# USING STANDARDS-BASED AND EVIDENCE-BASED CONTENT IN EARLY CHILDHOOD PROFESSIONAL DEVELOPMENT

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**Abstract**

Converging empirical evidence has identified key components of effective practices for providing high-quality services to young children and their families. The article describes the components of professional development that result in well qualified, well-trained and effective early childhood professionals who can implement evidence-based practices to improve outcomes of young children and their families. Specifically, standards-based and evidence-based professional development competencies developed and guided by national and state agencies are discussed.

*Key words: early childhood; early childhood special education; professional development; standards-based competencies; evidence-based competencies*

There is a critical need for improved professional development practices which bridge the gap between research and practice for educators of young children (Campbell & Milbourne, 2005; Helburn, 1995; Sheridan, Edwards, Marvin, & Knoche, 2009; Whitebook, Howes, & Phillips, 1989). The newly reauthorized Individuals with Disabilities Education Improvement Act (IDEA, 2004) in the U.S. states that "high quality, comprehensive professional development programs are essential to ensure that the persons responsible for the education of children with disabilities possess skills and knowledge necessary to address educational and related needs of those children" (Sec 650.6). IDEA further states that "models of professional development should be scientifically based and reflect successful practices, including strategies for recruiting, preparing, and retaining personnel" (Sec 650.7).

### Professional development in early childhood
**Scientific problem:** Well prepared early childhood workforce must possess professional ethics; a specialized knowledge of child development and learning, family-centered practices, and cross cultural competence (Lynch & Hanson, 2011); an ability to use assessment data to make informed decisions about programming (Bagnato, Neisworth, & Pretti-Frontczak, 2010); and the ability to collaborate successfully with families and professionals from other disciplines (Bruder & Dunst, 2005; Odom & Wolery, 2003).

**Aim of the research:** The purpose of the manuscript is to share standards-based and evidence-based professional guidelines to prepare early childhood professionals to work with young children with and at-risk for disabilities and their families.

**Methodology used:** For the purpose of this paper, the following definitions of professional development adapted from Kagan & Neuman (1996) are used for clarity and consistency. *Preservice training* refers to any early childhood education (ECE) instruction received through coursework such as at secondary, vocational, college, professional development college or at graduate level to prepare the candidate in child related fields such as developmental psychology, child care, early childhood education, or special education. *Inservice training* refers to any ECE instruction received while concurrently working in an early childhood setting such as childcare, preschool or early elementary classes. A range of inservice professional development models have been practiced – from the short-term stand-alone workshops to provision of long-term support with the inclusion of teachers as collaborators in the process (Klingner, Ahwee, Pilonieta, & Menendez, 2003).

This paper focuses on preservice professional development; i.e. those forms and related processes of professional development that are most commonly associated with practitioners *before* they begin employment in early childhood. These include formal education (degree earned prior to employment) and credentialing (agency or organizational qualifications or standards). Further, this paper will cover formal education and credentialing for both early childhood and early childhood special education teacher in the U.S. Readers are referred to other extensive sources that describe inservice professional development of employed staff or professionals and research associated with that (e.g., Sheridan et al., 2009).

**Preservice professional development in early childhood**

Although there are a number of components of a teacher's background which may relate to her classroom performance, such as years of experience, feelings of self-efficacy, and teacher's beliefs and attitudes and their impact on children's growth and development; recent attention in early childhood has focused on quality of inservice and preservice professional development. Researchers have consistently, frequently, and successfully proven that well-trained personnel lead to a high-quality early childhood programs and better child and family outcomes (Odom & Wolery 2003). A number of researchers have stated that there is a strong correlation between a teacher's background and her classroom quality (e.g Greenwood, Tapia, Abbott, & Walton, 2003; Cassidy, Buell, & Pugh-Hoese, 1995; Whitebook et al., 1989). The National Day Care Study (Ruopp, Travers, Glantz, & Coelen, 1979) and the National Child Care Staffing Study (Whitebook et al., 1989) have found strong relationships between teacher qualifications and quality of care and education received by young children.

Though the National Day Care Study (Ruopp et al., 1979) highlighted the relative unimportance of teacher's general education to their classroom behaviors, the study found that a strong relationship exists between teacher education specific to child development and early childhood education and appropriateness of a teacher's classroom behaviors. The study also found that teachers with training in early childhood engaged in 28% more social interaction, cognitive stimulation and language stimulation with children than did teachers without training.

However, the National Child Care Staffing Study (Whitebook et al.,1989) reported that formal education, regardless of the field of study, was the best predictor of appropriate caregiving. The National Child Care Staffing Study reported that teachers were more sensitive, less harsh, and less detached and more likely to provide appropriate caregiving than teachers receiving less than 15 hours of formal education. Thus, the importance of quality teachers to

improve children's outcomes is evident, but improving education professionals' performance remains a challenge.

**Using standards-based content in EC preservice professional development**

High-quality personnel preparation programs must include training that incorporates the acquisition of knowledge, skills, and dispositions as well as the application of this knowledge into practice (Winton, McCollum, & Catlett, 2008). The coherent, value-based, and evidence-based professional standards that prepare early childhood professionals provide the structure for determining levels of mastery, documenting individual competencies, and determining the effectiveness of the training (Hyson & Biggar, 2006; Neville, Sherman, & Cohen, 2005). Professional accrediting organizations in the U.S., such as the National Council for Accreditation of Teacher Education (NCATE) and Teacher Education Accreditation Council (TEAC), (now combined to the Council for the Accreditation of Educator Preparation (CAEP), use personnel preparation standards for accreditation of teacher preparation programs.

The use of professional standards assures that special educators have the knowledge and skills to deliver effective and appropriate services to children birth through 8 years with and without special needs and their families. Development and implementation of professional standards to prepare educators in early childhood/early childhood special education is critical to ensure that professionals are properly credentialed and possess the skills and knowledge to serve young children and their families. The professional standards are the driving force behind how states and nations approve a program, assure systemic assessment, design the curriculum and guide clinical training, and provide guidance for effective professional development to its early childhood professionals. Thus, professional standards are a foundation for creating, as well as maintaining, a qualified early childhood workforce.

Different national and state standards guide the process of licensing and accreditation of early childhood professionals. The following sections describe the national and state standards that guide the higher education personnel preparation programs in the United States. to "assure that the candidates they prepare have mastery of the appropriate knowledge and skills" (CEC, 2009, p. 223).

**NAEYC professional development standards for early childhood educators**

The National Association for Education of Young Children (NAEYC) is a 100,000-member professional association of teachers, administrators, researchers, advocates, leaders in state and federal organizations and others who are concerned with the positive development and education of children from birth through age 8 (Hyson & Biggar, 2006). As a part of its effort to improve professional practice in early childhood education, NAEYC first established standards for early childhood professionals in 1982. Using expert review and consensus building, the standards were revised and approved by the NAEYC Board in 2001 for initial licensure – i.e. Baccalaureate and Master's programs that offered initial licensure programs for early childhood professionals. The standards for advanced programs, also approved the same year, are utilized by institutions that offer licensure in masters and doctoral programs that build on prior competencies.

The revised standards reflected NAEYC's emphasis on outcomes of professionals as measured by student teaching evaluations, comprehensive examinations, licensure test results, and the changing role of the early childhood professionals in working with changing demographics of the U.S. population. The most recent revisions to these standards took place in 2010. The seven NAEYC standards for initial licensure programs are listed in Table 1. The complete set is available at: *standards at* http://www.naeyc.org/ecada/standards.

**Table 1.** The professional development standards for early childhood personnel development from National Association for Education of Young Children

Standard 1. Promoting child development and learning
Standard 2. Building family and community relationships
Standard 3. Observing, documenting, and assessing to support young children and families
Standard 4. Using developmentally effective approaches
Standard 5. Using content knowledge to build meaningful curriculum
Standard 6. Becoming a professional
Standard 7. Early childhood field experiences

### CEC-DEC professional development standards for early childhood special educators

The Council for Exceptional Children (CEC), the international special education professional organization based in the US, is responsible for the development and dissemination of special education professional standards and uses a "rigorous consensus evaluation process to identify, update and maintain sets of knowledge and skills for entry-level and advanced special educators" (CEC, 2009, p. 8). The rigorous consensus development process used by CEC to develop, revise, and validate standards ensures that the professional standards are field initiated, evidence based, and validated by stakeholder groups such as families, practitioners, administrators, researchers, and policy makers. These standards are a critical component of an aligned accountability system. Like NAEYC standards, CEC standards are developed at two levels-- initial and advanced. CEC (2010) defines initial programs as those "at the baccalaureate or post-baccalaureate levels preparing candidates for the first license to teach," while the advanced programs are those "at post-baccalaureate levels for (1) the continuing education of teachers who have previously completed initial preparation or (2) the preparation of other school professionals" (p. 7). Personnel preparation programs in higher education align their program assessments to the CEC's seven preparation standards with the 28 key elements and program reviewers from the professional accrediting organizations review for alignment between the program assessments and the seven preparation standards with the key elements. CEC's preparation standards are, by nature, general in that they are intended to apply to *all* special educators. Table 2 lists these major preparation standards. The detailed standards and their rationale for inclusion can be found at: http://www.cec.sped.org/.

**Table 2**. The seven professional development standards for special education personnel development from Council for Exceptional Children

**Learner and Learning**
    1 Assessment
**Content Knowledge and Professional Foundations**
    2 Curricular Content Knowledge
**Instructional Pedagogy**
    3 Program, Services, and Outcomes
    4 Research and Inquiry
**Professionalism and Collaboration**
    5 Leadership and Policy
    6 Professional and Ethical Practice
    7 Collaboration

The Division for Early Childhood (DEC) of the Council for Exceptional Children is the largest international professional organization dedicated to improving educational outcomes for individuals with exceptionalities, students with disabilities, and/or the gifted. The specialty professional standards developed by DEC guide professionals development for early interventionists and early childhood special educators who work with children with disabilities who are birth to 8 years of age. These standards are informed by the CEC's standards and follow the same seven standards.

DEC revised and validated initial--and developed and validated advanced-- personnel preparation standards for early childhood special educators and early interventionists between 2005 and 2008. The DEC standards follow the same ten topical areas as the CEC standards. The specialized DEC professional standards can be found at:

http://www.cec.sped.org/Standards/Special-Educator-Professional-Preparation/CEC-Initial-and-Advanced-Specialty-Sets.

**State professional development standards for early childhood educators**

In the United States, all programs must have state approval to issue a teaching degree that counts toward satisfying state licensure requirements. State education agencies or state professional standards boards are responsible for granting approval. Each of the 50 states and the trust territories in the United States identifies the requirements by which professionals qualify to teach. All states have adopted some standards for approving teacher education programs, but these requirements vary considerably across states. Thus, teacher certification requirements vary across states and sometimes within states. Certification policies "change over time and are influenced by state and federal legislation, research and recommended practices in the specific educational discipline, and direct service needs of local communities" (Stayton, Smith, Dietrich, & Bruder, 2011, p.24). In order to demonstrate that teachers have met the necessary knowledge and skills competencies, states often require professionals to successfully pass state or national tests before practicing. Similarly, institutes of higher education are required to go through rigorous accreditation process to ensure that the content taught in the programs meet the state standards.

Stayton, Smith, Dietrich, & Bruder (2011) investigated the extent to which states' early childhood special education certification standards align with professional association national standards. They found that: (a) there was limited use of national standards in state certification requirements for early childhood special education – only few states utilize the national standards for their credentialing requirement; (b) state standards seem to be lacking in specificity in wording as compared with the language used in the national standards which can result in confusion created when attempting to create and facilitate reciprocal policies and practices across state lines; and (c) there is lack of access and easy availability of state certification guidelines which could result in frustration for both the future professionals and the higher education preparing these professionals. Authors further found that the most commonly aligned state and national standards covered knowledge and skills statement related to assessment and development and characteristics of learners. Thus, there is a greater need for state policy makers to align state and national standards for ease of transfer of credentialing and knowledge and skills competency across state borders. Similarly, there is a need for national professional organizations to become aware of state functioning and provide resources for states to utilize the professional standards.

**Embedding evidence-based content in early childhood professional development**

While it is important to incorporate standards-based content in the professional development programs for early intervention and early childhood special education personnel

working with children birth to eight years of age, standards for credentialing are often developed through bureaucratic political and legislative mechanisms; thus, making them hard to revise with the changes in the new and emerging empirical and clinical evidence. Therefore, in order reflect the new and most current learning in the field about the child development and growth, it is important to include evidence-based content in preservice professional preparations programs to guide the curriculum.

### What is "evidence"?

Traditionally evidence-based practices have meant practices that are supported by findings from multiple, high quality, experimental research studies (Cook, Tankersley, Cook & Landrum, 2008). Lomas, Culyer, McCutcheon, McAuley, & Law (2005) describe two concepts of evidence: (a) *colloquial* [or wisdom-based] *evidence*, which focuses on relevant information at a more personal and contextual level (e.g. experiential knowledge, societal values, political judgment, resources, habits and tradition); and (b) *scientific evidence*, which is derived from systematic, replicable and verifiable methods of collecting information and facts that may be context-specific or context free. Two separate sets of inquiry guide the search for these two concepts of evidence: wisdom-based inquiry and knowledge-based inquiry (Maxwell, Field, & Clifford, 2005). However, more and more policy makers, practitioners, researchers, and families tend to agree that the sheer pursuit of knowledge in a knowledge-based inquiry, without addressing the political, personal, and social problems we encounter, is not enough to provide effective and meaningful services to children and youth with disabilities and their families. The value driven, wisdom-based inquiry that leads to wisdom-based evidence is also needed.

### Commonly used guidelines for evidence-based practices in early childhood

One of the hallmarks of any profession (Institute of Medicine & National Research Council, 2012), and a function of national organizations such as DEC and NAEYC, is to establish practice guidelines that bring coherence and quality to the services provided by professionals in the field. The following two sets of practices guide the recommended practices in early childhood and early childhood special education. These practices are a result of systematic and thorough synthesis of evidence in the field and guide both the inservice and preservice professional development and practice in the field.

**Developmentally appropriate practices (DAP).** Grounded both in the research on child development and learning and in the knowledge base regarding educational effectiveness, the NAEYC's DAP outline activities that promote young children's optimal learning and development. Many teachers themselves lack the current knowledge and skills needed to provide high-quality care and education to young children, at least in some components of the curriculum. To make these decisions with well-grounded intentionality, teachers need to have knowledge about child development and learning in general, about the individual children in their classrooms, and about the sequences in which a domain's specific concepts and skills are learned. Teachers also need to have a well-developed repertoire of teaching strategies to employ for different purposes. DAP are informed by what we know from theory and current literature about how children develop and learn. Copple and Bredekemp (2009) recommend that early childhood practitioners must consider these three areas of knowledge in all aspects of their work with children: (a) What is known about child development and learning – referring to knowledge of age-related characteristics that permits general predictions about what experiences are likely to best promote children's learning and development; (b) What is known about each child as an individual – referring to what practitioners learn about each child that has implications for how best to adapt and be responsive to that individual variation; and

(c) What is known about the social and cultural contexts in which children live – referring to the values, expectations, and behavioral and linguistic conventions that shape children's lives at home and in their communities that practitioners must strive to understand in order to ensure that learning experiences in the program or school are meaningful, relevant, and respectful for each child and family. Table 3 lists the 12 principles that guide the developmentally appropriate practices.

**Table 3**. The 12 principles that guide developmentally appropriate practices for early Childhood personnel from National Association for Education of Young Children

1. All the domains of development and learning – physical, social and emotional, and cognitive – are important, and they are closely interrelated. Children's development and learning in one domain influence and are influenced by what takes place in other domains.
2. Many aspects of children's learning and development follow well documented sequences, with later abilities, skills, and knowledge building on those already acquired.
3. Development and learning proceed at varying rates from child to child, as well as at uneven rates across different areas of a child's individual functioning.
4. Development and learning result from a dynamic and continuous interaction of biological maturation and experience.
5. Early experiences have profound effects, both cumulative and delayed, on a child's development and learning; and optimal periods exist for certain types of development and learning to occur.
6. Development proceeds toward greater complexity, self-regulation, and symbolic or representational capacities.
7. Children develop best when they have secure, consistent relationships with responsive adults and opportunities for positive relationships with peers.
8. Development and learning occur in and are influenced by multiple social and cultural contexts.
9. Always mentally active in seeking to understand the world around them, children learn in a variety of ways; a wide range of teaching strategies and interactions are effective in supporting all these kinds of learning.
10. Play is an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence.
11. Development and learning advance when children are challenged to achieve at a level just beyond their current mastery, and also when they have many opportunities to practice newly acquired skills.
12. Children's experiences shape their motivation and approaches to learning, such as persistence, initiative, and flexibility; in turn, these dispositions and behaviors affect their learning and development.

**Division for Early Childhood-Recommended Practices (DEC-RP).** In 2005, DEC-RP (Sandall, Hemmeter, Smith, & McLean, 2005) were developed and validated after a thorough and systematic review of literature of practices that provide improved outcomes for young children with disabilities and are related to the personnel who service them. Grounded in recent research on effective practices in early childhood special education, the DEC-RP serve as a guide to inform and improve the quality of services provided to young children with and at risk for disabilities and their families.

The practices are derived from two key sources. One source is the scientific literature on effective practices for young children with disabilities, their families, and the personnel who work with them. The other source is the knowledge and experience of those who work with young children and their families. The practices are user-friendly and aimed at bridging the gap between research and practice. The practices are to be used by individuals working in a variety of early childhood settings that provide services to young children with disabilities and other special needs from infancy through age five. These settings include early intervention programs (home and center based), preschool and preschool special education programs, child care programs, Head Start, public schools, hospital based programs, and other programs in which young children receive developmental, educational and related services.

The practices are grouped together as practices that relate to *Direct Services* and *Indirect Supports* for these direct services to occur. The five practices strands included in the direct services include: (a) assessment practices; (b) child-focused practices; (c) family-based practices; (d) interdisciplinary models; and (e) technology applications. Indirect supports include practices that are necessary for high quality direct services to occur. They include: (a) policies, procedure, and systems change;and (b) personnel preparation. The DEC-RPs are currently undergoing revisions. The DEC has formed a Commission to oversee the revision of the DEC Recommended Practices. The Commission is charged with ensuring that the updated DEC Recommended Practices achieve the goal of informing and improving the quality of services provided to young children with disabilities and their families. The new practices will become available in 2014 and can be accessed at http://www.dec-sped.org/.

### Conclusion and future directions

Early childhood professional development has received significant attention by researchers, policy makers, and practitioners as accountability for outcomes is high and demands for qualified early childhood practitioners has increased (Snyder, Hemmeter, and McLaughlin, 2011). Use of standards-based and evidence-based content is critical to preparing professionals who work with young children with or without disabilities and their families in early childhood settings. However, having standards-based and evidence-content available to programs that prepare personnel is not enough. It is critical to identify strategies to embed this content into formal education and credentialing systems when preparing early childhood workforce. In-depth information about how research and evidence are embedded in course curriculum and supervised clinical experience is important. Furthermore, additional research on curricula and instructional practices is needed to ensure that professional development focuses on aspects of the early childhood program that are most likely to lead to significant gains for children.

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## USING STANDARDS-BASED AND EVIDENCE-BASED CONTENT IN EARLY CHILDHOOD PROFESSIONAL DEVELOPMENT

### *Summary*

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Probably nothing affects the quality of the intervention that young children with a disability receive more directly than the knowledge and skills of the adults who work and play with them. Thus, recent attention in early childhood has focused on quality of inservice and preservice professional development.

The manuscript shares standards-based and evidence-based professional guidelines to prepare early childhood professionals to work with young children with and at-risk for disabilities and their families. Specifically, this paper covers formal education and credentialing for both early childhood and early childhood special education teacher in the U.S. The coherent, value-based, and evidence-based professional standards that prepare early childhood professionals provide the structure for determining levels of mastery, documenting individual competencies, and determining the effectiveness of the training. The Council for the Accreditation of Educator Preparation (CAEP) uses national personnel preparation standards for accreditation of teacher preparation programs. The two national organizations that provide the guidance for these early childhood professional standards are National Association for Education of Young Children and Council for Exceptional Children-Division for Early Childhood. Additionally NAEYC and CEC-DEC provide recommendations for use of evidence-based practices in to guide early childhood professional development.

However, having standards-based and evidence-content available to programs that prepare personnel is not enough. It is critical to identify strategies to embed this content into formal education and credentialing systems when preparing early childhood workforce. Furthermore, additional research on curricula and instructional practices is needed to ensure that professional development focuses on aspects of the early childhood program that are most likely to lead to significant gains for children.