

AN EXAMINATION OF THE OREGON KINDERGARTEN ASSESSMENT

by

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## DISSERTATION ABSTRACT

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Doctor of Philosophy

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Title: An Examination of the Oregon Kindergarten Assessment

A surge of interest has emerged across the US in high-quality early childhood education programs that prepare children for success in school and later years. In particular, attention has been focused on the kindergarten year as having important consequences for a child's acquisition of knowledge and skills that determine later school success. However, children begin kindergarten with a diverse array of skills and experiences, including many who have not been enrolled in any preschool programs outside the home environment. State kindergarten entry assessments can provide baseline information to help teachers target instruction and assist in meeting child learning benchmarks.

In fall of 2013, school districts in Oregon began administering the Oregon Kindergarten Assessment (OKA) to all entering kindergarten students. Administered within the first six weeks of school, the OKA includes measures in early literacy, early math, and approaches to learning. This study explored student performance on the OKA as well as its utility as perceived by Oregon kindergarten teachers. Specifically, the following questions were asked: (1) Are there significant differences in children's performance on the OKA based on demographic characteristics? (2) What is the performance of children previously receiving Early Childhood Special Education on the

OKA? and (3) What is the utility of the OKA, as evaluated by kindergarten teachers?

Data collected by the Oregon Department of Education were used, as well as data from kindergarten teacher interviews. Results of the study reinforce what is known about the opportunity gap among young children prior to entering kindergarten, as well as provide insight on how the intended purposes of the OKA are being met. Findings may assist administrators, teachers, parents, and policy makers in understanding current use of the OKA as well as assisting with future steps to modify curriculum, instructional methodology, teacher training, and transition practices.

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## TABLE OF CONTENTS

| Chapter  | Page |
|--|------|
| I. INTRODUCTION.....                             | 1    |
| State Early Learning Standards .....             | 1    |
| Federal Early Learning Initiatives .....         | 2    |
| Kindergarten Assessments.....                    | 4    |
| II. REVIEW OF THE LITERATURE .....               | 7    |
| Defining Kindergarten Readiness.....             | 8    |
| Parent and Teacher School Readiness Beliefs..... | 9    |
| State School Readiness Policies .....            | 11   |
| Kindergarten Assessment .....                    | 12   |
| Oregon Kindergarten Assessment .....             | 14   |
| Assessment of Utility and Social Validity.....   | 18   |
| Testing and Children with Disabilities .....     | 20   |
| Purpose of the Study.....                        | 21   |
| III. METHODS.....                                | 23   |
| Examination of Statewide Data .....              | 25   |
| Participants .....                               | 25   |
| Measures .....                                   | 26   |
| Demographic Variables .....                      | 26   |
| Oregon Kindergarten Assessment .....             | 27   |
| Early Literacy .....                             | 28   |
| Early Mathematics.....                           | 29   |

| Chapter  | Page |
|--|------|
| Approaches to Learning .....                                     | 29   |
| Assessment, Evaluation, and Programming System (AEPS).....       | 30   |
| Outcome A: Positive Social-Emotional Skills .....                | 32   |
| Outcome B: Acquisition and Use of Knowledge and Skills .....     | 32   |
| Outcome C: Use of Appropriate Behaviors to Meet Their Needs..... | 32   |
| Analysis .....   | 33   |
| Web-based Survey and Follow-up Interviews .....                  | 34   |
| Participants .....   | 34   |
| Measures .....   | 36   |
| Utility Survey .....   | 37   |
| Descriptive Questionnaire .....                                  | 37   |
| Descriptive Variables .....                                      | 38   |
| Phone Interviews .....   | 39   |
| Analysis .....   | 40   |
| Independent t-Test .....   | 41   |
| ANOVA .....  | 41   |
| IV. RESULTS.....   | 42   |
| Examination of Statewide Data .....                              | 42   |
| Demographic Characteristics.....                                 | 42   |
| Mann-Whitney U Test.....   | 42   |
| Children Previously Receiving ECSE Services .....                | 45   |
| Kruskal-Wallis H Test .....                                      | 45   |

| Chapter  | Page |
|--|------|
| Mann-Whitney U Test .....  | 46   |
| Outcome A: Positive Social-Emotional Skills .....  | 47   |
| Outcome B: Acquisition of Knowledge and Skills .....   | 47   |
| Outcome C: Use of Appropriate Behaviors to Meet Their Needs .....  | 47   |
| Web-Based Survey and Follow-up Interviews .....  | 49   |
| Web-Based Survey .....   | 50   |
| Utility Survey Scores .....  | 50   |
| Independent t-Test .....   | 53   |
| ANOVA .....  | 53   |
| Calculated Means for Preparedness Survey Items .....   | 54   |
| Qualitative Thematic Analysis .....  | 55   |
| Question 1 .....   | 55   |
| Question 2 .....   | 58   |
| Question 3 .....   | 58   |
| Follow-up Phone Interviews .....   | 64   |
| Qualitative Thematic Analysis .....  | 64   |
| What Do You Like Most About the Oregon<br>Kindergarten Assessment? .....   | 65   |
| What Do You Like Least About the Oregon<br>Kindergarten Assessment? .....  | 65   |
| If You Were to Receive a Classroom Report Immediately<br>Following Completion of the Oregon Kindergarten Assessment<br>How Likely Would You Be to Use the Data to Inform Instruction<br>in Your Classroom? ..... | 66   |

| Chapter   | Page |
|---|------|
| Is There Anything Else That You Would Like to Add About Your<br>Overall Experience With the Oregon Kindergarten Assessment? ..... | 66   |
| V. DISCUSSION.....  | 76   |
| Kindergarten Assessment Data.....   | 77   |
| Opportunity Gap.....  | 77   |
| Children Served in ECSE .....   | 78   |
| Children Previously Attending Public PreK .....   | 78   |
| Limitations .....   | 79   |
| Future Research .....   | 80   |
| Web-Based Survey and Follow-up Interviews .....   | 81   |
| Limitations .....   | 84   |
| Future Research .....   | 85   |
| Overall Future Directions of the OKA .....  | 85   |
| Conclusion .....  | 87   |
| APPENDICES  |      |
| A. UTILITY SURVEY .....   | 92   |
| B. DESCRIPTIVE QUESTIONNAIRE.....   | 94   |
| C. INTERVIEW QUESTIONS .....  | 97   |
| D. CODING KEY: SURVEY QUESTION 1 .....  | 98   |
| E. CODING KEY: SURVEY QUESTION 2 .....  | 99   |
| F. CODING KEY: SURVEY QUESTION 3 .....  | 100  |
| G. CODING KEY: INTERVIEW QUESTION 1 .....   | 101  |

| Chapter                                   | Page |
|---|------|
| H. CODING KEY: INTERVIEW QUESTION 2 ..... | 102  |
| I. CODING KEY: INTERVIEW QUESTION 3 ..... | 103  |
| J. CODING KEY: INTERVIEW QUESTION 4 ..... | 104  |
| REFERENCES CITED .....                    | 105  |

## LIST OF FIGURES

| Figure   | Page |
|--|------|
| 1. Oregon decision tree for kindergarten assessment .....  | 22   |
| 2. Research design .....   | 24   |
| 3. Early English literacy assessment sample items .....  | 28   |
| 4. Early mathematics assessment sample items .....   | 29   |
| 5. Approaches to learning assessment sample items .....  | 30   |
| 6. Mean utility survey item scores by classroom role .....   | 52   |
| 7. Crosswalk of kindergarten assessment stakeholder interests<br>with intended purposes of the OKA ..... | 90   |
| 8. Summary of recommendations by OKA intended purpose and stakeholder .....                              | 91   |

## LIST OF TABLES

| Table   | Page |
|---|------|
| 1. Intended purposes of the statewide Oregon Kindergarten Assessment for school year 2014-2015 .....  | 15   |
| 2. Summary of the Oregon Kindergarten Assessment components .....   | 16   |
| 3. Research questions with description of participants, measures, and analyses .....  | 23   |
| 4. Percent demographic characteristics for kindergarteners in an Oregon public school during the 2013-2014 academic year .....  | 26   |
| 5. Survey participant demographic information percentages by classroom role .....   | 36   |
| 6. Modification of the Abbreviated Acceptability Rating Profile (AARP) for the purpose of creating a utility survey of the Oregon Kindergarten Assessment .....   | 38   |
| 7. Mann-Whitney summary table for group differences on OKA scores based on economic status .....  | 43   |
| 8. Mann-Whitney summary table for group differences on OKA scores based on preK attendance .....  | 44   |
| 9. Mann-Whitney summary table for group differences on OKA scores based on disability status .....  | 44   |
| 10. Group differences in approaches to learning scores based on ECSE exit progress category .....   | 46   |
| 11. Mann-Whitney summary table for group differences on OKA scores by OSEP outcome area between same-aged peers and children exiting ECSE who improved functioning at a level comparable to same-aged peers.....    | 48   |
| 12. Mann-Whitney summary table for group differences on OKA scores by OSEP outcome area between same-aged peers and children exiting ECSE who maintained functioning at a level comparable to same-aged peers ..... | 49   |
| 13. Means and standard deviations of utility survey item scores by classroom role.....  | 51   |
| 14. Means and standard deviations of average utility survey score by classroom role.....  | 52   |



| Table   | Page |
|---|------|
| 15. Group differences for OKA administration component and average utility score .....  | 54   |
| 16. Summary of themes identified for question 1: What comments or suggestions do you have based on your experience with the OKA training? .....   | 56   |
| 17. Summary of themes identified for question 2: What improvements would you suggest for next year’s OKA? .....   | 59   |
| 18. Summary of themes identified for question 3: Please feel free to provide any additional comments regarding the OKA.....   | 62   |
| 19. Summary of themes identified for phone interview question: What do you like most about the Oregon Kindergarten Assessment?.....   | 67   |
| 20. Summary of themes identified for phone interview question: What do you like least about the Oregon Kindergarten Assessment? .....   | 68   |
| 21. Summary of themes identified for phone interview question: If you were to receive a classroom report following completion of the Oregon Kindergarten Assessment how likely would you be to use the results to Inform instruction in your classroom? ..... | 71   |
| 22. Summary of themes identified for phone interview question: Is there anything else you would like to add about your overall experience with the Oregon Kindergarten Assessment? .....  | 72   |

# CHAPTER I

## INTRODUCTION

High quality early childhood education programs that prepare children for success in school and later years are in the public spotlight. The link between high-quality early childhood education programs and improved outcomes for children has been well established through decades of research (Barnett, 1995; Barnett & Frede, 2010; Heckman, 2008; Henderson, Henry, Gordon, & Ponder, 2003; Isaacs, 2007; Karoly et al., 1998; Lynch, 2007; Pianta, Barnett, Burchinal, & Thornburg, 2009; Reynolds, 2000; Schweinhart et al., 2005) and has been a springboard for significant policy developments aimed at systematizing early childhood education at both a state and national level (Kagan & Kauerz, 2007). Initiatives include the creation and development of state early learning standards, revamping of current federal preschool programs, and new federal preschool initiatives and competitive state grant opportunities.

### **State Early Learning Standards**

Early learning standards, or early learning guidelines, are documents that outline expectations for what young children should know or be able to do. Fifteen years ago, only 10 states had developed a document outlining expectations for early learning and development; a number that more than doubled to 27 states in 2002 (Kagan, Scott-Little, & Frelow, 2003) and further increased to 46 states in 2005 (Scott-Little, Kagan, & Frelow, 2006). Ultimately, in 2010, Secretary of Education Arne Duncan (2010) announced that all states had developed early learning standards and many were leading the way in building high-quality early learning programs. However, while all states have adopted early learning standards or guidelines, these standards are not necessarily

mandated for teachers to follow. Additionally, in 2010 the federal Head Start program, which promotes school readiness for children ages birth to five from low-income families, announced a revamping of current early learning and school readiness standards with the introduction of the Head Start Child Development and Early Learning Framework and a targeted approach for school readiness (2010). The Oregon Early Learning Council has chosen to replace the current early learning standards with the new Head Start Early Learning Framework as the state early learning standards for children ages three to five.

### **Federal Early Learning Initiatives**

At a national level, in his 2013 State of the Union address, President Barack Obama called on Congress to expand access to high quality preschool to every child in America stating that, "...studies show students grow up more likely to read and do math at grade level, graduate high school, hold a job, and form more stable families of their own" (Obama, 2013). Part of the current presidential initiative includes building on existing states' successes by providing the opportunity to compete in the Race to the Top – Early Learning Challenge grant competition. The competition focuses on improving early learning and development programs for young children by supporting states' efforts to: (1) increase the number and percentage of low-income and disadvantaged children in each age group of infants, toddlers, and preschoolers who are enrolled in high-quality early learning programs; (2) design and implement an integrated system of high-quality early learning programs and services; and (3) ensure that any use of assessment conforms with the recommendations of the National Research Council reports on early childhood (§1832(b)(1), title VIII, Division B of P.L. 112-10, the Department of Defense and Full-

Year Continuing Appropriations Act, 2011). The federal early learning grant competition was first announced in 2011, prompting 35 states, the District of Columbia, and Puerto Rico to submit applications for the first round of funding. The top nine strongest applications were funded and four were invited to apply for a second round in 2012. Oregon was included in the second round of applications and was awarded funding in the amount of \$20 million over a period of four years, (Five more states secure race to the top-early learning challenge grants, 2012) which allowed Oregon to implement a systematic process that fits within the grant scope and requirements to ensure Oregon children enter school ready to learn and succeed. The Oregon Early Learning Council (ELC) was established as a governing body to oversee Oregon's Early Learning System and act as the lead agency in charge of executing grant funds across prioritized activities. Examples of activities include implementation of state early learning hubs and the Oregon Kindergarten Assessment (OKA). State early learning hubs help to identify underserved children in their community and coordinate existing services for children and families. Currently there are 16 early learning hubs across counties in Oregon. The OKA was fully implemented in fall of 2013 for all children entering an Oregon public kindergarten.

The establishment of state early learning standards and national early childhood initiatives constitutes evidence of a growing sense of urgency about the priority of kindergarten readiness and ensuring that nationwide children are entering school on a path for success. It is well documented that the early years are an especially sensitive time in children's learning and development and furthermore, research suggests that failure to provide children with the necessary resources and supports could prove costly

with regard to immediate academic outcomes as well as later in life (Nores & Barnett, 2014).

### **Kindergarten Assessments**

Children begin kindergarten with a diverse array of skills and experiences, including many who have not been enrolled in any preschool programs outside the home environment (Aud et al., 2013; Goldstein, 2007; Hart & Risley, 1995). Direct assessment of entering kindergarteners in reading, math, and executive functioning reveals significant disparities between children as their exposure to risk factors increases (Bernstein, West, Newsham, & Reid, 2014). The expanded awareness of an achievement gap (Nores & Barnett, 2014) among entering kindergarteners has sparked an intensified interest in state kindergarten assessments on the part of a variety of interested parties. In general, parents and teachers are interested in information pertaining to the strengths and needs of children in order to provide effective supports and learning opportunities; early childhood managers and school administrators are interested in the status of children's early learning and development in order to plan specific program services and determine effectiveness; and lastly, policymakers want to document population trends, track children's progress, and determine if public early childhood expenditures are making a difference (Howard, 2011). However, the overall public dialogue is not without controversy. Kindergarten assessment efforts seek to provide information to a variety of key stakeholders, thus putting forth the often-heard question: *What is the overall purpose of kindergarten assessments?*

The Center on Enhancing Early Learning Outcomes (CEELO), funded by the U.S. Department of Education, offers clarity about the purpose of kindergarten entry

assessments stating that, “Results of the assessment should be used to inform efforts to close the school readiness gap at kindergarten entry, to inform instruction in the early elementary school grades, and to inform parents about their children’s status and involve them in decisions about their children’s education. This assessment should not be used to prevent children’s entry into kindergarten or as a single measure for high-stakes decisions” (Connors-Tadros, 2014, p.2). Additional questions include: *Should children be tested when they first enter kindergarten? Is testing harmful for young children?* Answers to these questions continue to be both investigated and debated. Recently, leading early childhood professional organizations such as the Division for Early Childhood (DEC) and the National Association for the Education of Young Children (NAEYC) have responded to such concerns through publications in their membership journals. The article “Stop Trying to Make Kids *Ready* for Kindergarten” appeared in *Young Exceptional Children* (Pretti-Frontczak, 2014) in which the authors voiced concern over current initiatives stating that, “the Race to the Top competition, the Common Core State Standards, and the Quality Rating and Improvement Systems all perpetuate the misguided approach to kindergarten readiness by focusing on a compliance, children’s performance on a narrow set of skills, development of early learning standards, and administration of standardized tests” (Pretti-Frontczak, 2014). Furthermore, NAEYC’s practitioner journal *Young Children* published an article (Freeman & Feeney, 2004) applying the NAEYC Code of Ethical Conduct to a vignette in which a kindergarten teacher struggles with the ethical dilemma of delivering a kindergarten assessment (Feeney & Freeman, 2014). Nevertheless, despite public controversy and conflicting opinions as to the means for obtaining information, the interest in the status of children at the start of kindergarten has

only intensified, with policymakers and educators increasingly committed to the goal of all children starting school “ready to learn”. *Will testing of young children yield better instruction for improved outcomes for our youngest school children?*

## CHAPTER II

### REVIEW OF THE LITERATURE

The following chapter provides an overview of published literature on kindergarten readiness, kindergarten assessment, and Oregon's Kindergarten Assessment. The public attention brought about by kindergarten assessments, as well as the utility of the assessment as evaluated by kindergarten teachers, and the OKA application and outcomes for children entering kindergarten with disabilities and/or delays are discussed.

Particular attention has been focused on the kindergarten year as having important consequences for a child's acquisition of knowledge and skills that determine later school success (McClelland, Acock, & Morrison, 2006; Missall et al., 2007; Speece, Ritchey, Cooper, Roth, & Schatschneider, 2004), thus casting additional attention on the prior school experiences of entering kindergarteners. Nevertheless, children's opportunities to learn differ greatly in early childhood. *Learning opportunities* can be described as a set of theoretically driven dimensions of interactions between adults and children with empirically supported links to children's social, emotional, and academic development (Hamre & Pianta, 2007). While there is considerable interest in the learning opportunities and prior school experiences of young children, a consistent common definition of kindergarten readiness does not exist. Parent and teacher beliefs, and state policies related to kindergarten readiness are next discussed. Furthermore, increased implementation of state kindergarten assessments are described as well as Oregon's Kindergarten Assessment, with questions for further exploration of the OKA and its perceived utility.



## Defining Kindergarten Readiness

The terms *kindergarten readiness* and *school readiness* are often used interchangeably throughout the literature and across disciplines; however, both lack a consistent, operational definition. The U.S. Department of Education defines *Essential Domains of School Readiness* as “language and literacy development, cognition and general knowledge (including early mathematics and early scientific development), approaches toward learning, physical well-being and motor development, and social and emotional development” (<http://www.ed.gov/early-learning/elc-draft-summary/definitions>). The National Association for the Education of Young Children (NAEYC) position statement on school readiness suggests that “every child, except in the most severe instances of abuse, neglect, or disability, enters school ready to learn school content,” and instead emphasizes “making schools ready for every child” (Position Statement, 1995). The American Academy of Pediatrics states that, “School readiness needs to become an outcome measure for community-based programs, rather than an exclusion criterion at the educational starting gate” (High, 2008).

Evolving definitions of readiness can be traced back to the initial 1990 National Education Goals Panel (NEGP), which declared that by the year 2000 all children in America would begin school ready to learn (National Council on Education Standards and Testing, 1992). The NEGP identified readiness as determined by a set of independent developmental trajectories broadly described as (1) readiness in the child, (2) school’s readiness for children, and (3) family and community supports contributing to child readiness. While the intent of this goal was praiseworthy, the concept of readiness was broadly defined and has led to differing interpretations. As a step to develop consensus

on the definition of school readiness, two surveys sponsored by the U.S. Department of Education's National Center for Education Statistics were conducted in the spring of 1993 with the purpose of collecting information on parent and teacher beliefs about characteristics important to a child's readiness for kindergarten: the 1993 National Household Education Survey (NHES:93), and the Fast Response Survey System (FRSS) Kindergarten Teacher survey on Student Readiness (Heaviside, 1993). Since the inception of the initial NEGP in 1990, teachers and parents have been interviewed and surveyed on their beliefs pertaining to school readiness. These data and discussion of results from the NHES:93 and FRSS are next described.

### **Parent and Teacher School Readiness Beliefs**

While parents and early educators generally agree that a primary purpose of preschool is school readiness (Hatcher, Nuner, & Paulsel, 2012), consensus varies as to the specific skills a child should possess in order to be best prepared for kindergarten (Hatcher et al., 2012; Lewit & Baker, 1995; Scott-Little et al., 2006). Kagan (1992, 1994) summarizes parents' beliefs about kindergarten readiness as belonging to two categories: *readiness for school* and *readiness to learn*. *Readiness for school* can be described as the belief that a child must have a certain level of mastery of pre-academic skills before entering kindergarten. *Readiness to learn* assumes that readiness is rooted in developmentally pre-determined physical and social maturation processes (Lewit & Baker, 1995).

The NHES:93 data suggested that parents of children ages three to six and not yet enrolled in kindergarten felt that both social interaction tasks (e.g., communication and take turns/share abilities) and pre-academic tasks (e.g., counts to 20, uses pencils and

paint brushes, and knows the alphabet) were important for kindergarten readiness (Kim et al., 2005).

Interestingly, parents placed greater merit on academic skills as indicative for kindergarten readiness than did teachers, who considered alphabetic and counting skills to be marginally or not at all important. Results from 860 schools using the FRSS Kindergarten Teacher survey on Student Readiness indicated that according to public school kindergarten teachers (96%), the most important quality for kindergarten readiness was for a child to be physically healthy, rested, and well-nourished. The majority of teachers also believed that children should be able to communicate their needs, wants, and thoughts verbally (84%), and be enthusiastic and curious in approaching new activities (76%) (Heaviside, 1993). These data are consistent with a 1996 survey of 757 parents, 575 kindergarten teachers, and 553 childcare providers in North Carolina that identified the three most important qualities of kindergarten readiness as being: (1) healthy, well-nourished, and well-rested; (2) able to effectively communication needs, wants, and thoughts; and (3) enthusiastic and curious when approaching new activities (Harradine & Clifford, 1996). In 2007 the NHES was again administered, surveying 2,633 households between January 2 and May 6 using the School Readiness Survey (SR). Parents of children ages three to six and not yet enrolled in kindergarten were asked how important particular skills were to prepare for kindergarten. Sixty-two percent of children had parents who reported it was essential to teach their children about sharing; 56 percent reported that teaching the alphabet was essential; 54 percent teaching numbers was essential; 45 percent that teaching how to read was essential; and 41 percent that showing how to hold a pencil was essential (O'Donnell, 2008). These findings are consistent with

Gill and Winters (2006) and Hatcher et al. (2012), who suggested that parents and teachers believe kindergarten and school readiness are represented by both social-emotional and academic factors. However, findings from a self-report questionnaire provided to kindergarten teachers from the Early Childhood Longitudinal Study – Kindergarten cohort in the 1998-1999 school year suggested that teachers placed a considerably stronger emphasis on children’s social ability compared to their development of academic skills (Lin, Lawrence, & Gorrell, 2003). Readiness issues assessed on the questionnaire were related to teachers’ views of social-emotional development, language development, problem solving, literacy, mathematics, and psychomotor skills. Over the years consensus has varied amongst teachers and parents on the topic of what constitutes readiness for school; however, it is clear that two constructs remain of consistent perceived importance: social-emotional and academic skills.

### **State School Readiness Policies**

Historically, the most consistent determinant of school readiness across states has been the requirement of children to reach the chronological age of five either before enrolling or while they are students in a kindergarten program; 44 states and the District of Columbia currently abide by this statute (Ackerman & Barnett, 2005; Saluja, Scott-Little, & Clifford, 2000). State expectations have evolved beyond solely determining kindergarten entry by age, since the issue of school readiness gained national prominence from the first NEGP. States policies have led initiatives to develop early learning standards that articulate expectations for children’s learning and development prior to kindergarten entry. A content review of 46 state early learning standards suggests that states are decidedly slanted toward language and cognition domains, with the mean

percentage of standards items well over twice that of items addressing physical, social-emotional, or approaches toward learning domains (Scott-Little et al., 2006). While every state currently has developed or adopted early learning standards (Duncan, 2010), a small number of states have moved further and developed specific school readiness definitions. Maryland has chosen to define school readiness as, “the stage of human development that enables a child to engage in, and benefit from, primary learning experiences” (Forry & Wessel, 2012). Furthermore some states have chosen to implement a definition more specifically related to an academic skill set that complements and reinforces their kindergarten assessment. The Texas Early Learning Council, Defining School Readiness report (2011), defines *school ready* or *school readiness* as, “a term that refers to a child being able to function competently in a school environment in the areas of early language and literacy, mathematics, and social skills as objectively measured by state-approved assessment instruments.” While defining school readiness within the context of a state kindergarten assessment is not a widely held practice, some states do require schools to conduct screening or assessment of children who are entering kindergarten (Ackerman & Barnett, 2005), and the practice of implementing a statewide kindergarten entry assessment has become increasingly prevalent (Connors-Tadros, 2014).

### **Kindergarten Assessment**

The U.S. Department of Education defines *Kindergarten Entry Assessment* (KEA) as an assessment that adheres to the following guidelines: 1) administered to children during the first few months of their admission into kindergarten; 2) covers all *essential domains of school readiness* (i.e., as previously described); 3) used in conformance with the recommendations of the National Research Council reports on early childhood (Snow

& Van-Hemel, 2008); and 4) is valid and reliable for its intended purposes, for the target populations, and aligned to the Early Learning and Development Standards (Connors-Tadros, 2014). The definition does not include performance requirements for children to enter kindergarten. It is well documented and understood that children begin kindergarten with a diverse array of skills and experiences, including many who have not been enrolled in any preschool program outside the home environment (Aud et al., 2013; Barnett, Carolan, Squires, & Clarke Brown, 2013; Brown, McComb, & Scott-Little, 2003; Goldstein, 2007; Hart & Risley, 1995; Zill & West, 2001). The range of opportunities to learn during the early childhood years is representative of a diverse society and particularly reflective of the challenges experienced by children from impoverished or disadvantaged backgrounds prior to entering kindergarten (Meisels, 2007). Provided the diversity of early childhood experiences, it is essential that kindergarten teachers in particular are equipped with effective methods to best identify and understand what children know and are able to do as they enter school. Consistent with recommendations put forth by the National Research Council of the National Academies (Snow & Van-Hemel, 2008), state kindergarten entry assessments can provide baseline information to help teachers target instruction that can then be calibrated over a school year to assist a child in meeting short and long-term goals or learning benchmarks.

Recently CEELO was asked by the U.S. Department of Education to compile information as to how states were approaching the development and implementation of kindergarten entry assessments (KEA). CEELO reports that in 2010, only 7 states (Alaska, Connecticut, Florida, Hawaii, Maryland, Minnesota, and Vermont) collected

KEA data for the purpose of aggregating data at the state level (Daily, Burkhauser, & Halle, 2010). However, in 2012, 25 states required assessments during the kindergarten year and of those 12 assessed at entry; 10 during the school year; and 3 both at entry and during the school year. Most recently in 2013, 34 states have described plans for a KEA in their Race to the Top – Early Learning Challenge grant applications, and 9 states that did not submit applications have some type of KEA (Connors-Tadros, 2014). As the majority of kindergarten assessment policies are in development, current national data on the assessment tools that states are requiring for kindergarten entry assessments is unavailable. Comprehensive information updated as of February 2014, regarding state policies and resources related to KEA's can be accessed on CEELO's website ([www.ceelo.org](http://www.ceelo.org)).

### **Oregon Kindergarten Assessment**

The 2013 – 2014 academic year marked the initial rollout of the OKA in all school districts throughout Oregon. The OKA was designed for administration to all entering kindergarten students with or without identified disabilities or delays, within the first six weeks of school. The information gained from the OKA has the intended purpose of providing parents, teachers, and early childhood providers with a common understanding of what children know and are able to do when they enter school. Specifically, the information should assist teachers to identify gaps and provide targeted classroom instruction and support, while parents can use the information to provide additional support for skill development at home (<http://oregonearlylearning.com/kindergarten-assessment/>). Schools can then strengthen their collaborations with providers of high quality early learning services (e.g., Oregon

Pre-K, and programs committed to Oregon’s Quality Rating and Improvement System), for a seamless successful start to kindergarten. Furthermore the assessment allows for tracking statewide trends and progress over time, seeking to answer the following questions about children in Oregon: *Are Oregon’s children arriving at kindergarten ready to learn? Is the level of school readiness improving or declining over time? Are there disparities between groups of children that must be addressed? Are there particular areas of school readiness that Oregon must target?*

(<http://oregonearlylearning.com/kindergarten-assessment/for-teachers/>). Intended purposes of the OKA as specified in the 2014-2015 Kindergarten Assessment Specifications Blueprint (ODE, 2014) are summarized in Table 1.

Table 1. *Intended Purposes of the Statewide Oregon Kindergarten Assessment for School Year 2014-2015*

|    | Description   |
|----|---|
| 1. | Provide baseline local and statewide information to communities, schools, and families to ensure all early learners are ready for kindergarten.   |
| 2. | Provide essential information on all children as they enter kindergarten to inform K-12 educators on student’ strengths and needs which can then guide instructional decisions to ensure students are well prepared for their educational experience. |
| 3. | Identify achievement gaps early – thus providing instruction and support to address them early. By doing this, we help prepare students for success not just in kindergarten but also in the years to come.   |
| 4. | Provide a consistent tool to be used across the state. A statewide assessment will provide the state-level perspective on where kindergarten students are currently so that we can measure progress in the years to come.                             |

*Note.* This information can be accessed from the *Kindergarten Assessment Specifications Blueprints* for the 2014-2015 school year on Oregon Department of Education’s Kindergarten Assessment Resource Website <http://www.ode.state.or.us/search/page/?id=496>



A growing body of research has begun to document a significant relationship between aspects of early achievement (e.g., early literacy and math), self-regulation, and social competence with children’s later school success (Blair & Razza, 2007; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; McClelland, Cameron, Wanless, & Murray, 2007; McClelland & Morrison, 2003; McClelland, Morrison, & Holmes, 2000; Schmitt, McClelland, Tominey, & Acock, 2015). The creation of the OKA was based on current research and an understanding of which specific aspects of school readiness have been established as strongly predictive of children’s school successes. The OKA includes measures in the domains of early literacy, early math, and approaches to learning. A summary of the OKA components is provided in Table 2.

Table 2. *Summary of the Oregon Kindergarten Assessment Components*

| Segment        | Description   |
|----------------|---|
| Early literacy | These are direct fluency assessments, which provide information about how quickly and accurately the student recognizes letters and sounds.   |
| Letter names   | The student sees and names upper and lowercase letters. This is a timed assessment, at 60 seconds to measure fluency. Students are allowed to come to a natural stopping point and are unaware of being timed.                                      |
| Letter sounds  | The student sees and names the sounds of upper and lowercase letters and some letter blends. This is a timed assessment, at 60 seconds to measure fluency. Students are allowed to come to a natural stopping point and are unaware of being timed. |

|                         |   |
|-------------------------|---|
| Spanish syllable sounds | This assessment is only for Spanish-speaking English language learners. The student sees and produces the sounds of upper and lowercase Spanish syllables. This is a timed assessment, at 60 seconds to measure fluency. Students are allowed to come to a natural stopping point and are unaware of being timed. |
| Early math              | This is a direct assessment in numbers and operations. It is not timed. Students view and respond to 16 items that include counting, simple addition, simple subtraction, and recognizing number patterns. The assessment is multiple choice. Students choose (by pointing) from three possible answers.          |
| Approaches to learning  | This assessment is based on teacher observation. Teachers observe the student in the classroom during regular classroom activities and routines and complete the 15 item Child Behavior Rating Scale (CBRS). The scale focuses on self-regulation and interpersonal skills.                                       |

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*Note.* Further information on the research behind each measure can be accessed from the *Kindergarten Assessment Summary Report* on the Oregon Department of Education’s Kindergarten Assessment Resource Website at <http://www.ode.state.or.us/go/ka>.

Consistent with the previously discussed nationwide public dialogue on kindergarten assessment, the OKA is not without controversy. Upon release of the initial results of the OKA in January 2014, The Oregonian, an online newspaper, was flooded with articles and opinion pieces in response to the state Department of Education Deputy Superintendent, Rob Saxton, and Early Learning System director Jada Rupley’s guest column (2014), which referred to Oregon’s kindergarten test results as a *sobering snapshot* (Feeney, 2014). Additional pieces questioned the accuracy of not only the results but also the appropriateness and implementation of the OKA (Castillo, 2014; Hammond, 2014a, 2014b, 2014c; Melling, 2014; Patrick & Hennrich, 2014) The Oregon Association for the Education of Young Children (OAEYC) also issued a statement representing the opinions of their governing council, which referred to the OKA test,

procedures, and results as the “wrong assessment, wrong administration, wrong interpretation” (Dundorf, ODonnell, & Stockert, 2014). However, public statements were also supportive of the State’s new initiative. McClelland, Love, Green, and Squires (2014) offered clarity for public concerns and responses through a research perspective, and Swati Adarkar, President and CEO of the Children’s Institute, a research and action organization dedicated to improving the odds for Oregon’s at-risk children, called the OKA an “important beginning” (Adarkar, 2014).

As state, and nationwide attention to early learning, school readiness, and kindergarten assessment intensifies, and Oregon enters the second year of their new statewide assessment, it is imperative that stakeholders continue to explore and document the existing strengths of the OKA as well as how it can continue to be improved. Specifically, both the utilization and acceptance of the OKA on behalf of kindergarten teachers, and the procedures and outcomes of the OKA for young children entering kindergarten with disabilities and delays serve to yield valuable information from further evaluation.

### **Assessment of Utility and Social Validity**

Examining utility and social validity is an important aspect of understanding the appropriateness and usability of an assessment in order to promote sustainability. Particularly when considering the OKA, a newly created, implemented, and mandated state assessment, subjective evaluation of teacher perspectives with regard to procedures and utilization can yield important information for understanding the effects and outcomes of the OKA. The Division for Early Childhood of the Council for Exceptional Children includes both assessment utility and social validity (i.e., acceptability) in their

eight standards for developmentally appropriate assessment (Neisworth & Bagnato, 2004). Neisworth and Bagnato (2004) describe assessment utility as the usefulness for intervention in determining “what to teach (content/curriculum), how to teach (methods), and if objectives are being reached (monitoring/accountability).” Social validity (i.e., acceptability) is characterized as the perceived value, acceptability, and appropriateness of the assessment and may increase the probability that the professional will become more involved in the assessment, treatment, and monitoring processes (2004). The Assessment and Accountability Comprehensive Center (AACC) suggests that *utility* should be a primary consideration when schools, districts, and states are choosing an assessment measure (Herman, Osmundson, & Dietel, 2012). Important questions that can aid in determining utility include: *How useful will this assessment be in helping us to accomplish our intended purpose? How will the results fit with other assessments, both formative and end-of-year state tests? Who will use the results?*

The perspective of kindergarten teachers with regard to the utility and social validity of the OKA may assist school administrators and principals to create a more supportive and effective environment in which to address student learning through the use of OKA data. A variety of comfort levels with data exist among teachers and it is imperative that school administrators and principals are prepared to tailor support accordingly (Datnow, Park, & Wohlstetter, 2007). Supovitz and Klein (2003) found that leadership within schools, both formal and informal, helped endorse the innovative use of student performance data. Principals are able to set the expectations for faculty and staff and in doing so create supportive environments to effectively address student learning through the use of assessment data. Specifically, an examination of both the OKA utility

and social validity may help administrators understand the direct context of the tool in order to ensure teachers can effectively implement the OKA, as well as use results to drive instruction. Overall, examining the OKA utility and social validity can produce valuable information for building upon the assessment's existing strengths, as well as achieve progress in accomplishing the statewide goals of reducing the achievement gap and understanding what children know and are able to do upon entering school.

### **Testing and Children with Disabilities**

The snapshot of what Oregon children know and are able to do upon entering kindergarten includes not only those with diverse prior school experiences and learning opportunities, but also children with identified disabilities or developmental delays. According to the federal Individuals with Disabilities Education Act (IDEA), children with disabilities must be included in any state- or district-wide assessments that are established for typically developing children (USDOE, 2007).

NAEYC and the National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE) published a joint position statement on early childhood curriculum, assessment, and program evaluation (2003). In the position statement, a key recommendation included the use of assessment connected to specific beneficial purposes such as: (1) making sound decisions about teaching and learning, (2) identifying significant concerns that may require focused intervention for individual children, and (3) helping programs improve their educational and developmental interventions (NAEYC & NAECS/SDE, 2003). Their position further postulated that when assessments are used with both children with disabilities and their typically developing classmates, assessments need to be adapted in order for all children to

demonstrate their competence (McLean, Wolery, & Baily, 2004; Meisels & Atkins-Burnett, 2000; NAEYC & NAECS/SDE, 2003). NAEYC and NAECS/SDE recommendations are consistent with the position statement put forth by DEC on promoting positive outcomes for young children with disabilities (2007) and their essential recommended practices in early intervention and early childhood special education (DEC, 2014; Sandall, McLean, & Smith, 2000).

The OKA was designed for administration to all entering kindergarten students with or without identified disabilities or delays within the first six weeks of school. Recommendations for providing students with equitable access to the OKA can be found in Figure 1. A further description of potential accessibility supports for administering the OKA is detailed in the Oregon Accessibility Manual (Saxton, Hermens, et al., 2014-2015). Additional evaluation of the outcomes of the OKA for young children entering kindergarten with an identified disability or delay has the potential to yield valuable information and contribute to reducing achievement gaps and better understanding what children entering kindergarten know and are able to do.

### **Purpose of the Study**

The purpose of this study was to explore student performance on the OKA as well as its utility as evaluated by Oregon kindergarten teachers. Specifically, the following questions were addressed:

1. Are there significant differences in children's performance on the OKA based on demographic characteristics?
2. What is the performance of children previously receiving Early Childhood Special Education (ECSE) on the OKA?

3. What is the utility of the OKA, as evaluated by kindergarten teachers?

Results will be shared with the Oregon Department of Education Kindergarten Content and Advisory Panel. Findings from the study will assist administrators, early childhood and public school teachers, parents, policy makers, and legislators in further understanding current use of the OKA and may impact future steps to modify curriculum, instructional methodology, training, transitional practices, and school readiness policies.

Data collected by the Oregon Department of Education were used, as well as data from an OKA utility survey with follow-up kindergarten teacher interviews. Study outcomes may assist Oregon school districts and pre-K programs to collaborate and identify strategies that will better prepare young children for success in kindergarten and beyond, as well as how to support kindergarten teachers in meeting the diverse needs of an entering kindergarten classroom cohort through the appropriate use of OKA data. Overall the study may contribute to a more effective early learning system for Oregon.

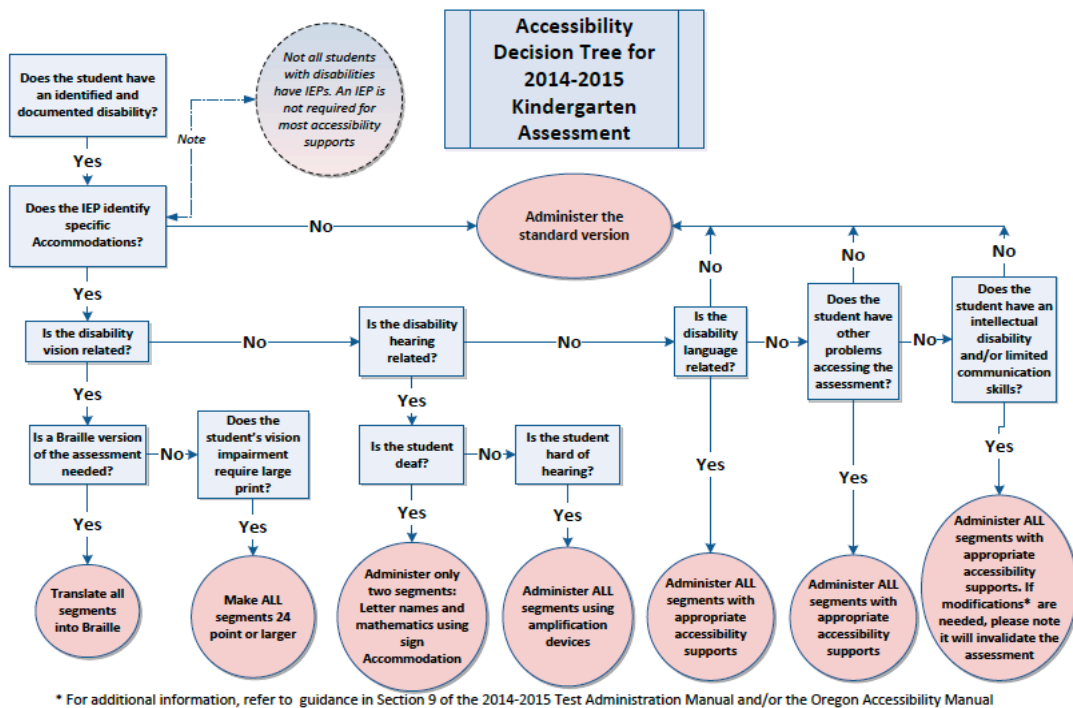


Figure 1. Oregon decision tree for kindergarten assessment.

## CHAPTER III

### METHODS

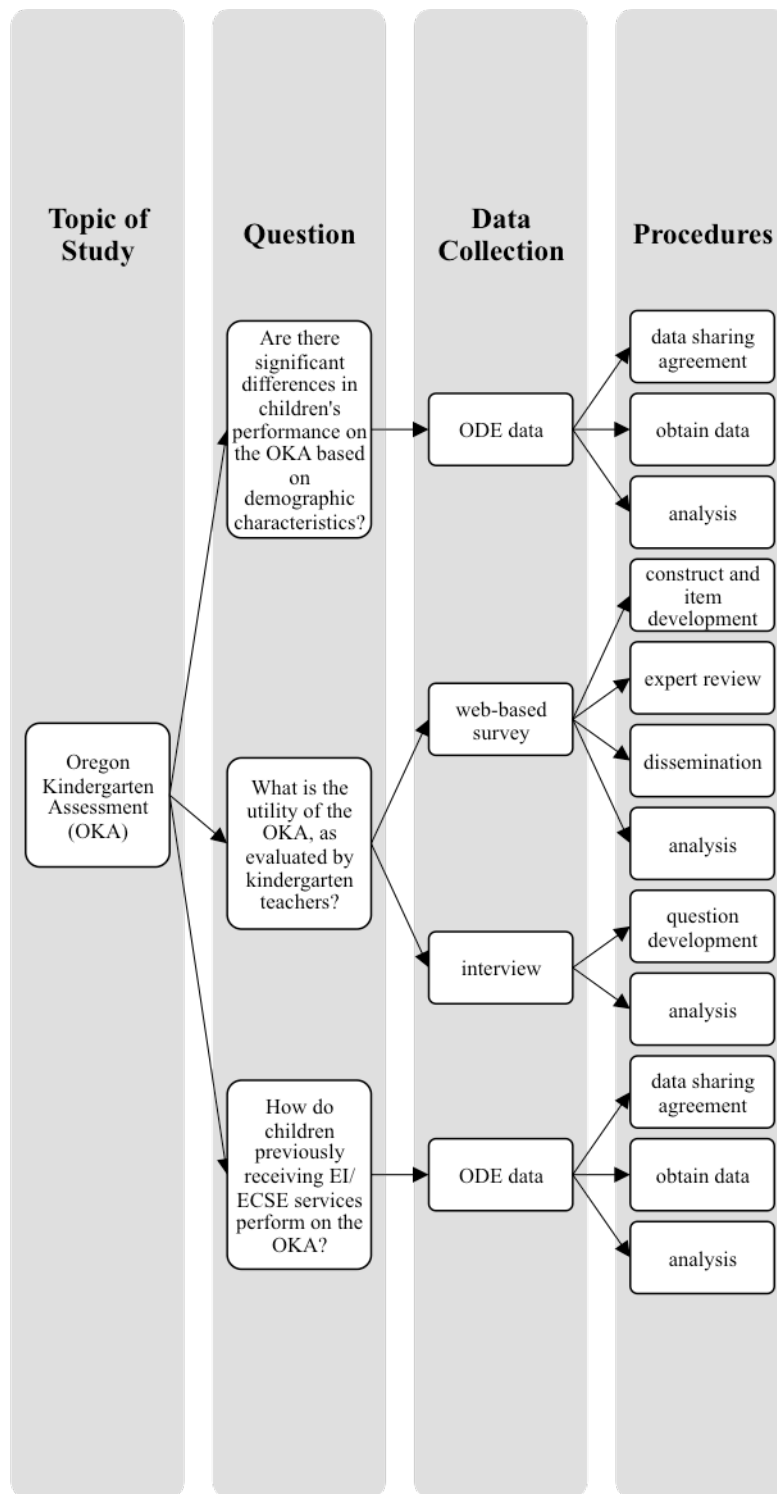
A combination of procedures and analyses were used to address three research questions (Figure 2) using two separate methods: (1) analysis of statewide data provided by the Oregon Department of Education (ODE), and (2) a web-based survey of current kindergarten teachers with follow-up interviews of survey participants (Table 3). The following chapter describes the procedures and analyses for answering each research question. Participants, measures, and analyses for the first two research questions are described first.

Table 3. *Research Questions with Description of Participants, Measures, and Analyses*

| Question  | Participants  | Measures   | Analyses   |
|---|---|--|--|
| 1. Are there significant differences in children’s performance on the OKA based on demographic characteristics? | Students entering Oregon kindergarten fall 2013   | <ul style="list-style-type: none"> <li>• Demographics</li> <li>• OKA</li> </ul>  | Mann-Whitney U test                                |
| 2. What is the performance of children previously receiving ECSE on the OKA?                                    | Students exiting ECSE and entering Oregon kindergarten fall 2013                                    | <ul style="list-style-type: none"> <li>• Demographics</li> <li>• OKA</li> <li>• OSEP outcome progress categories</li> </ul>        | Kruskal-Wallis H test<br>Mann-Whitney U test       |
| 3. What is the utility of the OKA, as evaluated by kindergarten teachers?                                       | Oregon kindergarten teachers and instructional assistants employed during the 2014-15 academic year | <ul style="list-style-type: none"> <li>• Descriptive questionnaire</li> <li>• Utility survey</li> <li>• Phone interview</li> </ul> | Independent t – test<br>ANOVA<br>Thematic analysis |

*Note.* Descriptive statistics will be reported for each analysis.





**Figure 2.** Research design.

## Examination of Statewide Data

Examination of statewide data collected by ODE was used to explore the following research questions:

1. Are there significant differences in children's performance on the OKA based on demographic characteristics?
2. What is the performance of children previously receiving Early Childhood Special Education (ECSE) on the OKA?

### Participants

All students entering kindergarten in a publicly funded school in the state of Oregon during the 2013 – 2014 academic school year were included as participants, in a statewide data set provided by ODE ( $n = 43,072$ ). An Intergovernmental Agreement with ODE was submitted and approved for study of statewide de-identified outcome data for the OKA data set and corresponding demographic information (e.g., gender, ethnicity, disability, economic disadvantage, early learning hub district, identified as attending a publicly funded preK program). Table 4 provides demographic characteristics for children entering Oregon public kindergarten in fall of 2013. Additionally, for students who transitioned into kindergarten from early childhood special education (ECSE) services, Office of Special Education Programs (OSEP) Assessment Evaluation and Programming System (AEPS) outcome data were provided.

Table 4. *Percent Demographic Characteristics for Kindergarteners in an Oregon Public School During the 2013 – 2014 Academic School Year*

| Variable                     | <i>n</i> | <i>Percent</i> |
|------------------------------|----------|----------------|
| <b>Gender</b>                |          |                |
| Male                         | 22,145   | 51.4%          |
| Female                       | 20,927   | 48.6%          |
| <b>Ethnicity-Race</b>        |          |                |
| White                        | 26,833   | 62.3%          |
| Pacific Islander             | 338      | 0.8%           |
| Multi-Ethnic                 | 2,385    | 5.5%           |
| AI/AN                        | 600      | 1.4%           |
| Hispanic                     | 10,420   | 24.2%          |
| African American             | 1,051    | 2.4%           |
| Asian                        | 1,445    | 3.4%           |
| <b>Economic Disadvantage</b> |          |                |
| Yes                          | 23,126   | 53.7%          |
| No                           | 19,946   | 46.3%          |
| <b>Special Education</b>     |          |                |
| Yes                          | 4,288    | 10.0%          |
| No                           | 38,784   | 90.0%          |
| <b>Public PreK</b>           |          |                |
| Yes                          | 7,392    | 17.2%          |
| No                           | 35,680   | 82.8%          |

*Note.* Eligibility or participation in the free and reduced price lunch program was used as a proxy for economic disadvantage. Disability status was determined at on the first school day of May at the end of the 2014 school year. Children identified as having a disability were identified at any point prior to May 1, 2014. Oregon public preK programs receive funding from the Federal Office of Head Start, the Oregon Department of Education, or both.

### **Measures**

**Demographic variables.** Aggregated demographic data were available from ODE in order to assess differences in student outcomes on the OKA. Variables were included by county, school district, and institution for each segment of the OKA for the following demographic categories:

1. **Disability.** Disability is specified as either (a) identified ( $n = 4,288$ ), or (b) unidentified ( $n = 38,784$ ). Disability status was determined at on the first school day of May at the end of the 2014 school year. Children identified as having a disability were identified at any point prior to May 1, 2014.
2. **Economic disadvantage.** Economic disadvantage is categorized as (a) identified ( $n = 23,126$ ), (b) unidentified ( $n = 19,948$ ). Eligibility or participation in the free and reduced price lunch program was used as a proxy for economic disadvantage.
3. **PreK.** PreK is categorized as (a) identified as attending a publicly funded preK program ( $n = 7,392$ ), (b) not identified as attending a publicly funded preK program ( $n = 35,680$ ). Oregon public preK programs receive funding from the Federal Office of Head Start, the Oregon Department of Education, or both. All programs follow the same guidelines for providing services.

**Oregon Kindergarten Assessment.** All students entering kindergarten in a publicly funded school in the state of Oregon during the 2013 – 2014 academic year completed the OKA within the first six weeks of school. Three domains were included: (1) early literacy, (2) early mathematics, and (3) approaches to learning (Table 2). The state of Oregon requires that the professional administering the OKA must be a trained Test Administrator (TA). For the literacy and mathematics measures, the TA does not have to be the child’s licensed classroom teacher; instead an Instructional Assistant can

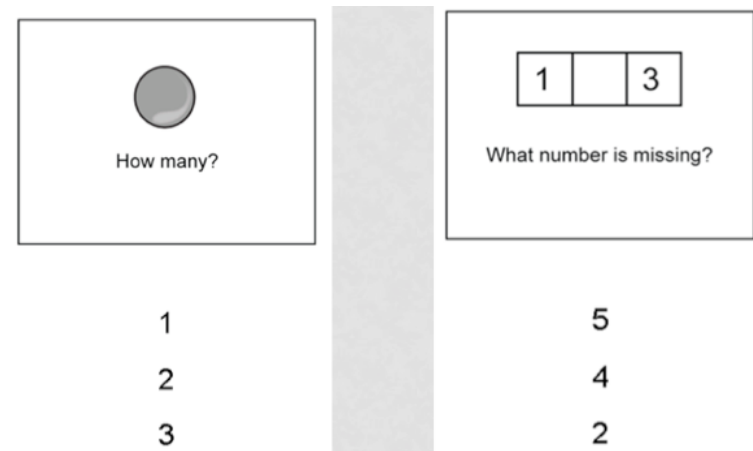
administer the OKA. However, the approaches to learning segment must be completed by the child’s teacher (Saxton, Wiens, et al., 2014-2015).

**Early literacy.** The early literacy assessments of the OKA measure direct fluency, which means that they provide information about how quickly and accurately the kindergarten student recognizes letters and letter sounds. When assessing letter names, students identify and name upper and lowercase letters. In order to assess letter sounds, students identify and produce the sounds of upper and lowercase letters and some letter blends. Both assessments are completed during a 60 second timed period in order to measure fluency. Students are unaware of the timed period and allowed to come to a natural stopping point. Including set-up time, there is an estimated six-minute completion time for the early literacy segment of the OKA. When students are Spanish-speaking English Language learners, it is required that the alternative Spanish literacy assessment is administered (Saxton, Wiens, et al., 2014-2015). Sample items are included in Figure 3.

| English Letter Names |   |   |   |   |   |   |   |   |   |  | English Letter Sounds |    |    |    |    |    |    |    |    |    |  |
|----------------------|---|---|---|---|---|---|---|---|---|--|-----------------------|----|----|----|----|----|----|----|----|----|--|
| o                    | X | A | s | O | B | E | a | T | x |  | s                     | D  | m  | M  | H  | b  | o  | k  | S  | c  |  |
| e                    | r | Z | S | L | t | R | N | p | C |  | p                     | h  | e  | Z  | O  | U  | z  | n  | A  | T  |  |
| m                    | D | P | n | F | I | M | f | K | i |  | g                     | J  | t  | G  | N  | l  | a  | r  | L  | y  |  |
| k                    | c | G | v | z | W | U | h | Q | u |  | k                     | f  | I  | th | Sh | Ch | z  | qu | sh | wh |  |
| w                    | y | l | V | d | J | b | j | q | A |  | u                     | w  | v  | Th | ch | V  | Ph | E  | g  | F  |  |
| T                    | a | O | s | X | o | B | x | A | E |  | f                     | ph | s  | i  | X  | R  | Y  | K  | u  | P  |  |
| Z                    | L | N | r | S | p | t | e | C | R |  | d                     | c  | k  | S  | o  | H  | b  | M  | D  | m  |  |
| K                    | M | F | P | m | i | f | I | n | D |  | r                     | n  | T  | A  | U  | z  | O  | e  | Z  | h  |  |
| W                    | h | u | v | c | k | G | z | U | Q |  | a                     | y  | r  | L  | g  | l  | G  | t  | N  | J  |  |
| A                    | y | q | j | b | d | J | V | l | A |  | t                     | sh | qu | wh | z  | Ch | th | I  | Sh | f  |  |

**Figure 3.** Early English literacy assessment sample items.

**Early mathematics.** The early mathematics assessment is a direct assessment in numbers and operations. Students view items that include counting, simple addition, simple subtraction, and recognizing number patterns. The assessment includes two sample items and 16 multiple-choice items. Students point to indicate their choice for a correct response from three possible answers. For instance, a student might see a row of five stars and the teacher would ask, “How many?” The student would then point to their selection. The early mathematics portion of the OKA is not timed; however, it is estimated that completion time ranges from six to nine minutes. A Spanish language version of the assessment is available (Saxton, Wiens, et al., 2014-2015). Sample items are included in Figure 4.



**Figure 4.** Early mathematics assessment sample items.

**Approaches to learning.** The approaches to learning assessment is based on the observations of classroom teachers during the first six weeks of school. Teachers observe the student in the classroom during regular classroom activities and routines in order to complete the Child Behavior Rating Scale (CBRS) (Bronson, Goodson, Layzer, & Love, 1990). The CBRS has 17 items focusing on children’s social-emotional development,

self-regulation, and interpersonal skills. Items are assessed on a five-point scale, ranging from *never exhibits the behavior* to *always exhibit the behavior*. Previous research has reported adequate test-retest reliability of scores using the CBRS ( $r = .67$ ), as well as strong internal consistency ( $\alpha = .96$ ) (Associates, 1988). McClelland and Morrison (2003) also reported strong internal consistency ( $\alpha = .95$ ) for each of two time points, measured a year apart, when using the tool with preschoolers. Two original CBRS items targeting externalizing behaviors (i.e., expresses hostility to other children verbally, and expresses hostility to other children physically) were omitted on the OKA based on feedback from stakeholders. Sample items are included in Figure 5.

**Child Behavior Rating Scale**

Child's name: (mm/dd/yyyy) \_\_\_\_\_  
 Today's date: (mm/dd/yyyy) \_\_\_\_\_

**Instructions:** *The focus of this instrument is children's behavior with other children and adults in the classroom and their work with materials. Please complete all 17 items on this instrument for each child by circling the response number that best indicates how frequently the child exhibits the behavior described in a particular item. The response numbers indicate the following:*

- 1) The child never exhibits the behavior described by the item.
- 2) The child rarely exhibits the behavior described by the item.
- 3) The child sometimes exhibits the behavior described by the item.
- 4) The child frequently or usually exhibits the behavior described by the item.
- 5) The child always exhibits the behavior described by the item.

|   | Never | Rarely | Sometimes | Frequently/<br>Usually | Always |
|---|-------|--------|-----------|------------------------|--------|
| 1. Observes rules and follows directions without requiring repeated reminders.                        | 1     | 2      | 3         | 4                      | 5      |
| 2. Completes learning tasks involving two or more steps (e.g., cutting and pasting) in organized way. | 1     | 2      | 3         | 4                      | 5      |
| 3. Completes tasks successfully.  | 1     | 2      | 3         | 4                      | 5      |

**Figure 5.** Approaches to learning assessment sample items.

**Assessment, Evaluation and Programming System (AEPS).** The Oregon Department of Education contracts with local agencies to provide a statewide system of services for young children with disabilities and developmental delays, which includes

early childhood special education (i.e., specifically designed instruction for children ages 3 to public school eligibility including physical, speech/language, mobility, and social-emotional). The AEPS has been selected as the measure for monitoring progress and reporting on outcomes of children receiving ECSE services. (Bricker, Pretti-Frontczak, Johnson, & Straka, 2002). The AEPS assesses six major developmental areas including fine motor, gross motor, cognitive, adaptive, social-communication, and social domains. Pre-academic content similar to that included on the OKA (e.g., pre-literacy, numeracy) are encompassed within the developmental areas included on the AEPS ([www.aepslinkedssystem.com](http://www.aepslinkedssystem.com)). Results of the accuracy of the AEPS to accurately corroborate eligibility decisions for young children indicated acceptable rates of overidentification and underidentification (Bricker, Yovanoff, Capt, & Allen, 2003). Further research on the eligibility determination of the AEPS was consistent with previous findings of Bricker et al. (2003) (Bricker et al., 2008). Additional evidence on the use of the AEPS can be found online (<http://www.aepslinkedssystem.com/research.html>).

When a child exits ECSE services and transitions to kindergarten, the AEPS is administered on or before June 30<sup>th</sup> of that year, with the exception of children receiving Extended Year Service (EYS), in which the AEPS is to be administered at the completion of the summer transition to kindergarten. The AEPS data corresponds to three specific child outcomes required for Office of Special Education Programs (OSEP) federal reporting: (1) positive social-emotional skills (including social relationships), (2) acquisition and use of knowledge and skills (including early language development and early literacy), and (3) use of appropriate behaviors to meet their needs (Newman, Potter,



& Smellow). The child outcomes are based on the assumptions that (a) each child demonstrates outcomes in different ways, and (b) that there are multiple pathways for children to achieve and demonstrate competence in each outcome area (ECO, 2009). Outcome areas are summarized with examples and further detail below.

**Outcome A: Positive social-emotional skills.** Children who achieve this outcome demonstrate a variety of behaviors related to making and maintaining positive age appropriate social relationships. Social relationships pertain to those within the family as well as outside, such as with peers. Examples include demonstrating attachment with significant caregivers, learning and following rules, regulating emotions, demonstrating trust in others, and behaving in a way that allows participation across a variety of settings and circumstances (e.g., playground, dinner, or grocery store) (ECO, 2005).

**Outcome B: Acquisition and use of knowledge and skills.** Children who achieve this outcome demonstrate a variety of behaviors related to thinking, reasoning, remembering, problem solving, and number concepts across a variety of everyday routines and activities (e.g., during play). This outcome also includes a variety of skills related to language and literacy such as vocabulary, phonemic awareness, and letter recognition (ECO, 2005, 2009).

**Outcome C: Use of appropriate behaviors to meet their needs.** Children who achieve this outcome are more capable of addressing their needs with the help of supportive adults and increasing independence. Children integrate developing fine motor and communication skills to complete a variety of self-help tasks (e.g., using a toothbrush, dressing self, feeding self). Children are not only demonstrating these skills,

but are also utilizing skills in a manner that is functional and valuable to them (ECO, 2005).

The state of Oregon uses AEPS scores to measure child progress from entry into and exit from ECSE programs for each, OSEP outcome area related to five progress categories (Newman et al.):

- a) Children who did not improve functioning (NIF).
- b) Children who improved functioning but not sufficient to move nearer to the functioning comparable to same-aged peers (IFN).
- c) Children who improved functioning to a level nearer to same-aged peers but did not reach it (IFC).
- d) Children who improved functioning to reach a level comparable to same-aged peers (IFP).
- e) Children who maintained functioning at a level comparable to same-aged peers (MFP).

Differences in OKA segment scores for children who transitioned from ECSE ( $n = 4,275$ ) into Oregon public kindergarten in fall of 2013 compared to those who did not were examined based on progress categories for each OSEP outcome area. Categories were determined upon exit from ECSE services in either spring or summer of 2013.

### **Analysis**

Statewide data were analyzed using descriptive statistics and nonparametric measures to determine if difference existed between group scores on the OKA based on: 1) demographic characteristics, and 2) progress categories for children exiting ECSE. After violations of assumptions were determined to be present based on (a) non-normally

distributed data, (b) presence of outliers, and a (c) violation of homogeneity of variances, nonparametric measures were chosen as more suitable model fit. Specifically, the Mann-Whitney U and Kruskal-Wallis H test were employed. Children's demographic characteristics were coded as categorical variables (e.g., identified as attending a public preK, not identified as attending a public preK) when using the Mann-Whitney U test. Progress categories based on scores from the AEPS for each outcome area were entered as a categorical variable when using the Kruskal-Wallis H test. Children's scores on each segment of the OKA were entered as separate continuous outcome variables for both Mann-Whitney U and Kruskal-Wallis H analyses. A significant Mann-Whitney U was followed by converting z-scores into effect size estimates (Field, 2013). Results report test statistics, significance values, and effect size estimates. All data were de-identified and all results reported as aggregated data without identifying information. Data were analyzed using SPSS 20.

### **Web-based Survey and Follow-up Interviews**

A web-based survey of current kindergarten teachers and solicited follow-up interviews of survey participants were used to address the final research question related to utility of the OKA:

3. What is the utility of the OKA, as evaluated by kindergarten teachers?

### **Participants**

Kindergarten teachers employed in a publicly funded school during the 2014 – 2015 academic year in the state of Oregon were recruited in collaboration with the ODE Manager of Test Design and Administration. Oregon District Test Coordinators were sent a detailed cover letter outlining the purpose, confidentiality protocols, and incentive for

completing the online survey. District Test Coordinators were instructed to then forward the survey to OKA test administrators in their district. As an incentive for participation, a raffle was held for one of 25, \$50 Amazon.com gift cards for participants who completed the survey. All survey participants were entered into the raffle and had an equal chance of receiving a gift card.

Four-hundred and twenty-five OKA test administrators started the online survey. Of those, 66 did not meet criteria for the survey based on their response to question one: *Are you currently employed in a kindergarten classroom?* Additionally, another 14 survey participants were omitted based on their response to question two: *What position best describes your role in the kindergarten classroom?* Participants who were omitted indicated a classroom role other than *licensed teacher* or *instructional assistant*. A total of 315 licensed classroom teachers and 39 instructional assistants completed the descriptive questionnaire segment of the survey, resulting in a total of 354. The majority of survey participants indicated 10 plus years of experience working in the field with their current credential, 62.5% ( $n = 197$ ) licensed teachers and 43.6% ( $n = 17$ ) instructional assistants. Seventy-seven percent of licensed teachers ( $n = 244$ ) indicated a level of education as graduate degree or beyond. Most instructional assistants, 43.7% ( $n = 17$ ) indicated a 2 – year degree as their highest level of education. Table 5 provides demographic information on survey participants by classroom role. Following completion of the descriptive questionnaire, 34 participants did not complete the utility survey. Of 320 participants completing the utility survey, 91% were licensed teachers ( $n = 291$ ) and 9% ( $n = 29$ ) were instructional assistants.

Table 5. *Survey Participant Demographic Information Percentages by Classroom Role*

| Variable                                      | Licensed Teacher<br>( <i>n</i> = 315) | Instructional Assistant<br>( <i>n</i> = 39) |
|---|---------------------------------------|---|
| <b>Years employed with current credential</b> |                                       |   |
| < 1 year                                      | 1.2%                                  | 10.3%                                       |
| 1 – 2   | 6.0%                                  | 7.7%  |
| 3 – 5   | 14.6%                                 | 12.8%                                       |
| 6 – 9   | 15.2%                                 | 25.6%                                       |
| 10 +  | 62.5%                                 | 43.6%                                       |
| No response                                   | 0.3%                                  | 0.0%  |
| <b>Level of education</b>                     |                                       |   |
| High school                                   | 0.0%                                  | 28.1%                                       |
| 2 – year degree                               | 0.0%                                  | 43.7%                                       |
| 4 – year degree                               | 22.3%                                 | 25.6%                                       |
| Graduate +                                    | 77.4%                                 | 2.6%  |
| No response                                   | 0.3%                                  | 0.0%  |
| <b>Number of children in classroom</b>        |                                       |   |
| < 10  | 2.2%                                  | 18.0%                                       |
| 10 – 15                                       | 2.5%                                  | 0.0%  |
| 15 – 20                                       | 20.0%                                 | 18.0%                                       |
| 20 – 25                                       | 36.2%                                 | 51.3%                                       |
| 25 – 30                                       | 22.5%                                 | 2.6%  |
| 30 +  | 15.5%                                 | 7.7%  |
| No response                                   | 0.6%                                  | 2.6%  |
| <b>Experience administering OKA</b>           |                                       |   |
| First year                                    | 19.7%                                 | 33.3%                                       |
| Second year                                   | 76.8%                                 | 41.0%                                       |
| No response                                   | 3.5%                                  | 25.7%                                       |
| <b>Received results from 2013-2014</b>        |                                       |   |
| Yes   | 25.4%                                 | 7.7%  |
| No  | 50.5%                                 | 30.8%                                       |
| No response                                   | 24.1%                                 | 61.5%                                       |

## Measures

Kindergarten teachers' acceptance and utilization of the OKA was evaluated using two procedures: (1) a utility survey with a supplementary descriptive questionnaire

using Qualtrics software and (2) follow-up phone interviews of survey participants. The online survey was available to kindergarten teachers December 1, 2014 and was open through December 19, 2014. The results of the survey and interviews were used to gain a broad understanding of how Oregon kindergarten teachers perceived the utilization and implementation of the OKA. Results have the potential to support the improvement of instruction, training, and school readiness practices.

**Utility survey.** Questions included on the utility portion of the online survey were modified from the Abbreviated Acceptability Rating Profile (AARP) as detailed in Table 6 (Tarnowski & Simonian, 1992). Additionally, questions were reviewed and finalized through an iterative and collaborative process with ODE staff including a policy analyst, preK- 3<sup>rd</sup> grade coordinator, and manager of test design and administration. Participants were asked to rank their responses to eight statements on a six point Likert scale based on their experience with the OKA during the 2014 – 2015 academic year. After completing the utility survey, participants were given the opportunity to provide any additional comments they wanted to include about the OKA. A copy of the utility survey is included in appendix A.

**Descriptive questionnaire.** Participants were asked to complete a descriptive questionnaire as a supplement to the OKA utility survey. The questionnaire included both categorical response, and open-ended items. At the end of the survey, participants were given the opportunity to enter their email and be contacted about a follow-up phone interview. Completion of the OKA utility survey descriptive questionnaire was designed to take participants no longer than 10 – 15 minutes. A copy of the descriptive questionnaire is included in Appendix B and descriptive variables are described below.

Table 6. *Modification of the Abbreviated Acceptability Rating Profile (AARP) for the Purpose of Creating a Utility Survey of the Oregon Kindergarten Assessment*

| Original AARP Item  | Modified OKA Utility Survey Item   |
|---|--|
| 1. This is an acceptable treatment for the child’s behavior                   | 1. This is an acceptable tool for understanding what children know and are able to do upon entering kindergarten |
| 2. The treatment should be effective in changing the child’s behavior         | 2. This assessment will contribute to an overall understanding of students’ skills as they enter my classroom    |
| 3. The child’s behavior is severe enough to justify the use of this treatment | 3. The diverse skill set of children entering kindergarten justifies the use of this assessment                  |
| 4. I would be willing to use this treatment with my child                     | 4. I support the continued use of this assessment without the need for further refinements                       |
| 5. This treatment would not have bad side effects for the child               | 5. The assessment is developmentally appropriate for children of kindergarten age                                |
| 6. I liked this treatment   | 6. I liked this assessment   |
| 7. The treatment was a good way to handle the child’s problem                 | 7. I understand the purpose and intent of the Oregon Kindergarten Assessment                                     |
| 8. Overall, the treatment would help the child                                | 8. Overall the assessment provides beneficial information about children entering kindergarten in Oregon         |

*Note.* Items are rated using a six-point Likert-type rating of strongly disagree, disagree, slightly disagree, slightly agree, agree, and strongly agree. Final item construction incorporated expert review.

**Descriptive variables.** Descriptive data were collected on the participants in order to assess differences in survey answers based on the following variables:

1. ***Role in kindergarten classroom.*** Role in the classroom was specified as (1) Licensed classroom teacher, (2) instructional assistant, or (3) other.

2. ***Degree level.*** The highest level of education completed by each participant was organized by (1) high school, (2) 2 – year degree, (3) 4 – year degree, or (5) graduate degree and beyond.
3. ***Teaching experience.*** Years of teaching experience with a licensed teaching credential was categorized by (a) 0, (b) 1 – 2, (c) 3 – 5, (d) 6 – 9, and (d) more than 10.
4. ***Number of children in classroom.*** Teachers were able to indicate the number of children in their classroom by choosing either, (a) less than 10, (b) 10 – 15, (c) 20 – 25, (d) 25 – 30, or (e) more than 30.
5. ***Administration and training on the OKA.*** Teachers were asked to indicate whether or not they were trained on the administration of the OKA, and whether or not they personally administered the assessment, and if so which components.
6. ***Children with disabilities served.*** Teachers indicated if children with disabilities were included in their classroom, and if they administered the OKA to children with disabilities.
7. ***Experience administering the OKA.*** Teachers indicated if they had previously administered the OKA during the 2013 – 2014 academic year, and if so whether or not they received results.

**Phone interviews.** Following completion of the demographic questionnaire and OKA utility survey, participants were asked if they were interested in being contacted for the purpose of a follow-up phone interview. If they chose to participate in the follow-up interview they were given the opportunity to choose between either phone or email as the



mode for initial follow-up contact. Sixty-three percent of survey participants ( $n = 212$ ) indicated that they were interested in being contacted for a phone interview. Of the participants who indicated interest in completing a follow-up interview, 25 were initially contacted after random selection. Of those 25 participants, four opted out and additional participants were chosen at random and contacted until a minimum of 25 follow-up interviews were completed. A total of 26 follow-up interviews were completed with primary kindergarten classroom teachers ( $n = 24$ ) and instructional assistants ( $n = 2$ ). The majority of participants ( $n = 24$ ) indicated it was their second year administering the OKA. Participants were asked open-ended questions generated based on the constructs of the online survey. All participants received a \$25 Amazon.com gift card as a thank you for their participation. Phone interview questions are included in appendix C.

### **Analysis**

A combination of quantitative and qualitative analyses were used to analyze data collected by the online survey and follow-up phone interviews. Descriptive statistics, t-tests, and ANOVA were used for computed average survey scores and the calculation of mean item scores for ordered and categorical response items. Teacher demographics were coded as dichotomous or multinomial variables and utility survey average total scores were entered as a continuous outcome variable for t – test analysis. Quantitative analyses were conducted using SPSS 20. Qualitative thematic analyses (Merriam, 2009; Miles, Huberman, & Saldana, 2014; Saldana, 2013) were conducted for answers to open-ended survey questions and phone interviews. Thematic analyses included a two level coding procedure as suggested by Merriam (2009). First and second level codes for open-ended survey and interview questions were defined by construct and operationalized in

appendices D-J. Three researchers independently coded responses. Criteria reliability was set at 90% accuracy as determined by majority agreement in overlapping codes for each participant response, for each open-ended question (Merriam, 2009).

**Independent t-test.** An independent t-test was used to explore differences in average utility survey scores between two sets of dichotomous groups: 1) classroom teachers and instructional assistants, and 2) participants who indicated children with disabilities were served in their classroom and those who did not. Results included mean differences with confidence intervals, t-statistic, degrees of freedom and significance values.

**ANOVA.** A between subjects ANOVA was used to test differences in average utility survey scores for four groups of OKA administration segments: (1) administered only the approaches to learning component, (2) administered only the early math and early literacy components, (3) administered all components of the OKA, and (4) those who did not indicate the components administered. Results are reported using mean differences with confidence intervals, t-statistic, degrees of freedom and significance values.

## CHAPTER IV

### RESULTS

#### **Examination of Statewide Data**

Quantitative analyses were conducted using statewide data collected by ODE. A total of 43,072 OKA assessments were collected. Gender, ethnicity-race, economic disadvantage, special education, and public preK participation were included (Table 4). Analyses included descriptive statistics, Mann-Whitney U tests, and a Kruskal-Wallis H tests to determine if difference existed between group scores on the OKA based on demographic characteristics. Analyses described in this section address the first two research questions:

1. Are there significant differences in children's performance on the OKA based on demographic characteristics?
2. What is the performance of children previously receiving Early Childhood Special Education (ECSE) on the OKA?

#### **Demographic Characteristics**

**Mann-Whitney U test.** A Mann-Whitney U test was computed to determine if there was difference in OKA scores between children who were (a) identified as economically disadvantaged and those who were not, (b) identified as attending Oregon public preK and those who were not, and (c) identified as having a disability or delay and those who were not. An adjusted  $p$  – value was used based on a Bonferroni correction of  $p < .004$  in order to reduce experiment wise type I error rate. Distributions of the OKA scores for all groups were similar, as assessed by visual inspection. However, average approaches to learning (ATL) scores, total early math (EM) scores, and number of letter

names (LN) and letter sounds (LS) correct were statistically significant between groups. Children who were not identified as economically disadvantaged had statistically significant higher OKA segment scores than children who were identified as economically disadvantaged. Children identified as not attending Oregon public preK also had significantly higher OKA segment scores than children who attended public preK. Lastly, results of the Mann-Whitney U test revealed statistically higher scores across OKA segments for children without an identified disability or delay when compared to children who were identified. Results are summarized in Tables 7-9.

Table 7. *Mann-Whitney Summary Table for Group Differences on OKA Scores Based on Economic Status*

| OKA segment            | Economic Disadvantage              |  | <i>U</i> | <i>z</i> | <i>p</i> | <i>r</i> |
|------------------------|------------------------------------|--|----------|----------|----------|----------|
|                        | Identified<br>( <i>n</i> = 23,126) | Not Identified<br>( <i>n</i> = 19,948) |          |          |          |          |
| Approaches to learning | <i>Mdn</i> 3.60                    | <i>Mdn</i> 3.86                        | 1.71E8   | -33.78   | .001     | 0.23     |
| Early math             | 7.00                               | 9.00                                   | 1.51E8   | -51.23   | .001     | 0.34     |
| Letter names           | 7.00                               | 24.00                                  | 1.28E8   | -67.82   | .001     | 0.46     |
| Letter sounds          | 1.00                               | 5.00                                   | 1.31E8   | -65.71   | .001     | 0.45     |

*Note.* Criterion for significance was set using a Bonferroni correction of  $p < .004$ .

Table 8. *Mann-Whitney Summary Table for Group Differences on OKA Scores Based on Public PreK Attendance*

| OKA segment            | Attended Public PreK              |  | <i>U</i>     | <i>z</i> | <i>p</i> | <i>r</i> |
|------------------------|-----------------------------------|--|--------------|----------|----------|----------|
|                        | Identified<br>( <i>n</i> = 7,392) | Not Identified<br>( <i>n</i> = 35,680) |              |          |          |          |
|                        | <i>Mdn</i>                        | <i>Mdn</i>                             |              |          |          |          |
| Approaches to learning | 3.53                              | 3.80                                   | 1.02E8       | -21.70   | .001     | 0.15     |
| Early math             | 7.00                              | 8.00                                   | 1.03E8       | -20.43   | .001     | 0.14     |
| Letter names           | 9.00                              | 17.00                                  | 97,090,042.0 | -24.91   | .001     | 0.17     |
| Letter sounds          | 1.00                              | 2.00                                   | 92,781,925.5 | -28.89   | .001     | 0.20     |

*Note.* Criterion for significance was set using a Bonferroni correction of  $p < .004$ .

Table 9. *Mann-Whitney Summary Table for Group Differences on OKA Scores Based on Disability Status*

| OKA segment            | Disability Status                 |  | <i>U</i>     | <i>z</i> | <i>p</i> | <i>r</i> |
|------------------------|-----------------------------------|--|--------------|----------|----------|----------|
|                        | Identified<br>( <i>n</i> = 4,288) | Not Identified<br>( <i>n</i> = 38,784) |              |          |          |          |
|                        | <i>Mdn</i>                        | <i>Mdn</i>                             |              |          |          |          |
| Approaches to learning | 3.06                              | 3.80                                   | 45,101,641.0 | -41.29   | .001     | 0.28     |
| Early math             | 6.00                              | 8.00                                   | 54,933,009.5 | -27.13   | .001     | 0.20     |
| Letter names           | 6.00                              | 17.00                                  | 53,288,366.5 | -27.40   | .001     | 0.20     |
| Letter sounds          | 0.00                              | 2.00                                   | 52,974,541.0 | -27.18   | .001     | 0.18     |

*Note.* Criterion for significance was set using a Bonferroni correction of  $p < .004$ .

## Children Previously Receiving ECSE Services

Children categorized as receiving ECSE services included 4,288 children.

**Kruskal-Wallis H test.** A Kruskal-Wallis H test was conducted to determine if there were differences in ATL OKA scores between five groups of child progress categories: (1) did not improve functioning (NIF), (2) improved functioning but not sufficient to move nearer to the functioning comparable to same-aged peers (IFN), (3) improved functioning to a level nearer to same-aged peers but did not reach it (IFC), (4) improved functioning to reach a level comparable to same-aged peers (IFP), and (5) maintained functioning at a level comparable to same-aged peers (MFP). Results are reported for each ATL based on a child's progress category in each of the three outcome areas upon exit from ECSE: (A) positive social-emotional skills, (B) acquisition of knowledge and skills, and (C) use of appropriate behaviors to meet their need. Distributions of ATL scores were similar for all groups, as assessed by visual inspection of a boxplot. However, median ATL scores were statistically significant between progress categories for positive social-emotional skills,  $\chi^2(4) = 105.75, p = .001$ , acquisition of knowledge and skills,  $\chi^2(4) = 13.688, p = .008$ , and use of appropriate behaviors to meet needs,  $\chi^2(4) = 41.22, p = .001$ . Pairwise comparisons were performed using Dunn's (1964) procedure with a Bonferroni correction for multiple comparisons. Results are summarized in Table 10.

Table 10. *Group Differences in Approaches to Learning Scores Based on ECSE Exit Progress Category*

| Progress Category | Outcome Area |                       |           |          |                   |           |          |                       |           |
|-------------------|--------------|-----------------------|-----------|----------|-------------------|-----------|----------|-----------------------|-----------|
|                   | A            |                       |           | B        |                   |           | C        |                       |           |
|                   | <i>n</i>     | <i>Mdn</i>            | <i>SD</i> | <i>n</i> | <i>Mdn</i>        | <i>SD</i> | <i>n</i> | <i>Mdn</i>            | <i>SD</i> |
| NIF               | 120          | 2.73 <sub>a</sub>     | 0.85      | 61       | 2.73              | 0.90      | 87       | 2.93 <sub>e,g</sub>   | 0.84      |
| IFN               | 258          | 2.86 <sub>b</sub>     | 0.87      | 752      | 3.00              | 0.90      | 863      | 3.00 <sub>e</sub>     | 0.88      |
| IFC               | 1278         | 2.87 <sub>a,b,c</sub> | 0.87      | 1049     | 2.93              | 0.89      | 723      | 2.80                  | 0.90      |
| IFP               | 182          | 3.40 <sub>a,b,c</sub> | 0.83      | 13       | 3.00 <sub>d</sub> | 1.00      | 65       | 3.20 <sub>e,f,g</sub> | 0.90      |
| MFP               | 49           | 3.80 <sub>c</sub>     | 0.82      | 12       | 3.73 <sub>d</sub> | 0.92      | 149      | 3.26 <sub>f</sub>     | 0.82      |

*Note.* Medians in a column sharing subscripts are significantly different from each other with small effects,  $r < .20$ . Outcome areas and progress categories are defined as: (A) positive social-emotional skills, (B) acquisition and use of knowledge and skills, (C) use of appropriate behaviors to meet needs, (NIF) did not improve functioning, (IFN) improved functioning but not sufficient to move nearer to the functioning comparable to same-aged peers, (IFC) improved functioning to a level nearer to same aged peers but did not reach it, (IFP) improved functioning at a level comparable to same aged peers, and (MFP) maintained functioning at a level comparable to same-aged peers.

**Mann-Whitney U test.** A Mann-Whitney U test was computed to determine if there were differences in OKA scores between (a) children exiting ECSE who improved functioning to reach a level comparable to same-aged peers (IFP) and their same-aged peers entering Oregon kindergarten fall 2013, and (b) children exiting ECSE who maintained functioning at a level comparable to same-aged peers (MFP) and their same-aged peers entering Oregon kindergarten fall 2013. An adjusted  $p$  – value was used based on a Bonferroni correction of  $p < .002$  in order to reduce experiment wise type I error rate. Distributions of the OKA segment scores for all groups were similar, as assessed by visual inspection.

***Outcome A: Positive social-emotional skills.***

*Improved functioning to reach a level comparable to same-aged peers.*

Significant differences between groups were found in average approaches to learning scores, and number of letter sounds correct. No significant differences between groups were found with early math scores or letter names correct.

*Maintained functioning at a level comparable to same-aged peers.* No significant differences were found between children existing ECSE and same-age peers entering kindergarten in average approaches to learning, early math, numbers of letter names, or number of letter sounds correct.

***Outcome B: Acquisition of knowledge and skills.***

*Improved functioning to reach a level comparable to same-aged peers.* No

significant differences were found between groups for approaches to learning, early math, letter names or letter sounds correct.

*Maintained functioning at a level comparable to same-aged peers.* No significant differences were found between groups for approaches to learning, early math, letter names or letter sounds correct.

***Outcome C: Use of appropriate behaviors to meet their needs.***

*Improved functioning to reach a level comparable to same-aged peers.*

Statistically significant group differences were found on average approaches to learning scores, total early math scores, and number of letter names and letter sounds correct.

*Maintained functioning to reach a level of comparable to same-aged peers.*

Statistically significant differences between groups were found for all OKA segments. On average significant differences indicated that children not transitioning from ECSE



displayed higher scores on OKA items. Results are summarized in Tables 11 – 12.

Table 11. *Mann-Whitney Summary Table for Group Differences on OKA Scores by OSEP Outcome Area Between Same-Aged Peers and Children Exiting ECSE Who Improved Functioning at a Level Comparable to Same-Aged Peers*

| OKA | Outcome | Group     |            |                 |            | <i>U</i>     | <i>z</i> | <i>p</i> |
|-----|---------|-----------|------------|-----------------|------------|--------------|----------|----------|
|     |         | ECSE: IFP |            | Same-Aged Peers |            |              |          |          |
|     |         | <i>n</i>  | <i>Mdn</i> | <i>n</i>        | <i>Mdn</i> |              |          |          |
| ATL | A       | 171       | 3.40       | 39,610          | 3.73       | 2,891,318.50 | -3.31    | .001     |
|     | B       | 13        | 3.00       |                 |            | 177,042.50   | -1.95    |          |
|     | C       | 56        | 3.20       |                 |            | 729,442.00   | -4.43    | .001     |
| EM  | A       | 173       | 7.00       | 39,706          | 8.00       | 3,197,571.50 | -1.57    |          |
|     | B       | 13        | 10.00      |                 |            | 203,576.00   | -1.32    |          |
|     | C       | 60        | 6.50       |                 |            | 960,066.50   | -2.61    |          |
| LN  | A       | 170       | 11.00      | 39,337          | 16.00      | 3,019,837.50 | -2.18    |          |
|     | B       | 13        | 21.00      |                 |            | 201,497.50   | -1.32    |          |
|     | C       | 60        | 6.00       |                 |            | 899,842.00   | -3.20    | .001     |
| LS  | A       | 168       | 1.00       | 39,067          | 2.00       | 2,751,406.00 | -3.72    | .001     |
|     | B       | 13        | 4.00       |                 |            | 216,779.00   | -0.94    |          |
|     | C       | 60        | 0.00       |                 |            | 859,727.50   | -3.67    | .001     |

*Note.* Criterion for significant was set using a Bonferroni correction of  $p < .002$ . Only significant  $p$ -values reported. Effect sizes are very small,  $r < .02$ . Outcome areas are defined as: (A) positive social-emotional skills, (B) acquisition and use of knowledge and skills, and (C) use of appropriate behaviors to meet needs. ATL = approaches to learning, EM = early mathematics, LN = letter names, LS = letter sounds. IFP = Improved functioning to reach a level comparable to same-aged peers.

Table 12. *Mann-Whitney Summary Table for Group Differences on OKA Scores by OSEP Outcome Area Between Same-Aged Peers and Children Exiting ECSE Who Maintained Functioning at a Level Comparable to Same-Aged Peers*

| OKA | Outcome | Group     |            |                 |            | <i>U</i>   | <i>z</i> | <i>p</i> |
|-----|---------|-----------|------------|-----------------|------------|------------|----------|----------|
|     |         | ECSE: MFP |            | Same-Aged Peers |            |            |          |          |
|     |         | <i>n</i>  | <i>Mdn</i> | <i>n</i>        | <i>Mdn</i> |            |          |          |
| ATL | A       | 49        | 3.80       | 39,610          | 3.73       | 941738.00  | -0.36    |          |
|     | B       | 12        | 3.73       |                 |            | 237130.00  | -0.01    |          |
|     | C       | 143       | 3.26       |                 |            | 2075174.50 | -5.53    | .001     |
| EM  | A       | 49        | 8.00       | 39,706          | 8.00       | 895271.00  | -0.97    |          |
|     | B       | 12        | 10.00      |                 |            | 150582.00  | -2.22    |          |
|     | C       | 145       | 7.00       |                 |            | 2433837.00 | -3.23    | .001     |
| LN  | A       | 49        | 21.00      | 39,337          | 16.00      | 907509.00  | -0.71    |          |
|     | B       | 12        | 22.00      |                 |            | 205730.500 | -0.77    |          |
|     | C       | 142       | 9.5        |                 |            | 2344815.00 | -3.311   | .001     |
| LS  | A       | 48        | 3.00       | 39,067          | 2.00       | 930913.50  | -0.88    |          |
|     | B       | 12        | 8.50       |                 |            | 189308.00  | -1.18    |          |
|     | C       | 141       | 0.00       |                 |            | 2256182.00 | -3.81    | .001     |

*Note.* Criterion for significance was set using a Bonferroni correction of  $p < .002$ . Only significant  $p$ -values are reported. Effect sizes are very small,  $r < .02$ . Outcome areas are defined as: (A) positive social-emotional skills, (B) acquisition and use of knowledge and skills, and (C) use of appropriate behaviors to meet needs. ATL = approaches to learning, EM = early mathematics, LN = letter names, LS = letter sounds. MFP = maintained functioning at a level comparable to same-aged peers.

### Web-Based Survey and Follow-up Interviews

Qualitative and quantitative analyses were conducted on data collected from the web-based survey and follow-up interviews to address the final research question:

3. What is the utility of the OKA, as evaluated by kindergarten teachers?

Quantitative analyses consisted of an independent t-test for scores on the utility survey and an analysis of variance (ANOVA) for average scores on the utility survey. A qualitative thematic analysis was conducted for open-ended survey and follow-up interview questions.

### **Web-Based Survey**

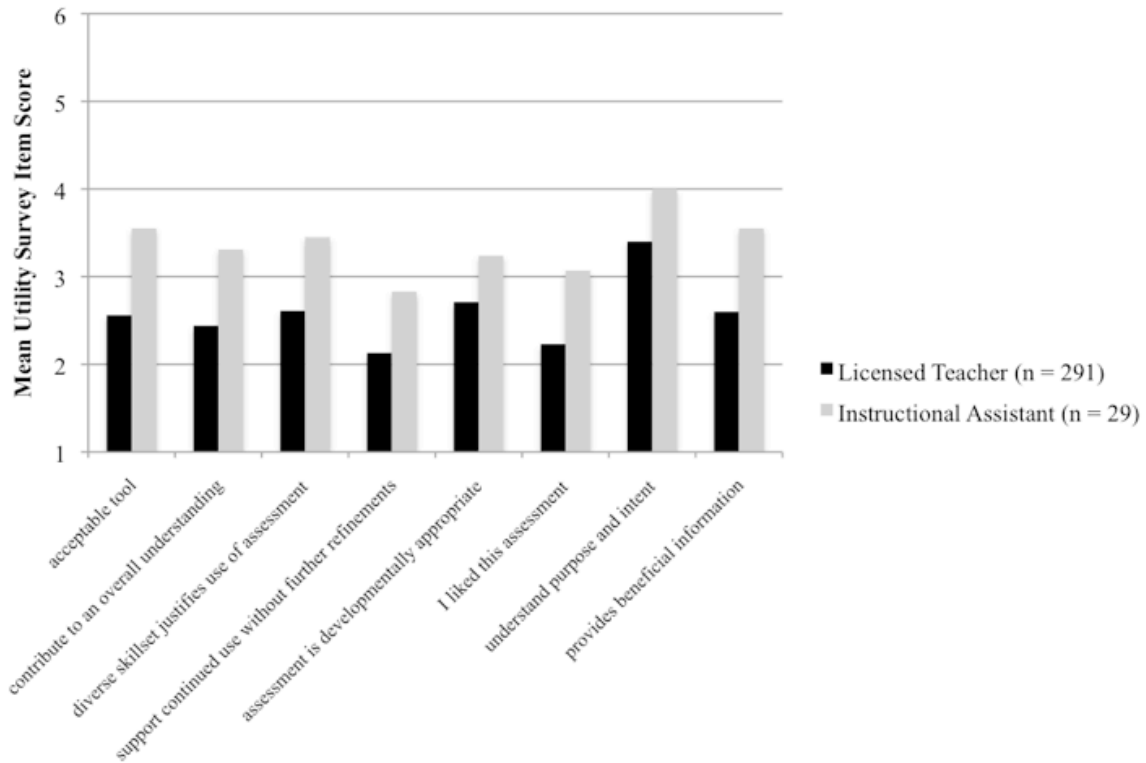
Kindergarten teachers ( $n = 315$ ) and instructional assistants ( $n = 39$ ) completed the web-based descriptive questionnaire and utility survey.

**Utility survey scores.** Utility survey scores were calculated based on responses to eight statements ranked on a six-point Likert-type scale of: (1) strongly disagree, (2) disagree, (3) slightly disagree, (4) slightly agree, (5) agree, and (6) strongly agree. Descriptive statistics were calculated on item survey scores to document means and standard deviations based on classroom role (i.e., licensed classroom teacher, instructional assistant). The highest ranking for an individual item score was six. Item scores for each of the eight utility questions ranged from one to four for classroom teachers and instructional assistants (Figure 6). Table 13 provides mean item utility scores by classroom role. The total possible average score on the eight question utility survey was six. Average utility score for licensed classroom teachers was 2.58 ( $SD = 0.97$ ), and instructional assistants 3.36 ( $SD = 0.83$ ). Average utility survey scores by classroom role are displayed in Table 14.

Table 13. Means and Standard Deviations of Utility Survey Item Scores by Classroom Role

| Survey Item   | Licensed Teacher<br>( <i>n</i> = 291) |           | Instructional Assistant<br>( <i>n</i> = 29) |           |
|---|---------------------------------------|-----------|---|-----------|
|   | <i>M</i>                              | <i>SD</i> | <i>M</i>                                    | <i>SD</i> |
| 1. This is an acceptable tool for understanding what children know and are able to do upon entering kindergarten. | 2.56                                  | 1.19      | 3.55  | 0.95      |
| 2. This assessment will contribute to an overall understanding of students' skills as they enter my classroom.    | 2.44                                  | 1.20      | 3.31  | 1.11      |
| 3. The diverse skill set of children entering kindergarten justifies the use of this assessment.                  | 2.61                                  | 1.22      | 3.45  | 0.91      |
| 4. I support continued use of this assessment without the need for further refinements.                           | 2.13                                  | 1.11      | 2.83  | 1.07      |
| 5. This assessment is developmentally appropriate for children of kindergarten age.                               | 2.71                                  | 1.24      | 3.24  | 1.10      |
| 6. I liked this assessment.   | 2.23                                  | 1.14      | 3.07  | 1.07      |
| 7. I understand the purpose and intent of the Oregon Kindergarten Assessment.                                     | 3.40                                  | 1.20      | 4.00  | 0.82      |
| 8. Overall the assessment provides beneficial information about children entering kindergarten in Oregon.         | 2.60                                  | 1.24      | 3.55  | 1.00      |

*Note.* Items are rated using a six-point Likert-type rating of (1) strongly disagree, (2) disagree, (3) slightly disagree, (4) slightly agree, (5) agree, and (6) strongly agree.



**Figure 6.** Mean utility survey item scores by classroom role.

*Note.* Higher mean scores indicate stronger agreement with survey statements. Utility scores correspond to the follow Likert ratings: (1) strongly disagree, (2) disagree, (3) slightly disagree, (4) slightly agree, (5) agree, and (6) strongly agree.

Table 14. Means and Standard Deviations of Average Utility Survey Score by Classroom Role

| Role                       | Percent | <i>n</i> | <i>M</i> | <i>SD</i> |
|----------------------------|---------|----------|----------|-----------|
| Licensed classroom teacher | 91%     | 291      | 2.58*    | 0.97      |
| Instructional Assistant    | 9%      | 29       | 3.36*    | 0.83      |

*Note.* \* Group means are significantly different with a small effect,  $p = .001$ ,  $r = .23$ . Items are rated using a six-point Likert-type rating of (1) strongly disagree, (2) disagree, (3) slightly disagree, (4) slightly agree, (5) agree, and (6) strongly agree.

**Independent t-test.** An independent t-test was used to explore differences in average utility survey scores between two sets of dichotomous groups: 1) classroom teachers and instructional assistants, and 2) participants who indicated children with disabilities were served in their classroom and those who did not. On average, instructional assistants indicated higher agreement with statements on the utility survey ( $M = 3.36, SE = 0.15$ ), than licensed classroom teachers ( $M = 2.60, SE = 0.06$ ). This difference,  $-0.77$ , 95% CI  $[-1.15, -0.40]$ , was statistically significant,  $t(318) = -4.12, p = .001$ , representing a small effect size,  $r = 0.23$ . No significant differences were found in average utility scores based on whether or not children with disabilities were served in the classroom.

**ANOVA.** A between subjects ANOVA was used to explore differences in average utility survey scores for four groups of OKA administration segments: (1) administered only the approaches to learning component, (2) administered only the early math and early literacy components, (3) administered all components of the OKA, and (4) those who did not indicate the components administered. Results of the overall ANOVA indicated a statistically significant effect of OKA administration segment on average utility survey score,  $F(3, 329) = 4.92, p = .002, \eta^2 = .21$ . Further inspection of follow-up post hoc analyses using Tukey HSD revealed differences for average scores of those who administered all components of the OKA ( $M = 2.46, SE = 0.08$ ) and those who did not indicate the components administered ( $M = 2.89, SE = 0.11$ ),  $t(237) = 3.19, p = .002$ . This difference  $0.43$ , 95% CI  $[0.16, 0.69]$ , was statistically significant representing a small effect size of  $r = 0.20$ . Furthermore, a significant difference,  $0.48$ , 95% CI  $[0.15, 0.82]$  was revealed for those who administered all components of the OKA and those

who only administered the early math and early literacy components ( $M = 2.95$ ,  $SE = 0.14$ ),  $t(193) = 2.83$ ,  $p = .005$ , representing a small effect size of  $r = 0.20$ . No significant differences were found for those who only administered the approaches to learning segment of the OKA. Table 15 details the significant results.

Table 15. *Group Differences for OKA Administration Component and Average Utility Survey Score*

| Measure                      | OKA component            |           |                                   |           |                          |           |
|------------------------------|--------------------------|-----------|-----------------------------------|-----------|--------------------------|-----------|
|                              | All OKA<br>( $n = 160$ ) |           | Math and literacy<br>( $n = 45$ ) |           | Unknown<br>( $n = 181$ ) |           |
|                              | <i>M</i>                 | <i>SD</i> | <i>M</i>                          | <i>SD</i> | <i>M</i>                 | <i>SD</i> |
| Average utility survey score | 2.46 <sub>a,b</sub>      | 1.00      | 2.94 <sub>a</sub>                 | 0.87      | 2.89 <sub>b</sub>        | 1.00      |

*Note.* Means in a row sharing subscripts are significantly different from each other with a small effect,  $r = .20$ . For all measures, higher means indicate stronger agreement with OKA utility survey items. Items are rated using a six-point Likert-type rating of (1) strongly disagree, (2) disagree, (3) slightly disagree, (4) slightly agree, (5) agree, and (6) strongly agree.

**Calculated means for preparedness survey items.** Survey questions related to preparedness were all ordered response questions with the following ratings: (1) strongly disagree, (2) disagree, (3) slightly disagree, (4) agree, and (5) strongly agree. Participants were asked to indicate their agreement with the statement, *I feel prepared to teach the skills and behaviors addressed by the Oregon Kindergarten Assessment*, for each of the OKA components: (a) early English literacy, (b) early Spanish literacy, (c) early mathematics, and (d) approaches to learning. Respondents overall mean rating for English literacy was 4.47 ( $SD = 0.76$ ). The mean rating for early Spanish literacy was

2.53 ( $SD = 1.43$ ). Respondent overall mean rating for preparedness to teach the skills and behaviors addressed by the early math components of the OKA was 4.45 ( $SD = 0.79$ ) and the mean rating for approaches to learning was 4.40 ( $SD = 0.82$ ). All mean rating scores indicated that overall respondents agreed that they felt prepared to teach the skills addressed by the OKA with the exception of early Spanish literacy. Overall respondents did not agree that they were prepared to teach the skills addressed by the early Spanish literacy segment of the OKA.

**Qualitative thematic analysis.** Three open-ended questions were included in the online survey. Thematic analysis included a two level coding procedure as suggested by Merriam (2009). First and second level codes for open-ended survey questions were defined by construct and operationalized in appendices D-F. Once themes were identified and initially coded by the primary researcher, two additional doctoral students independently coded responses. Criterion for reliability was set at 90% accuracy as determined by majority agreement in overlapping codes for each participant response, for each open-ended question (Merriam, 2009). Responses contained one or more codes.

**Question 1.** Ninety-one survey respondents (29%) answered the first open-ended question: “What comments or suggestions do you have based on your experience with the OKA training?” Three first level themes were identified from the responses: (a) positive statement, (b) critical statement, and (c) other statement. Each first level theme included four, second level themes. Second level themes for both positive and critical statements were identified as: (a) training procedures, (b) training content, (c) training time, and (d) data procedures. Second level themes for other statements not pertaining to the training topic included: (a) kindergarten assessment (KA) procedures, (b) KA purpose, (c) KA



results, and (d) KA content. A combined 55% of survey respondents provided either a positive (24%) or critical (31%) statement regarding the OKA training. Positive responses were relatively evenly disbursed across second level codes; however, critical responses mostly pertained to specific procedures for the OKA training and procedures for entering/collecting data on the OKA. Forty-five percent of survey respondents answered the first question with a statement pertaining to a construct other than what was addressed by the survey question (i.e., training). Of these responses 40% commented on logistical procedures for administering the OKA, 22% commented on the results or information available from the OKA, 21% on the content (existing or lacking) on the OKA, and 17% commented on the purpose or reason for the OKA. Table 16 provides a summary of themes and examples of respondent answers for question 1.

Table 16. *Summary of Themes Identified for Question 1: What comments or suggestions do you have based on your experience with the OKA training?*

| Theme                 | Coded Responses | Examples of Survey Data  |
|-----------------------|-----------------|--|
| 1. Positive statement | (n = 13)        | “Training was good.”<br>“It was a simple training by my admin to ensure our team was administrating the test the same way.”  |
| Training procedures   | (n = 5)         | “I really appreciate taping the webinars so I could go back and review any questions I had later. It made it less stressful when I could not exactly remember how to or a specific questions.” |
| Training content      | (n = 8)         | “The training is clear and outlines the expectations for what you are looking for during the test.”  |
| Training time         | (n = 5)         | “The training was efficient.”  |
| 2. Critical statement |                 |  |

|                     |          |   |
|---------------------|----------|---|
| Training procedures | (n = 13) | <p>“Our training was not done at our school site which meant that I had to travel to a different building during my after school prep time. I would have preferred being trained at my own school to make the most efficient use of my time.”</p> <p>“Please offer the training before students arrive at school and/or extend the testing window.”</p> |
| Training content    | (n = 11) | <p>“Some directions regarding test administration are ambiguous.”</p> <p>“Boring. Much of what we were presented could have been gone over briefly—too much involved with it being ‘secret’ with regards to the content of the test.”</p>   |
| Training time       | (n = 13) | <p>“Way too long. We understand what to do and what not to do. We don’t have time to sit and have it read to us.”</p>   |
| Data procedures     | (n = 3)  | <p>“The training included directions on how to enter the scores online, but its hard to view both the site for entering scores and view the training at the same time in order to use the training video as a model and complete the steps for entering scores.”</p>  |

3. Other statement

|               |          |  |
|---------------|----------|--|
| KA procedures | (n = 23) | <p>“The information provided by this assessment has no value to me as a teacher. We are not allowed to take any notes or use any information to gather during assessing for instructional purposes.”</p> <p>“Some of the directions were confusing for little ones—especially in the math area.”</p> |
| KA purpose    | (n = 10) | <p>“This assessment does not give me any useful information regarding the ‘readiness’ of my students”</p> <p>“I am unclear about the purpose and intent of this assessment. What will be done with this information and why is there no feedback provided to teachers?”</p>                          |

|            |          |   |
|------------|----------|---|
| KA results | (n = 13) | <p>“A true assessment would have the teacher write or document counting, numeral recognition, letter recognition. The teacher would then also be allowed to use the data for instructional purposes so that assessment time spent at the beginning of the year is useful.”</p> <p>“Teachers need immediate access to the results. Otherwise we have to do duplicate (and in cases triplicate) testing.”</p> <p>“What is the purpose of administering assessments whose results will not be shared with us.”</p> |
| KA content | (n = 12) | <p>“The KA does not yield information useful for baseline data. It assumes that most students know how to add, subtract, identify letters and numbers coming into school.”</p>  |

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*Note.* Not all codes received second level coding. KA = kindergarten assessment.

**Question 2.** Ninety-five survey respondents (29%) provided answers to the second open-ended question: “What improvements would you suggest for next year’s OKA? Seven first level themes were identified from answers to the second question. Three first level themes included second level coding in order to capture more specific underlying constructs. The three first level themes coded with the highest number of responses were: (a) content (i.e., suggestions pertaining to the actual content of the OKA segments or overall), (b) procedures (i.e., comments refer to the procedures of administering the OKA at either the student, classroom, district, or systems level), and (c) results (i.e., suggestions pertaining to receiving or interpreting the results of the OKA). Table 17 provides a summary of themes along with examples of respondent answers for question 2.

**Question 3.** Sixty-one survey respondents (17%) provided answers to the third open-ended survey statement: “Please feel free to provide any additional comments regarding the OKA.” Eight first level themes were identified based on participant

responses. Of the eight first level themes, three contained second level coding in order to capture more precise underlying constructs. The three first level themes coded with the highest number of responses were: (a) purpose (i.e., comments address the intent or purpose of the OKA), (b) results (i.e., comments pertain to receiving or interpreting the results), and (c) procedures (i.e., comments refer to the procedures of administering the OKA at either the student, classroom, district, or systems level). Table 18 provides a summary of these themes along with examples of respondent answers for the third question.

Table 17. *Summary of Themes Identified for Question 2: What improvements would you suggest for next year's OKA?*

| Theme          | Coded Responses | Examples of Survey Data  |
|----------------|-----------------|--|
| 1. Discontinue | (n = 9)         | “Discard it and start over with a new assessment that is appropriate for kindergarteners of all levels.”   |
| 2. Families    | (n = 2)         | “The brochure for parents should be far briefer and less specific. Or it should be given to parents after the assessment and written to explain what they have just done.”   |
| 3. Results     | (n = 32)        | <p>“When we don’t see results, there is no purpose in putting kids through that testing the first week of school.”</p> <p>“I think the assessment is fine, but wish I had received the data from last year.”</p> <p>“Allow us to receive the OKA results way earlier so we can utilize the information in a much more meaningful way.”</p> <p>“Provide teachers with the compiled results of the assessments early in the school year. Last year I did not receive results until spring, which was useless.”</p> <p>“Either share the results with teachers, or let them use their valuable time in other more productive ways.”</p> |

|                        |          |  |
|------------------------|----------|--|
| 4. Purpose             | (n = 2)  | “I have serious concerns about why this assessment need to be administered and the intent with which the data is being collected.”   |
| Value                  | (n = 17) | “I’m not convinced that an assessment of students at the beginning of the year is a good thing. If kindergarten students were given the assessment again at the end of the year to show growth and learning, I think the information would be more useful. A lot of the information that students are assessed on is information that they should be learning in kindergarten.         |
| Early learning         | (n = 2)  | “Use the results to push public/government/programs to improve preschool programs, especially for low SES kids/families!”  |
| 5. Content             | (n = 9)  | “There is no assessment component that addresses other areas of concern (i.e., gross motor).”  |
| Math                   | (n = 15) | <p>“There are some questions whose answer can be guessed and do not necessarily show student’s knowledge or understanding.”</p> <p>“The math tests are too difficult. Numbers and operations for the most part do not align with the CCSS’s in kindergarten.”</p> <p>“Math test should start with a low-level question and increase in difficulty, stopping after a wrong answer.”</p> |
| Literacy               | (n = 14) | <p>“All alphabet letters (upper and lowercase) should be presented to students regardless of how many they get wrong, and all consonant letters should be presented to students.”</p> <p>“The letter name and letter sound results differ greatly from the assessments we give directly after, and in which we base our instruction.”</p>  |
| Approaches to learning | (n = 4)  | “I do like the approaches to learning section of the assessment. The questions asked are age appropriate and gives us an opportunity to get to know the students before we fill it out.”   |

|                |          |   |
|----------------|----------|---|
| Spanish        | (n = 1)  | “ Please review the early Spanish literacy section of the exam. In one section, students are asked to name letters, but the letters refer to syllables. This is confusing to students. I believe that if students are being asked to name letters and sounds in English they should be asked the same in Spanish. Being able to say the syllables in Spanish is much harder.” |
| Standards      | (n = 4)  | “I would also like it to cover specific state standards for students entering kindergarten such as writing their name, colors, sounds and letter recognition as well as numbers both in sequence and out of sequence.”  |
| 6. Procedures  | (n = 4)  | “Does the letter recognition piece need to be timed?”   |
| Funding        | (n = 4)  | “Providing funding for test administrators would be very helpful.”  |
| Data entry     | (n = 9)  | “Districts should have someone to enter the data, not the teacher.”<br>“The entering of information is tedious and time consuming. The layout of the data entry needs to be changed in my opinion. I would like to be able to see the kids’ names all the time while entering the data.”  |
| Instructions   | (n = 8)  | “Teachers should note oral answers and students should point to an answer.”   |
| Administration | (n = 9)  | “Please make sure the Life Skills & Behavior students are assessed by Life Skills & Behavior teachers instead of the regular classroom teacher. The regular classroom teacher should never be required to work with violent students.”  |
| 7. Timing      | (n = 15) | “Beginning of the year kindergarten students are shy and reluctant to always participate eagerly with people they are unfamiliar with so the findings can even be inaccurate; especially since it is pressed upon them the first week of school.”   |

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*Note.* Not all codes received second level coding.

Table 18. *Summary of Themes Identified for Question 3: Please feel free to provide any additional comments regarding the OKA.*

| Theme          | Coded Responses | Examples of Survey Data  |
|----------------|-----------------|--|
| 1. Discontinue | (n = 4)         | “Please consider discontinuing or replacing the this test to make it valuable to teachers in the field.”   |
| 2. Families    | (n = 5)         | “Many parents are very angry with our school district for assessing their child before their child even has a change to go to kindergarten.”<br>“Sending out more information about the assessment before the school year starts.”   |
| 3. Results     | (n = 14)        | “We did not receive any test results form the 2013-2014 test or the 2014-2015 test. Tests results must be given back to the teacher to plan effective lessons.”<br>“For two years I have been told that I would have the results of the assessment to guide my teaching. This has not happened. I have yet to see student results.”<br>“I wish I could have the results of the test. It was weird that we gave this test and then received no results to work with or interpret to help us in the beginning of the year. What is the test for if we do not receive the results?” |
| 4. Purpose     | (n = 2)         | “I like the idea of baseline information. We get students with no exposure and it is sad to see them struggle before they have even entered the classroom.”  |
| Value          | (n = 11)        | “This assessment is a waste of my time.”<br>“It is useless to me as a classroom teacher—just a hoop to jump through.”  |
| Early learning | (n = 6)         | “I would like to see the state reaching out to pediatricians and providing lists of ways your child could be ready for kindergarten.”<br>“We need to address poverty and access to preschool for all students.”  |

|                        |         |  |
|------------------------|---------|--|
| 5. Content             | (n = 7) | “This is a poor test. It does not accurately communicate kindergarten readiness.”  |
| Literacy               | (n = 1) | “I think it is definitely helpful to assess the students before they begin the school year. I also feel like it is more useful to know what letters and sounds they can identify overall, rather than just how many they can tell you in a minute.”                          |
| Approaches to learning | (n = 1) | “Approaches to learning is a vital area that many of our students are not prepared for when they enter into a kindergarten classroom.”   |
| ELL                    | (n = 2) | “It is difficult to know what students need interpreters prior to testing—this makes the process very difficult and tedious.”  |
| 6. Procedures          | (n = 5) | “Allowing administration of the assessment online would create a more equitable administration of the test for schools that are virtual.”  |
| Funding                | (n = 1) | “The money would be better spent in the classroom and for additional help.”  |
| Data entry             | (n = 3) | “Teachers are very busy and then we are asked to enter our own data for a standardized assessment—other grades do not have to do that. That part should be fixed.”   |
| Instructions           | (n = 1) | “Many of my students have never experienced multiple choice type questions before the OKA and they end up guessing in the math assessment.”  |
| Administration         | (n = 2) | “In our building the OKA is administered by our Title 1 staff with the exception of the portion about behaviors. I honestly cant recall ever seeing a copy of the assessment myself because other staff members administer it and then we are told we cant see the results.” |



- |                           |         |   |
|---------------------------|---------|---|
| 7. Timing                 | (n = 8) | <p>“At my school we administered the assessment the first time we met our students. It was difficult to decide who needed the translated assessment because I didn’t know the students well enough.”</p> <p>“It does not facilitate assessment for instruction when a test is only administered once. At least if we completed the test at the end of the year we could know student growth.”</p> |
| 8. Additional assessments | (n = 9) | <p>“Considering we already do our district assessments, this test is just an added burden at the beginning of the year, when there are way too many things to worry about already.”</p> <p>“It doesn’t align with our district assessment and I need to do a separate assessment once school starts.”</p> <p>“The OKA is repetitive for the schools that administer DIBELS.”</p>                  |

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*Note.* Not all codes received second level coding.

### **Follow-up Phone Interviews**

Following completion of the demographic questionnaire and OKA utility survey, participants were asked if they were interested in being contacted for the purpose of a follow-up phone interview. Sixty-three percent of survey participants ( $n = 212$ ) indicated that they were interested in being contacted for a phone interview. Of the participants who indicated interest in completing a follow-up interview, 25 were initially contacted after random selection. Of those 25 participants, four opted out and additional participants were chosen at random and contacted until a minimum of 25 follow-up interviews were completed. A total of 26 follow-up interviews were completed with primary kindergarten classroom teachers ( $n = 24$ ) and instructional assistants ( $n = 2$ ).

**Qualitative thematic analysis.** Four open-ended questions were asked during follow-up phone interviews. Thematic analysis included a two-level coding procedure as

suggested by Merriam (2009). First and second level codes for follow-up interview questions are defined by construct and operationalized in appendices G-J. Once themes were identified and initially coded by the primary researcher, two additional doctoral students independently coded responses. Criterion for reliability was set at 90% accuracy as determined by majority agreement in overlapping codes for each participant response, for each open-ended question (Merriam, 2009). Responses contained one or more codes. Follow-up interviews were completed with 26 participants; all participants provided responses for each open-ended follow-up question.

***What do you like most about the Oregon Kindergarten Assessment?*** Six themes were identified from interview responses. Of the six themes, three included secondary codes. The three themes with the highest number of coded first level responses were: (a) procedures (i.e., pertaining to administering the OKA at the student, classroom, district, or systems level), (b) nothing (i.e., comments *nothing* or *can't think of anything*), and (c) purpose (i.e., addresses the intent or purpose of the OKA). Themes are summarized with examples of respondent answers in Table 19.

***What do you like least about the Oregon Kindergarten Assessment?*** Eight themes were identified from interview responses. Of the eight themes, four included secondary codes. The three themes with the highest number of coded first level responses were: (a) content (i.e., pertaining to the content of the OKA segments or overall), (b) results (i.e., pertaining to receiving or interpreting the results), and (c) timing (i.e., pertaining to the time frame of when the OKA is administered). Themes are summarized with examples of respondent answers in Table 20.

***If you were to receive a classroom report immediately following completion of the Oregon Kindergarten Assessment how likely would you be to use the data to inform instruction in your classroom?*** Responses were coded using two first level themes: (a) yes (i.e., indicating they would use the data *at least to some extent*), and (b) no (i.e., indicating they would not use the data). Second and third level codes were identified based on interview responses that included supporting content for using or not using the data. Of the 26 interview participants 62% ( $n = 16$ ) indicated that they would use the data to *at least some extent*, and 38% ( $n = 10$ ) indicated that they would not. Themes are summarized with examples of answers in Table 21.

***Is there anything else that you would like to add about your overall experience with the Oregon Kindergarten Assessment?*** Seven themes were identified based on participant responses to the last interview question. Of the seven themes, four included secondary coding levels. The three first level themes with the highest number of coded responses were: (a) purpose (i.e., comments addressing the intent or purposes of the OKA), (b) content (i.e., comments pertaining to the segment or overall OKA content), and (c) procedures and timing, which both had equal numbers of coded responses. Themes for the last interview question are summarized with examples of answers in Table 22.

Table 19. *Summary of Themes Identified for Phone Interview Question: What do you like most about the Oregon Kindergarten Assessment?*

| Theme                  | Coded Responses | Examples of Survey Data   |
|------------------------|-----------------|---|
| 1. Nothing             | (n = 8)         | “Absolutely nothing.”   |
| 2. Results             | (n = 1)         | “When I do receive the results they aren’t telling me anything new—however they are confirmatory of what I already know.”   |
| 3. Purpose             | (n = 4)         | “I like the idea of it—collecting information about the kiddos before they come into school.”<br>“Attempting to understand where kids are coming into kindergarten at.”   |
| Value                  | (n = 1)         | “It gives me a baseline of what I have to work with for the year.”  |
| Early learning         | (n = 1)         | “I’m just hoping that it will lead to a case for universal preschool in Oregon, or at least in targeted communities.”   |
| 4. Content             |                 |   |
| Literacy               | (n = 1)         | “I liked the letter names and sounds portion—it was fine. It gave me quick information about who knew some and who didn’t know any.”  |
| Approaches to learning | (n = 4)         | “The approaches to learning segment targets good areas.”<br>“Some of the approaches to learning questions I really like – they are similar to ones I ask on my own questionnaire for getting to know children.” |
| 5. Procedures          | (n = 6)         | “We are already using the EasyCBM so the familiar format is helpful and easy to use.”<br>“Ease of administration because it’s similar to DIBELS.”<br>“Designed to be quick.”                                    |

|                |         |  |
|----------------|---------|--|
| Funding        | (n = 1) | “I also really like that our district now pays to train and hire an instructional assistant to help with the academic portions as this was really a burden on my time in the past.”                            |
| Administration | (n = 2) | “I can easily delegate administration of the OKA to my assistants.”  |
| 6. Timing      | (n = 3) | “It’s a formalized early opportunity that gives teachers baseline information as they get started for the school year.”<br>“It’s a structured opportunity to meet with students at the beginning of the year.” |

Table 20. *Summary of Themes Identified for Phone Interview Question: What do you like least about the Oregon Kindergarten Assessment?*

| Theme       | Coded Responses | Examples of Survey Data  |
|-------------|-----------------|--|
| 1. Nothing  | (n = 1)         | “Umm.. nothing.”   |
| 2. Families | (n = 2)         | “I did not like the family’s brochure. It felt like way too much information way too late. Should be given much earlier—even in spring before kindergarten during kindergarten roundup. However, I’m worried the format provides too much pressure about <i>passing a test</i> and there is a lot of variability in how teachers administer the OKA and deliver the information to parents.” |

|            |         |  |
|------------|---------|--|
| 3. Results |         | <p>“In both years I have administered the OKA I have never seen any results or any data. This is incredibly frustrating.”</p> <p>“For our school district we have never seen the results. Never.”</p> <p>“I don’t like that we don’t get the data back from the state. I saw in the newspaper that they have compared it but I have never seen the data. I don’t like that the first time I see the data it is in a local newspaper.”</p> <p>“The biggest problem is that the teachers in my district do not do the academic portion of the OKA and we never receive the results. It is done by instructional assistants and maybe they get the results—but I have never seen them. This is absolutely unhelpful. The only results I have seen have been via the local newspaper.”</p> |
|            | (n = 9) |  |
| 4. Purpose |         | <p>“I have general concerns about the potential movement to expect more out of entering kindergarteners. I don’t want students to feel pressured. I worry that the OKA could push expectations for more out of kindergarteners than what they are really developmentally ready for.”</p>   |
|            | (n = 2) |  |
| Value      |         | <p>“It’s just not beneficial to me as a kindergarten teacher. Even the letter naming doesn’t narrow down what specific letters they know or don’t know because it’s a repetition of letters.”</p>  |
|            | (n = 4) |  |
| 5. Content |         | <p>“The assessment is missing information about gross/fine motor. Would like to be able to gather information on those skills (e.g., whether or not child can hold a pencil, cut with scissors, etc.).”</p>  |
|            | (n = 3) |  |
| Math       |         | <p>“Definitely the math part. A lot of questions are end of the year skills, which to me do not indicate whether or not a child is prepared for kindergarten (e.g., subtraction—I’m okay if they don’t know that).”</p>  |
|            | (n = 2) |  |
| Literacy   |         | <p>“The use of easyCBM and DIBELS to assess entering kindergarteners. It is not appropriate to assess these children at this age, at this time.”</p>   |
|            | (n = 2) |  |

|                        |         |   |
|------------------------|---------|---|
| Approaches to learning | (n = 2) | “The approaches to learning questions are hard because for some kids I don’t know even know them well until later in the school year—or we really haven’t even done anything with them other than test them.”   |
| ELL                    | (n = 1) | “I do not like the fact that the kindergarten Spanish speakers are tested on the syllables and they have to be tested in both English and Spanish alphabet. Syllables are something they start to know at the end of the kindergarten year. It looks like the kids who speak Spanish don’t know anything because they are not being represented accurately.”  |
| 6. Procedures          | (n = 4) | “There is a misconception that teachers get useful information from this assessment. In training protocols we are told explicitly that we cannot use any information or take notes of what we have gleaned from this assessment or we could be liable to lose our license.”   |
| Data Entry             | (n = 1) | “There is really no place to note whether or not the kindergartener is guessing [math portion]. I know if they are guessing and scoring higher because of it—this just isn’t accurate.”   |
| Instruction            | (n = 1) | “In the math section, one of the scripted phrases is <i>point to or choose the answer</i> – they are required to point or we can’t count it. That language is very confusing to the children. They may respond verbally but are confused about the pointing. Additionally, when they point to it for some they are clearly just guessing but a lot were getting more correct than they actually should have. It provided inaccurate information.” |
| 7. Timing              | (n = 5) | “The time frame. We really don’t know the kids very well yet. It’s a stressful, busy time of year when we are teaching routines, etc.”<br>“It takes a lot of time form the learning and teaching, especially during a time when children are trying to get settled and use to routines.”  |
| Additional assessments | (n = 3) | “Did not replace any essential assessment that I had to do anyway.”   |

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*Note.* Not all codes received second level coding. ELL = English language learners.

Table 21. *Summary of Themes Identified for Phone Interview Question: If you were to receive a classroom report immediately following completion of the OKA how likely would you be to use the results to inform instruction in your classroom?*

| Theme                  | Coded Responses | Examples of Survey Data   |
|------------------------|-----------------|---|
| 1. Yes                 |                 | “It would be really nice.”  |
|                        | (n = 9)         | “Very likely.”  |
|                        |                 | “Very likely, I absolutely would.”  |
| Families               |                 | “Very likely. I would really like to have the information by the end of October or early November because that is when we have first conferences with parents. Would be great information to share.”  |
|                        | (n = 1)         |   |
| Results                |                 | “Definitely—give me the information, give it to someone who needs it! I don’t even know why they don’t give it to us, why can we even photocopy it?!”   |
|                        | (n = 1)         |   |
| Additional assessments |                 | “Very likely because I do a similar assessment with DIBELS and it would provide a nice picture.”  |
|                        | (n = 3)         |   |
| Timing                 |                 | “If that happened it would definitely help me put kids in groups and organize my classroom. I would also know where to begin instruction and what I would skip or spend less time on. If the OKA were given at registration instead of the first week of school this would be even more helpful.” |
|                        | (n = 1)         |   |
| Content                |                 |   |
| Literacy               |                 | “I would definitely probably use the letter name and sound information. We do that anyways. That would be useful to have as a baseline.”  |
|                        | (n = 1)         |   |
| 2. No                  |                 | “No at all.”  |
|                        | (n = 1)         |   |
| Results                |                 | “Not likely—it would be nice to have though and to get in a timely fashion but I don’t think the results are valid.”  |
|                        | (n = 1)         |   |



|                        |         |  |
|------------------------|---------|--|
| Additional assessments | (n = 5) | <p>“I wouldn’t because the other methods of data collection I use are more helpful.”</p> <p>“Not at all, we do STAR assessment, so I use this instead. Much more helpful.”</p>   |
| Timing                 | (n = 1) | <p>“If we receive the data at the end of October, not likely because we already have our classroom groups put together for instruction. I would like to see the assessment being done in the summer or sometime prior to the start of school.”</p> |
| Content                |         |  |
| Math                   | (n = 1) | <p>“Not at all. The test is very poorly designed. It doesn’t give me any useful information—particularly the math portion. The question mixes the concepts asked, the pointing creates randomness and the answers could be totally off.”</p>       |
| Standards              | (n = 1) | <p>“Not very likely because again, the content doesn’t address particular standards. It’s intermixed. It’s not tied to the Common Core, there isn’t a crosswalk and there aren’t enough questions.”</p>  |

*Note.* Not all codes received second level coding.

Table 22. *Summary of Themes Identified for Phone Interview Question: Is there anything else that you would like to add about your overall experience with the Oregon Kindergarten Assessment?*

| Theme       | Coded Responses | Examples of Survey Data   |
|-------------|-----------------|---|
| 1. Nothing  | (n = 1)         | “No, I don’t think so.”   |
| 2. Families | (n = 3)         | “I’d like to see more parent input questions—the more we get the parents involved the higher success rate we’ll have for the kids.” |
| 3. Results  | (n = 2)         | <p>“Jus that we don’t get the data so it’s not useful to us.”</p> <p>“If the information isn’t shared its not valuable.”</p>        |

|                |         |   |
|----------------|---------|---|
| 4. Purpose     |         | <p>“There is so much misconception about the kindergarten assessment and what the tool is assessing and what the data means and how it is represented and picked up by the local papers.”</p> <p>“Overall there is a lot of misconception about what the OKA is about, maybe this is a PR issue.”</p> <p>“I just have no understanding whatsoever as to its purpose. What even is the expectation of this assessment? Are you going to mandate preschool? Fund parenting programs? I just really wish someone would actually tell me what the deal is and why we are even doing this assessment. There are so many mixed messages.”</p> <p>“I want to be clear, I am not anti-assessment. I just want to make sure the assessment is useful.”</p> |
|                | (n = 9) |   |
| Value          |         | <p>“I see a value in the OKA if it is used correctly—otherwise I think the OKA is not helpful to teachers whatsoever.”</p>  |
|                | (n = 2) |   |
| Early learning |         | <p>“I do hope though that it informs how the state can target monies to preschool programs in the highest need areas and ultimately universally across Oregon.”</p>   |
|                | (n = 2) |   |
| 5. Content     |         | <p>“It’s not a developmentally appropriate test for kindergarteners.”</p>   |
|                | (n = 2) |   |
| Math           |         | <p>“As far as the math, the format of the test is really tricky. The format could be tweaked—or maybe the wording could be changed (e.g., no more point to or choose the answer). I’d also really like to know whether or not students could count or identify numbers more than whether or not they can subtract. It’s just not getting the <i>right</i> data.”</p>  |
|                | (n = 4) |   |
| Literacy       |         | <p>“Letters would be wonderful if it was actually assessing individual letters—or even upper and lower case letters, but that is not what the assessment is assessing. The formatting—there is too much on the page.”</p>   |
|                | (n = 4) |   |

|               |         |  |
|---------------|---------|--|
| ELL           | (n = 1) | “I have over 50% of students who are ELL. I know they are ELL because they can’t speak a word of English—however, I cannot give the Spanish version of the OKA until the school district has <i>identified</i> and <i>documented</i> these students as ELL. Because of the high number of students who are going through the process of being identified as ELL, this can take a couple of weeks and so the timeline of when the OKA has to be given these students have to receive the OKA in English.” |
| Standards     | (n = 1) | “I would really like to see more clarity with the common core standards—specifically for the math questions.”  |
| 6. Procedures | (n = 5) | “The test security—this makes tons of sense in higher grades but in kindergarten makes almost no sense. They are such fundamental skills that kids either have or don’t have and its sill that we keep people out of the loop. There is no reason for secrecy.”  |
| Funding       | (n = 1) | “The money put toward creating and administering the assessment could be used for much better purposes.”   |
| Instructions  | (n = 1) | “I think there is such a tension between the idea that you want to have a scripted assessment for reliability in answers—and the fact that you are working with five year olds that misinterpret what you are trying to do and we cant use the tools we have to prevent that.  |
| Data entry    | (n = 2) | <p>“Inputting the data is extremely cumbersome. The format/interface of the two columns does not work well because you have to scroll over to input information and then you can’t see children’s names.”</p> <p>“The data input visually is cumbersome. This needs to be updated.”</p>  |

7. Timing

“That it’s done right away before the teaching, we find that we would get better results if waiting until after three weeks of starting up kindergarten.”

(*n* = 7)

“For us, I don’t know how other schools did it—we had pre-school conferences so we did our assessment before the school year started. I’m not sure how other schools arranged that but I would imagine it would be challenging to do during the actual school year. Could have been problematic.”

“Kinder is a hot topic right now and they are absolutely bombarded with tests at the beginning of the year.”

Additional  
assessments

(*n* = 1)

“The literacy portion is okay. I still do my own assessment to find out every single letter and sound to find out what they know.”

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*Note.* Not all codes received second level coding. ELL = English language learners.

## CHAPTER V

### DISCUSSION

Interest continues to emerge across the US in high-quality early childhood education programs that prepare children for success in school and later years (Obama, 2013; Scott-Little et al., 2006). Particular attention has been focused on the kindergarten year as having important consequences for a child's later school success (Bernstein et al., 2014). It is well documented however, that children begin school with a diverse array of skills and experiences and opportunity gaps exist (Aud et al., 2013; Goldstein, 2007; Hart & Risley, 1995; Nores & Barnett, 2014), posing the question: *Will testing of young children yield better instruction for improved outcomes for our youngest school children?* It is suggested that results of kindergarten assessments can be used to inform efforts for closing achievement gaps and informing instruction in the early elementary school grades (Connors-Tadros, 2014). However, as kindergarten assessments seek to provide information to a variety of key stakeholders (e.g., teachers, policymakers, school administrators), the additional question remains: *What is the overall purpose of kindergarten assessments?*

The OKA was designed for administration to all entering kindergarten students with or without identified disabilities or delays, within the first six weeks of school. Statewide data provided by Oregon Department of Education were examined to explore differences in children's performance on the OKA based on demographic characteristics and prior enrollment in ECSE. Additionally, data from a web-based survey and solicited follow-up interviews of survey participants were examined to explore the utility (i.e., usefulness, acceptability) of the OKA. This section first includes a discussion of the main

findings from examination of statewide data with limitations and suggestions for future research. Next, follows discussion of results from the web-based survey with follow-up interviews and corresponding limitations and future research. Lastly, overall suggestions for future research based on the combined components of the study are also discussed.

### **Kindergarten Assessment Data**

Participants included all students entering kindergarten in a publicly funded school in the state of Oregon during the 2013 – 2014 academic school year. Students entered kindergarten with varying prior school experiences (i.e., Head Start, Oregon Public Preschool), and demographic characteristics (e.g., SES), with some children transitioning from specialized ECSE services. Examination of statewide data provides insight on how the first intended purpose of the OKA is being met (Table 1): (1) Provide baseline local and statewide information to communities, schools, and families to ensure all early learners are ready for kindergarten (ODE, 2014). Assessment data allow stakeholders to answer the following questions about children in Oregon: *Are there disparities between groups of children that must be addressed? Are there particular areas of school readiness that Oregon must target?*

### **Opportunity Gap**

Results from examination of statewide data are consistent with what is captured in the literature regarding learning opportunities for young children. Children's opportunities to learn differ greatly in early childhood and are linked with social, emotional, and academic development (Hamre & Pianta, 2007; Hart & Risley, 1995). Statewide data revealed children who were (a) identified as economically disadvantaged, or (b) children with a disability had lower OKA scores when compared to kindergarten

peers. However, due to the nature of the data, children identified with a disability may not have previously received ECSE services, making this finding difficult to interpret.

### **Children Served in ECSE**

The question of receipt of ECSE services is interesting as on average no significant differences on OKA scores were found with respect to children exiting ECSE who improved or maintained functioning at a level comparable to their same aged peers in areas of (a) positive social-emotional skills, and (b) acquisition and use of knowledge and skills on OSEP reporting outcomes. These are encouraging results for children transitioning from ECSE, who improved or maintained functioning at a level comparable to their same-aged peers. On average these children showed no significant differences between their peers on the OKA. Data supported the literature documenting the positive impact of early identification and services for young children prior to entering school (Karloly, Kilburn, & Cannon, 2005).

### **Children Previously Attending Public PreK**

Children identified as having attended public preK in Oregon were found to have significantly lower OKA scores when compared to those who were not identified as attending public preK. This finding is not surprising as the public preK in Oregon is administered through Head Start and targets children and families at significant risk and experiencing economic hardship. Additionally, children enrolled in Head Start programs often demonstrate inconsistent program attendance due to transportation and other barriers, making it difficult to draw conclusions about the effect of preK on kindergarten achievement. Furthermore, data did not allow for analysis based on specific preK program or indicator of program quality (e.g., Quality Rating and Improvement System

[QRIS] rating).

Nevertheless, results from examination of statewide data are confirmatory with regard to what is known about achievement gap. Results from ECSE outcome data are encouraging and findings should support targeting monies for programs for young children. Results also support recommendations put forth by the National Research Council of the National Academies (Snow & Van-Hemel, 2008) including that state kindergarten entry assessments can provide baseline information to help teachers target instruction that can then be calibrated over a school year to assist a child in meeting short and long-term goals or learning benchmarks. The OKA provides a snapshot of what children know and are able to do upon entering school and should be available for utilization by classroom teachers.

### **Limitations**

Limitations with examining the statewide data set provided by ODE were present, specifically regarding demographic variables. While some demographic information were available (e.g., disability status, economic disadvantage), these indicators were assigned at the end of the academic year, rather than as children entered kindergarten and not concurrent with administration of the OKA in the first six weeks of school. Furthermore, disability status was a general descriptive category and did not indicate a specific diagnosis or disability. As such I was only able generalize results of differences based on disability status and not specific disabilities, which would vary in relation to OKA scores. Lastly, identification of the child attending a public preK was available (e.g., Head Start); however, rate of attendance or year of enrollment was not available, nor was an indicator of program quality. Lastly, individual or simultaneous enrollment data for children in



daycare centers or private preschool were not available.

### **Future Research**

In the future, more detailed information about children's prior school experiences could provide valuable insight on OKA scores. This information could be captured through a brief parent completed survey administered during kindergarten roundup or initial parent-teacher conferences. Currently, Washington State implements a family connection component as a piece of their Washington Kindergarten Inventory of Developing Skills (WAKIDS) assessment. This component utilizes information obtained from parent-teacher meetings to supplement kindergarten assessment results. Oregon could utilize a similar approach and include survey question regarding preschool enrollment (e.g., yes or no), type of enrollment (e.g., childcare, Head Start, private preschool), attendance (e.g., always, sometimes, infrequently), and program quality (i.e., QRIS rating if available). These data could prove beneficial for not only more closely examining the context of OKA scores but also in providing the kindergarten teacher with a broader picture of a child's prior school experiences. Furthermore, future research examining child performance on the OKA could be enhanced by collecting information documenting a child's socio-economic status (SES) at the start of the kindergarten year. Identifying SES at the time of OKA administration would support a more accurate interpretation of OKA results based on child demographics at the start of school as opposed to those assigned later on in the school year. Lastly, specification of children's documented disability or delay would also allow for more accurate interpretation of OKA results for children documented as having a disability or delay.

## Web-based Survey and Follow-up Interviews

Participants included kindergarten teachers and kindergarten classroom instructional assistants employed in an Oregon public school during the 2014 – 2015 academic school year. Results from the survey and follow-up interviews addressed to what extent the intended purposes of the OKA (Table 1) are being met and perceived by kindergarten teachers. Specifically, survey and interview results provided insight regarding the second and third intended purposes of the OKA:

2. Provide essential information on all children as they enter kindergarten to inform K-12 educators on student strengths and needs which can then guide instructional decisions to ensure students are well prepared for their educational experience.
3. Identify achievement gaps early – thus providing instruction and support to address them early. By doing this, we help prepare students for success not just in kindergarten but also in the years to come (ODE, 2014).

Additionally, results from the survey and follow-up interviews add to the literature on kindergarten assessment related to best practices as outlined by the Division for Early Childhood of the Council for Exceptional Children and the Assessment and Accountability Comprehensive Center (AACC) for ensuring adequate utility and social validity when implementing and choosing assessment measures (Herman et al., 2012; Neisworth & Bagnato, 2004). *How useful is the assessment in helping to accomplish our intended purpose? How will the results fit with other assessments, both formative and end-of-year state tests? Who will use the results?*

Overall, the survey and follow-up interviews provide evidence of the need for

more support and procedures to ensure utility and social validity standards are being met when implementing a new statewide mandated assessment measure. On average, licensed teachers and instructional assistants disagreed or slightly disagreed with statements put forth on the utility survey. Statements represented constructs based on the intended purposes of the OKA, as well as indicators of acceptance and utilization of the tool. Licensed teachers indicated less agreement with utility statements when compared with instructional assistants. The significant difference in scores is not surprising given that licensed classroom teachers spend the majority of the time with students and would be the professional most likely to utilize the information gleaned from test segment scores. Moreover, survey participants administering all OKA segments indicated significantly lower scores than other participants administering only partial segments. These results are important when considering the perceived utility of the overall OKA verses isolated segments. Furthermore, the combination of utility survey, descriptive questionnaire, and follow-up interview results suggested low assessment utility and social validity were associated with perceptions of: (a) assessment purpose or intent (b) administration procedures, (c) content, and (d) delivery or receipt of assessment results. These findings not only explain a low perceived utility of the OKA by kindergarten teachers, but also present barriers in meeting the second and third intended purposes of the OKA as detailed above (i.e., guiding instructional decisions, and providing instructional supports early to address achievement gap). Of critical importance to meeting these purposes is the delivery of assessment results to kindergarten teachers. On the web-based survey more than 50% of teachers indicated that they did not receive the results of the OKA from the 2013-14 academic year. It is essential that kindergarten teachers receive and are able to

retain results of the OKA shortly after administration so they can target instruction and provide early supports based on documented achievement gaps.

Results of the study compliment what is known about the opportunity gap and diversity of prior school experiences for children entering kindergarten. It is critical that kindergarten teachers have the opportunity to utilize the information (i.e., results) gained from the OKA and respond to these diverse needs with targeted instruction and supports at the beginning of the school year. This is also true for children entering kindergarten with strong academic and behavioral skill sets. The opportunity for teachers to utilize snapshot information provided by the OKA for all entering kindergarteners across ability levels should not be wasted, particularly provided the growing body of research that has begun to document a significant relation between aspects of early achievement, self-regulation, and social competence with later school success (Blair & Razza, 2007; Durlak et al., 2011; McClelland et al., 2007; McClelland & Morrison, 2003; McClelland et al., 2000; Schmitt et al., 2015).

Currently teachers are implementing duplicate (and at times triplicate) testing to obtain information that could be provided by the OKA within the first six weeks of school. Instead teachers are not receiving OKA results until January (if at all), which is the same time they are simultaneously released to the public. For some teachers, the first point of contact with OKA results is through the local newspaper. Currently the OKA is completed via paper-pencil, and teachers then enter scores manually into an electronic database. Allowing teachers to either photocopy or obtain an immediate summary sheet of OKA scores following data entry would be a viable option.

Currently, the Oregon Department of Education Kindergarten Content and

Advisory Panel are working to evaluate and improve the existing implementation and content of the OKA. Results of the web-based utility survey and follow-up interviews clearly indicated the need to support this iterative process. Utility survey statements for which teachers agreed least were: (1) I liked this assessment, and (2) I support continued use of this assessment without further refinements. This was true for both licensed teachers and instructional assistants. It is suggested that if the OKA continues to be implemented as a mandated assessment, a short utility survey should be included with data entry. Data from the online survey documented a vested interest on the part of classroom teachers in the procedures for OKA implementation. More than half of survey participants (63%) indicated they were interested in being contacted for a follow-up phone interview after completing the utility survey. Survey results can be used to continually refine and support OKA implementation and data usage. Specifically, re-occurring examination of both the OKA utility and social validity may help administrators understand the direct context of the tool in order to ensure teachers can effectively implement the OKA, as well as use results to drive instruction. Furthermore, OKA utility data can continue to assist the state of Oregon in determining: *How useful is this assessment in helping us to accomplish our intended purposes?*

### **Limitations**

The first limitation of the web-based survey and follow-up interviews was the inability to accurately calculate a survey response rate. Since the survey was sent by ODE to district test administrators, who were then instructed to forward to all kindergarten teachers and kindergarten instructional assistants, the exact number of teachers who received the survey is unavailable. Additionally, whether or not test administrators did

indeed forward the web-based survey is unknown. Without access to teacher email accounts, there was no way to confirm receipt of the online survey or send follow-up emails. In addition, the inability to target which counties to include for the web-based survey led to the second study limitation: sample representation. Initially, two urban counties and a rural Oregon county were targeted for survey dissemination. However, the survey was sent by ODE to all districts in the state of Oregon and location was not indicated on the survey. This did not allow for conclusions to be drawn based on district or county population.

### **Future Research**

In the future, utilization of a re-occurring utility survey, which accompanies data entry, would ensure all teachers have the opportunity to provide feedback on the utility and social validity of the OKA. Data would provide ODE OKA advisory panels with critical information on how future iterations of the kindergarten assessment are being received, and implemented across the state. Furthermore, adding an identifier for participant school district would allow results to capture differences in perceived utility between both urban and rural communities while still maintaining anonymity of the survey participant. Survey results could then link district data with corresponding Early Learning Hubs, thus supporting the opportunity to bridge early learning programs with elementary schools and streamline communication regarding the purpose and intent of the OKA.

### **Overall Future Directions of the OKA**

Overall results of the study complement what is known about the differences in early learning opportunities that are linked with social, emotional, and academic

development for young children prior to entering kindergarten (Hamre & Pianta, 2007; Hart & Riseley, 1995). The OKA provides an opportunity to document an existing opportunity gap and entering skill set among children with diverse demographic characteristics and those transitioning from prior early childhood services (e.g., public preK, or ECSE). These data underscore the critical need for teachers to be afforded the opportunity to utilize results for instruction and/or to supplement existing practices. In order for teachers to respond to these differences in the most optimal way possible, it is critical that more detailed statewide information is collected to supplement OKA results (e.g., prior preK, attendance rate, quality of prior preK). Additionally, providing parents the opportunity to report on their perspective of skills addressed by the OKA would provide a more comprehensive context for interpreting and responding to OKA results by classroom teachers. This could be done through the use of modified checklists that address child knowledge and skills and could take place during parent interviews or surveys in the summer or start of the school year.

Overall, as fall 2015 brings the third year of statewide implementation, the OKA remains a new tool with a need for continued refinement based on existing strengths and gaps in meeting intended purposes. Continuing to survey the utility of the OKA can prove useful in understanding not only how to best document the opportunity gaps among young children, but also guide teacher instructional practice and response to diverse kindergarten classrooms. Moreover, continued examination of the tool's utility can inform how well the intended purposes of the OKA are being met and how future iterations of the OKA are being received and implemented across the state. Overall, these future steps will ensure the state is meeting the overarching and critical goal of closing

opportunity gaps for young children in Oregon.

### **Conclusion**

The OKA was developed as a result of funds awarded through the federal Race to the Top – Early Learning Challenge grant competition. The competition reflects a changing climate for the early childhood field and a vested interest at both the state and national level in improving access for young children to high-quality early learning and development programs. The OKA provides a snapshot of what children entering kindergarten in Oregon know and are able to do. The assessment was developed to align with Oregon early learning standards (i.e., Head Start Early Learning Framework) and has been implemented in every public kindergarten classroom in Oregon since fall of 2013. Implementation of the OKA allows for baseline information to be collected for every child entering kindergarten in the state of Oregon, an advantage for stakeholders interested in further exploring the achievement gap among young children. Moreover, the OKA provides the opportunity for classroom teachers to document and respond to varying skillsets of children within the first six weeks of school. However, while the implementation of a new statewide kindergarten assessment has its advantages, challenges also ensue.

Howard (2011) discusses the challenges of designing kindergarten entry assessments in *Moving Forward with Kindergarten Readiness Assessment Efforts*, a position paper of the Early Childhood Education State Collaborative on Assessment and Student Standards. For example, various stakeholders involved in kindergarten assessment will have important differences regarding the use of assessment data:

- Parents and teachers are interested in information pertaining to the strengths



and needs of children in order to provide effective supports and learning opportunities.

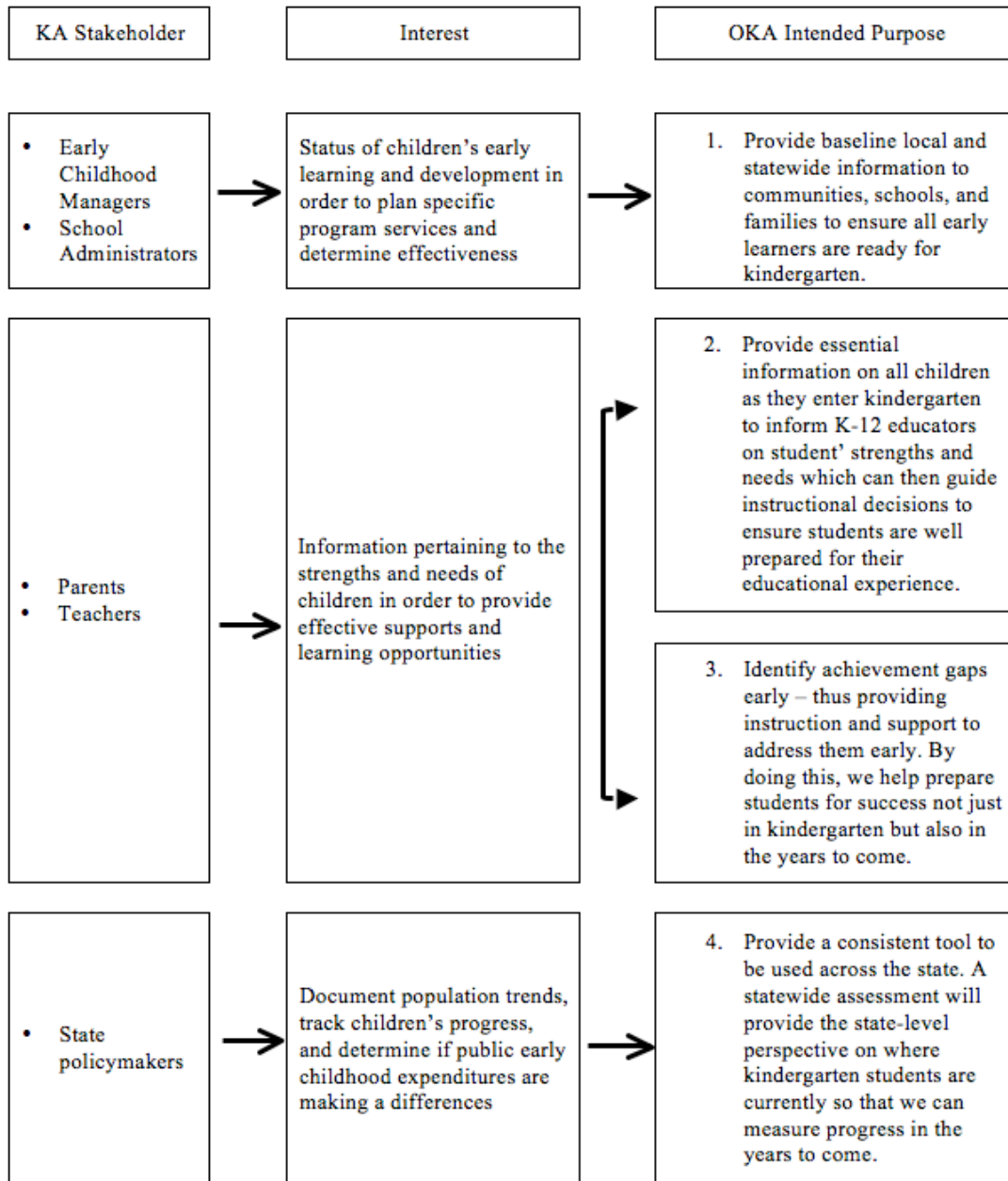
- Early childhood managers and school administrators are interested in the status of children's early learning and development in order to plan specific program services and determine effectiveness.
- State policymakers want to document population trends, track children's progress, and determine if public early childhood expenditures are making a difference.

These differences are similar to the intended purposes of the OKA and are cross-walked in Figure 7. While challenges exist (Howard, 2011), and are documented through the results of this study, state kindergarten assessments can be useful for a number of purposes and a variety of stakeholders if done well.

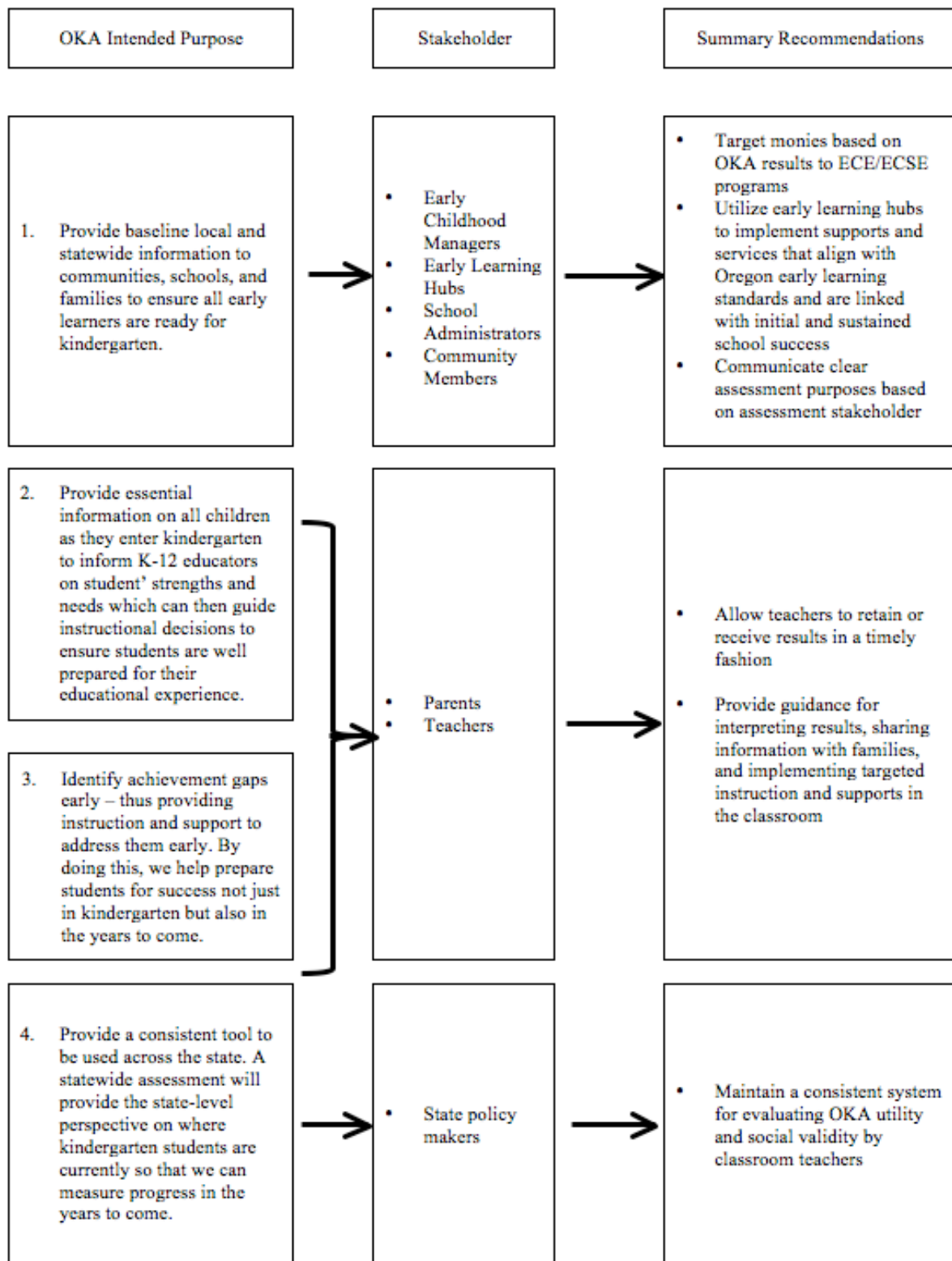
Results of this study support what is known regarding the achievement gap among young children (Nores & Barnett, 2014), as well as the critical need for early identification and service delivery for young children with an identified disability or delay (Karoly et al., 2005). However, these results are only useful if they are accessible to all OKA stakeholders, which include kindergarten classroom teachers. Additional findings from the utility survey and follow-up phone interviews document the critical need to evaluate assessment utility and social validity in order to implement a new statewide assessment with optimal outcomes. Recommendations based on the intended purposes of the OKA and results of this study are provided in Figure 8.

As state and federal initiatives continue to emphasize the importance of high-quality early childhood education programs and their link to well documented school and

later life success, it is critical that attention is given to the implementation and effectiveness of newly created systems like the Oregon Kindergarten Assessment. Nearly all states currently have some form of an assessment at kindergarten entry, or plans to implement in the near future. As the number of states implementing an assessment at kindergarten entry quickly increases (Connors-Tadros, 2014) it is essential that states implement ongoing evaluation of implementation efforts. Additionally, guidance should be taken based on recommendations published by professional organizations, as well as lessons learned from other states further along in the implementation process.



**Figure 7.** Crosswalk of kindergarten assessment stakeholder interests with intended purposes of the OKA.



**Figure 8.** Summary of recommendations by OKA intended purpose and stakeholder.

## APPENDIX A

### UTILITY SURVEY

| Please rank your response to the following statements based on your experience with the Oregon Kindergarten Assessment during the current 2014 – 2015 academic year. |                   |          |                   |                |       |                |
|--|-------------------|----------|-------------------|----------------|-------|----------------|
| Question   | Strongly Disagree | Disagree | Slightly Disagree | Slightly Agree | Agree | Strongly Agree |
| 1. This is an acceptable tool for understanding what children know and are able to do upon entering kindergarten   | 1                 | 2        | 3                 | 4              | 5     | 6              |
| 2. This assessment will contribute to an overall understanding of students' skills as they enter my classroom  | 1                 | 2        | 3                 | 4              | 5     | 6              |
| 3. The diverse skill set of children entering kindergarten justifies the use of this assessment  | 1                 | 2        | 3                 | 4              | 5     | 6              |
| 4. I support the continued use of this assessment without the need for further refinements   | 1                 | 2        | 3                 | 4              | 5     | 6              |
| 5. The assessment is developmentally appropriate for children of kindergarten age  | 1                 | 2        | 3                 | 4              | 5     | 6              |
| 6. I liked this assessment   | 1                 | 2        | 3                 | 4              | 5     | 6              |
| 7. I understand the purpose and intent of the Oregon Kindergarten Assessment   | 1                 | 2        | 3                 | 4              | 5     | 6              |
| 8. Overall the assessment provides beneficial information about children entering kindergarten in Oregon   | 1                 | 2        | 3                 | 4              | 5     | 6              |

| I feel prepared to teach the skills and behaviors addressed by the Oregon Kindergarten Assessment: |                   |          |                   |                |       |                |
|--|-------------------|----------|-------------------|----------------|-------|----------------|
| Content  | Strongly Disagree | Disagree | Slightly Disagree | Slightly Agree | Agree | Strongly Agree |
| 1. Early English literacy  | 1                 | 2        | 3                 | 4              | 5     | 6              |
| 2. Early Spanish literacy  | 1                 | 2        | 3                 | 4              | 5     | 6              |

|                           |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|
| 3. Early mathematics      | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. Approaches to learning | 1 | 2 | 3 | 4 | 5 | 6 |

Open-ended Questions

|  |
|--|
| What improvements would you suggest for next year's Oregon Kindergarten Assessment?                |
| Are there any additional comments you would like to make about the Oregon Kindergarten Assessment? |

## APPENDIX B

### DESCRIPTIVE QUESTIONNAIRE

|   |   |
|---|---|
| 1. Are you currently employed in a kindergarten classroom? (Yes/No)                 |   |
|   | <ul style="list-style-type: none"> <li>• If no – “Thank you for your willingness to participate in this survey. You do not currently meet the criteria for participation</li> </ul> |
|   | <ul style="list-style-type: none"> <li>• If yes, continue to next question</li> </ul>   |
| 2. Which position best describes your current role in the kindergarten classroom?   |   |
|   | <input type="radio"/> Licensed classroom teacher  |
|   | <ul style="list-style-type: none"> <li>• If yes, then – “Do you hold a current Oregon teaching credential? (Yes/No)</li> </ul>  |
|   | <input type="radio"/> Instructional assistant   |
|   | <input type="radio"/> Other _____   |
| 3. Please indicate the highest level of education you have completed.               |   |
|   | <input type="radio"/> High School   |
|   | <input type="radio"/> 2 – year degree   |
|   | <ul style="list-style-type: none"> <li>• Please describe _____</li> </ul>   |
|   | <input type="radio"/> 4 – year degree   |
|   | <ul style="list-style-type: none"> <li>• Please describe _____</li> </ul>   |
|   | <input type="radio"/> Graduate degree or beyond   |
|   | <ul style="list-style-type: none"> <li>• Please describe _____</li> </ul>   |
| 5. How many years have you worked in the field with a licensed teaching credential? |   |
|   | <input type="radio"/> 0   |
|   | <input type="radio"/> 1 – 2   |
|   | <input type="radio"/> 3 – 5   |
|   | <input type="radio"/> 6 – 9   |
|   | <input type="radio"/> 10 or more  |
| 6. How many children are in your classroom(s)?                                      |   |
|   | <input type="radio"/> Less than 10  |

|   |  |
|---|--|
|   | <ul style="list-style-type: none"> <li>○ 10 – 15</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>○ 15 – 20</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>○ 20 – 25</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>○ 25 – 30</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>○ 30 or more</li> </ul>   |
| 7. Did you receive training to administer the Oregon Kindergarten Assessment? (Yes/No)                          |  |
|   | <ul style="list-style-type: none"> <li>• If yes, “What comments or suggestions do you have based on your experience with the OKA training?”</li> </ul>   |
| 8. Did you personally administer the Oregon Kindergarten Assessment to the students in your classroom? (Yes/No) |  |
|   | <ul style="list-style-type: none"> <li>• If no – “Who administered the Oregon Kindergarten Assessment in your classroom?”</li> </ul>   |
|   | <ul style="list-style-type: none"> <li>○ _____</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>• If yes, then “Which components did you personally administer?”</li> </ul>   |
|   | <ul style="list-style-type: none"> <li>○ Early literacy</li> </ul>   |
|   | <ul style="list-style-type: none"> <li>○ Early mathematics</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>○ Approaches to learning</li> </ul>   |
| 9. Do you have children with identified disabilities or delays in your classroom? (Yes/No)                      |  |
|   | <ul style="list-style-type: none"> <li>• If yes – “Did you administer the Oregon Kindergarten Assessment the children in your classroom with identified disabilities or delays?” (Yes/No)</li> </ul> |
|   | <ul style="list-style-type: none"> <li>• If no, continue with next question</li> </ul>   |
| 10. Is this your first year administering the Oregon Kindergarten Assessment?                                   |  |
|   | <ul style="list-style-type: none"> <li>• Yes</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>• No, I administered the OKA during the 2013 – 2014 academic year</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>• If no – “Did you receive the classroom results of the OKA during the previous academic year?” (Yes/No)</li> </ul>   |

|        |
|--------|
| Ending |
|--------|



Are you interested in being contacted for a follow – up phone interview? Participation in the follow-up interview is voluntary. Those who participate will receive a \$20 Amazon.com gift card as a thank you (Yes/No)

- If yes – “Please indicate your preferred method of initial contact”
  - Email
  - Phone

- If phone –
  - Please provide your contact information and availability  
\_\_\_\_\_
  - Weekend or weekday
  - Morning
  - Afternoon
  - Evening

Thank you so much for your participation in this survey. Your responses will provide meaningful insight for better understanding the utilization and acceptance of the Oregon Kindergarten Assessment.

## APPENDIX C

### INTERVIEW QUESTIONS

1. What is your position in the kindergarten classroom?
2. Is this your first or second academic year administering the Oregon Kindergarten Assessment?
3. What did you like most about the Oregon Kindergarten Assessment?
4. What did you like least about the Oregon Kindergarten Assessment?
5. Is there anything else that you would like to add about your overall experience with the Oregon Kindergarten Assessment?

APPENDIX D

CODING KEY: SURVEY QUESTION 1

What comments or suggestions do you have based on your experience with the OKA training?

| Construct           | Description   |
|---------------------|---|
| Positive Statement  | Provides favorable feedback regarding the <i>training</i> specifically  |
| Training procedures | Comments specifically on procedures of the OKA training   |
| Training content    | Comments specifically on the content of the OKA training  |
| Training time       | Comments specifically on the duration of the OKA training, or on scheduling of the OKA  |
| Critical statement  | Provides critique or criticism regarding the <i>training</i> specifically   |
| Training procedures | Comments specifically on procedures of the OKA training   |
| Training content    | Comments specifically on the content of the OKA training  |
| Training time       | Comments specifically on the duration of the OKA training, or on scheduling of the OKA  |
| Data procedures     | Comments on the procedures for entering/collecting data on the OKA  |
| Other statement     | Pertains to construct other than what was addressed by the survey question (i.e., training)                                   |
| KA procedures       | Comments on the logistical procedures for administering the OKA (e.g., at the student, classroom, district, or systems level) |
| KA purpose          | Comments on the purpose or reason for OKA   |
| KA results          | Comments on the results or information available from the OKA   |
| KA content          | Comments on the content (existing or lack) on the OKA   |

APPENDIX E

CODING KEY: SURVEY QUESTION 2

What improvements would you suggest for next year’s OKA?

| Construct              | Description   |
|------------------------|---|
| Discontinue            | Comments suggest the OKA should be discontinued   |
| Families               | Suggestions pertain to disseminating information to families  |
| Results                | Suggestions pertain to receiving or interpreting the results  |
| Purpose                | Suggestions address the intent or purpose of the OKA  |
| Value                  | Comments address the teachers personal value (i.e., usefulness) of the OKA  |
| Early learning         | Comments address/suggest using results/data to support early learning experiences (i.e., community programs for families and 0-5 year olds) |
| Training time          | Suggestions pertain to the actual content of the OKA (segments or overall)  |
| Content                | Suggestions pertain to the actual content of the OKA (i.e., segments or overall)  |
| Math                   | Comments specifically on the math content   |
| Literacy               | Comments specifically on the literacy content   |
| Approaches to learning | Comments specifically on the approaches to learning content (i.e., behavioral, observational)   |
| Spanish                | Comments specifically on the Spanish version  |
| Standards              | Comments suggest aligning content with standards (e.g., state standards, Common Core)   |
| Procedures             | Suggestions refer to the procedures of administering the OKA (e.g., at the student, classroom, district, or systems level)                  |
| Funding                | Suggestions pertain specifically to funding   |
| Data entry             | Suggestions pertain to the procedures for entering data on the OKA  |
| Instructions           | Suggestions pertain to the directions provided on the OKA (e.g., instructions given to the student, assessment script)                      |
| Administration         | Suggestions pertain to who is administering the OKA   |
| Timing                 | Suggestions address the time frame of when the OKA is administered  |

APPENDIX F

CODING KEY: SURVEY QUESTION 3

Please feel free to provide any additional comments regarding the OKA.

| Construct              | Description   |
|------------------------|---|
| Discontinue            | Comments suggest the OKA should be discontinued   |
| Families               | Suggestions pertain to disseminating information to families  |
| Results                | Suggestions pertain to receiving or interpreting the results  |
| Purpose                | Suggestions address the intent or purpose of the OKA  |
| Value                  | Comments address the teachers personal value (i.e., usefulness) of the OKA  |
| Early learning         | Comments address/suggest using results/data to support early learning experiences (i.e., community programs for families and 0-5 year olds) |
| Content                | Suggests pertain to the actual content of the OKA (segments or overall)   |
| Literacy               | Comments specifically on the literacy content   |
| Approaches to learning | Comments specifically on the approaches to learning content (i.e., behavioral, observational)   |
| ELL                    | Comments specifically on English Language Learners  |
| Procedures             | Comments refer to the procedures of administering the OKA (e.g., at the student, classroom, district, or systems level)                     |
| Funding                | Comments pertain specifically to funding  |
| Data entry             | Comments pertain to the procedures for entering data on the OKA   |
| Instructions           | Comments pertain to the directions provided on the OKA (e.g., instructions given to the student, assessment script)                         |
| Administration         | Comments pertain to who is administering the OKA  |
| Timing                 | Comments address the time frame of when the OKA is administered   |
| Additional assessments | Comments address additional required assessments that overlap the time frame of the OKA   |

APPENDIX G

CODING KEY: INTERVIEW QUESTION 1

What do you like most about the Oregon Kindergarten Assessment?

| Construct              | Description   |
|------------------------|---|
| Nothing                | Comments “nothing” or “cant think of anything”  |
| Results                | Suggestions pertain to receiving or interpreting the results  |
| Purpose                | Suggestions address the intent or purpose of the OKA  |
| Value                  | Comments address the teachers personal value (i.e., usefulness) of the OKA  |
| Early learning         | Comments address/suggest using results/data to support early learning experiences (i.e., community programs for families and 0-5 year olds) |
| Content                | Suggests pertain to the actual content of the OKA (segments or overall)   |
| Literacy               | Comments specifically on the literacy content   |
| Approaches to learning | Comments specifically on the approaches to learning content (i.e., behavioral, observational)   |
| Procedures             | Comments refer to the procedures of administering the OKA (e.g., at the student, classroom, district, or systems level)                     |
| Funding                | Comments pertain specifically to funding  |
| Administration         | Comments pertain to who is administering the OKA  |
| Timing                 | Comments address the time frame of when the OKA is administered   |

APPENDIX H

CODING KEY: INTERVIEW QUESTION 2

What do you like least about the Oregon Kindergarten Assessment?

| Construct              | Description   |
|------------------------|---|
| Nothing                | Comments “nothing” or “cant think of anything”  |
| Families               | Comments pertain to disseminating information to families   |
| Results                | Suggestions pertain to receiving or interpreting the results  |
| Purpose                | Suggestions address the intent or purpose of the OKA  |
| Value                  | Comments address the teachers personal value (i.e., usefulness) of the OKA  |
| Content                | Suggests pertain to the actual content of the OKA (segments or overall)   |
| Math                   | Comments specifically on the math content   |
| Literacy               | Comments specifically on the literacy content   |
| Approaches to learning | Comments specifically on the approaches to learning content (i.e., behavioral, observational)                           |
| Procedures             | Comments refer to the procedures of administering the OKA (e.g., at the student, classroom, district, or systems level) |
| Data entry             | Comments pertain to the procedures for entering data on the OKA   |
| Instructions           | Comments pertain to the directions provided on the OKA (e.g., instructions given to the student, assessment script)     |
| Timing                 | Comments address the time frame of when the OKA is administered   |
| Additional assessments | Comments address additional required assessments that overlap the time frame of the OKA                                 |

APPENDIX I

CODING KEY: INTERVIEW QUESTION 3

If you were to receive a classroom report immediately following completion of the Oregon Kindergarten Assessment how likely would you be to use the results to inform instruction in your classroom?

| Construct              | Description   |
|------------------------|---|
| Yes                    | Indicates they would use the data <i>at least to some extent</i>                        |
| Families               | Comments pertain to disseminating information to families                               |
| Results                | Comments pertain to receiving or interpreting the results                               |
| Additional assessments | Comments address additional required assessments that overlap the time frame of the OKA |
| Timing                 | Comments address the time frame of when the OKA is administered                         |
| Content                | Comments pertain to the actual content of the OKA (segments or overall)                 |
| Literacy               | Comments specifically on the literacy content   |
| No                     | Indicates that they would not use the data  |
| Results                | Comments pertain to receiving or interpreting the results                               |
| Additional assessments | Comments address additional required assessments that overlap the time frame of the OKA |
| Timing                 | Comments address the time frame of when the OKA is administered                         |
| Content                | Comments pertain to the actual content of the OKA (segments or overall)                 |
| Math                   | Comments specifically on the math content   |
| Standards              | Comments pertain to established standards (e.g., state standards, Common Core)          |



APPENDIX J

CODING KEY: INTERVIEW QUESTION 4

If you were to receive a classroom report immediately following completion of the Oregon Kindergarten Assessment how likely would you be to use the results to inform instruction in your classroom?

| Construct              | Description   |
|------------------------|---|
| Nothing                | Comments “nothing” or “cant think of anything”  |
| Families               | Comments pertain to disseminating information to families   |
| Results                | Comments pertain to receiving or interpreting the results   |
| Purpose                | Comments address the intent or purpose of the OKA   |
| Value                  | Comments address the teachers personal value (i.e., usefulness) of the OKA  |
| Early learning         | Comments address/suggest using results/data to support early learning experiences (i.e., community programs for families and 0-5 year olds) |
| Content                | Suggests pertain to the actual content of the OKA (segments or overall)   |
| Math                   | Comments specifically on the math content   |
| Literacy               | Comments specifically on the literacy content   |
| ELL                    | Comments specifically on English Language Learners  |
| Standards              | Comments pertain to established standards (e.g., state standards, Common Core)  |
| Procedures             | Comments refer to the procedures of administering the OKA (e.g., at the student, classroom, district, or systems level)                     |
| Funding                | Comments pertain specifically to funding  |
| Instructions           | Comments pertain to the directions provided on the OKA (e.g., instructions given to the student, assessment script)                         |
| Data entry             | Comments pertain to methods for entering data from the OKA  |
| Timing                 | Comments address the time frame of when the OKA is administered   |
| Additional assessments | Comments address additional required assessments that overlap the time frame of the OKA   |

## REFERENCES CITED

- Ackerman, D. J., & Barnett, W. S. (2005). *Prepared for kindergarten: What does "readiness" mean?*: NIEER.
- Adarkar, S. (2014). Oregon's KRA an important beginning. Retrieved from Children's Institute website: <http://www.childinst.org/news/blog/429-oregon-s-kra-an-important-beginning>
- Associates, A. (1988). Evaluation of project giant step (Technical Progress Report No. 4). Cambridge, MA: Author.
- Aud, S., Wilkinson-Flicker, S., Kristapovich, P., Rathbun, A., Wang, X., Zhang, J., . . . Dziuba, A. (2013). *The condition of education 2013*. Washington, DC: Institute of Education Sciences.
- Barnett, W. S. (1995). Long-term effects of early childhood programs on cognitive and school outcomes. *The Future of Children*, 5(3), 25-50.
- Barnett, W. S., Carolan, M. E., Squires, J. H., & Clarke Brown, K. (2013). *The state of preschool 2013: State preschool yearbook*. New Brunswick, NJ: National Institute for Early Education Research.
- Barnett, W. S., & Frede, E. (2010). The promise of preschool: Why we need early education for all. *American Educator*, 34(1), 21-29.
- Bernstein, S., West, J., Newsham, R., & Reid, M. (2014). *Kindergartners' skills at school entry: An analysis of the ECLS-K*. New York, New York: Mathematic Policy Research.
- Blair, C., & Razza, R. P. (2007). Relating effortful control, executive function, and false belief understanding to emerging math and literacy ability in kindergarten. *Child development*, 78(2), 647-663.
- Bricker, D., Clifford, J., Yovanoff, P., Pretti-Frontczak, K., Waddell, M., Allen, D., & Hoselton, R. (2008). Eligibility determination using a curriculum-based assessment: A further examination. *Journal of Early Intervention*, 31(1), 3-21.
- Bricker, D., Pretti-Frontczak, K., Johnson, J., & Straka, E. (2002). *Administration guide: Assessment, evaluation, and programming system for infants and children (AEPS)*: ERIC.
- Bricker, D., Yovanoff, P., Capt, B., & Allen, D. (2003). Use of a curriculum-based measure to corroborate eligibility decisions. *Journal of Early Intervention*, 26(1), 20-30.

- Bronson, M. B., Goodson, B. D., Layzer, J. I., & Love, J. M. (1990). *Child behavior rating scale*. Cambridge, MA: Abt Associates.
- Brown, E. G., McComb, E. M., & Scott-Little, C. (2003). Evaluations of school readiness initiatives: What are we learning? In C. C. Donna Nalley (Ed.), *Improving learning through research and development*. Greensboro, NC.
- Castillo, A. (2014). Hillsboro school notes: Kindergarten readiness assessment results from around the state. *OregonLive*. Retrieved from OregonLive website: [http://www.oregonlive.com/hillsboro/index.ssf/2014/02/hillsboro\\_school\\_notes\\_kinderg.html](http://www.oregonlive.com/hillsboro/index.ssf/2014/02/hillsboro_school_notes_kinderg.html)
- Connors-Tadros, L. (2014). Information and resources on developing state policy on kindergarten entry assessment (KEA) (CEELO FASTFacts). New Brunswick, NJ: Center on Enhancing Early Learning Outcomes.
- Daily, S., Burkhauser, M., & Halle, T. (2010). A review of school readiness practices in the states: Early learning guidelines and assessments. *Child Trends*, 1(3), 1-12
- Datnow, A., Park, V., & Wohlstetter, P. (2007). Achieving with data: How high-performing school systems use data to improve instruction for elementary students. Center on Educational Governance: University of Southern California.
- DEC. (2007). Promoting positive outcomes for children with disabilities: Recommendations for curriculum, assessment, and program evaluation. Missoula, Montana: Author.
- DEC. (2014). DEC recommended practices in early intervention/early childhood special education 2014. <http://www.dec-sped.org/recommendedpractices>
- Duncan, A. (2010). Working together for early learning: Secretary Arne Duncan's remarks at "early childhood 2010 - innovation for the next generation meeting" [Press release]. Retrieved from <http://www.ed.gov/news/speeches/working-together-early-learning-secretary-arne-duncans-remarks-early-childhood-2010-in>
- Dundorf, C., ODonnell, J., & Stockert, M. M. (2014). Wrong assessment, wrong administration, wrong interpretation [Press release]. Retrieved from <http://www.oregonaeyc.org/publicpolicy.htm>
- Dunn, O. J. (1964). Multiple comparisons using rank sums. *Technometrics*, 6, 241-252.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child development*, 82(1), 405-432.

- ECO. (2005). Family and child outcomes for early intervention and early childhood special education. Early Childhood Outcomes Center: Early Childhood Technical Assistance Center.
- ECO. (2009). The child outcomes. The Early Childhood Outcomes Center: Early Childhood Technical Assistance Center.
- Feeney, S. (2014). Oregon's kindergarten test is wrong, not the children: Guest opinion. *OregonLive*. Retrieved from OregonLive website:  
[http://www.oregonlive.com/opinion/index.ssf/2014/02/oregons\\_kindergarten\\_test\\_is\\_w.html](http://www.oregonlive.com/opinion/index.ssf/2014/02/oregons_kindergarten_test_is_w.html)
- Feeney, S., & Freeman, N. (2014). Response: Standardized testing in kindergarten. *Young Children*, 69(1), 84-88.
- Field, A. (2013). Non-parametric models *Discovering statistics using ibm spss statistics* (4th ed., pp. 213-261). Thousand Oaks, CA: SAGE Publications Inc.
- Five more states secure race to the top-early learning challenge grants. (2012). [Press release]. Retrieved from <http://www.ed.gov/news/press-releases/five-more-states-secure-race-top-early-learning-challenge-grants>
- Forry, N., & Wessel, J. (2012). Defining school readiness in Maryland: A multi-dimensional perspective. *Child Trends*.
- Freeman, N. K., & Feeney, S. (2004). The NAEYC code is a living document. *Young Children*, 59(6), 12-17.
- Gill, S., & Winters, D. (2006). Educators' views of pre-kindergarten and kindergarten readiness and transition practices. *Contemporary Issues in Early Childhood*, 7(3), 213-237.
- Goldstein, L. S. (2007). Beyond the DAP versus standards dilemma: Examining the unforgiving complexity of kindergarten teaching in the United States. *Early Childhood Research Quarterly*, 22(1), 39-54. doi:  
<http://dx.doi.org/10.1016/j.ecresq.2006.08.001>
- Hammond, B. (2014a). Kindergarten readiness: Is it cruel, inappropriate to give 5-year-olds a timed test on the alphabet? Readers weigh in. *OregonLive*. Retrieved from OregonLive website:  
[http://www.oregonlive.com/education/index.ssf/2014/02/kindergarten\\_readiness\\_it\\_is\\_c.html](http://www.oregonlive.com/education/index.ssf/2014/02/kindergarten_readiness_it_is_c.html)

- Hammond, B. (2014b). Oregon children arrive at kindergarten knowing few letters, fewer sounds. *OregonLive*. Retrieved from OregonLive website:  
[http://www.oregonlive.com/education/index.ssf/2014/01/oregon\\_children\\_arrive\\_at\\_kind.html](http://www.oregonlive.com/education/index.ssf/2014/01/oregon_children_arrive_at_kind.html)
- Hammond, B. (2014c). Too many Oregon students unready for kindergarten, state officials lament. *OregonLive*. Retrieved from OregonLive website:  
[http://www.oregonlive.com/education/index.ssf/2014/02/too\\_many\\_oregon\\_students\\_unrea.html](http://www.oregonlive.com/education/index.ssf/2014/02/too_many_oregon_students_unrea.html)
- Hamre, B. K., & Pianta, R. C. (2007). Learning opportunities in preschool and early elementary classrooms. In M. J. C. Robert C. Pianta, Kyle L. Snow (Ed.), *School readiness and the transition to kindergarten in the era of accountability*. Baltimore: Paul H. Brookes Publishing Co.
- Harradine, C. C., & Clifford, R. M. (1996). When are children ready for kindergarten? Views of families, kindergarten teachers, and child care providers (R. North Carolina State Dept. of Human Resources, Trans.). New York, NY.
- Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore: P.H. Brookes.
- Hatcher, B., Nuner, J., & Paulsel, J. (2012). Kindergarten readiness and preschools: Teachers' and parents' beliefs within and across programs. *Early Childhood Research & Practice, 14*(2), 1-17.
- . *The head start child development and early learning framework: Promoting positive outcomes in early childhood programs serving children 3-5 years old*. (2010). Washington, D.C.: Head Start Resource Center Retrieved from  
[http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/eecd/Assessment/Child%20Outcomes/HS\\_Revised\\_Child\\_Outcomes\\_Framework%28rev-Sept2011%29.pdf](http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/eecd/Assessment/Child%20Outcomes/HS_Revised_Child_Outcomes_Framework%28rev-Sept2011%29.pdf).
- Heaviside, S. (1993). Public school kindergarten teachers' views on children's readiness for school. Contractor report. Statistical analysis report. Fast response survey. (pp. 204). Washington, D.C.: National Center for Education Statistics.
- Heckman, J. J. (2008). Schools, skills, and synapses. *Economic Inquiry, 46*(3), 289-324. doi: 10.1111/j.1465-7295.2008.00163.x
- Henderson, L., Henry, G., Gordon, C., & Ponder, G. (2003). Georgia pre-k longitudinal study: Final report 1996-2001. Atlanta, GA: Andrew Young School of Public Policy Studies.

- Herman, J. L., Osmundson, E., & Dietel, R. (2012). Benchmark assessments for improved learning (AACC Policy Brief). Los Angeles, CA: University of California.
- High, P. C. (2008). School readiness. *Pediatrics*, *121*(4), e1008-e1015.
- Howard, E. (2011). Moving forward with kindergarten readiness assessment efforts: A position paper of the early childhood education state collaborative on assessment and student standards. Washington D.C.: Council of Chief State School Officers.
- Isaacs, J. B. (2007). Cost-effective investments in children *Budgeting for national priorities*. Washington, DC: The Brookings Institution.
- Kagan, S. L. (1992). Readiness past, present, and future: Shaping the agenda. *Young Children*, *48*(1), 48-53.
- Kagan, S. L. (1994). Readyng schools for young children: Problems and priorities. *Phi Delta Kappan*, *76*(3), 226-233.
- Kagan, S. L., & Kauerz, K. (2007). Reaching for the whole: Integration and alignment in early education policy. In R. C. Pianta, M. J. Cox & K. L. Snow (Eds.), *School readiness and the transition to kindergarten in the era of accountability* (pp. 11-30). Baltimore, MD, US: Paul H Brookes Publishing.
- Kagan, S. L., Scott-Little, C., & Frelow, V. S. (2003). Early learning standards for young children: A survey of the states. *Young Children*, *58*(5), 58-64.
- Karoly, L. A., Greenwood, P. W., Everingham, S. S., Hoube, J., Kilburn, M. R., Rydell, C. P., . . . Chiesa, J. (1998). Investing in our children: What we know and don't know about the costs and benefits of early childhood interventions. Washington, D.C.
- Karoly, L. A., Kilburn, M. R., & Cannon, J. S. (2005). Early childhood interventions: Proven results, future promise. Washington: RAND Labor and Population.
- Kim, J., Murdock, T., & Choi, D. (2005). Investigatoin of parents' beliefs about readiness for kindergarten: An examination of national household education survey. *Educational Research Quarterly*, *29*(2), 3-17.
- Lewit, E. M., & Baker, L. S. (1995). School readiness. *The Future of Children*, *5*(2), 128-139. doi: 10.2307/1602361
- Lin, H.-L., Lawrence, F. R., & Gorrell, J. (2003). Kindergarten teachers' views of children's readiness for school. *Early Childhood Research Quarterly*, *18*(2), 225-237. doi: [http://dx.doi.org/10.1016/S0885-2006\(03\)00028-0](http://dx.doi.org/10.1016/S0885-2006(03)00028-0)

- Lynch, R. G. (2007). *Enriching children, enriching the nation: public investment in high-quality prekindergarten*. Washington, DC: Economic Policy Institute.
- McClelland, M., Love, J. M., Green, B., & Squires, J. (2014). A research perspective on Oregon's kindergarten assessment. Retrieved from Oregon Early Learning Council website:  
<http://earlylearningcouncil.files.wordpress.com/2014/02/mcclelland-love-green-squires-elc-final-3.pdf>
- McClelland, M. M., Acock, A. C., & Morrison, F. J. (2006). The impact of kindergarten learning-related skills on academic trajectories at the end of elementary school. *Early Childhood Research Quarterly, 21*(4), 471-490. doi:  
<http://dx.doi.org/10.1016/j.ecresq.2006.09.003>
- McClelland, M. M., Cameron, C. E., Wanless, S. B., & Murray, A. (2007). Executive function, behavioral self-regulation, and social-emotional competence. *Contemporary perspectives on social learning in early childhood education, 83-107*.
- McClelland, M. M., & Morrison, F. J. (2003). The emergence of learning-related social skills in preschool children. *Early Childhood Research Quarterly, 18*(2), 206-224. doi: [http://dx.doi.org/10.1016/S0885-2006\(03\)00026-7](http://dx.doi.org/10.1016/S0885-2006(03)00026-7)
- McClelland, M. M., Morrison, F. J., & Holmes, D. L. (2000). Children at risk for early academic problems: The role of learning-related social skills. *Early Childhood Research Quarterly, 15*(3), 307-329. doi: [http://dx.doi.org/10.1016/S0885-2006\(00\)00069-7](http://dx.doi.org/10.1016/S0885-2006(00)00069-7)
- McLean, M., Wolery, M., & Baily, D. B. (2004). *Assessing infants and preschoolers with special needs* (4th ed.). Columbus, Ohio: Merrill.
- Meisels, S. J. (2007). Accountability in early childhood. In M. J. C. Robert C. Pianta, Kyle L. Snow (Ed.), *School readiness and the transition to kindergarten in the era of accountability*. Baltimore: Paul H. Brookes Publishing Co.
- Meisels, S. J., & Atkins-Burnett, S. (2000). The elements of early childhood assessment.
- Melling, R. (2014). 'Terribly designed' kindergarten test, from a teacher's perspective: Guest opinion. *OregonLive*. Retrieved from OregonLive website:  
[http://www.oregonlive.com/opinion/index.ssf/2014/02/terribly\\_designed\\_kindergarten.html](http://www.oregonlive.com/opinion/index.ssf/2014/02/terribly_designed_kindergarten.html)
- Merriam, S. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.

- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook* (third ed.). Thousand Oaks, CA: SAGE Publications, Inc.
- Missall, K., Reschly, A., Betts, J., McConnell, S., Heistad, D., Pickart, M., . . . Marston, D. (2007). Examination of the predictive validity of preschool early literacy skills. *School Psychology Review, 36*(3), 433-452.
- NAEYC, & NAECS/SDE. (2003). Early childhood curriculum, assessment, and program evaluation: Building an effective, accountable system in programs for children birth through age 8 *Position statement*. National Association for the Education of Young Children.
- Neisworth, J. T., & Bagnato, S. J. (2004). The mismeasure of young children: The authentic assessment alternative. *Infants and Young Children, 17*(3), 198-212.
- Newman, J., Potter, L., & Smellow, D. The process of developing Oregon's child outcome reporting measure. Retrieved August 8, 2014, from [http://www.ode.state.or.us/gradelevel/pre\\_k/eiecse/oreiecseoutcomes.pdf](http://www.ode.state.or.us/gradelevel/pre_k/eiecse/oreiecseoutcomes.pdf)
- Nores, M., & Barnett, W. S. (2014). Access to high quality early care and education: Readiness and opportunity gaps in America (CEELO policy report). New Brunswick, NJ: Center on Enhancing Early Learning Outcomes.
- O'Donnell, K. (2008). Parents' report of the school readiness of young children from the national household education surveys program of 2007. Washington, D.C.: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.
- Obama, B. (2013). Remarks by the president in state of the union address. Washington, D.C.: The White House, Office of the Press Secretary.
- ODE. (2014). Oregon kindergarten assessment specifications. Salem, Oregon: Office of Learning, Oregon Department of Education.
- Patrick, L., & Hennrich, S. (2014). Letters: Kindergarten testing and early childhood education. *OregonLive*. Retrieved from OregonLive website: [http://blog.oregonlive.com/myoregon/2014/02/letters\\_kindergarten\\_testing\\_a.html](http://blog.oregonlive.com/myoregon/2014/02/letters_kindergarten_testing_a.html)
- Pianta, R. C., Barnett, W. S., Burchinal, M., & Thornburg, K. R. (2009). The effects of preschool education: What we know, how public policy is or is not aligned with the evidence base, and what we need to know. *Psychological Science in the Public Interest, 10*(2), 49-88. doi: 10.1177/1529100610381908



- . Position Statement. (1995) *School readiness: Adopted by the NAEYC governing board July 1990, revised July 1995*: National Association for the Education of Young Children.
- Pretti-Frontczak, K. (2014). Stop trying to make kids "ready" for kindergarten. *Young Exceptional Children*, 17(1), 51-53. doi: 10.1177/1096250614523346
- Reynolds, A. J. (2000). *Success in early intervention: The Chicago child-parent centers*. Lincoln, Nebraska: University of Nebraska Press.
- Rimm-Kaufman, S. E., Pianta, R. C., & Cox, M. J. (2000). Teachers' judgments of problems in the transition to kindergarten. *Early Childhood Research Quarterly*, 15(2), 147-166. doi: [http://dx.doi.org/10.1016/S0885-2006\(00\)00049-1](http://dx.doi.org/10.1016/S0885-2006(00)00049-1)
- Saldana, J. (2013). *The coding manual for qualitative researchers* (2nd ed.). Thousand Oaks, CA: SAGE Publications Inc.
- Saluja, G., Scott-Little, C., & Clifford, R. M. (2000). *Readiness for school: A survey of state policies and definitions*: National Center for Early Development & Learning, SouthEastern Regional Vision for Education.
- Sandall, S., McLean, M. E., & Smith, B. J. (2000). *DEC recommended practices in early intervention/early childhood special education*: ERIC.
- Saxton, R., Hermens, K., Kosty, D., LaDuca, B., Brown, D., Lenhardt, B. J., . . . Petschauer, L. (2014-2015). *Oregon accessibility manual: smarter balanced assessments, OAKS assessments, extended assessments, kindergarten assessment, english language proficiency assessment (preliminary draft)*. Salem, Oregon: Oregon Department of Education Retrieved from [http://www.ode.state.or.us/teachlearn/testing/admin/alt/ea/oregonaccessibilitymanual\\_preliminary.pdf](http://www.ode.state.or.us/teachlearn/testing/admin/alt/ea/oregonaccessibilitymanual_preliminary.pdf).
- Saxton, R., & Rupley, J. (2014). Kindergarten test results a 'sobering snapshot': Guest opinion. *OregonLive*. Retrieved from OregonLive website: [http://www.oregonlive.com/opinion/index.ssf/2014/01/kindergarten\\_test\\_results\\_a\\_so.html](http://www.oregonlive.com/opinion/index.ssf/2014/01/kindergarten_test_results_a_so.html)
- Saxton, R., Wiens, J., Kosty, D., Vanderwall, K., Drinkwater, S., Brazeau, K., . . . McGraw, J. (2014-2015). *Interim draft - Test administration manual 2014 - 2015 school year: Smarter balanced mathematics, smarter balanced english language arts, OAKS science, OAKS social studies, english language proficiency, kindergarten assessment*. Salem, Oregon: Oregon Department of Education Retrieved from Including set-up time, there is an estimated six-minute completion time for the early literacy segment of the OKA.

- Schmitt, S. A., McClelland, M., Tominey, S., & Acock, A. C. (2015). Strengthening school readiness for head start children: Evaluation of a self-regulation intervention. *Early Childhood Research Quarterly, 30*, 20-31.
- Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005). Lifetime effects: The high/scope perry preschool study through age 40 (Monographs of the HighScope Educational Research Foundation, 14). Ypsilanti, MI: HighScope Press.
- Scott-Little, C., Kagan, S. L., & Frelow, V. S. (2006). Conceptualization of readiness and the content of early learning standards: The intersection of policy and research? *Early Childhood Research Quarterly, 21*(2), 153-173. doi: <http://dx.doi.org/10.1016/j.ecresq.2006.04.003>
- Snow, C., & Van-Hemel, S. (Eds.). (2008). *Early childhood assessment: Why, what, and how*. Washington, D.C.: The National Academies Press.
- Speece, D. L., Ritchey, K. D., Cooper, D. H., Roth, F. P., & Schatschneider, C. (2004). Growth in early reading skills from kindergarten to third grade. *Contemporary Educational Psychology, 29*(3), 312-332. doi: <http://dx.doi.org/10.1016/j.cedpsych.2003.07.001>
- Supovitz, J. A., & Klein, V. (2003). Mapping a course for improved student learning: How innovative schools systematically use student performance data to guide improvement. Philadelphia, PA: University of Pennsylvania Consortium for Policy Research in Education.
- Tarnowski, K. J., & Simonian, S. J. (1992). Assessing treatment acceptance: The abbreviated acceptability rating profile. *Journal of Behavior Therapy and Experimental Psychiatry, 23*(2), 101 - 106.
- TELC. (2011). Defining school readiness: National trends in school readiness definitions (working paper) (T. E. L. Council, Trans.). In T. E. L. Council (Ed.). Houston, Texas: Texas Early Learning Council.
- USDOE. (1996). *1993 National Household Educaiton Survey (NHES:93) Questionnaires: Screener, school readiness, and school safety discipline*. Washington, D.C.: U.S. Department of Education.
- USDOE. (2007). *Modified academic achievement standards [non-regulatory guidance draft]*. Washington, D.C.: Author Retrieved from <http://www.ed.gov/policy/speced/guid/nclb/twopercent.doc>.
- Zill, N., & West, J. (2001). Entering kindergarten: A portrait of American children when they begin school: Findings from the condition of education 2000. Washington, D.C.: National Center for Education Statistics