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

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Acknowledgement

The inservice professional development research described in this session was conducted at the Early Childhood Personnel Center (ECPC) at the A. J. Pappanikou Center in Developmental Disabilities, Education, Research, and Service at the University of Connecticut Health Center, funded through a cooperative agreement (#H325B12004) funded by the U. S. Department of Education, Office of Special Education Programs (Project Officer: Dawn Ellis). The opinion expressed do not necessarily represent the Department or Office position or policy.
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 System of Personnel Development

- Personnel Standards
- Leadership, Coordination, & Sustainability
- Recruitment and Retention
- Evaluation
- Inservice Training
- Preservice Training
ECPC Goals and Objectives

Knowledge Development
- Cross-disciplinary and EB personnel standards

Leadership and Coordination
- Integrated and Comprehensive System of Personnel Development

Technical Assistance
- Guidance to states and IHEs on personnel standards
- Joint activities with OSEP TA centers and EC leadership organizations

Integrated and Comprehensive System of Personnel Development Guidance to states and IHEs on personnel standards Joint activities with OSEP TA centers and EC leadership organizations
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)

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)

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

Research Reviews


Selected Characteristics of the Studies in the 15 Reviews

<table>
<thead>
<tr>
<th>Types of Reviews</th>
<th>Research Designs</th>
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<tbody>
<tr>
<td>Narrative reviews (N=5)</td>
<td>Exp./quasi (N=3)</td>
</tr>
<tr>
<td>Summative reviews (N=3)</td>
<td>Exp./quasi/single (N=2)</td>
</tr>
<tr>
<td>Systematic reviews (N=3)</td>
<td>Exp./quasi/pre-post (N=3)</td>
</tr>
<tr>
<td>Meta-analyses (N=4)</td>
<td>Other combinations (N=7)</td>
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<table>
<thead>
<tr>
<th>Types of Studies</th>
<th>Participants</th>
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<tbody>
<tr>
<td>Group (N=8)</td>
<td>Early childhood (N=3)</td>
</tr>
<tr>
<td>Mixed (N=7)</td>
<td>Pre K to 8-12 (N=3)</td>
</tr>
</tbody>
</table>

^aQuasi-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.


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 al., 2010, p. 41).
## Summary of the Metasynthesis Findings

<table>
<thead>
<tr>
<th>In-Service Characteristics</th>
<th>Percent of Reviews</th>
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<tbody>
<tr>
<td>Trainer Introduction and Illustration of the In-service Practice</td>
<td>86</td>
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<tr>
<td>Authentic Learner Opportunities and Learner Reflection</td>
<td>93</td>
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<tr>
<td>Trainer Coaching, Mentoring, or Performance Feedback</td>
<td>79</td>
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<td>Ongoing Follow-up Supports to Reinforce In-service Learning</td>
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<tr>
<td>Duration and Intensity of In-service of Sufficient Amounts</td>
<td>87</td>
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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.

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

- **Evidence-Based Inservice Professional Development Practices**
- **Changes in Early Childhood Practitioner Knowledge and Skills**
- **Early Childhood Practitioner Adoption and Use of Evidence-Based Intervention Practices**
- **Changes and Improvements in Child and Family Outcomes**
- **Changes in Early Childhood Practitioner Attitudes and Beliefs**

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

- Professional Development Specialist Description and Illustration of a Practice
- Authentic Job-Embedded Practitioner Learning Opportunities and Reflections on Knowledge and Skill Acquisition
- Professional Development Specialist Supports, Coaching, Mentoring, or Performance Feedback
- Follow-up Supports as Part of Practitioner Use of Newly Acquired Knowledge and Skills

Number of Sessions  
Hours of Training  
Training Distributed Over Time  
DOSAGE
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.

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).

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.

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).

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.

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.

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