#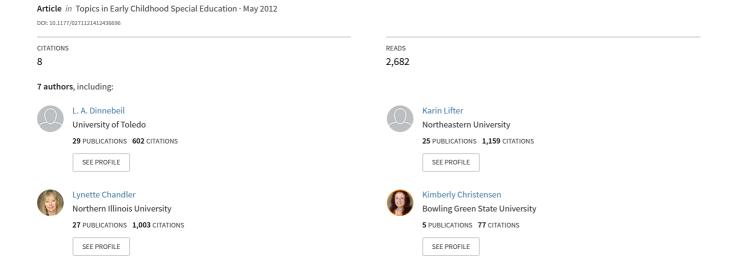 Early Childhood Special Education and Early Intervention Personnel Preparation Standards of the Division for Early Childhood Field Validation

7 authors, including:

L. A. Dinnebeil
University of Toledo
29 PUBLICATIONS   **602** CITATIONS

Karin Lifter
Northeastern University
25 PUBLICATIONS   **1,159** CITATIONS

Lynette Chandler
Northern Illinois University
27 PUBLICATIONS   **1,003** CITATIONS

Kimberly Christensen
Bowling Green State University
5 PUBLICATIONS   **77** CITATIONS

Topics in Early Childhood Special Education

The Alignment of CEC/DEC and NAEYC Personnel Preparation Standards

Lynette K. Chandler, Deborah C. Cochran, Kimberly A. Christensen, Laurie A. Dinnebeil, Peggy A. Gallagher, Karin Lifter, Vicki D. Stayton and Margie Spino

The online version of this article can be found at:

Additional services and information for *Topics in Early Childhood Special Education* can be found at:

Email Alerts: http://tec.sagepub.com/cgi/alerts

Subscriptions: http://tec.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav

>> Version of Record - Mar 23, 2012

What is This?

The Alignment of CEC/DEC and NAEYC Personnel Preparation Standards

Lynette K. Chandler[1], Deborah C. Cochran[2], Kimberly A. Christensen[3], Laurie A. Dinnebeil[4], Peggy A. Gallagher[5], Karin Lifter[6], Vicki D. Stayton[7], and Margie Spino[4]

Abstract

This article describes the process for alignment of the personnel preparation standards developed by the Council for Exceptional Children and Division for Early Childhood with the standards developed by the National Association for the Education of Young Children. The results identify areas of convergence across the two sets of standards and areas that were primarily addressed through only one set of standards. Areas of nonalignment may constitute specialized knowledge and skills within the disciplines of special education, early childhood special education and early intervention, and early childhood education. This standards alignment can be used by states and university and college personnel preparation programs to develop blended programs that highly qualified early childhood professionals to meet the needs of all children in a variety of settings.

Keywords

personnel preparation, professional development standards, standards alignment

The standards and accountability movement can be traced to the 1983 publication of *A Nation at Risk: The imperative for educational reform* (National Commission on Excellence in Education, 1983; Standards and Accountability, 2006), which identified a decline in the quality of education resulting in poor and declining educational performance of students in the United States. The report called for several educational reforms, including a commitment to excellence leading to high expectations for student achievement (i.e., standards for learning), increased quality in educational practices and supports for learning, and systems for measuring progress and mastery in meeting standards. It also called for teacher preparation programs to establish high expectations for student candidates, develop rigorous and measurable standards, and demonstrate that candidates have acquired the knowledge, skills, and abilities to meet program standards. Subsequent efforts at state and federal levels have led states to adopt standards for academic achievement and learning at all grade levels as well as the development of systems for demonstrating progress and mastery in meeting standards. For example, the No Child Left Behind legislation (No Child Left Behind Primer, n.d.) requires states that accept federal funding to assess student outcomes through high-stakes testing each

year from Grades 3 through 8, and at least once in high school. Schools and districts are held accountable for meeting standards, and a series of consequences are implemented when they are not able to demonstrate adequate yearly progress (AYP) through high-stakes testing.

The standards and accountability movement has affected early childhood programs and schools, which also must provide evidence of positive outcomes for children through a variety of measures, including AYP, early childhood outcomes (ECO), and progress in meeting early childhood standards, Individualized Education Plan (IEP) goals, Individualized Family Service Plan (IFSP) outcomes, or other developmental

[1]Northern Illinois University, DeKalb, IL, USA
[2]Ohio University, Athens, OH, USA
[3]Bowling Green State University, Bowling Green, OH, USA
[4]University of Toledo, Toledo, OH, USA
[5]Georgia State University, Atlanta, GA, USA
[6]Northeastern University, Boston, MA, USA
[7]Western Kentucky University, Bowling Green, KY, USA

Corresponding Author:
Lynette K. Chandler, Department of Special and Early Education, Northern Illinois University, DeKalb, IL 60115, USA
E-mail: lchandler@niu.edu

goals. This in turn has increased expectations of early childhood educators (including early childhood special educators and early interventionists) and other practitioners who are expected to have the knowledge, skills, and dispositions to ensure that young children meet early learning standards and other identified outcome measures (Snow-Renner & Lauer, 2005; Winton & McCollum, 2008).

Research regarding early childhood educators' ability to positively affect child outcomes indicates a strong connection between positive child outcomes and program quality and well-trained educators, as well as a strong connection between well-trained early educators and high-quality professional development (Campbell & Milbourne, 2005; Catlett & Winton, 2002; Laitsch, 2003). As a result, the standards and accountability movement also has affected expectations for programs that prepare early childhood educators at preservice and in-service levels. Although accountability in higher education is not a new focus of personnel preparation programs, there has been increased scrutiny of personnel preparation programs in recent years and a call for increased accountability for demonstrating positive outcomes of teacher preparation programs (Easterbrooks & Putney, 2008). Teacher education programs must provide evidence that preservice candidates have acquired critical content knowledge, are able to effectively apply skills and produce positive outcomes for the students they teach, and have developed appropriate dispositions for teaching (McCollum & Catlett, 1997).

These competencies and skills are identified in professional development standards. Most teacher education programs adhere to standards provided by their professional organizations, standards from accreditation systems such as the National Council for Accreditation of Teacher Education (NCATE), and standards that are developed by their specific states (e.g., Illinois Professional Teaching Standards). These standards provide guidance to college and university programs in the development of course content, field experiences, expectations for candidates, and assessment activities and they serve as benchmarks for program accreditation.

Early childhood special education (ECSE) and early intervention (EI) preparation programs are guided by a common core of special education standards provided by the Council for Exceptional Children (CEC) and specific ECSE/EI standards developed with CEC by the Division for Early Childhood (DEC), a subdivision of CEC. The CEC standards address the preparation of special education professionals who will work with individuals with exceptional learning needs. There are two levels of standards: initial and advanced. The initial-level content standards identify the knowledge and skills that all special education professionals should possess as they enter initial special education positions. They serve as a common core set of standards that apply to all entry-level special education personnel, including early childhood special educators and

early interventionists. Similarly, the advanced CEC standards provide a common core of standards all special educators should possess in advanced positions.

At the initial level of preparation, the DEC standards, identified as the ECSE/EI standards, build on the CEC common core standards by identifying the additional specialized knowledge and skills that professionals should possess as they enter positions working with infants and young children (birth through age 8) who are at risk for or have developmental delays and disabilities and their families (CEC, 2009). There also is a set of advanced ECSE/EI standards that build on the CEC advanced common core standards. The CEC and ECSE/EI standards work together to provide comprehensive guidelines for ECSE/EI personnel preparation program development and evaluation. These standards are published in *What every special educator must know: Ethics, standards, and guidelines for special educators* (2009). This book is available on the CEC website www.cec.sped.org (http://www.cec.sped.org/Content/NavigationMenu/ProfessionalDevelopment/ProfessionalStandards/?from=tlc Home). The standards are also available on the DEC website www.dec-sped.org (http://www.dec-sped.org/About_DEC/Position_Statements_and_Concept_Papers/Personnel_Standards).

Early childhood education (ECE) personnel preparation programs adhere to the National Association for the Education of Young Children (NAEYC) guidelines and standards. The NAEYC standards identify core knowledge, understanding, and methods to be addressed in the preparation of all early childhood professionals working with children from birth through 8 years of age, regardless of role, setting, or level of preparation (NAEYC, 2009). The NAEYC standards are to be used across all degree levels of preparation (associate, baccalaureate, and graduate) although the expectations for candidates may vary across levels. The 2009 NAEYC Position Statement emphasizes that personnel preparation programs should provide evidence of (a) learning opportunities for candidates that are aligned with the standards, (b) assessments to measure candidate performance, (c) data regarding candidate performance, and (d) the use of data to make decisions about program revision. The NAEYC standards are published on the NAEYC website www.naeyc.org (http://www.naeyc.org/files/naeyc/file/positions/ProfPrepStandards09.pdf).

The NAEYC standards and the ECSE/EI standards developed by DEC provide a shared vision for the preparation of ECE, ECSE, and EI practitioners based on several factors: professional and family values and philosophical perspectives regarding early childhood, recommended practices for teaching and supporting young children's development and for establishing positive relationships with families, evidence-based strategies and assessment practices, and desired outcomes for young children and families (Hyson, 2003; Hyson & Biggar, 2006; NAEYC, 2009; Sandall, Hemmeter,

McLean, & Smith, 2005; Winton & McCollum, 2008). The standards are important resources for developing and evaluating the effectiveness of personnel preparation programs that prepare early childhood educators or early childhood special educators and early interventionists.

In recent years, an increasing number of states and programs have offered interdisciplinary blended preparation programs in which candidates are prepared to work with infants and young children with and without special needs or disabilities as well as children who are at risk (Blanton, Griffen, Winn, & Pugach, 1997; Miller & Stayton, 1998, 1999). Professional preparation programs that prepare candidates to provide services to children with and without disabilities are required to address the CEC/ECSE/EI and NAEYC standards and they must demonstrate candidate competency in both sets of standards in state-level reports and reports for accreditation systems such as NCATE (Hyson, 2003). Working with two sets of related but separate standards is a cumbersome process.

Alignment of the two sets of standards would provide guidance in the development and evaluation of blended preparation programs and would identify knowledge, skills, and dispositions that are addressed by both sets of standards (i.e., areas of overlap), as well as areas that are distinct to each organization's standards and that may not be met by addressing only one set of standards (i.e., knowledge and skills that are specific to the CEC/ECSE/EI standards or to the NAEYC standards). In areas where standards are aligned, programs would not need to develop separate assessments or collect artifacts to measure student outcomes. For example, both sets of standards include items related to knowledge of child development and individual differences and items related to skills in meeting the needs of individual children. An assessment of child development knowledge and of skills in addressing individual needs would address both sets of standards. There are several instances in which items are not aligned. For example, several of the ECSE/EI standards refer to knowledge of specific disabilities that affect infants and young children, and specific types of intervention strategies to address the needs of individuals with special needs. These standards would not be addressed by adhering to only the NAEYC standards. Programs would need to be sure that they were addressing and assessing knowledge or skills that are not aligned across the two sets of standards.

An alignment of the two sets of standards also could be used by states to examine and update content knowledge and skill competencies required in blended preparation programs, to identify knowledge and skills that are needed by professionals who are working in inclusive or blended settings, and to design blended in-service professional development training for those individuals.

This article describes the process and results of alignment of the CEC common core and ECSE/EI standards with the NAEYC standards at the initial level of personnel preparation. It provides examples to illustrate areas of alignment between the two sets of standards and areas in which the two sets of standards were not aligned. It ends with discussion regarding the use of the aligned document in personnel preparation programs.

Method

Participants

Before conducting the alignment that is reported in this manuscript, a work group of members of the DEC and CEC organizations integrated the ECSE/EI standards with the CEC standards. The process for completing this integration and validation of the integrated standards was reported in the *Journal of Early Intervention* (Lifter et al., 2011).

Following the development and validation of the CEC and ECSE/EI standards, the Executive Board of the DEC appointed a second work group to create an alignment of the 2009 initial-level CEC common core and ECSE/EI personnel preparation standards with the personnel standards developed by NAEYC. The work group consisted of eight individuals who were members of CEC/DEC. Six of the eight also were members of NAEYC. One member of the work group was a doctoral student in an ECSE program. The remaining members were higher education faculty with expertise in personnel preparation at the preservice and in-service levels. Three of the seven higher education members worked in programs that offered a single focus for certification (early childhood or ECSE/EI). One of the members worked in a program that provided a blended certification, and one worked in a program that provided blended certification at the undergraduate level and a single focus certification at the graduate level. The final two higher education faculty worked in programs that were in the process of moving from a single to a blended certification. The work group completed the alignment in October, 2010, and the alignment was reviewed by the DEC Executive Board in January, 2011.

The Initial Preparation Level CEC and ECSE/EI Standards

The CEC and ECSE/EI standards are distributed among 10 content areas as presented in Table 1. The content standards are further delineated as knowledge or skill sets or elements. The CEC elements indicate the knowledge, skills, and dispositions that a beginning special education teacher should attain and be able to do. The ECSE/EI elements, developed by DEC describe additional specialized knowledge and skills that professionals should possess as they enter positions working with infants and young children (birth through age 8) who are at risk or have developmental delays and disabilities and their families. The additional specialized knowledge and skills for early childhood are

Table 1. CEC/ECSE Content Standards and Number of Knowledge and Skill Elements for the CEC Common Core and DEC ECSE-Specific Elements

Content Standards	CEC Knowledge Elements	CEC Skill Elements	ECSE/EI Knowledge Elements	ECSE/EI Skill Elements
1. Foundations	10	1	2	1
2. Development and characteristics of learners	7	0	7	1
3. Individual learning differences	5	0	2	2
4. Instructional strategies	7	0	1	8
5. Learning environments and social interaction	10	17	0	7
6. Language	4	2	2	3
7. Instructional planning	5	15	3	8
8. Assessment	5	9	3	11
9. Professional and ethical practice	4	13	2	7
10. Collaboration	4	11	11	9

Abbreviations: CEC, Council for Exceptional Children; ECSE, early childhood special education; DEC = Division for Early Childhood; EI, early intervention.
Note: These standards may be reviewed on the CEC website http://www.cec.sped.org/Content/NavigationMenu/ProfessionalDevelopment/ProfessionalStandards/?from=tlcHome or the DEC website http://www.dec-sped.org/About_DEC/Position_Statements_and_Concept_Papers/Personnel_Standards

Table 2. NAEYC Content Standards and Key Elements for Personnel Preparation

1. Promoting child development and learning
    1a. Knowing and understanding young children's characteristics and needs
    1b. Knowing and understanding the multiple influences on development and learning
    1c. Using developmental knowledge to create healthy, respectful, supportive, and challenging learning environments
2. Building family and community relationships
    2a. Knowing about and understanding diverse family and community characteristics
    2b. Supporting and engaging families and communities through respectful, reciprocal relationships
    2c. Involving families and communities in their children's development and learning
3. Observing, documenting, and assessing to support young children and families
    3a. Understanding the goals, benefits, and uses of assessment
    3b. Knowing about assessment partnerships with families and with professional colleagues
    3c. Knowing about and using observation, documentation, and other appropriate assessment tools and approaches
    3d. Understanding and practicing responsible assessment to promote positive outcomes for each child
4. Using developmentally effective approaches to connect with children and families
    4a. Understanding positive relationships and supportive interactions as the foundation of their work with children
    4b. Knowing and understanding effective strategies and tools for early education
    4c. Using a broad repertoire of developmentally appropriate teaching/learning approaches
    4d. Reflecting on their own practice to promote positive outcomes for each child
5. Using content knowledge to build meaningful curriculum
    5a. Understanding content knowledge and resources in academic disciplines
    5b. Knowing and using the central concepts, inquiry tools, and structures of content areas or academic disciplines
    5c. Using their own knowledge, appropriate early learning standards, and other resources to design, implement, and evaluate meaningful, challenging curricula for each child
6. Becoming a professional
    6a. Identifying and involving oneself with the early childhood field
    6b. Knowing about and upholding ethical standards and other professional guidelines
    6c. Engaging in continuous, collaborative learning to inform practice
    6d. Integrating knowledgeable, reflective, and critical perspectives on early education
    6e. Engaging in informed advocacy for children and the profession

Abbreviations: NAEYC, National Association for the Education of Young Children.
Note: The NAEYC standards are published on the NAEYC website www.naeyc.org (http://www.naeyc.org/files/naeyc/file/positions/ProfPrepStandards09.pdf).

Initial CEC Common Core (ICC) and DEC Early Childhood Special Education/Early Intervention (ECSE) Content Standards and Knowledge and Skill Elements ↓	NAEYC Standards →	1. Promoting Child Development and Learning			2. Building Family and Community Relationships		
	NAEYC Key Elements →	**1a:** Knowing and understanding young children's characteristics and needs	**1b:** Knowing and understanding the multiple influences on development and learning	**1c:** Using developmental knowledge to create healthy, respectful, supportive, and challenging learning environments	**2a:** Knowing about and understanding diverse family and community characteristics	**2b:** Supporting and engaging families and communities through respectful, reciprocal relationships	**2c:** Involving families and communities in their children's development and learning
Knowledge:							
ICC1K1	Models, theories, and philosophies that form the basis for special education practice.						
ICC1K2	Laws, policies, and ethical principles regarding behavior management planning and implementation.						
ICC1K3	Relationship of special education to the organization and function of educational agencies.						
ICC1K4	Rights and responsibilities of students, parents, teachers, and other professionals, and schools related to exceptional learning needs.						
ICC1K5	Issues in definition and identification of individuals with exceptional learning needs, including those from culturally and linguistically diverse backgrounds.						
ICC1K6	Issues, assurances and due process rights related to assessment, eligibility, and placement within a continuum of services.						
ICC1K7	Family systems and the role of families in the educational process.						
ICC1K8	Historical points of view and contribution of culturally diverse groups.						
ICC1K9	Impact of the dominant culture on shaping schools and the individuals who study and work in them.						
ICC1K10	Potential impact of differences in values, languages, and customs that can exist between the home and school.						
ECSE1K1	Historical, philosophical foundations and legal basis of services for infants and young children both with and without exceptional needs.						
ECSE1K2	Trends and issues in early childhood education, early childhood special education, and early intervention.						
Skill:							
ICC1S1	Articulate personal philosophy of special education.						
ECSE1S1	Implement family services consistent with due process safeguards.						

Figure 1. Example of the alignment matrix.

not addressed through the CEC common core standards. There are 209 knowledge and skill elements across the 10 content standards. Each CEC element is identified by the prefix ICC (initial common core), followed by a number that identifies the content standard. This is followed by the letters K for knowledge or S for skill which is then followed by a number that indicates the number of each element within the series of elements for a content standard. For example, ICC8K1 is an ICC element in the Assessment Content Standard 8 and it is the first knowledge (K) element within that content standard. Each ECSE/EI element is identified by the prefix ECSE, followed by a number that identifies the content standard, the letters K for knowledge or S for skill, and a number that indicates the number of each element within the series of elements for a content standard. An example of a skills statement for ECSE/EI is ECSE4S3. This indicates that this ECSE/EI element is in the Instructional Strategies Content Standard 4 and is the third skill (S) element within that content standard. The two sets of standards will be referred to as CEC and ECSE/EI standards in this article.

NAEYC Standards

The NAEYC standards are divided into six content areas. Each content area includes a number of key elements that represent the knowledge base and application of knowledge that early childhood educators should possess within early childhood settings (NAEYC, 2009). The six standards and 22 key elements are provided in Table 2.

Procedures for Conducting the Alignment

Development of initial rules. The work group examined and discussed the NAEYC and CEC/ECSE/EI standards and developed a set of initial rules for aligning the two sets of standards. They presented the alignment rules and the alignment matrix at several DEC Conferences (Chandler et al., 2008; Chandler et al., 2010; Lifter, Chandler, Christensen, Cochran, & Gallagher, 2009). Feedback from session participants was used to revise the alignment rules. It should be noted that the work group initially conducted an alignment of the CEC/ECSE/EI standards with the 2003 NAEYC standards. When the revised NAEYC standards were published in 2009, the work group again conducted the alignment with the new standards using the following procedures. It is this second alignment that is reported in this manuscript.

Development of alignment matrix. Members of the work group developed an alignment matrix (see Figure 1) that listed each CEC/ECSE/EI standard and corresponding knowledge and skills elements on the left side of the matrix and the NAEYC standards and key elements across the top of the matrix. This allowed reviewers to compare

each of the 209 CEC and ECSE/EI elements with each of the 22 NAEYC key elements. The reviewers placed an X in the matrix box to identify when two elements were aligned. A CEC or ECSE/EI element could be aligned with one or more NAEYC key elements and vice versa. For example, ICC1K5 was aligned with NAEYC 3b, 3c, and 3d and ECSE1K2 was aligned with NAEYC 4b, 4c, 5c, 6a, 6d, and 6e. Likewise, NAEYC 3b was aligned with seven CEC/ECSE/EI knowledge elements and 20 CEC/ECSE/EI skills elements across the 10 standard areas.

Refinement of initial rules. The first reviewer conducted an alignment of the two sets of standards. During the alignment, this reviewer refined and added new rules and developed a set of questions to be discussed by the work group. She also developed a document that identified the salient features of each of the NAEYC standards and key elements derived from the 22-page 2009 NAEYC Position Statement. This was done to increase the probability that all reviewers were focused on the same critical features of the NAEYC Standards. The work group discussed, clarified, and developed a final set of alignment rules and they approved the salient features of NAEYC standards and key elements document. These are available from the first author. The first reviewer again conducted an alignment of the two sets of standards using these revised and approved rules and documents.

Process of alignment. Using the rules and document described previously (Step 3), four additional reviewers then conducted their own alignment and noted agreement or disagreement (on an item-by-item basis) with the alignment of standard elements conducted by the first reviewer. They also noted instances in which they aligned standard elements that had not been aligned by the first reviewer.

Evaluation of alignment. The work group then examined the alignments of the five reviewers and completed the final alignment using the following rules:

a. If four of the reviewers (4/5) agreed on the alignment of two standards elements (i.e., alignment of a CEC/ECSE/EI knowledge or skill elements with one of the NAEYC key elements), the alignment was accepted (80% agreement).

b. If only one or two of the reviewers agreed (1/5 or 2/5) on an alignment, the alignment was not accepted and the alignment was deleted.

c. If three of the five reviewers (3/5) agreed on the alignment of two elements, the alignment was then reviewed by the three remaining members of the work group.

   i. For items that were reviewed by the additional three reviewers, if all three reviewers agreed that two elements should be aligned, the alignment was accepted (6/8 or 75% agreement). If only one or two of the three additional reviewers

agreed that the elements should be aligned, the alignment was deleted.

Results of the Alignment

A total of 453 alignments were made by at least three of the five initial reviewers. Of these, 417 or 92% were identified by 4/5 or 5/5 reviewers. There were only 36 (or 8%) alignments in which only three of the five (3/5) initial reviewers agreed. These 36 alignments were subsequently reviewed by the three additional reviewers. Of these 36 alignments, 11 were agreed upon by each of the additional three reviewers. The remaining 25 alignments were not agreed upon by the additional three reviewers and so were deleted from the alignment. This resulted in a total of 428 specific alignments between the CEC/ECSE/EI elements and NAEYC key elements. Of these, 70.3% represent 100% agreement between the initial five reviewers, 27.1% represent agreement between four of the five initial reviewers (80% agreement), and only 2.5% of the aligned items were agreed upon through subsequent review by the additional three reviewers (75% agreement). In the following sections, we will summarize the results of the alignment. The completed alignment document is too large to include in this manuscript so we invite readers to view the document which is available on the DEC website (www.dec-sped.org) in the folder titled "Personnel Preparation Standards for Early Intervention and Early Childhood Special Education," which is located in the *About DEC* section of the website. The specific URL for the alignment is http://www.dec-sped. org/uploads/docs/about_dec/Professional%20Standards/ NAEYC%20DEC%20alignment%20FINAL%2012%2011 .pdf

Alignment of the CEC/ECSE/EI Standards and Elements With the NAEYC Standards and Key Elements

Each of the 10 CEC/ECSE/EI content standards had multiple knowledge and skill elements that were aligned with multiple key elements from each of the 6 NAEYC standards and vice versa. In other words, there was 100% alignment of the two sets of standards at the content standards level. As might be expected, there was not 100% alignment of all individual elements across the two sets of standards. The CEC/ECSE/EI standards included 209 elements. In all, 160 or 76.9% of the 209 CEC/ECSE/EI elements were aligned with one or more of 22 key elements across the 6 NAEYC standards. Each of the 22 key elements from the NAEYC standards was aligned with one or more of the CEC/ECSE/EI elements.

Table 3 presents the number and percentage of CEC and ECSE/EI knowledge and skills elements that were aligned

with one or more of the key elements of the NAEYC standards. For example, this table indicates that 5 of the 10 or 50% of CEC knowledge elements in the Foundations content standard were aligned with one or more of the 22 NAEYC elements. In general, a slightly higher percentage of the ECSE/EI knowledge and skills elements were aligned with one or more of the NAEYC key elements with a mean percentage of 82.6% for the knowledge elements and a mean percentage of 82.4% for the ECSE skills elements The mean percentage of aligned CEC knowledge standards elements was 72.7% and the mean percentage of CEC skills elements was 72.9%.

As also shown in Table 3, the CEC/ECSE/EI Individual Learning Differences and Assessment content standards had the largest percentage (both 100%) of elements that were aligned with the NAEYC key elements, followed by Instructional Strategies (93.7%). The high level of alignment in these content areas across the two sets of standards highlights the importance of these areas for all educators who work with students with and without disabilities. Both organizations (CEC/DEC and NAEYC) agree that professional development programs should provide candidates with the knowledge and skills to administer assessments and to use assessment information to identify the strengths and needs of each child. They also agree that candidates also should be able to use instructional strategies to address the needs of each child.

The CEC/ECSE/EI Language content standard had the lowest percentage (54.5%) of elements that were aligned with the NAEYC key elements. The knowledge and skill elements that were aligned generally referred to working with individuals with cultural and linguistic differences and identifying and using community resources and strategies to address the needs of students with cultural and linguistic diversity. Elements that were not aligned focused on specific knowledge and strategies to address the needs of students with language delays such as assistive technology and augmentative communication.

The Foundations and Instructional Planning content standards also had low percentages of elements alignment. In these two areas, as well as the Professional and Ethical Practices standard, there were differences between the alignment of the NAEYC and CEC elements and the NAEYC and ECSE/EI elements with greater alignment between the NAEYC and ECSE/EI elements. In fact, the total percentage alignment for these three content standards was affected by the lower alignment between the CEC and NAEYC elements. The Foundations standard included 11 CEC elements and 3 additional ECSE/EI elements. Each of the ECSE/EI elements were aligned with the NAEYC key elements and these elements referred to the history, trends and issues, and family rights in early childhood and ECSE/ EI. Only 5 of the 11 CEC elements were aligned with one or more NAEYC key elements. The CEC elements that were

Table 3. Number and Percentage of the CEC/ECSE Knowledge and Skills Elements Within Content Standards That Were Aligned With One or More of the NAEYC Standards Key Elements

Content Standards	CEC Elements		ECSE/EI Elements		Total
	Knowledge	Skills	Knowledge	Skills	
1. Foundations	5/10 (50%)	0/1 (0%)	2/2 (100%)	1/1 (100%)	8/14 (57.1%)
2. Development and characteristics of learners	6/7 (85.7%)	NA	5/7 (71.5%)	1/1 (80%)	12/15 (80%)
3. Individual learning differences	5/5 (100%)	NA	2/2 (100%)	2/2 (100%)	9/9 (100%)
4. Instructional strategies	0/1 (0%)	6/6 (100%)	1/1 (100%)	8/8 (100%)	15/16 (93.7%)
5. Learning environments and social interaction	7/10 (70%)	14/17 (82.3%)	NA	6/7 (85.7%)	27/34 (79.4%)
6. Language	3/4 (75%)	1/2 (50%)	1/2 (50%)	1/3 (33.3%)	6/11 (54.4%)
7. Instructional planning	3/5 (60%)	7/15 (46.6%)	3/3 (100%)	6/8 (75%)	19/31 (61.2%)
8. Assessment	5/5 (100%)	9/9 (100%)	3/3 (100%)	11/11 (100%)	28/28 (100%)
9. Professional and ethical practices	3/4 (75%)	8/13 (61.5)	2/2 (100%)	6/7 (87.5%)	19/26 (73%)
10. Collaboration	3/4 (75%)	9/11 (81.8%)	0/1 (0%)	5/9 (55.5%)	17/25 (68%)
Total	40/55 (72.7%)	54/74 (72.9%)	19/23 (82.6%)	47/57 (82.4%)	160/209 (76.9%)

Abbreviations: CEC, Council for Exceptional Children; ECSE/EI, early childhood special education/early intervention; NAEYC, National Association for the Education of Young Children.

Note: NA indicates there were no elements for a content standard. These standards may be reviewed on the CEC website http://www.cec.sped.org/Content/NavigationMenu/ProfessionalDevelopment/ProfessionalStandards/?from=tlcHome or the DEC website http://www.dec-sped.org/About_DEC/Position_Statements_and_Concept_Papers/Personnel_Standards

not aligned were specific to the broader field of special education, including the history and philosophy of special education and special education laws, due process rights, and organizations in educational agencies.

Nine of the 11 elements (81.8%) in the ECSE/EI Instructional Planning content standard were aligned with NAEYC key elements whereas only half of the 20 CEC elements were aligned with the NAEYC key elements. ECSE/EI items that were aligned generally referred to developmentally appropriate practices, assessment linked to curriculum planning, collaborating with family members in developing curricula, aligning goals and curriculum content, and developing adaptations for diverse learners. The two ECSE/EI elements that were not aligned focused on planning systematic instruction and functionally appropriate activities and addressing caregiver responsiveness, which reflect roles that may be more specific to working with young children with disabilities and their families. The CEC elements that were not aligned related to planning special education curriculum and specific strategies and techniques that might be considered specialized knowledge and skills which would be expected of special education personnel (e.g., functional assessment, task analysis, and assistive technology). Finally, there also were differences in the percentage of alignment between CEC and ECSE/EI elements and NAEYC key elements in the Professional and Ethical Practices content standard. As with the Instructional Planning and Foundations content standards, the CEC

elements that were not aligned generally referred specifically to ethical standards for special educators, working with individuals with disabilities, and professional behavior within CEC. The one ECSE/EI element that was not aligned referred to being a member of DEC.

The alignment between the CEC elements and NAEYC key elements was considerably more than that between ECSE/EI and NAEYC elements for the Collaboration standard. Twelve of the 15 (80%) CEC elements were aligned with NAEYC key elements. Only half of the 10 ECSE/EI elements were aligned with the NAEYC key elements. The CEC and ECSE/EI elements that were aligned with NAEYC key elements reflected effective communication and teaming skills, identification of family concerns, and developing supportive relationships with families. The 5 ECSE/EI and 3 CEC elements that were not aligned with NAEYC key elements again referred to knowledge and skills that might be expected of special education and ECSE/EI providers whose professional roles might include serving as a consultant rather than, or in addition to, classroom teacher. These elements addressed the following: developing interagency agreements and providing interagency consultation; providing training and consultation for families within children's homes (ECSE/EI elements) and other educational settings; involving families in the evaluation of services; using problem-solving strategies and adult learning principles during consultation activities; and supporting paraeducators.

Alignment of the NAEYC Standards and Key Elements With the CEC/ECSE/EI Standards and Elements

Table 4 presents the number of instances the NAEYC key elements were aligned with the CEC/ECSE/EI knowledge and skills elements. For example, key element 1a in Standard 1 was aligned with one CEC knowledge element and four ECSE/EI knowledge elements. The greatest number of alignments occurred for NAEYC Standard 2 (Building Family and Community Relationships) with a total of 103 alignments across the CEC/ECSE/EI key elements and Standard 4 (Using Developmentally Effective Approaches to Connect With Children and Families) with a total of 101 alignments. Within NAEYC Standard 2, the majority of alignments were within key elements 2b (supporting and engaging families and communities through respectful relationships) and 2c (involving families and communities in their children's development and learning). The majority of alignments for Standard 4 Occurred for key elements 4b (knowing and understanding effective strategies and tools for early education) and 4c (using a broad repertoire of developmentally appropriate teaching and learning approaches). Key element 5c (using own knowledge, appropriate early learning standards, and other resources to design, implement, and evaluate meaningful, challenging curricula for each child) also had a high number of alignments. Taken together, the NAEYC key elements that were most frequently aligned with the CEC/ECSE/EI elements were related to developing effective strategies to teach and support each child and engaging, involving, and supporting families. This is not surprising in that the CEC and the ECSE/EI standards also include many elements, distributed across the 10 content standards, related to families and teaching individual children, reflecting the importance of these standards across both the organizations (CEC/DEC and NAEYC).

Several NAEYC standard areas and key elements had few instances of alignment with the CEC/ECSE/EI elements. These include standard areas 1 (promoting child development and learning) and 6 (becoming a professional), and key elements 2a (knowing and understanding diverse family and community characteristics), 4 a (understanding positive relationships and supportive interactions as the foundation of their work with children), 5a (understanding content knowledge and resources in academic disciplines), and 5b (using their knowledge, appropriate early learning standards, and other resources to design, implement, and evaluate meaningful, challenging curricula for each child). These key elements and standards tend to focus on child development, general education curricula, community resources, developing relationships with children, cultural and linguistic diversity, NAEYC ethical standards, and early childhood theories and practices. These may be considered specialized knowledge and skills that are emphasized within the early childhood NAEYC standards.

Table 4. Number of Instances the NAEYC Standards Key Elements Were Aligned With the CEC/ECSE Knowledge and Skills Elements

Content Standards and Key Elements	CEC Elements		ECSE Elements		
	Knowledge	Skills	Knowledge	Skills	Total
1. Promoting child development and learning					
1a.	1	0	4	0	5
1b.	12	0	6	0	18
1c.	13	9	6	8	36
Total	26	9	16	8	59
2. Building family and community relationships					
2a.	9	1	2	1	13
2b.	12	17	2	16	47
2c.	8	17	1	17	43
Total	19	35	5	34	103
3. Observing, documenting, and assessing to support young children and families					
3a.	2	0	2	1	5
3b.	6	9	1	11	27
3c.	4	15	1	10	30
3d.	6	5	3	2	16
Total	18	29	7	24	78
4. Using developmentally effective approaches to connect with children and families					
4a.	1	3	1	2	7
4b.	11	14	6	12	43
4c.	10	13	8	12	43
4d.	0	5	1	2	8
Total	22	35	16	28	101
5. Using content knowledge to build meaningful curriculum					
5a.	0	0	1	0	1
5b.	2	1	2	1	6
5c.	5	12	7	16	40
Total	7	13	10	17	47
6. Becoming a professional					
6a.	0	0	1	0	1
6b.	2	4	2	2	10
6c.	4	5	0	2	11
6d.	3	5	2	1	11
6e.	0	2	4	1	7
Total	9	16	9	6	40
Total	111	137	63	117	428

Abbreviations: NAEYC, National Association for the Education of Young Children; CEC, Council for Exceptional Children; ECSE, Early childhood special education.

Discussion

We conducted an alignment of the CEC/ECSE/EI and NAEYC standards and elements and found complete alignment across the content standard areas although there were differences across the elements within content standards.

The aligned standards document (see DEC website) indicates which elements are aligned across the two sets of standards and which elements are addressed by only one set of standards. The results of this alignment are not surprising. We expected there would be areas of convergence or overlap across the two sets of standards (Bredekamp, 1993) as well as differences between the elements that represent each discipline's specialized knowledge and skills for working with young children with and without disabilities and children at risk and their families (McCollum, McLean, McCartan, & Kaiser, 1989).

Specialized Knowledge and Skills

This alignment is not meant to point to omissions or redundancy in either set of standards or to be used as a call for revision of either set of standards. The alignment is meant to serve as a guide to professional development programs that seek to address and demonstrate candidate competency in meeting both sets of standards. There clearly are specialized knowledge and skills that are emphasized through the NAEYC standards and specialized knowledge and skills that are emphasized in the CEC/ECSE/EI standards. For example, at a general level, NAEYC states that inclusion and diversity are integrated across the key elements in that the words *each child* and *all children* are used to emphasize children with and without disabilities or special needs. However, many of the CEC/ECSE/EI standard elements explicitly identify specialized knowledge and skills regarding disabilities in the field of special education, as well as specific planning and teaching strategies (including assistive technologies and augmentative communication and behavior support strategies) to address the needs of children with disabilities and their families in home and educational settings. On the other hand, NAEYC standards have a greater focus than the CEC/ECSE/EI standards on child development knowledge, building relationships with all children, developmentally appropriate practice, and the importance of play. We believe that the two sets of standards complement one another. The areas of commonality and differences underscore the need for specialized knowledge and skills in working with young children with and without disabilities and their families. Together, the combined standards can be used to develop highly qualified early childhood professionals who are prepared to meet the needs of all children in a variety of settings.

Areas of Agreement

In addition to identifying specialized areas of knowledge and skills, the alignment identified areas of agreement across standards. The high degree of alignment between the two sets of standards in the content areas of Assessment, Individual Learning Differences, and Instructional Strategies and the

Moderate Degree of Alignment in the Areas of Development and Characteristics of Learners and Learning Environments and Social Interactions may reflect the beliefs and values of both the organizations (CEC/DEC and NAEYC) regarding inclusion. Indeed, DEC and NAEYC recently developed a joint position statement on inclusion (DEC/NAEYC, 2009) that includes many of the elements included in these content standards. The consistency across these standards also may reflect the growing use of Response to Intervention (RtI) to meet the needs of individual children. Many RtI models stress the importance of the links among assessment, identification of need, and instruction. The DEC, NAEYC, and National Head Start Association currently are developing a joint position statement on RtI in early childhood settings, which also reflects many of the elements included in these standards (http://npdci.fpg.unc.edu/sites/npdci.fpg.unc.edu/files/resources/NPDCI_RTI_Concept_Paper_FINAL-2-2012.pdf).

The alignment indicated that there are more similarities between the NAEYC and ECSE/EI elements than there are between NAEYC and CEC elements. All but 2 of the 10 content standards had relatively equal or greater percentages of alignments between the ECSE/EI elements and the NAEYC key elements. This may reflect the nature of the ECSE/EI field that incorporates knowledge and skills from the fields of special education and ECE and blends these with the specific knowledge and skills that are needed to support families and work with young children who have or are at risk for developmental delays and disabilities (Sandall et al., 2005). Similarities between the fields of ECSE/EI and early childhood also are reflected in the increased collaboration between DEC and NAEYC in the development of joint position statements and the endorsement of each other's documents and position statements (Chandler, Young, & Cirincione-Ulezi, 2011).

Uses of Alignment

CEC, DEC, and NAEYC have a long history of developing and revising personnel preparation standards to guide higher education programs that prepare candidates to work in special education, ECSE/EI, and early childhood positions (McCollum, 2000; McCollum et al., 1989; NAEYC, 2009). As stated earlier, faculty use professional preparation standards to develop and evaluate the effectiveness of their programs (Lifter et al., 2011) and states use these standards in developing expectations for preservice certification programs and in-service training programs. These standards also are used by accreditation programs such as the NCATE and the NAEYC Early Childhood Associate Degree Accreditation (ECADA; NAEYC, 2009).

In blended professional development programs, the alignment could be used to develop comprehensive programs that address critical content knowledge, skills, and dispositions that reflect both sets of standards and that will prepare

candidates to address the range of child needs and abilities in home, child care, school, and community-based programs and settings (DEC, 2006; Stayton & Miller, 1993). One of the members of the work group and faculty across several additional programs currently are using the alignment to guide the development of blended programs. The alignment also can be used to develop a scope and sequence of shared (aligned) and specialized (not aligned) knowledge, skills, and dispositions that will be addressed in specific courses and field experiences. The alignment document also can be included in pre-service accreditation reports that must provide evidence of meeting both sets of standards.

Limitations

Limitations to this alignment include not having a work group member who was appointed by NAEYC to serve as the "voice" of NAEYC. Although the majority of work group members hold membership in both the organizations, the members of future alignment work groups should be appointed by the DEC and NAEYC executive boards.

Another limitation may be the use of percentages to describe the extent to which standard elements were aligned because percentages are affected by the number of opportunities (i.e., number of elements) to agree or disagree on alignment. The number of CEC and ECSE/EI knowledge and skill elements varied across and within content areas ranging from 0 to 17. For example, there was only 1 ECSE/EI skill element in the Development and Characteristics of Learners standard versus 11 skill elements in the Collaboration standard resulting in differences in the opportunities to agree or disagree on alignments across content standards. In the Instructional Planning content standard, 46.6% (7/15) of the CEC skill elements versus 75% (6/8) of the ECSE/EI skill elements were aligned with NAEYC key elements. Although these percentages are quite different, the number of elements aligned was quite similar (7 CEC vs. 6 ECSE/EI skill elements). Within this standard, there were more opportunities for reviewers to align CEC skill elements than ECSE/EI elements. To address this issue, we also examined and presented number as well as percentage to describe the degree of alignment.

We realize that some might disagree with specific elements that were or were not aligned by this work group. It is possible that a different work group would develop different rules and procedures for conducting the alignment, resulting in differences in the number of elements that were or were not aligned. However, we did obtain 75% to 100% interrater agreement across the aligned items (97.5% of the aligned items were confirmed through 80%–100% agreement; the remaining 2.5% were confirmed through 75% agreement). Future work groups should have the procedures and rules for alignment approved by the DEC and NAEYC boards prior to conducting alignments.

Future Directions

Future endeavors that may be considered by the DEC executive board could be alignment of the CEC/ECSE/EI standards with the DEC Recommended Practices for personnel preparation (Miller, & Stayton, 2005; Sandall et al., 2005; Stayton, Miller, & Dinnebeil, 2003) and alignment between the CEC/ECSE advanced personnel preparation standards and the NAEYC personnel preparation standards. In addition, future research might examine how personnel preparation programs and states are using the alignment described in this document to inform in-service and preservice practices and to develop and evaluate blended programs.

Declaration of Conflicting Interests

Funding

References

Blanton, L. P., Griffen, C. C., Winn, J. A., & Pugach, M. C. (1997). *Collaborative programs to prepare general and special educators*. Denver, CO: Love Publishing.

Bredekamp, S. (1993). The relationship between early childhood education and early childhood special education: Healthy marriage or family feud? *Topics in Early Childhood Special Education, 13*, 258–273.

Campbell, P. H., & Milbourne, S. A. (2005). Improving the quality of infant-toddler care through professional development. *Topics in Early Childhood Special Education, 25*, 3–14.

Catlett, C., & Winton, P. J. (2002). *What have we learned about preparing personnel to serve all infants, toddlers, young children, and families?* Chapel Hill: University of North Carolina.

Chandler, L. K., Christensen, K. A., Cochran, D. C., Dinnebeil, L. A., Gallagher, P. A., Lifter, K., & Stayton, V. (2010, October). *Alignment of DEC personnel preparation standards with NAEYC personnel preparation standards.* Paper presented at the 26th Annual International Conference on Young Children With Special Needs and Their Families, Kansas City, MO.

Chandler, L. K., Dinnebeil, L. A., Lifter, K., Cochran, D. C., Christensen, K. A., & Gallagher, P. A. (2008, April). *Aligning DEC's personnel standards, recommended practices, and NAEYC's personnel standards.* Paper presented at the 24th Annual International Conference on Young Children With Special Needs and Their Families, Albuquerque, NM.

Chandler, L. K., Miller Young, R., & Cirincione Ulezi, N. (2011). Early childhood special education: Service delivery methods and practices. Invited chapter to be published in C. J. Groark (Series Ed.) & S. Maude. (Vol. Ed.), *Early childhood intervention: Shaping the future for children with special needs and their*

families, Vol. 2 (pp. 39-76). Santa Barbara, CA: ABC-CLIO/ Praeger.

Council for Exceptional Children. (2009). *What every special educator must know: Ethics, standards, and guidelines for special educators* (6th ed.). Arlington, VA: Author.

Division for Early Childhood. (2006). *Position statement: Personnel standards for early education and early intervention*. Missoula, MT: Author.

Division for Early Childhood/National Association for the Education of Young Children. (2009). *Early childhood inclusion: A joint position statement of the Division for Early Childhood (DEC) and the National Association for the Education of Young Children (NAEYC)*. Chapel Hill: University of North Carolina. Retrieved from http://www.dec-sped.org/uploads/ docs/about_dec/position_concept_papers/PositionStatement_ Inclusion_Joint_updated_May2009.pdf

Easterbrooks, S. R., & Putney, L. T. (2008). Development of initial and advanced standards of knowledge and skills for teachers of children who are deaf or hard of hearing. *Communication Disorders Quarterly, 30*, 5–11.

Hyson, M. (Ed.). (2003). *Preparing early childhood professionals: NAEYC's standards for programs.* Washington, DC: National Association for the Education of Young Children.

Hyson, M. L., & Biggar, H. (2006). NAEYC's standards for early childhood professional preparation. In M. Zaslow & I. Martinez-Beck (Eds.), *Critical issues in early childhood professional development* (pp. 283–308). Baltimore, MD: Brookes.

Laitsch, D. (2003). *Research-based characteristics of high-quality teacher preparation*. Retrieved from http://www.ascd.org/ publications/researchbrief/v1n04/toc.aspx

Lifter, K., Chandler, L., Christensen, K. A., Cochran, D. C., & Gallagher, P. (2009, October). *Roundtable presentation at DEC— Alignment of EI/ECSE personnel preparation standards with NAEYC standards.* Paper presented at the 25th Annual DEC Conference on Young Children With Special Needs and Their Families, Albuquerque, NM.

Lifter, K., Chandler, L. K., Cochran, D. C., Dinnebeil, L. A., Gallagher, P. A., Christensen, K. A., & Stayton, V. D. (2011). Division for Early Childhood personnel preparation standards: Revision 2005–2008. *Journal of Early Intervention, 33,* 151-167.

McCollum, J. A. (2000). Taking the past along: Reflecting on our identity as a discipline. *Topics in Early Childhood Special Education, 20*, 79–86.

McCollum, J. A., & Catlett, C. (1997). Designing effective personnel preparation for early intervention: Theoretical frameworks. In P. J. Winton, J. A. McCollum, & C. Catlett (Eds.), *Reforming personnel preparation in early intervention: Issues, models, and practical strategies* (pp. 105–126). Baltimore, MD: Brookes.

McCollum, J. A., McLean, M., McCartan, K., & Kaiser, C. (1989). Recommendations for certification of early childhood special education. *Journal of Early Intervention, 13,* 195–211.

Miller, P. S., & Stayton, V. D. (1998). Blended interdisciplinary teacher preparation in early education and intervention: A national study. *Topics in Early Childhood Special Education, 11*, 39–52.

Miller, P. S., & Stayton, V. D. (1999). Higher education culture— A fit or misfit with reform in teacher education? *Journal of Teacher Education, 50*, 290–302.

Miller, P. S., & Stayton, V. D. (2005). DEC recommended practices: Personnel preparation. In M. L. S. Sandall, M. L. Hemmeter, B. J. Smith, & M. E. McLean (Eds.), *DEC recommended practices: A comprehensive guide for practical application in early intervention/early childhood special education* (pp. 189–219). Missoula, MT: Division for Early Childhood.

National Association for the Education of Young Children. (2009). *NAEYC standards for early childhood professional preparation programs*. Retrieved from www.naeyc.org

National Commission on Excellence in Education. (1983). *A nation at risk: The imperative for educational reform: Report to the Nation and the Secretary of Education, United States Department of Education*. Washington, DC: United States Department of Education.

No Child Left Behind Primer. (n.d.). *U. S. Department of education*. Retrieved from http://www.ed.gov/nclb/overview/intro/ edpicks.jhtml?src=ov

Sandall, S., Hemmeter, M. L., McLean, M. E., & Smith, B. J. (Eds.). (2005). *DEC recommended practices: A comprehensive guide for practical application in early intervention/early childhood special education* (pp. 71–106). Longmont, CO: Sopris West.

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

Standards and Accountability. (2006, July). *ConnCAN* [Issuebrief03]. Retrieved from http://www.conncan.org/sites/default/files/ research/IB_Connecticut_Standards_Accountability.pdf

Stayton, V. D., & Miller, P. S. (1993). Combining general and special early childhood education standards in personnel preparation programs: Experiences from two states. *Topics in Early Childhood Special Education, 13*, 372–387.

Stayton, V. D., Miller, P. S., & Dinnebeil, L. A. (2003). *DEC personnel preparation in early childhood special education: Implementing the DEC recommended practices*. Longmont, CO: Sopris West.

Winton, P. J., & McCollum, J. A. (2008). Preparing and supporting high-quality early childhood practitioners: Issues and evidence. In P. J. Winton, J. A. McCollum, & C. Catlett (Eds.), *Practical approaches to early childhood professional development: Evidence, strategies, and resources* (pp. 1–12). Washington, DC: Zero to Three.