co-taught by PLC members and observed by the remainder of the PLC, followed by a debriefing and discussion of critical attributes. Again, a quick review of Figure 2.1 shows that even when demonstrations accompany theory/rationale, the impact on both short-term (5–20%) and long-term use (5–10%) is still relatively low.

The next element that folds into the training model is planning. As mentioned in the preceding section, teachers need time to plan new lessons and units, gather materials, and prepare themselves for implementation. Joyce and Calhoun found this element to be the “key to implementation” (p. 77). Teachers need to be ready to go into their classrooms with already prepared strong lessons and accompanying student materials. In other words, they need time not only to prepare lessons and materials but to prepare themselves. In earlier work, Joyce and Showers found that practice of new strategies also needed to occur (2002). Literally, teachers

practiced using the new strategies in a workshop setting where they would also receive feedback from instructors. They planned and conducted mini-lessons, where other participants acted as students. Again, a quick review of Figure 2.1 shows that when these three elements are employed together, there is a powerful impact on short-term use (80–90%) although not long-term use (5–10%).

The final component of training design is coaching. Initially, classroom coaching was conducted by outside specialists and expert trainers. Their coaching resulted in high levels of long-term use, but the costs were prohibitive. An alternative approach was tried—namely, using peer coaching teams who met together, shared ideas, and planned lessons that they all tried in their own classroom and analyzed after the fact. Discussing their own progress was an important element in these peer coaching groups. These peer coaching groups were able to support and sustain each other’s use of innovations with over 90% of teachers using the new practices in the classroom.

Implication: When developing training programs, ensure that all four elements are included. In most cases, your school and district are already able to provide rationales and demonstrations. Ensuring there is time for small teams of teachers to plan together and receive feedback on their work and serve as peer coaches to each other will pay off in implementation of new programs. This element is an organizational responsibility, not an individual teacher one. I once had an administrator tell me that the basic information had been provided and now implementation was a responsibility of the teacher. This research on training argues against that assumption. If the organization espouses a new program, it also carries a responsibility to support teachers’ use of that new program by providing time for planning, as well as for creating and supporting peer coaching teams.

Concerns-Based Adoption Model (CBAM) (Hord, Rutherford, Huling, & Hall, 2006, revised 2014)

The Concerns-Based Adoption Model, or CBAM, found that teachers move through a series of concerns as they learn about and use innovations (Hall & Hord, 2011). (Note that this research used teachers as subjects when developing the framework.) Those concerns can range from not being concerned at all about a new program to being ready to make adjustments to the new processes in order to revise and

refine them. Each educator depending on his or her background and experience may react differently to the same innovation. The Stages of Concern model is presented in Figure 2.2.

Gene Hall and Shirley Hord also found that each of the concerns requires a different intervention to alleviate the concern and allow teachers to continue to move through the stages. Consider the flip side of that finding. Individuals will *not* automatically move through all seven stages; they can get stuck at a particular stage and not move past it—they suffer from arrested development!

For example, some teachers' concerns might match Stage 2: Personal concern. They are worried about how to find the time to learn the innovation and whether or not they can actually learn to use inquiry in science. They might have learned and been taught through lecture and recitation strategies and are not sure they can manage this new type of learning. If their personal concerns are not attended to and resolved, they might very well stall at this stage and never move beyond it—despite additional training, coaching sessions, and PLC work.

Figure 2.2 Stage of Concern

IMPACT	6	Refocusing	Considering alterations to the innovation
	5	Collaboration	Coordination and cooperation with colleagues
	4	Consequence	Impact of innovation on students
TASK	3	Management	Efficiency, organization, managing the innovation
SELF	2	Personal	Uncertain about the demands of using the innovation and his/her own adequacy in fulfilling those requirements
	1	Informational	General awareness and interest in learning more
	0	Unconcerned	Little awareness or concern

Source: From Figure 3.1: Stages of Concern: Typical Expressions of Concern About the Innovation in *Taking Charge of Change* (p. 31), by S. M. Hord, W. L. Rutherford, L. Huling, & G. E. Hall, 2006, revised 2014. Austin, TX: SEDL. Revised PDF version available from <http://www.sedl.org/pubs/catalog/items/cha22.html>. Reprinted by Corwin with permission from SEDL.

Fear not—there are recommended interventions for each stage. For example, for the personal concern stage,

- let the person know their concerns are legitimate,
- provide encouragement by pointing out individual skills and abilities related to the task,
- connect individuals with others who have moved beyond that stage and who can give counsel and support, and
- show how the innovation can be implemented in small steps instead of all-at-once (Hord, Rutherford, Huling, & Hall, 2004, p. 44).

Implications: There needs to be a monitoring system in place to diagnose and support individuals and small groups at the different stages of concern. There are easy and fast diagnostic strategies described in the Stages of Concern work that will be found in the Implementation standard volume of this series. Instructional coaches and PLC members can also learn about these stages to help them make decisions about their own professional learning strategies and needs.

As discussed in the first chapter of this book, one of the important issues to consider in professional learning is differentiation. CBAM provides another way to address differentiation through diagnosing and use of interventions focused on different stages of concern.

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Double Clicking: Reflect on current professional learning designs.

Identify a high priority program your school or district has adopted and reflect on the components of effective professional learning using the following reflection questions. If you can, conduct this reflection in a small group, school leadership team, or district professional learning committee.

1. How do we use data to determine student learning needs and corresponding educator learning needs? Who conducts the data analysis? How are staff members involved in the analysis?

(Continued)