



Common Early Learning and Development Standards Analysis for the North Carolina EAG Consortium - SUMMARY REPORT

Introduction

Background

Decades of research attest to the neurological importance of the earliest years of life and to the impact that high-quality programs can have on children’s development.

“As a foundation for these quality improvement efforts, states have developed early learning and development standards (ELDS) to specify what young children should know and be able to do.

Compelled by this scholarship, many efforts are underway across the country and around the world to improve the quality of early education and, in particular, to advance the effectiveness of the pedagogy and the content of instruction for young children and their teachers. As a foundation for these quality improvement efforts, states have developed early learning and development standards (ELDS) to specify what young children should know and be able to do. Considerable attention is also being directed to the development of assessments, motivated by states’ desire to improve the quality of services that children receive and to gauge the overall status of young children, with an eye toward closing large and persistent achievement gaps.

The U.S. Department of Education has funded the Enhanced Assessment Grants (EAG) program to advance the development and effective use of kindergarten entry assessments (KEA). Among several efforts that are underway, eight states (Arizona, Delaware, Iowa, Maine, North Dakota, Oregon, Rhode Island, and South Carolina) and the District of Columbia have joined with North Carolina to form the K-3 Formative Assessment Consortium (Consortium). Through the EAG, this Consortium has been awarded \$6.1 million to enhance a state-of-the-art system for assessing young children’s learning from kindergarten through third grade.

Development of the KEA component of the K-3 Formative Assessment will be informed by analyses of what the 10 Consortium states have included in their ELDS that define expectations for children during the year just prior to kindergarten entry. To this end, the Common Standards Analysis¹ Project (CSA Project) was undertaken, with the goal of providing helpful information for the Consortium as it develops the KEA. This brief summarizes the most significant findings and recommendations from the CSA Project. For a detailed description of the Project’s methodology, findings, and recommendations, please see the full report, the *Common Early Learning and Development Standards Analysis for the North Carolina EAG Consortium*.²

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Purpose of the Common Standards Analysis (CSA) Project

The purpose of the CSA Project was to analyze the Consortium states' ELDS and to provide concrete data and recommendations that can be used in the states' development of an effective and inclusive KEA. Although the states have ELDS that span the early years, this effort examined the Consortium states' ELDS that pertain to children only in the year prior to kindergarten entry. This was done because these standards define expectations closest to what would be expected of children entering kindergarten, the target age group for the KEA. The project also compared the states' ELDS with two national sets of standards, the Head Start Child Development and Early Learning Framework (HSCDELF) and the Common State Standards for kindergarten. Not designed to rank states or to judge their standards, the analysis addressed the following research questions:

1. *What are the similarities and differences in how the Consortium states have organized their ELDS for pre-kindergarten age children?*
2. *What are the similarities and differences in how these states have addressed expectations for children's learning and development, with a focus on the degree to which the ELDS have emphasized the same content and have articulated indicators in a similar manner?*
3. *How do the participating Consortium states' ELDS for this age group compare with the Head Start Child Development and Early Learning Framework?*

4. *How do the participating states' ELDS for this age group compare with the Common Core State Standards for kindergarten in the areas of English Language Arts and Mathematics?*

In addition to identifying similarities and differences in the states' ELDS, and comparing them to the HSCDELF and Common Core, the research team identified potential gaps in the content of the Consortium states' ELDS, as well as "outlier" standards that are not included in most of the states' ELDS but that may be deemed important to include in the formative assessment development process.

Types of Analyses

The Project was composed of two types of analyses: (1) an analysis of the structure and organization of the states' ELDS documents, and (2) an analysis of the content of the standards and how their content compares to the HSCDELF and Common Core State Standards for kindergarten in English Language Arts (ELA) and Mathematics.

The organizational analysis examined the 10 sets of ELDS to compare their structural components, such as the number and types of domains, the number of levels of content, the age range and groupings within the standards, and how the standards address the needs of children with disabilities and dual language learners.

For the content analysis, the research team used a systematic process to code the content of the standards at the indicator level, i.e., age-specific statements of measurable and/or observable knowledge and skills that children are expected to know and be able to do. In this process, which has been developed and used with high levels of reliability for multiple projects, the research team coded the content of the documents to a framework that consists of 104 "constructs," or operationally defined aspects of early learning and development. Designed to address the major areas of development throughout the earliest years, some of the constructs are not appropriate for kindergarten-age children. Most constructs, however, do apply to this age group. The constructs address the five domains articulated by the National Education Goals Panel: Physical Development & Motor Skills, Social & Emotional Development, Approaches Toward Play & Learning, Language & Communication Development,

and Cognitive Development & General Knowledge, and because the template has been used reliably in other studies, it is the framework tool that guided this analysis.

The results of the analyses are reported across and within the five domains, with comparisons of the content of the states' ELDS at three different levels: 1) across domains (known as the "Balance" analysis), 2) within domains (known as the "Coverage/Depth" analysis), and 3) across indicators (known as the "Construct Grid" analysis). The analyses also included a comparison of the ELDS with national documents at the same three levels, although because the Common Core only includes two domains (ELA and Mathematics), the Common Core analysis does not allow for a domain-level comparison.

Together, the results allow states to see commonalities and differences in what domains the ELDS cover, what constructs of early learning they cover, what particular aspects of each construct they cover, and how they do so. It is important to note that this analysis reports what exists; it is not a reflection of what should, could, or might be. Correspondingly, the analysis is silent on what are preferred results. Rather, our effort was to accurately report what does exist. To that end, the research team engaged members of the Consortium in a "member-checking" process to check for accuracy, to garner feedback regarding the methodology, and to ensure that the results would meet the needs of the Consortium in its work on the KEA.

Documents Used

ELDS: The 10 Consortium members' Early Learning and Development Standards that address the year prior to kindergarten. One of the 10 documents was in draft form, and one state uses the Head Start Child Development and Early Learning Framework for ELDS.

HSCDEL F: The Head Start Child Development and Early Learning Framework (2011)

Common Core: The Common Core State Standards for kindergarten in English Language Arts and Mathematics

Components of ELDS

Domains: The broadest categories within which standards are organized, often titled by an area of development or academic subject area

Standards: Broadly written expectations for early learning and development

Indicators: Specific descriptions of the measurable and/or observable knowledge and skills that children are expected to know and be able to do.

Major Findings

RESEARCH QUESTION 1 *What are the similarities and differences in how the Consortium states have organized their ELDS for this age group?*

States Organize Their ELDS Similarly, but Target Different Age Groups

In order to better understand the states' conceptual approach, purpose, and priorities for their standards, analyses were conducted on the organizational features of states' ELDS. The results show that there are many commonalities among the standards documents. For instance, most of the ELDS have been published recently—six since 2012 and one still in draft form. In addition, all of the standards are written with three to five levels of content, with the majority (six states) having four levels (i.e., domain, standard, indicators, and examples). Furthermore, all of the Consortium states articulate their commitment to addressing the learning needs of children with disabilities and dual language learners within their standards documents, although broad affirmations of the importance of including these children are more common than specific suggestions for how to use the ELDS when working with these populations.

There is more variability in the domains states used to organize their standards. The ELDS documents include between five and 11 domains/areas in their standards, with all states including three domains: social and emotional development, language and literacy development, and physical health.

The age groups covered by the standards included in this study vary considerably across the 10 states. Five states used broad age ranges such as “Preschool” or “3 to 5 years.” Another five states were more precise in how they have defined the age group targeted in the ELDS, using age groups such as “60 months” or “4-years-old.”

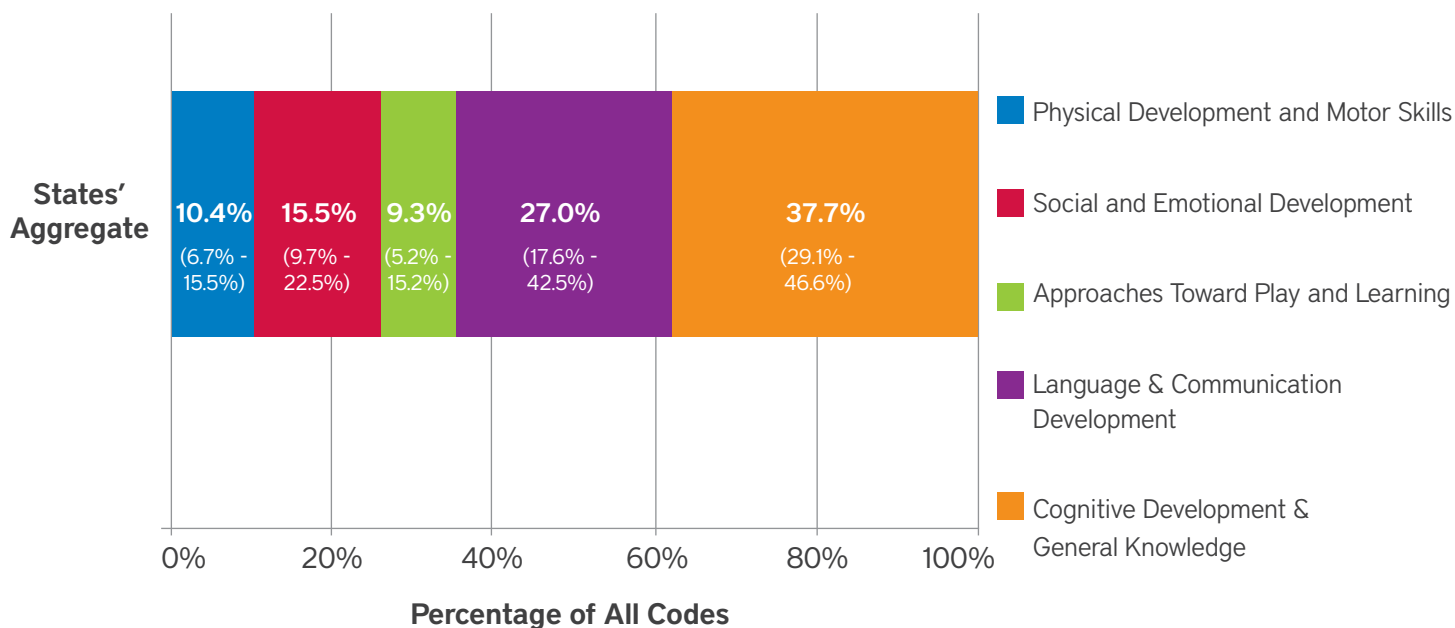
RESEARCH QUESTION 2a *What are the similarities and differences in how these states have addressed expectations for children’s learning and development across all domains?*

States’ ELDS Emphasize Language and Cognitive Development More Than Other Domains

In general, the states’ ELDS emphasize the Language & Communication Development and the Cognitive Development & General Knowledge domains more than the three other domains. Chart 1 shows the mean percentage of the 10 states’ indicators that address each of the five domains and the range of percentages across the states. On average, over a quarter of the states’ ELDS indicators are devoted to the Language & Communication domain, and over one-third of the indicators fall into the Cognitive Development & General Knowledge domain. Even though these domains garner the most attention within the ELDS, they also are the two domains where the percentage of indicators accorded to the domain varies the most (compared with the other domains). For instance, within the Language & Communication domain, the percentage of indicators that address this domain ranges from 17.6% for one state, to 42.5% for another state, suggesting that there is a high degree of difference between the states in the emphasis placed on these two domains.

The remaining three domains—Physical Development & Motor Skills, Social & Emotional Development, and Approaches Toward Play & Learning—each garner, on average, 15% or less of the total number of indicators. Even though these domains are emphasized less, the states’ ELDS demonstrate less variation in the percentage of indicators accorded to each of these domains, suggesting more commonalities across the states’ ELDS in how these domains are emphasized.

Chart 1: Emphasis on Domains-Percentage of States’ Indicators Accorded to Each Domain (Mean and Range)



RESEARCH QUESTION 2b

What are the similarities and differences in how these states have addressed expectations for children's learning and development within each domain?

States' ELDS Demonstrate Considerable Commonalities within Physical Development & Motor Skills

States' ELDS have many commonalities in the aspects of Physical Development & Motor Skills addressed. For half of the constructs in this domain (6 out of 12 constructs), the states' ELDS are similar in that they all either do or do not address the constructs. Three constructs (Health, Gross Motor, and Fine Motor) are addressed by all 10 states, and three constructs (Knowledge for Participation in Physical Education, Development of the Senses, and Orientation to Stimuli) are addressed by none of the states. The emphasis states place on the three constructs addressed by all states, however, differs across the states' ELDS. For example, the percentage of indicators within this domain that address Health ranges from 12.5% in one state, to 43.8% in another state. For the remaining six constructs within the Physical Development & Motor Skills domain, there is somewhat less commonality among the states. Five of the six remaining constructs are addressed by seven or eight of the 10 states, and one construct is addressed by only two states.

States' ELDS are Remarkably Similar for Social & Emotional Development

Within Social & Emotional Development, there are a relatively high number of similarities in the content states include in their ELDS. Eight of the 14 constructs within this domain are covered in all 10 states' ELDS. All states include at least one indicator related to the following constructs: Emotional Expression, Self-confidence, Self-concept, Emotional Regulation, Behavioral Regulation, Relationships with Familiar Adults, Social Skills with Peers, and Recognition of Others' Feelings. Furthermore, within the specific indicators written for these constructs, at least eight of the states include one or more indicators that address the same aspect of Social & Emotional development. One construct (Social Conventions) is omitted by all 10 states. Although the states' ELDS have a great deal of commonality in the constructs that are and are not addressed, there is some variability in the degree of emphasis states place on the individual constructs. For example, while all 10 states address Behavioral Regulation,

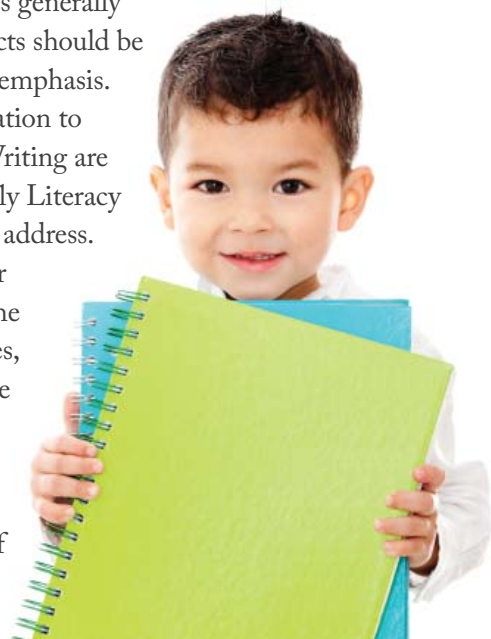
the percentage of Social & Emotional indicators that address this construct ranges from 5.7% to 20.5% among the states' ELDS.

States' ELDS Demonstrate Substantial Differences for Approaches Toward Play & Learning

States' ELDS address different constructs and place different levels of emphasis on the constructs within the Approaches Toward Play & Learning domain. Only one of the 11 constructs for this domain, Problem Solving, is addressed by all 10 states. Eight or nine states addressed five additional constructs: Interest & Exploration, Persistence & Mastery Motivation, Concentration/Attention Control, Invention & Creativity, and Pretend or Symbolic Play, although there are considerable differences in the amount of emphasis accorded to these constructs. For example, the percentage of indicators within this domain that address Problem Solving ranges from 7.7% to 44.4% among the states' ELDS.

States' ELDS Have More Similarities Related to Early Literacy Development than to Language Development

The states' ELDS exhibit more commonalities within the constructs for Early Literacy development than for Language Development constructs. Seven Early Literacy constructs are covered by all 10 states, and the percentage of indicators within this domain that each state accorded to the constructs does not vary widely. Among the Early Literacy constructs that all 10 states address, Phonological Awareness and Print Awareness are the two emphasized the most, while Alphabet Awareness and Book Awareness have lower average percentages, suggesting that the states generally agree that these constructs should be addressed, but with less emphasis. Comprehension, Motivation to Write, and Emergent Writing are the three remaining Early Literacy constructs that all states address. Although all states cover these three constructs, the degree of emphasis varies, with a wider range in the percentage of indicators within this domain for these constructs. Furthermore, analyses of



the specific indicators that address these constructs reveal remarkable similarities in the specific aspects of content the states address.

For Language Development, several constructs are addressed by all states, but there are differences in the specific content addressed. All states include indicators related to children's Receptive Verbal Communication; Expressive Verbal Communication; Pragmatics & Social Language; and Vocabulary, Meaning, & Linguistic Concepts. Furthermore, the level of emphasis on these constructs is similar across the states' ELDS. The specific aspects of learning addressed, however, vary a great deal. For instance, states' indicators address several different aspects of the Vocabulary, Meaning, & Linguistic Concepts construct. Standards related to Learning a Second Language warrant special mention, and provide an example of both similarities and differences in how states addressed this aspect of language development. This construct is covered by only three states, but among the three states, the specific aspects of English language development addressed are quite similar. One other state, however, has a very different approach to English language development. Rather than specifying indicators for dual language learners' ability to speak and understand English at specific ages (the way indicators for other constructs are written), the state organizes indicators based on stages of English language development.

States' ELDS Demonstrate Remarkable Differences for Cognitive Processes and Notable Similarities in Academic Subject Areas

The Cognitive Development & General Knowledge domain includes constructs related to the cognitive process and academic subject areas such as Mathematics, Science, Social Studies, and the Arts. Within the cognitive processes constructs, there is little consensus among the states regarding the constructs that should be covered in their standards. Of the 13 cognitive processes constructs, none is addressed by all 10 states. Planning & Intentionality, the construct addressed by the largest number of states, is included in eight of the states' ELDS. The emphasis states place on the cognitive processes constructs also varies, and the specific aspects of learning that individual indicators address within each of the constructs differs.

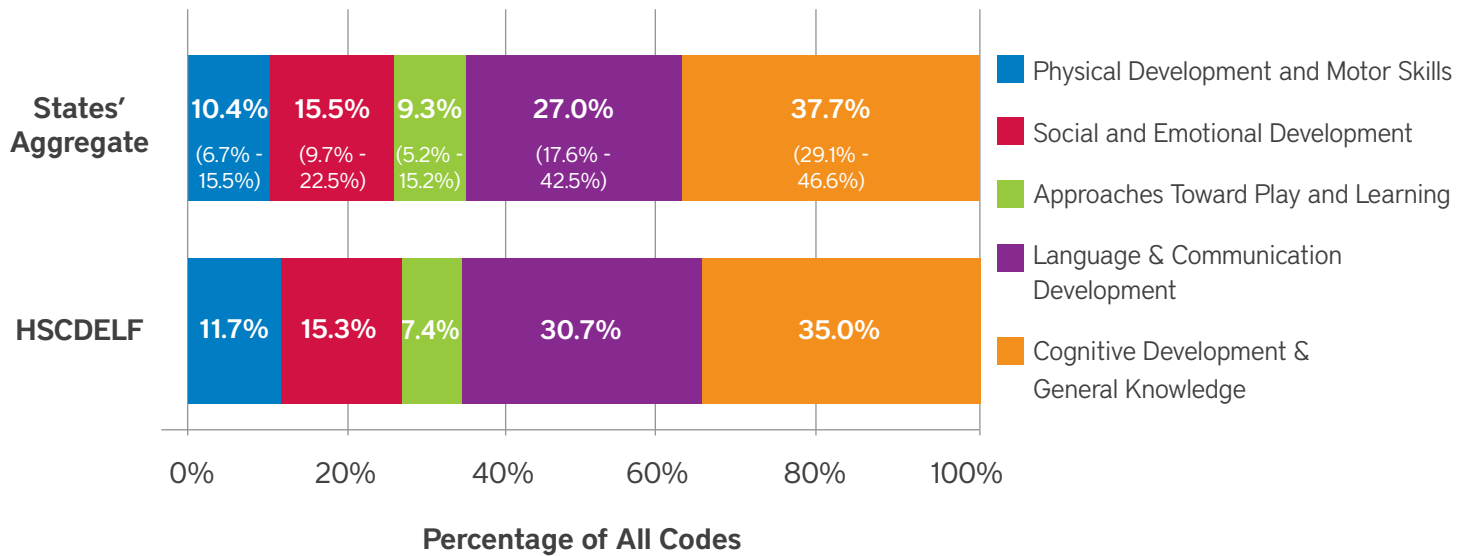
In contrast, the states' ELDS for the academic subject areas demonstrate numerous commonalities in the constructs that address Mathematics, Social Studies, and the Arts. The greatest commonality is found within the Mathematics content area, where over half of the constructs are covered in all 10 states. Furthermore, within Mathematics many of the states' indicators address similar skills and knowledge within the individual constructs. There is also remarkable similarity in the lack of attention to Technology—only one state includes indicators related to children's knowledge and skills related to Technology. States' ELDS for the area of Science exhibit fewer similarities than standards for subject areas. For instance, no Science construct is addressed by more than eight states.

RESEARCH QUESTION 3 *How do the participating Consortium states' ELDS for this age group compare with the Head Start Child Development and Early Learning Framework?*

On Average, States' ELDS are Remarkably Similar to the HSCDEL

Because the HSCDEL is used by Head Start programs in all 10 Consortium states, the content of the HSCDEL and how it compares with the states' ELDS is an important consideration for decisions regarding constructs to be assessed in the KEA. The analyses first examined how states' ELDS compare with the HSCDEL in terms of their emphasis on each of the five domains, and found some striking similarities. By comparing the two bars depicted in Chart 2, one can see that the mean percentage of indicators accorded to the Physical Development & Motor Skills, Social & Emotional Development, and Approaches Toward Play & Learning domains in the states' ELDS and the percentage of indicators within these domains in the HSCDEL are quite similar. In fact, in one case (Social & Emotional Development) the mean percentage for the states' ELDS is almost identical to the percentage of HSCDEL indicators accorded to this domain. The mean percentage of states' indicators that address Language & Communication is somewhat lower than the HSCDEL, and the mean state percentage of indicators accorded to the Cognitive Development & General Knowledge domain is a bit higher than the HSCDEL.

Chart 2: Emphasis on Domains-Percentage of States' and HSCDELF Indicators Accorded to Each Domain



Results comparing the content of states' ELDS with the HSCDELF within each domain suggest that there are both similarities and differences. Within the Physical Development & Motor Skills domain, the results indicate considerable similarities in the constructs addressed, although the HSCDELF places more emphasis on Health compared to the states. For Social & Emotional Development, the states' ELDS and the HSCDELF are also quite similar, though the states devote more attention to children's Self-concept than does the HSCDELF. There is, however, some evidence suggesting that states' ELDS for Approaches Toward Play & Learning differ from the HSCDELF, particularly within Problem Solving (which states tend to emphasize more than the HSCDELF), and for Concentration/Attention Control and Cooperative Approach to Learning (which the HSCDELF emphasizes more than states' ELDS). States' ELDS also address four Approaches Toward Play & Learning constructs that are not covered in the HSCDELF, indicating more comprehensive coverage of constructs by the states.

For indicators within the Language & Communication domain, the states' ELDS address all of the same constructs as the HSCDELF, but they also include some constructs that are not addressed in the HSCDELF, suggesting that at least some states' ELDS address a broader scope of content. When compared with the HSCDELF, states' ELDS emphasize Language Development constructs, for the most part, very similarly

to the HSCDELF. The notable difference is that the HSCDELF places far more emphasis on Learning a Second Language. Within Early Literacy constructs, the states' ELDS cover some constructs that the HSCDELF does not address, but the states and the HSCDELF place a relatively similar amount of emphasis on the constructs that they both address.

For the Cognitive Development & General Knowledge domain, there is evidence of divergence in how the cognitive processes are addressed. States' ELDS collectively address a broader array of constructs than the HSCDELF (with at least one state covering five constructs not addressed in the HSCDELF), but the HSCDELF often places more emphasis on the cognitive processes constructs that it addresses. Within the subject areas, the states' ELDS generally have a number of commonalities with the content addressed in the HSCDELF. At least some states cover all of the constructs included in the HSCDELF, and the states' average percentage of indicators accorded to these constructs within the Cognitive Development & General Knowledge domain is similar to the percentage of HSCDELF indicators accorded to the same constructs. The states do address a few constructs that are not included in the HSCDELF.



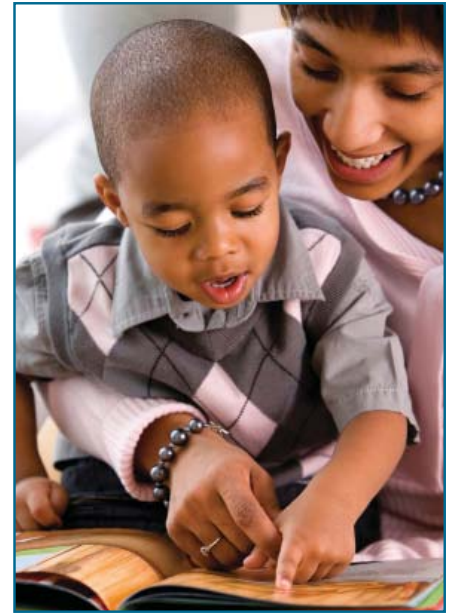
RESEARCH QUESTION 4 *How do the participating states' ELDS for this age group compare with the Common Core State Standards for kindergarten in the areas of English Language Arts and Mathematics?*

States' ELDS Generally Cover Similar Constructs as the Common Core but the Level of Emphasis Differs, Often Reflecting a Logical Progression in Expectations, Given that the Standards Target Different Age Groups

The Common Core defines expectations for what children should know and be able to do at the end of kindergarten. Because many of the Consortium states use the Common Core to guide instruction during kindergarten, it is important to consider how the states' ELDS compare with the Common Core standards to gauge whether/how Common Core content should be included on the KEA. The Common Core analyses are, however, a bit different from the other analyses because they are vertical analyses, comparing the states' pre-kindergarten ELDS with Common Core standards for kindergarten, and because the Common Core only addresses two subject areas. Because the Common Core is written for an older age group, it is logical to expect some differences between the content of the states' ELDS when compared with the Common Core. For example, within the pre-K standards, precursor skills and knowledge might receive considerable emphasis, and indicators in the Common Core might be somewhat more advanced. Because the Common Core only addresses two subject areas, no comparisons can be made across the domains. Instead, the Common Core results are reported *within* Language & Communication Development and *within* Mathematics.

Overall, the states' ELDS and the Common Core address many of the same constructs in Language & Communication Development, although states' ELDS have addressed a few constructs not covered in the Common Core, such as Motivation to Read and Motivation to Write. Among the constructs that are addressed in both the states' ELDS and the Common Core, often the states' mean percentage of indicators accorded to the constructs is similar to the percentage of indicators accorded to the construct within the Common Core, suggesting a similar level of emphasis on the constructs. Where states' ELDS differ from the Common Core, they often do so in ways that reflect a logical progression from pre-K to kindergarten. For instance, in the Early Literacy sub-domain, the states' ELDS

emphasize early literacy precursor skills such as Print Awareness, Alphabet Awareness, and Emergent Writing more than the Common Core. Conversely, the Common Core devotes a higher percentage of indicators to more advanced skills such as Comprehension;



Interpretation, Evaluation, & Appreciation of Texts; Phonological Awareness; Reading; Expressive Written Communication; and Research. One significant finding is that when individual indicators within some constructs are compared, the Common Core indicator often reflects a higher level of demand than the states' standards, as might be expected; but for some constructs, states' indicators are sometimes more demanding than the Common Core indicators, which is the opposite of what might be expected.

In Mathematics, the states and the Common Core generally cover the same constructs, with the exception of the Mathematics Processes, which receive more attention in states' ELDS. The Common Core does include "Standards for Mathematical Practice," but this component of the Common Core is not included in the analysis because they are not written as age-specific indicators. Within the constructs that are addressed by both the states and the Common Core, there does appear to be a logical progression from the expectations of the states' standards to those expressed by the Common Core for kindergarten when the emphasis on the constructs is considered. One notable exception is that states' ELDS emphasize Algebraic Thinking far more than the Common Core, which reflects the choice by many states to cover mathematics skills that fall within this construct, such as seriation and patterns—skills that are often considered important for children of this age.

Summary of Results

States' ELDS exhibit remarkable similarities in some areas, and differences in others. Organizationally, the states' ELDS are similar in the number of levels of content, many of the domains used to organize their indicators, and their general commitment to supporting services for children with disabilities and dual language learners. They differ, however, on one very important aspect of ELDS—the age group targeted within the indicators, with some states targeting a broader age group and others targeting a very specific age.

Similarities and differences are also present in the emphasis accorded different domains and in the precise content addressed in each domain. With regard to the former, the Language & Communication Development and Cognitive Development & General Knowledge domains are emphasized far more than other domains. With regard to the latter, states' ELDS demonstrate more content commonalities in the Social & Emotional Development and Physical Development & Motor Skills domains. Although greater content variation exists in Language & Communication and in Cognitive Development & General Knowledge, there are some sub-domains where the content is quite similar. States' standards are the least similar within the Approaches Toward Play & Learning domain.

Overall, it appears that, on average, states' ELDS are similar to the HSCDELF in terms of the content that is addressed, although the states often address content that is not included in the HSCDELF. The notable exception is standards for English Language Learners, which are included in the HSCDELF but not in most states' ELDS. When compared to the Common Core standards, states' standards have many aspects of children's learning in common, and many of the differences noted are logical differences because the states' ELDS target a younger age group.

Recommendations

Before turning to recommendations, it is important to share several significant observations that emerged from this research. First, the complexity of the task of developing standards and assessments is particularly salient. Numerous factors render this work challenging, including the difficulty of working with 10 states' standards, the inherent difficulty of creating assessments for young children who are notoriously hard to assess, and the challenges posed by content that is both developmental and disciplinary driven. The Consortium's goals of addressing these challenges and pursuing innovation are well noted. Second, given the multiplicity of challenges and the goal of producing a KEA that is useful for 10 states, each of which has its own ELDS, there is a temptation to quest for a single set of ideal standards. This analysis has revealed that, while the states' standards documents have many similarities, they do differ in important ways; each set may be ideal for its individual state's context and purposes, but no one set of standards seems ideally suited to be used across the states.



This analysis has revealed that, while the states' standards documents have many similarities, they do differ in important ways;

Finally, and again to ease the complexity of the task, it may also be tempting to rely on popular or frequently occurring constructs for the KEA. Such constructs may be popular because they are easy to teach and/or easy to measure, or because they appear in recognized national documents. But selecting constructs based on popularity may obscure the utility of unpopular constructs, which while not prevalent, may be important. They may be the brainchild of someone in our field who has a depth of knowledge, a special insight, or a critical concern. As such, the automatic use of popular constructs and the rapid dismissal of the outliers is discouraged; rather, thoughtful examination of each to discern their individual utility should be considered as the Consortium carries out its work and as states and the field proceed with their standards' efforts.

These observations and considerations frame the recommendations that emanate from this project. In the following section, we offer recommendations 1) for the immediate use of the Consortium, and 2) for broader and long-term use by EAG and non-EAG states.

1) *Recommendations for the EAG Consortium*

The study provoked the following six recommendations that are relevant for the EAG Consortium as partners within the Consortium make decisions regarding the KEA. Each recommendation addresses one of the following: purpose, scope, emphasis, content, alignment, and process.

Agree on Purpose

The first and perhaps most important decision for the Consortium to agree upon is the purpose of the assessment. Throughout the literature on assessment development, scholars advise that instruments developed for one purpose should not be used for other purposes. Without regaling the abundant literature that supports this stance, its mere existence suggests that the Consortium must be extremely clear on the purposes for which the KEA will be used. As part of this discussion, the Consortium will be well served to come to basic agreements on principles regarding the nature of children's development, the approaches to assessment, and the ultimate purposes for how the KEA data will be used. Simultaneously, the Consortium must consider sanctioned and prohibited processes that may delimit the nature of the assessment and its use (e.g., non-contextually based, teacher-directed teaching and assessment), which, in turn, should guide the key decisions the Consortium makes regarding the purpose of the KEA.

Determine the Scope of the Effort

As noted above, development of a KEA is a daunting task that is contoured by fiscal and temporal resources. Given these natural limitations, the Consortium needs to discern the scope of the effort, taking into consideration the extent to which there are resources for, and commitment to, innovation. While desirable, innovation can be costly, as it can occur at all phases of the effort: the basic structure of the assessment, the content of what is assessed, and the process for developing and administering the KEA. With regard to the structure of the assessment, conventionally, assessment items are developed so that they demonstrate a *one-to-one* correspondence with a single construct, standard, or indicator. Alternatively, assessment items could represent a learning progression with a set of skills that relate to a given construct, thereby replacing one-to-one correspondence with a *continuum*. More innovative and potentially challenging to develop, this approach respects the typical progression of young children's development

and has the potential to be more faithful to their learning trajectories. Each of these approaches to structuring assessment items has advantages and disadvantages, which the Consortium may want to explore fully, keeping in mind that early decisions about the scope of the assessment development effort will have important implications for decisions that will be made as the KEA evolves.

Determine the Emphasis to be Accorded Each Domain

With regard to the content of what is assessed, the Consortium understands first that not all constructs can be measured in any given assessment, and that not all constructs are equally easy to measure. Consequently decisions about how much and what to assess need to be made. Although all domains of development will be assessed by the KEA, the Consortium must still decide how much emphasis to accord each domain and discern which constructs within the domains to include. In determining which constructs to include, the Consortium must determine its commitment to measuring certain constructs that are often neglected or hard to assess, a commitment that can be resource and time consuming. To address these issues, the Consortium will need to examine its capacity and desire to support innovation prior to deliberations regarding the specific constructs that should be included on the KEA.

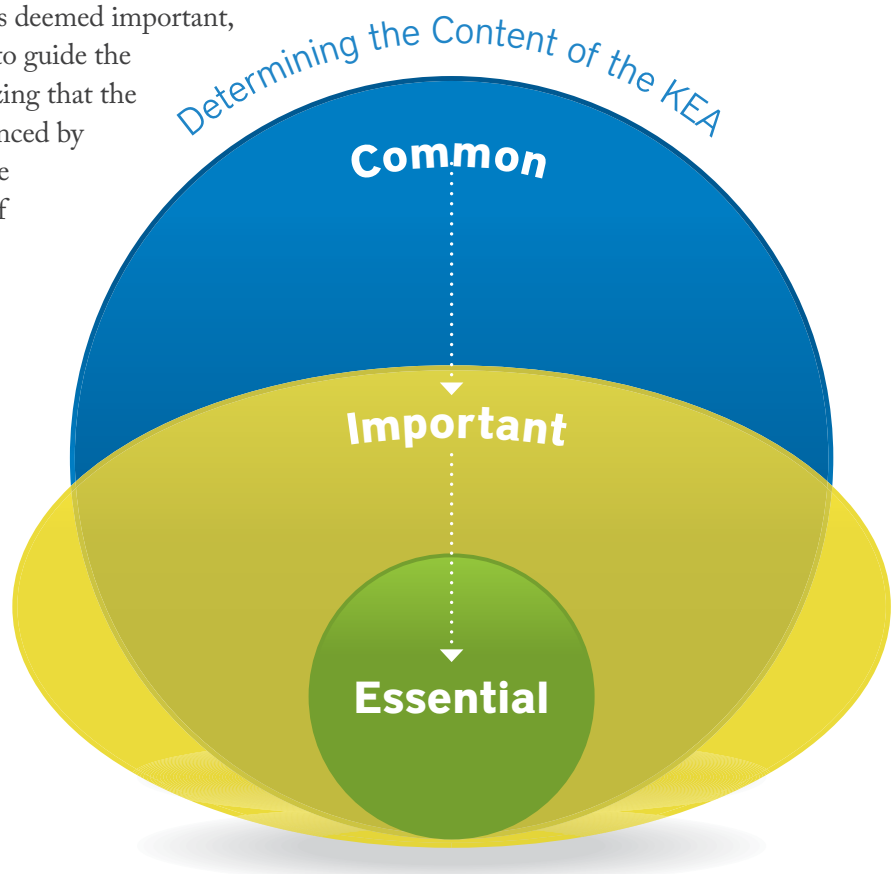
Determine the Content of the KEA

From the outset, the Consortium has acknowledged that the KEA cannot measure children's status relative to every standard, but must embrace a portion of the standards' content that is represented by the states' standards. To do so, we suggest a systematic process for narrowing down content and for determining the specific aspects of children's learning and development that might be addressed on the KEA. Because this process is complex (and very important), we suggest handling it in three distinct and potentially, but not necessarily sequential, decisions, and have purposely selected the words, *Common*, *Important*, and *Essential*, to distinguish among them. This process is posited with the hope that the first decisions (determining what is *Common*) will rely heavily on the data from this analysis. Our data, while informative for the second type of decision (deciding what is *Important*), may be less helpful in supporting the third set of decisions (determining what is *Essential*). On the following page, we discuss each of these types of decision, underscoring that this is a sequential process with decisions made regarding what is Common, informing decisions regarding what is Important, and so forth.

1. **Determine what is Common across the states' standards.** Noted previously, being commonly addressed or “popular” does not mean that a construct automatically warrants inclusion in the KEA, but it does provide an analytic starting point because such commonality means the concept was addressed by multiple states. To determine which constructs have been commonly addressed, results that indicate the constructs addressed by all (or the majority of the states), and the degree to which states have emphasized the constructs will be helpful. More specifically, the analyses that highlight indicators that address similar content within the indicators that address the same construct will inform the Consortium’s understand of what is common, and can be a prelude to examining the different ways in which the states’ indicators are similar or different. Using these data, Consortium members could work together to determine which constructs seem to be most commonly addressed among the states’ standards.
2. **Determine what is Important for the KEA.** In moving from what is common to what is important, the Consortium must essentially decide which, among the many constructs addressed in the states’ standards, should be given more weight and whether the states’ standards embrace all of what is important for young children’s development. To do this, first, the Consortium may want to undertake a very thorough examination of the content that is uncommon—the constructs that few states address and indicators that only one state included in their ELDS—to determine if any of them capture elements considered important for children’s development. Second, the Consortium will need to determine if, among the different sets of standards included in the analyses, there are some that warrant special consideration. For instance, the Consortium may feel it is particularly important for the KEA to cover content addressed in the HSCDEL, the Common Core, and/or the lead state, North Carolina’s ELDS. Third, a careful review of the most recent research literature and consultation with experts will be necessary to ensure that what was deemed important when the states wrote their standards has not been replaced by newer research findings that might augment the selected standards. Finally, in discerning what is important, careful consideration must be given to the context within each state—assessments currently being used in the states, capacities for supporting measurement and use of assessment data, policies, etc.—as a backdrop for selecting the aspects of children’s learning and development to be addressed in the KEA.
3. **Determine what is Essential for the KEA.** To discern what is essential, the Consortium will need to select a small number of particularly relevant and “powerful” constructs from those that were deemed important. To do so will require careful reconsideration of the research base of the constructs deemed important, revisiting the principles and parameters established to guide the Consortium’s decision-making process, and recognizing that the final decision on what is essential may also be influenced by values and practical considerations such as the nature of the intended assessment (given that some types of assessments are better suited to some constructs than others). In short, any construct that was deemed important is probably worthy of inclusion on the KEA, so decisions on what is essential may rely heavily on the judgment and expertise of Consortium members as they narrow down the constructs that will be included in the KEA.

Determine the Alignment of the KEA and the Standards Agreed upon by Consortium States

The prospect of the Consortium states having to have a set of ELDS with which the KEA is aligned and upon which all members of the Consortiums agree could pose significant challenges, and would be a task that will be both time consuming





the analysis. Given that this study shows commonality at the unit of the constructs and clusters, but variation at the indicator level (in terms of the level of specificity and the level of difficulty among indicators addressing the same construct or cluster), the Consortium may want to consider targeting alignment at the standard, construct, or cluster level, rather than at the more conventional indicator level. Finally, we suggest that the Consortium not try to decide on a set of standards or demonstrate alignment between the KEA and standards at the very beginning of the KEA development process, but rather consider it an iterative process and develop a plan that will enable the Consortium to move, over the course of the project, toward a set of standards that is accepted by the states and ultimately aligned with the KEA. We suggest this because, as the KEA is piloted and field-tested, there will be opportunities to revise the assessment and, therefore, the content addressed in the standards may need to change over time

and perhaps politically untenable within the individual states. Alternatively, we suggest that the Consortium demonstrate alignment between the KEA and an agreed-upon set of standards that may be limited in number and that may evolve with intentionality as the KEA development process unfolds.

To arrive at the set of standards with which the KEA is aligned, we suggest that the Consortium use the *Common, Important, and Essential* (CIE) model described on page 11, being sure to include at least those constructs deemed *important* or *essential*. Further, we suggest that alignment does not have to reflect a one-to-one correspondence between the standards and the assessment (or between two sets of standards if standards are the focus of alignment analyses). It is possible, for example, for one assessment item to encompass the skills described in more than one indicator, including indicators written at differing levels of difficulty; indeed, this is quite likely if assessment items are based on robust learning continuums/progressions that fully describe learning trajectories, rather than isolated skills.

As the Consortium considers alignment, it will also need to discern the level or “unit” of alignment to be used. Selecting the appropriate unit is important because it frames both the level of specificity and the consistency of

Determine the Process for Developing and Administering the KEA

“ To arrive at the set of standards with which the KEA is aligned, we suggest that the Consortium use the *Common, Important, and Essential* (CIE) model described on page 11.

The Consortium may want to agree upon general parameters regarding who will be involved in KEA development and at what stages. Moving beyond the development process to the implementation process, the Consortium will need to discern how innovative the data collection will be, both in terms of the way the data are collected (e.g., direct assessment, teacher observations, authentic samples of children’s work, parent report, and/or other types of evidence in the KEA) and the ways in which and to whom the data will be reported. For example, there may be portions of the KEA that all states will use, with flexibility accorded to other portions, so that a state could customize some parts of the assessment. As the Consortium well understands, conventional approaches to assessment scope, content, and processes have been somewhat narrow; the development of a new KEA gives the field the opportunity to think anew and to engage in considerable innovation. We encourage the Consortium to take advantage of this unique opportunity.

2) Recommendations for EAG and Non-EAG States

Although not the primary purpose of this document, information from the study could be useful to the Consortium states and other states as they contemplate work on ELDS. We focus first on the standards revision process, and then on the potential development of shared standards. It is important to note that in this section, we extend the work undertaken in our analysis; these recommendations may or may not apply to the Consortium or to the individual states therein.

Recommendations Regarding Possible Steps for Revising ELDS

Because so many states are interested in revising their ELDS, we offer five key recommendations regarding such efforts. We also commend the website located at <http://www.earlylearningguidelines-standards.org/> as a source of additional information.

1. **Understand the Purposes and Potential Uses of the ELDS.** Presently, all states have ELDS for preschoolers and most have standards for infants and toddlers. Yet, often due to new policies, new knowledge, or new uses, states engage in standards revision processes. As they do, it is unwise to blithely accept prior purposes and uses as a given, without considering advances in research, changes in the political context, and changes in the early childhood programs or systems using the ELDS. Given the state of the country and the importance of assessment, it is likely, for example, that states may find it helpful to try to use the revised standards to guide assessment decisions as well as instruction. If ELDS are going to be used primarily to guide assessment development (see below), the considerations are quite different than if they are going to be used to guide instruction, to inform program development and monitoring, or to influence teacher preparation. Because purposes vary, and purposes contour design, they must be carefully evaluated each time standards are revised.
2. **Decide on the Structure for the ELDS.** The structure or architecture of ELDS documents is critical in that it reflects basic assumptions and shapes the standards being developed or revised. Several factors influence the structure, with the first being values and beliefs regarding, for example, how children grow, their individuality, the role of families, and the unique



conditions of the state. These values shape the second structural element, the domains, which may be developmental, disciplinary, or a combination of both. The third element of the core architecture is the age ranges and groupings to be covered in the standards. Although there is no single preferred age range or grouping, it is important that they align with the purposes of the document and characteristics of the programs/systems where the standards will be used. For example, if a state were going to use the standards primarily as the basis for assessment, selecting a narrow age range with tight age groupings would ease the task of aligning the assessment with the standards. Additionally, there may be requirements or features of a state's early care and education programs or systems, such as licensing requirements for class size and adult-to-child ratios for specific age groups, that should be considered when making decisions about the age range and age groups used in the ELDS. Finally, the last structural element to be considered is the number of levels within the standards, with potential levels including domains, sub-domains, strands, standards, indicators, and examples. States that elect to include more levels within their document may be able to articulate expectations for children's learning and development with more specificity than states that choose to use fewer levels for their standards. The Organizational Analysis presented in *Section III* of the full report may provide helpful insights into different structural options that can be considered.

3. **Discern the Major Constructs and Their Distribution Across Domains.** Constructs describe the key elements that, when taken together, represent the content to be covered in each domain. Often much focus is expended

on the constructs themselves, but we urge that focused attention be accorded to the relative emphasis placed upon constructs (and their related standards) across the domains. Such attention prevents an over-emphasis on one domain to the exclusion of minimization of focus on others. At the outset, those involved in standards revision should determine the comparative importance they intend to accord each domain, and then develop their standards to reflect that decision, noting that the balance of emphasis across the domains may vary according to the ages of the children addressed by the standards. Additionally, the relative emphasis or percentage of indicators that address each domain should be considered within the context of other factors that may influence decisions about which domains to emphasize. For instance, differences in the levels of knowledge among domains, as well as political considerations regarding what is deemed important, might influence which domains the state intends to emphasize. In this sense, we must acknowledge that standards are simultaneously scientific, value-driven, and political documents.

” It is assumed that if common standards were developed, they would embrace all ages in the early childhood spectrum.

4. **Discern the Indicators to Include in the ELDS.** To determine the indicators that will be included in the ELDS, two steps are recommended. First, candidate indicators should be reviewed to see if they actually reflect the intention of the standard they are designed to amplify. Such a review should examine the content of standards in light of the values and goals determined above; it should ask if all the constructs typically represented by this domain are addressed, and if indicators are placed in the appropriate domain. Further, the review should examine each indicator to discern if it adequately represents one intention, as indicators with multiple components or that address multiple constructs are difficult to implement. Such a review should also look carefully



at the language used to express the indicator and the cognitive demand associated with it.

5. **Consider the Process: Incorporate Public Review and Validation.** As noted above, standards are not simply scientific, value-driven, or political documents; they incorporate all three. As such, serious consideration must be given to the process used, with standards development and revision regarded as a shared enterprise that is not the purview of any single sector (e.g., health, education, welfare), role (e.g., scholars, practitioners, politicians, parents), or individual. Rather, the total process must be inclusive, but the nature of that inclusion can vary at different stages in the revision process. Clearly, determining values and architecture should be broadly inclusive, while the actual indicator analysis could be handled by those with germane expertise and then reviewed by a broad group. Once developed, standards should be offered for public review, winnowed appropriately based on such review, and then piloted for validation. To date, many states have public comment periods, and many have undergone rigorous content validation, but very few have subjected their standards to age validation, an important process that should be considered.

Recommendations Regarding Consideration of Voluntary, Important, Flexible, Shared Standards

Over the past few years, there has been considerable interest among early childhood leaders and key organizations regarding the possibility of developing ELDS that could be shared across states, either as exemplary standards that states could use as they revise their ELDS, or as voluntary standards that states could adopt or adapt. Although not our intended purpose, the process and the results from this analysis shed light on the viability of that thinking. From a process or methodological perspective, the approach used in this study might be useful to an effort to develop common or shared standards, keeping in mind a key limitation: in this study, we worked with one age group, the year prior to kindergarten (although states operationalized this age group differently in their ELDS). It is assumed that if common standards were developed, they would embrace

all ages in the early childhood spectrum, a process that might entail some tailoring of the methodology used herein. In addition, the results indicated important content commonalities and some key differences among these 10 states' ELDS, which could become a starting point for discerning agreed-upon aspects of children's learning and development to be addressed in shared standards.

Most important, however, this work has led us to reflect on the potential challenges inherent in conceptualizing, defining, and using shared standards generally. In offering the following considerations, we aim to contribute to an on-going conversation, fully acknowledging that our thoughts are neither definitive nor inclusive of all the issues that would need to be considered should such an effort move forward. We elaborate on the issues below:

1. **Voluntary:** First, given the variation in standards, values, and contexts revealed in this analysis, we would hope than any effort to produce common standards would assume their use to be *voluntary*, with no state or local entity being forced to adopt them, hence "V."
2. **Important:** Second, the standards and indicators agreed upon need to transcend popularity and be *important* in and of themselves. Using reliable and valid research, standards that are common must honor the literature and the amassed expertise in the field and be important to children's overall development, hence "I."
3. **Flexible:** Third, the standards must be *flexible* so that states and users could discern whether or not they would use them, how they would use them, and what elements they would use, hence "F."
4. **Shared:** Fourth, the standards would be *shared*, shared in the process of their development so that they would reflect the best thinking within our country and would be "owned" by multiple states and stakeholders. They would be shared in that they would be inclusive of children from diverse linguistic, cultural, and geographic backgrounds, as well as diverse ability levels, hence the "S."

In sum, *VIFS* standards or *VIFSS* should be considered, taking into account the complexity inherent in their conceptualization, development, and use.

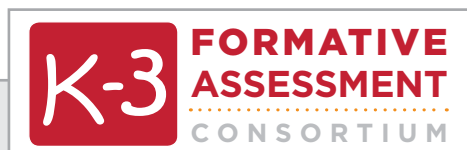
Overall Conclusion

In this study, we sought to describe the content of states' ELDS in order to inform the work of the North Carolina EAG Consortium. As part of the process, we have been honored to work with and for the state representatives most actively involved in writing and implementing the ELDS; we have been challenged to develop new methodology to analyze ELDS; we have engaged in a massive, multi-faceted process to systematically analyze and report on the ELDS; and we have offered our best thinking related to issues that the Consortium might want to consider as it moves forward. We hope that the fruits of our labor will both inform and inspire the Consortium states and the research partners as they seek to break new ground and support serious innovation in early childhood standards and assessments.

Endnotes

¹ While the authors of this report are solely responsible for the accuracy of the contents and the interpretations rendered in this document, we want to acknowledge key partners in this work. First, we gratefully acknowledge our funders, the BUILD Initiative and the Heising-Simons Foundation, who have rendered fiscal and intellectual support to this effort. We also acknowledge representatives of all of the states who have provided their documents, time, and trust as we have embarked on this effort. In addition, we wish to acknowledge a sub-set of the state representatives who agreed to work with us on a more intensive basis to review our methodology and to offer advice regarding the presentation of results from the analyses. Their insights have truly informed our analysis, and so we render special thanks to: Tara Bitz, Miriam Calderon, Susan DeVenny, Jody Koon, Sue Mitchell, Sue Reed, and Judi Stevenson-Garcia.

² For a complete description of the methodology used for the analyses, please see the full report, which is available from the first author upon request.



The Common Standards Analyses work was conducted in large part to support the K-3 Formative Assessment Consortium, which includes nine states and the District of Columbia. The Consortium and its three research partners (BUILD, Child Trends and SRI) are collaborating to enhance a state-of-the-art system for assessing young children's learning. North Carolina, the Consortium's lead state, is developing a K-3 formative assessment. The K-3 assessment process will begin at kindergarten entry (KEA), generating a Child Profile of learning and development, and continue through third grade, making information available to both teachers and families to inform teaching and learning. The Common Standards Assessment project is an important building block for the Consortium but one that was not funded by the US Department of Education's Enhanced Assessment Grant, which is funding other Consortium activities. The Heising-Simons Foundation supported this work as did the core funders of the BUILD Initiative and Early Learning Challenge Collaborative.