

April 2016

Thank you for your request for **help in determining the most effective assessments to use with Pre-K students to determine kindergarten readiness. Ask REL Southwest** is part of a collaborative Ask-A-REL reference desk service provided by the 10 regional educational laboratories (RELs). By design, this service functions much in the same way as a technical reference library, by providing references, referrals, and brief responses in the form of citations for research-based education questions.

Please note that REL Southwest has not done an evaluation of the resources themselves but offers this list to you for your information only.

BACKGROUND

The Louisiana Charter Schools Research Alliance held a Bridge Event in December 2015. REL Southwest is providing these resources based on research questions asked by attendees of that event.

Following an established REL Southwest protocol, we conducted a search for research reports as well as descriptive briefs on effective assessments to use with Pre-K students to determine kindergarten readiness. The sources included federally funded organizations, additional research institutions, educational databases, and general Internet searches using Google and Bing. See the methods section at the end of this Ask a REL for additional information on how we identified the following sources.

QUESTION

What are the most effective assessments to use with Pre-K students to determine kindergarten readiness?

Ackerman, D. J. & Coley, R. J. (2012). State pre-K assessment policies: Issues and status. *Educational Testing Service (ETS)*, Policy Information Report.
<http://eric.ed.gov/?id=ED529449>.

From the ERIC abstract: “Preschool education is increasingly being recognized as an integral part of efforts to ensure that all children enter school ready to learn and as a way to help close the achievement gaps that exist at the time children enter kindergarten. Such efforts are growing across the country. According to the most recent data, 54 different preschool initiatives in 40 states serve over one million children, almost double the number served eight years earlier. As these programs and efforts to monitor them have grown, a common focus is on documenting children’s learning outcomes. Assessing young children, however, presents particular challenges. This report identifies and describes state-funded Pre-K assessment policies and programs

operating in 2012 and discusses the special challenges related to assessing young children. A table for specific child outcome measures that must or may be used as per Pre-K Policy is appended. (Contains 3 tables and 95 footnotes.)”

Ansari, A. & Winsler, A. (2014). Montessori public school pre-K programs and the school readiness of low-income Black and Latino children. *Journal of Educational Psychology*, Vol 106(4), 1066-1079. <http://psycnet.apa.org/psycinfo/2014-16736-001>.

From the PsycINFO abstract: “Within the United States, there are a variety of early education models and curricula aimed at promoting young children’s pre-academic, social, and behavioral skills. This study, using data from the Miami School Readiness Project (Winsler et al., 2008, 2012), examined the school readiness gains of low-income Latino (n = 7,045) and Black (n = 6,700) children enrolled in 2 different types of Title-1 public school pre-K programs: those in programs using the Montessori curriculum and those in more conventional programs using the High/Scope curriculum with a literacy supplement. Parents and teachers reported on children’s socio-emotional and behavioral skills with the Devereux Early Childhood Assessment (Lebuffe & Naglieri, 1999), whereas children’s pre-academic skills (cognitive, motor, and language) were assessed directly with the Learning Accomplishment Profile–Diagnostic (Nehring, Nehring, Bruni, & Randolph, 1992) at the beginning and end of their 4-year-old pre-K year. All children, regardless of curriculum, demonstrated gains across pre-academic, socio-emotional, and behavioral skills throughout the pre-K year; however, all children did not benefit equally from Montessori programs. Latino children in Montessori programs began the year at most risk in pre-academic and behavioral skills, yet exhibited the greatest gains across these domains and ended the year scoring above national averages. Conversely, Black children exhibited healthy gains in Montessori, but they demonstrated slightly greater gains when attending more conventional pre-K programs. Findings have implications for tailoring early childhood education programs for Latino and Black children from low-income communities.”

Howard, E. C. (2011). Moving forward with kindergarten readiness assessment efforts: A position paper of the early childhood education state collaborative on assessment and student standards, *Council of Chief State School Officers*. <http://eric.ed.gov/?id=ED543310>.

From the ERIC abstract: “As more states have become engaged in kindergarten assessment efforts, early childhood educators and assessment experts have recommended developing such efforts within a coordinated assessment system that provides data about children’s progress over time, (pre-k through grade 12), and is designed to address both educational policy and practice questions. Based on the review of current efforts, the Early Childhood Education State Assessment Collaborative’s (ECEA) position on assessment of children at the start of formal schooling, typically kindergarten, is the following: Early child assessments conducted prior to, at the start of, and during kindergarten can be useful for a number of purposes “if done well.” Kindergarten readiness assessments should be used to directly support

children's development and academic achievement to improve educational outcomes. To do so, kindergarten readiness assessment efforts should adhere to the following principles: (1) Use multiple tools for multiple purposes; (2) Address multiple developmental domains and diverse cultural contexts; (3) Align with early learning guidelines and common core standards; (4) Collect information from multiple sources; (5) Implement in a systems-based approach; and (6) Avoid inappropriate use of assessment information, specifically including high-stakes decisions, labeling children, restricting kindergarten entry, and predicting children's future academic and life success. The rest of this paper will discuss the rationale of ECEA's position and important cautions for parents, teachers, administrators, and policymakers to consider when planning kindergarten assessment initiatives. A glossary is included. (Contains 1 table and 37 notes.)”

Irwin, C., O'Dwyer, L. & Cook, K. D. (2014). Early childhood educator and administrator surveys on the use of assessments and standards in early childhood settings. *Regional Educational Laboratory (REL)*.
<http://ies.ed.gov/pubsearch/pubsinfo.asp?pubid=REL2014019>.

From the IES description: “The Early Childhood Educator Survey and the Early Childhood Administrator Survey allow users to collect consistent data on the use of child assessments and learning standards in early childhood learning settings. Each survey includes modules on educator/administrator background information, assessment use, and learning standards implementation. The surveys and modules can be used either together or individually, and are part of a research agenda to improve early childhood programming and child outcomes through research- and evidence-based practices. Regional Educational Laboratory Northeast & Islands developed these surveys in partnership with its Early Childhood Education Research Alliance.”

From the publication: “Data have not yet been collected to allow for psychometric analyses of the developed surveys (for example, reliability and validity information). Pretesting with a small sample (fewer than nine) of educators and administrators suggests that the items should yield the intended information. At this point no information related to scales is available. Future work will include structural and psychometric analyses.

Descriptive analyses including frequencies and cross-tabulations of item responses should be appropriate at this time. It is not recommended that these surveys be used for high-stakes decisions, including educator evaluation or program funding decisions.”

Quirk, M., Mayworm, A., Furlong, M. J., Grimm, R. & Rebelez, J. (2015). Dimensionality and measurement invariance of a school readiness screener by gender and parent education levels. *International Journal of School & Educational Psychology*, 3(3), 167-177. <http://eric.ed.gov/?id=EJ1089161>.

From the ERIC abstract: “This study examined the dimensionality and measurement invariance of the Kindergarten Student Entrance Profile (KSEP), a brief screening tool

designed for use as a universal school readiness assessment. Teachers rated the readiness of 10,031 children during the first month of kindergarten in four ethnically diverse, medium-sized school districts in central California. From the total sample, two random, independent subsamples were identified. First, S1 (n = 5,050) was utilized to conduct a CFA. Results yielded evidence supporting a two-factor structure encompassing children's social-emotional and cognitive readiness that is similar to previous studies examining the KSEP with less diverse student samples. Next, a series of confirmatory factor analyses (CFAs) were conducted using S2 (n = 4,981) to replicate the structure identified in the first CFA with an independent subsample and to test the measurement invariance of the KSEP across two sets of categorical variables: (a) gender and (b) parent education levels. Results from both sets of CFAs showed adequate fit to the two-factor structure, with the KSEP exhibiting measurement invariance across both gender and parent education levels. The results of this study provide additional psychometric evidence supporting the validity of the KSEP as a universal-level school readiness screener. Practical implications are also discussed.”

Quirk, M., Rebelez, J., & Furlong, M. (2014). Exploring the dimensionality of a brief school readiness screener for use with Latino/a children. *Journal of Psychoeducational Assessment*, 32(3), 259-264. <http://eric.ed.gov/?id=EJ1024223>.

From the ERIC abstract: “This study contributed to the school readiness literature by examining the factor structure and reliability of a revised version of the Kindergarten Student Entrance Profile (KSEP). Teachers rated 579 Latino/a children during the first month of kindergarten using the KSEP. Factor analysis procedures (exploratory factor analysis [EFA] and confirmatory factor analysis [CFA]) supported a two-factor solution, social-emotional (SE; $\alpha = 0.88$), cognitive (COG; $\alpha = 0.81$), factor loadings > 0.51 . These results provide evidence supporting the interpretation of KSEP ratings as distinct measures of Latino/a children's SE and COG readiness at the time of kindergarten entry. Additional implications of the findings are also discussed.”

Quirk, M., Nylund-Gibson, K. & Furlong, M. (2013). Exploring patterns of Latino/a children's school readiness at kindergarten entry and their relations with grade 2 achievement. *Early Childhood Research Quarterly*, 28(2), 437-449. <http://eric.ed.gov/?id=EJ1008296>.

From the ERIC abstract: “This study contributed to the school readiness literature by taking an intrachild perspective that examined the relations between Latino/a children's school readiness profiles and later academic achievement. Teachers rated the school readiness of 781 Latino/a kindergartners during the first month of school using the Kindergarten Student Entrance Profile (KSEP). Latent class analysis (LCA) examined KSEP profiles across social-emotional, physical, and cognitive domains and identified five distinct school readiness classes that described students' strengths and weaknesses at kindergarten entry. Among the predictors examined, gender was the only significant difference among the top two readiness classes, with girls less likely to be in the lower of these two classes (OR = 0.38). In addition, children in the bottom three readiness classes were significantly less likely than students in the top readiness

class to have preschool experience (ORs = 0.02-0.19) and had significantly lower levels of English proficiency (ORs = 0.51-0.72). Class membership was significantly associated with scores on the Grade 2 California Standards Tests and only the top two readiness classes had reading fluency rates near or above a national benchmark at the end of Grade 2. The variation of early achievement found across readiness classes also showed that considering the pattern of a child's social-emotional and cognitive readiness might enhance school readiness assessment. Implications for integrating universal school readiness screeners within a comprehensive multigating assessment model are also discussed. (Contains 2 figures, 3 tables, and 1 note.)”

Schilder, D. & Carolan, M. (2014). State of the states policy snapshot: State early childhood assessment policies. *Center on Enhancing Early Learning Outcomes (CEELO)*. <http://eric.ed.gov/?id=ED555717>.

From the ERIC abstract: “Early childhood stakeholders in state departments of education are interested in knowing what child assessment measures are being used in state-funded pre-kindergarten and in kindergarten classrooms. To address this need, the Center on Enhancing Early Learning Outcomes (CEELO) performed a secondary analysis of data in the National Institute for Early Education Research (NIEER) State of Preschool Yearbook. Assessment of learning and development during the pre-K and Kindergarten years can provide administrators, teachers, and parents with information to target learning to the developmental and academic needs of children. Information about the status of state policies regarding pre-K and Kindergarten assessments can inform how early childhood stakeholders, including those in SEAs, develop or revise their comprehensive early childhood assessment systems. For this brief, secondary analyses of data collected through the State of Preschool Yearbook was performed. The annual Yearbook tracks state trends on access and resources of state-funded preschool programs, information about access to kindergarten, and child outcome measures. Data collected in 2012 regarding state policies on early childhood assessment were analyzed. This brief reports on state-funded pre-K programs and does not include data on either federally-funded programs, such as Head Start, or locally-funded pre-K programs, which have their own assessment requirements. An appendix presents Table A1: Domains Addressed in Common Assessment Tools.”

ADDITIONAL ORGANIZATIONS AND RESOURCES TO CONSULT

We also searched for appropriate organizations and resources that may be useful on this issue. We have not done an evaluation of these organizations or the resources themselves but offer this list for reference only.

- National Institute for Early Education Research (www.nieer.org)

From the website: “The National Institute for Early Education Research (NIEER) conducts and communicates research to support high-quality, effective early childhood education for all young children. Such education enhances their physical, cognitive, and social development, and subsequent success in school and later life. The Institute offers

independent, research-based advice and technical assistance to policymakers, journalists, researchers, and educators.”

- WWC Evidence Review Protocol for Early Childhood Education Interventions Version 3.0 (2014). *Institute of Education Sciences*.
(<http://ies.ed.gov/ncee/wwc/documentsum.aspx?sid=24>)

From the IES website’s WWC abstract: “What Works Clearinghouse (WWC) reviews in this topic area focus on early childhood education (ECE) interventions designed for use in school- or center-based settings with 3- to 6-year-old children who are not yet in kindergarten and are attending a center-based program. The primary focus for early childhood education interventions is on cognitive, language, and behavioral competencies associated with school readiness (specifically, language, cognitive, and social-emotional development, print knowledge, phonological processing, early reading and writing, and math).

Systematic reviews of evidence in this topic area address the following questions:

- Which ECE interventions improve preschool children’s school readiness (specifically, their language, cognitive, and social-emotional development, print knowledge, phonological processing, early reading and writing, and math)?
- Does the effectiveness of ECE interventions differ by type of outcome?
- Which ECE interventions are particularly effective for which children?”

NOTE: A link to the full protocol can be retrieved from IES web address listed above.

- WWC Evidence Review Protocol for Early Childhood Education Interventions for Children with Disabilities, Version 2.0
(<http://ies.ed.gov/ncee/wwc/document.aspx?sid=30>)

From the IES website’s WWC abstract: “The What Works Clearinghouse (WWC) review in this topic area focuses on interventions that have a primary focus on outcomes associated with the school readiness of children with disabilities, including outcomes in the areas of cognition, communication competencies, literacy, mathematics achievement, social-emotional development and behavior, functional abilities,¹ and motor development. The review focuses on early childhood education (ECE) interventions (curricula, practices, and therapies) designed for use with 3- to 5-year-old children who are not yet in kindergarten and older children who are attending a preschool program. These interventions must take place in a school or center-based preschool setting, or if they take place in other locations (such as clinical settings or family homes), they must be implemented under the direction of or in collaboration with a school, preschool, or program funded through the Individuals with Disabilities Education and Improvement Act (IDEA).

The review of evidence in this topic area addresses the following questions:

- Which early childhood education interventions improve outcomes associated with school readiness among children with disabilities?
- Does the effectiveness of early childhood education interventions for children with disabilities differ by type of outcome?
- What types of early education interventions are particularly effective for which children with disabilities under which circumstances?

Individual intervention-level reports will be released on a periodic basis.

The review of individual studies underlies all What Works Clearinghouse (WWC) products, from reports on a single study to a systematic review of all studies on an intervention. The WWC's Database of Study Findings provides data resulting from WWC reviews for every study that meets standards and is included in a quick review, single study review, or intervention report, as well as studies that have been reviewed for Department grant competitions.

The Database of Study Findings provides comprehensive data at the outcome level, a finer level of observation than any other WWC database. It includes 50 variables on more than 3,000 records, each representing an individual finding in a study. Finding-level variables include means, standard deviations, and sample sizes, for use in meta-analysis. Other new variables provide information on study populations (e.g., grade, race, ethnicity, English Learners, students with Individualized Education Plans, and students eligible for Free and Reduced Price Lunch) and setting (state, region, and urbanicity).

The WWC is releasing this free dataset as part of our open data approach to increase transparency and encourage data driven assessments. This dataset will provide:

- **Greater transparency** for WWC reviews, allowing users to replicate WWC findings and reports
- **Comprehensive information** to encourage research questions beyond those asked by the WWC
- **Detailed study findings** to allow for meta-analysis
- **Contextual information** for the examination of what works for whom and under what conditions”

METHODS

Keywords and Search Strings Used in the Searches

(Pre-K assessments, effective pre-K assessments, early childhood education (ECE) assessments, assessments for pre-K readiness, kindergarten readiness screeners).

Search of Databases and Websites

- Institute of Education Sciences (IES) website (<http://www.ies.ed.gov>) and IES sources: Regional Educational Laboratory (REL) Program, National Center for Education Statistics (NCES), National Center for Education Research (NCER), What Works Clearinghouse (WWC)
- ERIC database (www.eric.ed.gov)
- Google Scholar (scholar.google.com)
- Google (www.google.com)
- Bing (www.bing.com)

Criteria for Inclusion

REL Southwest selected resources that provide research on effective assessments to use with Pre-K students to determine kindergarten readiness. When REL Southwest staff reviewed resources, we considered – among other things – three factors:

1. Date of Publication: The most current information (primarily published from 2011 to the present) is included.
2. Source and Funder of the Report/Brief/Article: Priority was given to publications written in relevant, peer-reviewed journals or reports or produced by well-known research organizations.
3. Methodology: sources include reported studies, literature reviews and policy reports.

Ask A REL is a service provided by a collaborative of the Regional Educational Laboratory (REL) Program, funded by the U.S. Department of Education's Institute of Education Sciences (IES). This response was prepared by REL Southwest under contract ED-IES-12-C-0012 with IES. The content of this document does not necessarily reflect the views or policies of IES or the U.S. Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.