2015 Leadership Conference
"All In: Achieving Results Together"

Inservice Professional Development: Elements Associated with Effectiveness and Implications for Practice

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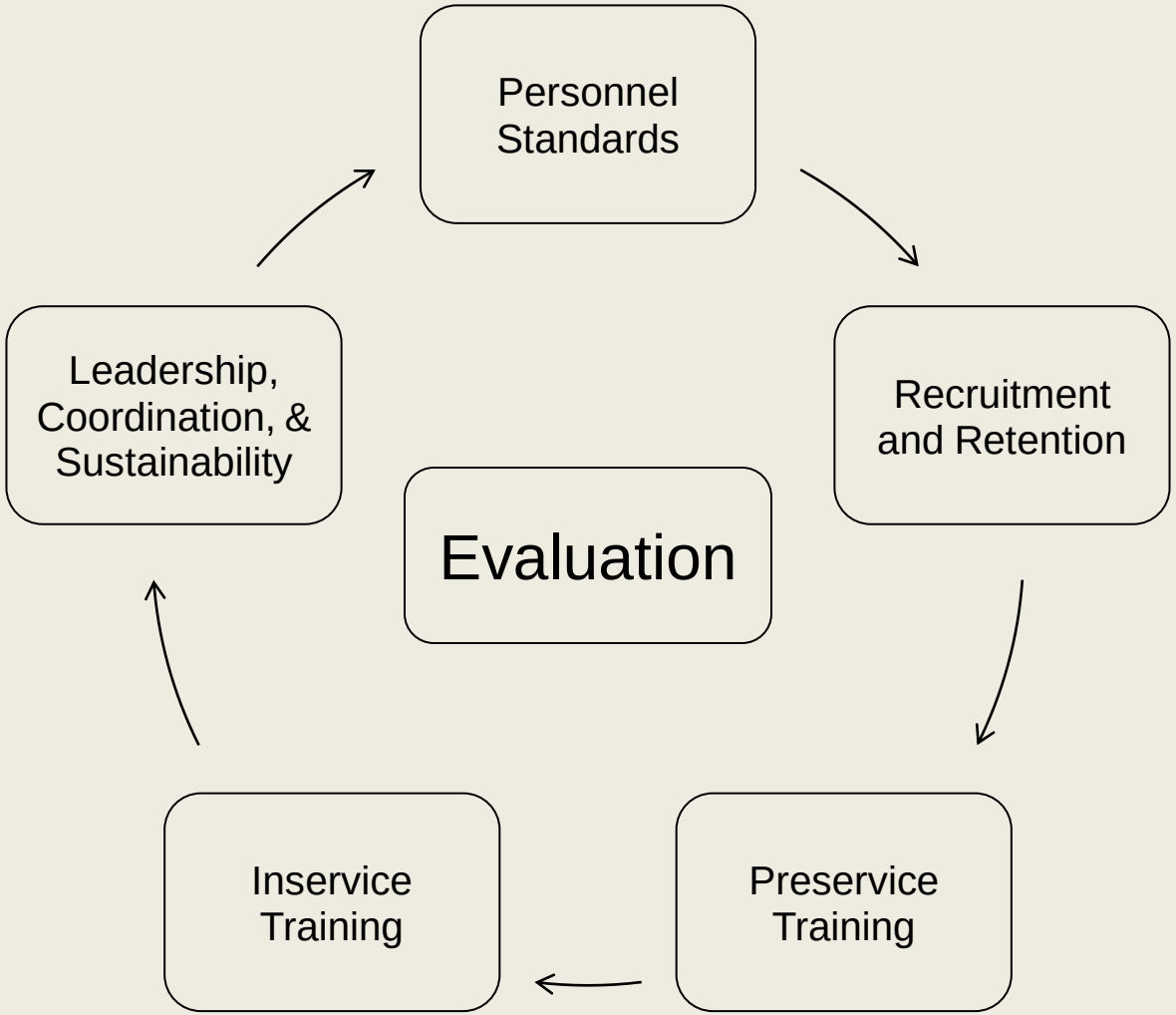
The Early Childhood Personnel Center

To facilitate the implementation of **integrated** and **comprehensive early childhood systems of personnel development (CSPD)** for all disciplines serving infants and young children with disabilities

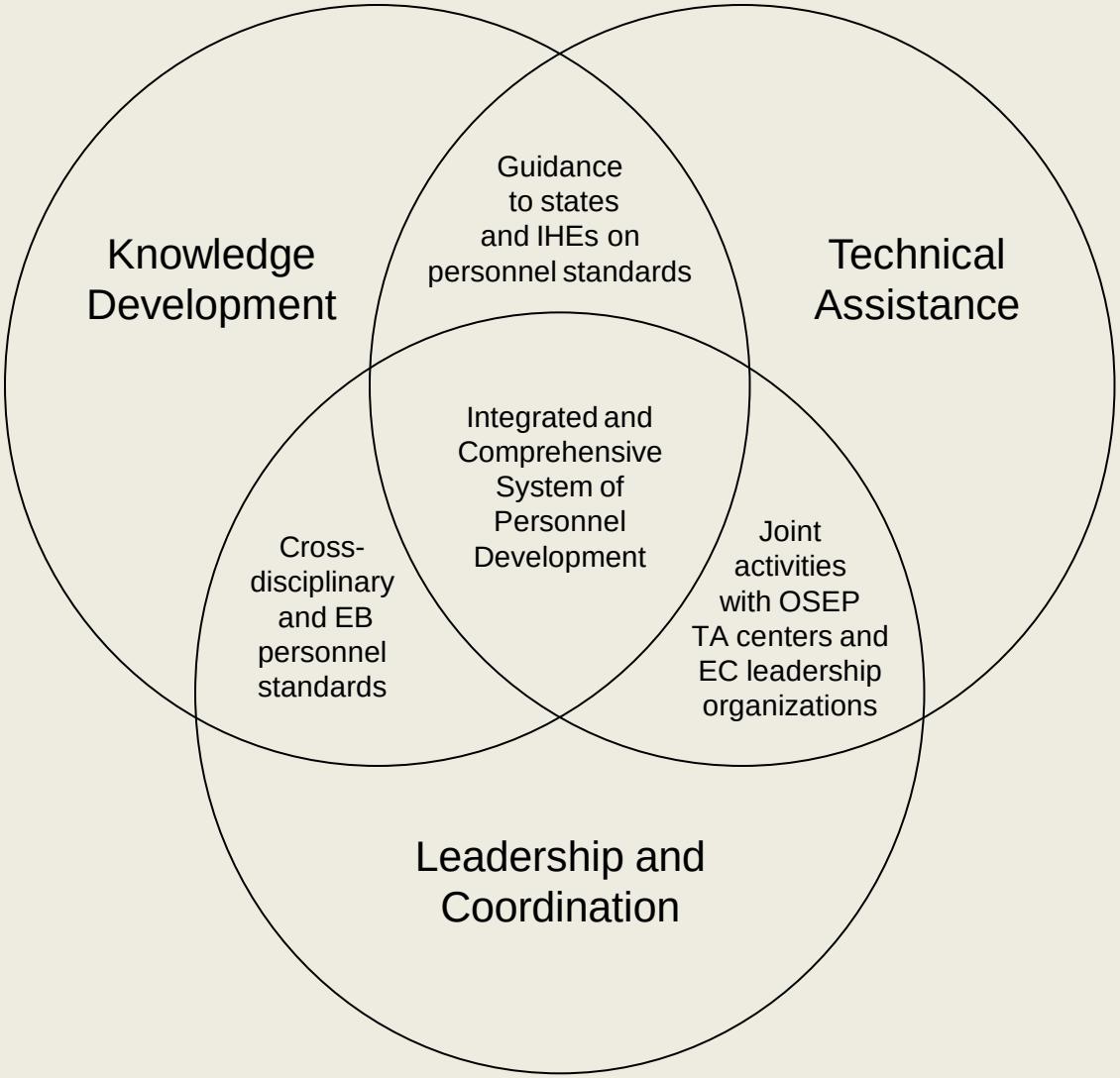
Comprehensive System of Personnel Development

A **comprehensive system of personnel development** for the early childhood workforce who serve infants, toddlers, and preschool children with disabilities and their families is a necessary and integral quality indicator of an early childhood service system

Comprehensive **S**ystem of **P**ersonnel **D**evelopment



ECPC Goals and Objectives



Outputs of the Center

- Knowledge Development
- Technical Assistance
- Leadership and Coordination

Knowledge Development

- National Data Base of State Personnel Standards
- National Data Base of CSPD Components as Reported by all State Part C and 619 Coordinators
- Research Syntheses on Personnel Development-Related Issues
- National Initiative on Cross Disciplinary Personnel Standards

Technical Assistance

- **General TA**: Across audiences, regions, and states: To provide information and resources on personnel development
- **Targeted TA**: State-specific CSPD components: To align national personnel standards and state personnel standards and/or to align preservice preparation with inservice preparation: MA, RI, UT, HI
- **Intensive TA**: State specific: To develop CSPD framework within 4 states: DE, IA, KS, OR

Leadership and Coordination

- Leadership Institute with Part C and 619 Coordinators (19 states in Cohorts 1 and 2)
- Working Collaboratively with other OSEP Early Childhood TA Centers: DaSy; ECTA; IRIS; IDC
- Working Collaboratively with Other Education and HHS TA Centers: RRCs; Workforce Development
- Working Collaboratively with DEC; NAEYC; AOTA; APTA; ASHA; Zero to Three

Purposes of the Breakout Session

1. Describe the results from a metasynthesis of inservice professional development studies to identify which practices under which conditions are associated with positive educator and student/child outcomes

2. Describe the implications of the findings for improving the design and implementation of inservice professional development in early childhood intervention

Status of Inservice Professional Development

"Unlike many fields that have a history of steady improvement built on a continually expanding knowledge base, professional learning for educators has a mixed history at best. Some critics argue that [professional development] lacks a strong evidence base [because] of a general absence of purpose. Others… argue that the research community has failed to offer useful guidelines for best practice for…improving the quality and effectiveness of professional learning activities." (Guskey, 2014, p. 10)

Guskey, T. R. (2014). Planning professional learning. *Educational Leadership,71*(8), 10-16.

Purpose of a Metasynthesis

A metasynthesis is an approach to “bringing together and breaking down [quantitative and qualitative] findings, examining them, discovering ***essential factors*** (emphasis added), and combining phenomena into a transformed whole.” (Schreiber et al., 1997, p. 314)

Schreiber, R., Crooks, D., & Stern, P. N. (1997). Qualitative metasynthesis: Issues and techniques. In J. M. Morse (Ed.), *Completing a qualitative project: Details and dialogue* (pp. 311-326). Thousand Oaks, CA: Sage.

Metasynthesis of Inservice Professional Development Research Syntheses

The metasynthesis included:

- 15 research reviews of different types of inservice professional development
- 555 studies were included in the 15 reviews
- 50,000+ early intervention, preschool, elementary, and secondary education teachers, educators, and practitioners

Dunst, C. J., Bruder, M. B., & Hamby, D. W. (2015). Metasynthesis of inservice professional development research: Features associated with positive educator and student outcomes. *Educational Research and Reviews, 10*(12), 1731-1744.

Research Reviews

Blank, R. K., & De las Alas, N. (2009). *Effects of teacher professional development on gains in student achievement: How meta analysis provides scientific evidence useful to education leaders*. Washington, DC: Council of Chief State School Officers.

Blank, R. K., de las Alas, N., & Smith, C. (2008). *Does teacher professional development have effects on teaching and learning?: Analysis of evaluation findings from programs of mathematics and science teachers in 14 states*. Washington, DC: Council of Chief State School Officers.

Capps, D. K., Crawford, B. A., & Constas, M. A. (2012). A review of empirical literature on inquiry professional development: Alignment with best practices and a critique of the findings. *Journal of Science Teacher Education, 23*, 291-318.

Cavanaugh, B. (2013). Performance feedback and teachers' use of praise and opportunities to respond: A review of the literature. *Education and Treatment of Children, 36*(1), 111-137.

Dunst, C. J., Trivette, C. M., & Hamby, D. W. (2010). Meta-analysis of the effectiveness of four adult learning methods and strategies. *International Journal of Continuing Education and Lifelong Learning, 3*(1), 91-112.

Fukkink, R. G., & Lont, A. (2007). Does training matter? A meta-analysis and review of caregiver training studies. *Early Childhood Research Quarterly, 22*, 294-311.

Ingersoll, R., & Kralik, J. M. (2004). *The impact of mentoring on teacher retention: What the research says.* Denver, CO: Education Commission for the States.

Ingersoll, R., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: A critical review of the research. *Review of Educational Research, 81*(2), 201-233.

Isner, T., Tout, K., Zaslow, M., Soli, M., Quinn, K., Rothenberg, L., et al. (2011). *Coaching in early care and education programs and quality rating and improvement systems (QRIS): Identifying promising features.* Washington, DC: Child Trends.

Joyce, B., & Showers, B. (1995). *The design of training and peer coaching: Student achievement through staff development: Fundamentals of school renewal* (2nd ed.). White Plains, NY: Longman.

Kretlow, A. G., & Bartholomew, C. C. (2010). Using coaching to improve the fidelity of evidence-based practices: A review of studies. *Teacher Education and Special Education, 33*, 279-299.

Saylor, L. L., & Johnson, C. C. (2014). The role of reflection in elementary mathematics and science teachers' training and development A meta-synthesis. *School Science and Mathematics, 114*(1), 30-39.

Snow-Renner, R., & Lauer, P. A. (2005). *Professional development analysis*. Denver, CO: Mid-continent Research for Education and Learning (McREL).

Yoon, K. S., Duncan, T., Lee, S. W.-Y., Scarloss, B., & Shapley, K. L. (2007). *Reviewing the evidence on how teacher professional development affects student achievement.* (Report REL 2007 - No. 033). Washington, DC: US Department of Education, Institute of Education Science.

Zaslow, M., Tout, K., Halle, T., Whittaker, J. V., Lavelle, B., & Child Trends. (2010). *Toward the identification of features of effective professional development for early childhood educators: Literature review*. Washington, DC: U.S. Department of Education.

Selected Characteristics of the Studies in the 15 Reviews

Types of Reviews

- Narrative reviews (N=5)
- Summative reviews (N=3)
- Systematic reviews (N=3)
- Meta-analyses (N=4)

Types of Studies

- Group (N=8)
- Mixed (N=7)[a]

Research Designs

- Exp./quasi (N=3)
- Exp./quasi/single (N=2)
- Exp./quasi/pre-post (N=3)
- Other combinations (N=7)

Participants

- Early childhood (N=3)
- Pre K to 8-12 (N=3)
- K to 5/6-8 (N=2)
- K to 12 (N=7)

[a]Quasi-experimental, case-descriptive studies, pre-post studies, and single participant design studies.

Inclusion Criteria

- There was an explicit attempt to identify the characteristics of and conditions under which inservice professional development was effective
- The research synthesists identified a subset of studies that included all or most of the characteristics hypothesized to be related to effective inservice professional development or this was possible through a secondary analysis of a research synthesis

Method of Analysis of the Inservice Reviews

- A multiple case study research design (Yin, 2014) was used to identify which inservice professional development characteristics ***under which conditions*** were associated with positive educator and student/child outcomes
- A replication logic (Hak & Dul, 2010) and pattern matching (Hak & Dul, 2010) were used to determine if the same or similar inservice characteristics in the different reviews were found to be associated with the same or similar study outcomes

Hak, T., & Dul, J. (2010). Pattern matching. In A. J. Mills, G. Durepos, & E. Wiebe (Eds.) *Encyclopedia of case study research* (pp. 664-666). Thousand Oaks, CA: Sage.

Hak, T., & Dul, J. (2010). Replication. In A. J. Mills, G. Durepos, & E. Wiebe (Eds.) *Encyclopedia of case study research* (pp. 805-807). Thousand Oaks, CA: Sage.

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.) Thousand Oaks, CA: Sage.

Characteristics of Inservice Professional Development Coded in the Metasynthesis

Inservice Setting: Job-embedded or non job-embedded inservice training

Inservice Characteristics: Trainer introduction and illustration of a practice; authentic educator/practitioner learning opportunities and learner reflection; and professional development specialist coaching, mentoring, or performance feedback during inservice training

Ongoing Supports: Extended learner supports in the educators' schools, classrooms, or intervention settings to reinforce initial inservice learning

Dosage: Inservice dosage in a sufficient amount distributed over time to provide multiple opportunities to acquire and master the focus of inservice training

Outcomes: Educator/practitioner outcomes and student/child outcomes

Examples of Findings in the Research Reviews

- The synthesis produced “strong evidence of active methods of teacher learning during PD [including] leading instruction, discussion with colleagues, observing other teachers…, professional networks, collective participation, and two of the following types of [trainer activities]: coaching, mentoring, internships, or study groups [where PD] included follow-up steps with teachers in their schools” (Blank & De las Alas, 2009, p. 21).
- The synthesis findings “demonstrate that specialized training improved the pedagogical competencies of caregivers in childcare, including their professional attitude, knowledge, and skills” (p. 305) if PD included “experimental learning, guided practice, and other authentic learning opportunities together with coaching or mentoring” (Fukkink & Lont, 2007, p. 301).
- “Our synthesis…[shows that] professional development is most likely to positively affect teacher instruction [when it] is of considerable duration, focused on specific content and/or instructional strategies…, characterized by collective participation of educators, coherence, and infused with active [teacher] learning” (Snow-Renner & Lauer, 2005, p. 6).

Examples of Findings Related to Follow-Up Supports

- “Significant effects [were found] in programs designed with a content-focused PD plus sufficient [follow-up] time [as part of] an in-school component” (Blank et al., 2008, p. 1).
- “Extended support is important because it offers teachers a chance to ask questions and interact with PD [professionals] and colleagues…and opportunities to receive feedback” (Capps et al., 2012, p. 299).
- Coaching is most effective when “it begins in training sessions and continues in the workplace following initial training” (Joyce & Showers, 1995, p. 112).
- “The general model of PD used in the studies involved initial training for classroom teachers…with follow-up support or training provided through site visits and consultations from [PD] experts” (Zaslow et al., 2010, p. 70).

Examples of Findings Related to Inservice Dosage

- “The total time in PD in the studies with significant effects was 50 hours or more” (Blank, et al., 2008, p. 1).
- “Increased contact hours…produced an increase in the frequency, duration, and depth of reflective practice” (Saylor & Johnson, 2014, p. 30).
- “Studies that included more than 14 hours of PD showed a positive and significant effect on student achievement” (Yoon, et al., 2007, p. 3).
- “In general, models with a high ‘dosage’ of PD tended to be associated with positive outcomes for teachers…and children” (Zaslow, et at., 2010, p. 41).

Summary of the Metasynthesis Findings

In-Service Characteristics	Percent of Reviews
Trainer Introduction and Illustration of the In-service Practice	86
Authentic Learner Opportunities and Learner Reflection	93
Trainer Coaching, Mentoring, or Performance Feedback	79
Ongoing Follow-up Supports to Reinforce In-service Learning	87
Duration and Intensity of In-service of Sufficient Amounts	87

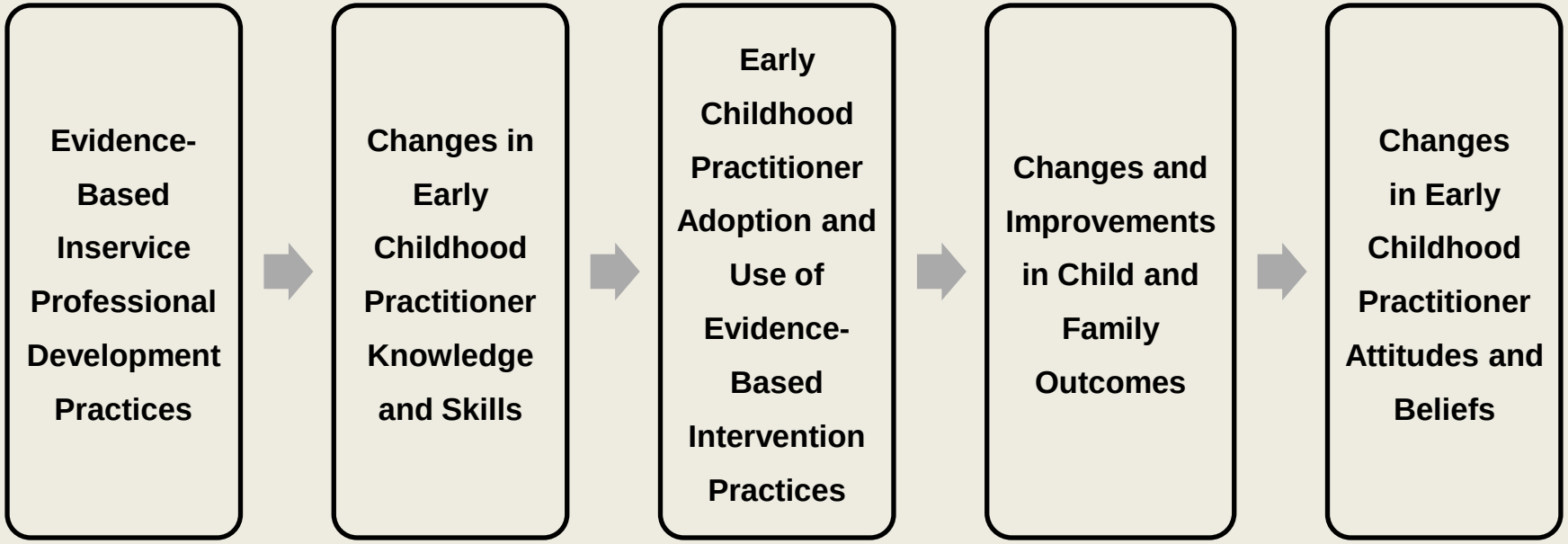
Implications for Improving Inservice Performance Development in Early Childhood Intervention

Results from the meta-synthesis together with findings and recommendations by Desimone (2009) and Guskey (2014) were used to develop a model and set of strategies for facilitating the use of evidence-based inservice professional development to promote early childhood practitioners' adoption and use of evidence-based intervention practices.

Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher, 38*(3), 181-199.

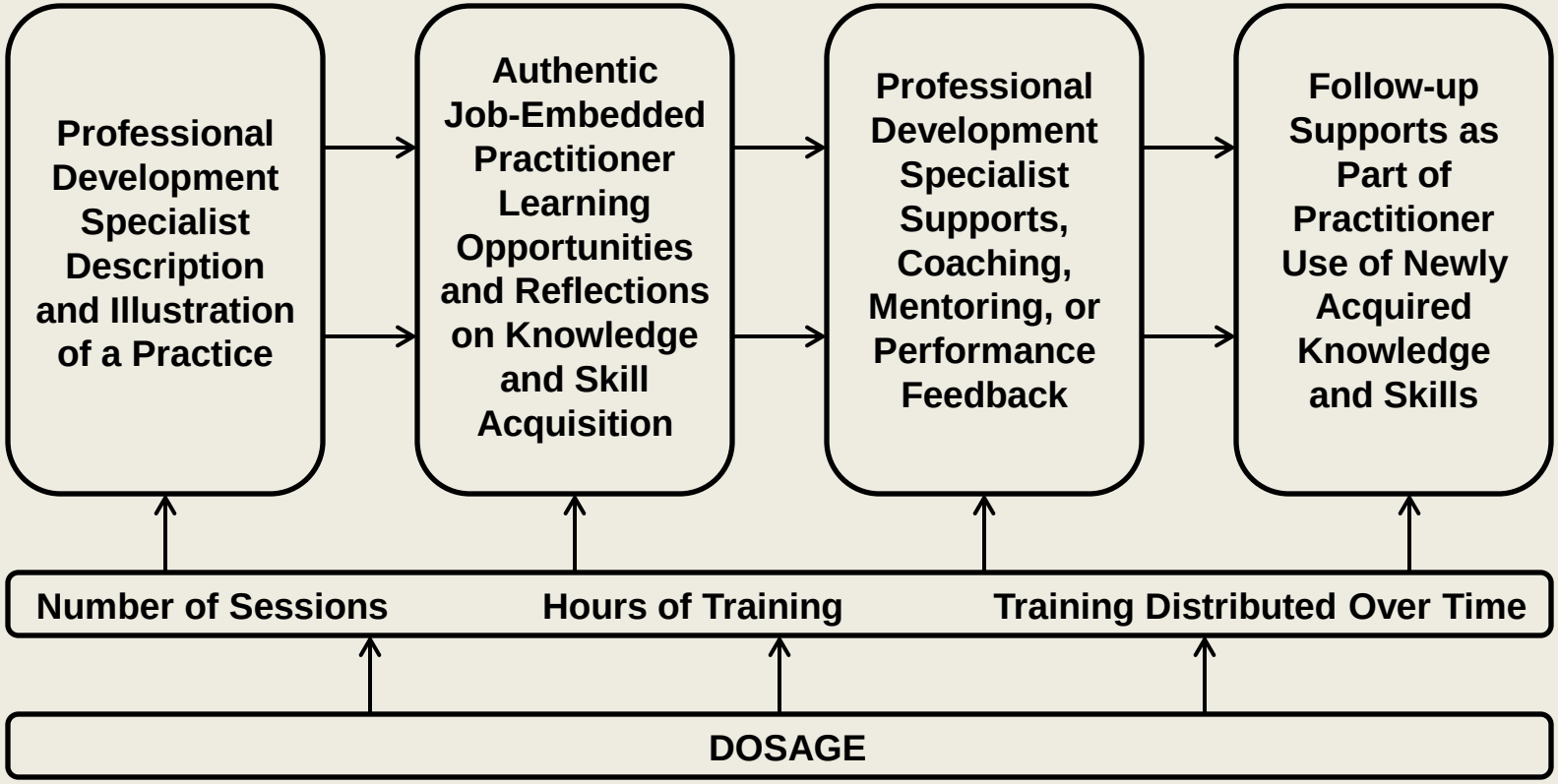
Guskey, T. R. (2014. Planning professional teaming. *Educational Leadership, 71*(8), 10-16.

Model for Conceptualizing the Relationships Between Inservice Professional Development and Early Childhood Intervention Practices



Dunst, C. J. (2015). Improving the design and implementation of inservice professional development in early childhood intervention. *Infants and Young Children, 28(*3), 210-219. Adopted from Desimone (2011) and Guskey (2014) with permission.

Framework for Conceptualizing the Design and Implementation of Evidence-Based Inservice Professional Development



Characteristics of Effective Inservice Professional Development

- Professional development specialists' explicit explanation and illustration of the specific content knowledge and practice to be learned
- Active and authentic job-embedded practitioner opportunities to learn to use a practice and to engage in evaluation of their experiences
- Explicit inclusion of different types of practices for engaging practitioners in reflection on their understanding and mastery of a practice
- Coaching, mentoring, or performance feedback by a professional development specialist during inservice training
- Ongoing follow-up supports by professional development specialists, coaches, supervisors, peers, etc. to reinforce inservice learning
- Inservice professional development of sufficient duration and intensity to provide multiple opportunities to become proficient in the use of a practice

Professional Development Specialists' Explicit Description and Illustration of the Specific Content Knowledge and Practice to Be Learned

This includes the methods used to introduce and describe the key characteristics of the practice constituting the focus of inservice professional development ***and the student/child outcomes that are related to the practices***, and the methods used to demonstrate or illustrate the use of the practice and its effects in terms of expected or desired outcomes.

Guskey, T. R. (2014). Planning professional learning. *Educational Leadership, 71*(6), 10-16.

Authentic Job-Embedded Practitioner Opportunities to Learn to Use a Practice and To Engage in Evaluation of Their Experiences

This includes, but is not limited to, job-embedded home-based or classroom-based use of a practice, simulated learning opportunities, learner-led descriptions of use of a practice, and opportunities to be actively involved in as many of the inservice training activities as possible “as opposed to passively sitting through lectures” in workshops (Desimone, 2011, p. 69).

Desimone, L. M. (2011). A primer on effective professional development. *Phi Delta Kappan, 92*, 68-71.

Explicit Inclusion of Different Types of Practices for Engaging Practitioners in Reflection on Their Understanding and Mastery of a Practice

This includes, but is not limited to, performance-based group discussions, collective participation, journaling, self-assessment of mastery against a set of performance standards, and practitioner-instructor reflective conversations. Especially important are opportunities for reflection on what worked and what needs improvement based on authentic job-embedded use of a practice.

Cahen, R., & Superle, B. (2009). Beyond the two-hour workshop: Professional development that allows time for reflection and experimentation. *The Early Childhood Educator, 24*(3), 13-14.

Coaching, Mentoring, or Performance Feedback by a Professional Development Specialist During Inservice Training

This includes in-vivo observations of practitioners' use of a practice and performance feedback, coaching or mentoring sessions, instructor suggestions and feedback from videos of practitioners' use of a practice, or telephone, e-mail, or web-based suggestions and mentoring (e.g., Glazer & Hannafin, 2006).

Glazer, E., & Hannafin, M. (2006). The collaborative apprenticeship model: Situated professional development within school settings. *Teaching and Teacher Education, 22*, 179-193.

Ongoing Follow-Up Supports by Professional Development Specialists, Coaches, Supervisors, Peers, etc., to Reinforce Inservice Learning Sessions

Kretlow and Bartholomew (2010) noted, for example, that coaching was most effective when it included "follow-up observations and specific feedback" (p.292) of practitioners using the intervention practice that was the focus of inservice training.

Kretlow, A. G., & Bartholomew, C. C. (2010). Using coaching to improve the fidelity of evidence-based practices: A review of studies. *Teacher Education and Special Education, 33, 279-299.*

Inservice Professional Development of Sufficient Duration and Intensity to Provide Multiple Opportunities to Become Proficient in the Use of a Practice

According to Desimone (2011), professional development will likely be most effective when practitioner learning opportunities are distributed over time and include a sufficient number of contacts between professional development specialists and practitioners.

Desimone, L. M. (2011). A primer on effective professional development. *Phi Delta Kappan, 92*, 68-71.

Challenges in Implementing Evidence-Based Inservice Professional Development in Early Childhood Intervention

- Limited inservice professional development resources (funding, expertise, time, etc.) to plan and implement effective training
- Sheer number of early childhood intervention professionals that are employed in early intervention and preschool special education
- Systems, policy, and practice-related barriers that discourage the use of evidence-based in service professional development
- Changing the status quo (ecology) and history of early childhood professional development

PowerPoint available at:

www.puckett.org
and
http://www.ecpcta.org/our_work/powerpoints.html