

PSYCHOMETRIC PROPERTIES OF THE KINDERGARTEN OBSERVATION FORM



CONTENT VALIDITY

The KOF reflects the core elements of kindergarten readiness according to readiness experts.

- The Kindergarten Observation Form (KOF) was developed in 2001 **following a nationwide review of school readiness constructs** (e.g., the National Education Goals Panel¹) and existing assessment tools.
- Early education and child development professionals helped ASR incorporate into the KOF the **readiness skills that are most important for children to have when they enter kindergarten**. In 2009, an expert panel of early childhood education and elementary school educators helped develop the KOF Scoring Guide, a rating rubric which defines each indicator across the four levels of proficiency.
- The KOF assessment has 19 readiness skills that have been shown to cluster into four Building Blocks of readiness: Kindergarten Academics, Self-Regulation, Social Expression, and Motor Skills.



CONVERGENT VALIDITY

The KOF is significantly correlated with other standardized measures of child development.

Scores on the KOF demonstrate significant correlations with performance on a range of established developmental assessment tools. All *Building Blocks* of readiness show statistically significant associations with these measures, as summarized below:

- · Woodcock Johnson III (Kindergarten Academics building block)
- · Expressive One Word Picture Vocabulary Test (Kindergarten Academics)
- · Brigance K-1 Screen II (Motor Skills, Self-Regulation, Social Expression, Kindergarten Academics)
- · Ages and Stages Questionnaire (Self-Regulation, Social Expression, Kindergarten Academics)
- · Work Sampling System (Motor Skills, Self-Regulation, Social Expression, Kindergarten Academics)^v
- · Head Toes Knees Shoulder Task (Motor Skills, Self-Regulation, Social Expression, Kindergarten Academics)^v
- · Preschool and Kindergarten Behavior Scales (Self-Regulation)



PREDICTIVE VALIDITY

The KOF is a strong predictor of later academic achievement.

The KOF strongly predicts third grade proficiency in math and English Language Arts (ELA):

- In San Mateo and Santa Clara counties, students rated as proficient on the KOF, particularly in *Kindergarten Academics and Self-Regulation*, scored significantly higher on their third-grade standardized tests than peers with other readiness profiles. The readiness skills most strongly associated with later outcomes included early academic skills such as letter recognition and engagement with books.
- In San Francisco County, 68% of students identified as "ready" for kindergarten according to the KOF were later proficient in both ELA and math in third grade.^{ix}
- · In Alameda County, students identified as "ready" on the KOF were nearly twice as likely to be proficient in ELA and math in third grade compared to those identified as "not ready." Kindergarten Academics and Self-Regulation scores were the strongest predictors of third-grade proficiency.



KNOWN-GROUPS VALIDITY

The KOF differentiates among groups of children known to vary in school readiness skills.

The KOF consistently detects statistically significant differences in readiness between groups of children shown in prior research to differ on key readiness indicators, including:xi

- · Children with special needs
- · Children with or without preschool experience
- · Age at kindergarten entry
- Gender
- · Family socioeconomic status



INTERNAL CONSISTENCY

The KOF demonstrates strong internal reliability across readiness domains.

The items on the KOF naturally cluster into the four *Building Blocks*. Cronbach's alpha coefficients, a measure of internal consistency, are consistently high (above .80) across all readiness studies conducted by ASR:

 $\begin{array}{ll} \cdot \; \text{Self-Regulation} & \alpha = 0.94 \\ \cdot \; \text{Social Expression} & \alpha = 0.91 \\ \cdot \; \text{Kindergarten Academics} & \alpha = 0.88 \\ \cdot \; \text{Motor Skills} & \alpha = 0.80 \\ \end{array}$



INTER-RATER AND TEST-RETEST RELIABILITY

The KOF produces consistent results across assessors and over time.

Teacher bias and error are minimized through ASR's detailed scoring guide and training, as evidenced by intra-class correlations (ICC) and test-retest reliability metrics:

- · ASR study data indicate that very little score variation is attributable to rater error, particularly in *Kindergarten Academics* (ICCs range from .16 to .30).^{xii}
- · When two teachers assess the same child using the KOF, their ratings are highly consistent (Cohen's kappa = .44 for overall KOF scores), with particularly strong agreement in *Kindergarten Academics* (Cohen's kappa = .61).

i The National Education Goals Panel. (1997). Getting a good start in school. Washington, DC: National Education Goals Panel.

ii Mathematica study, Los Angeles Universal Preschool, ASR analysis of data set, 2010.

iii San Francisco School Readiness Assessment, 2009.

iv Kickoff to Kindergarten School Readiness Evaluation, San Mateo County, 2009.

v Santa Clara County Quality Matters Study, 2013.

vi Does Readiness Matter? How Kindergarten Readiness Translates into Academic Success, 2008.

vii School Readiness and Student Achievement: A Longitudinal Analysis of Santa Clara and San Mateo County Students, 2010.

viii Kindergarten Readiness and Later Achievement: A Longitudinal Study in Alameda County, 2018.

ix San Francisco School Readiness Longitudinal Study, 2017.

x Kindergarten Readiness and Later Achievement: A Longitudinal Study in Alameda County, 2018.

xi Sample countywide studies conducted since 2015 include Alameda County Kindergarten Readiness Assessment, 2015, 2017, 2019; Contra Costa County School Readiness Assessment, 2016, 2017; Napa County School Readiness Assessment, 2015, 2016, 2017; Sacramento County School Readiness Assessment, 2015, Santa Clara County School Readiness Assessment, 2018, 2021, 2023; Siskiyou County School Readiness Assessment, 2017-2024; Sutter County School Readiness Assessment, 2018, 2021, 2024; Yuba County School Readiness Assessment, 2018, 2020.

xii Marin County School Readiness Assessment, 2010.