

Research Brief

**National Head Start Portrait of Child Outcomes for 2012-13:
Progress Toward School Readiness**
by Sarah Callahan, Ph.D.
Assessment Technology Incorporated



Overview: The Head Start Portrait of Child Outcomes (Portrait) is a grass-roots initiative conducted in collaboration with Assessment Technology Incorporated (ATI) in which Head Start programs join together, pool their data, and share information with the public about children's learning and development. Portrait data for children 3- through 5-years-old are recorded online by Head Start programs as part of ongoing multi-method observational assessments that help inform decision-making related to goal setting, planning, and the provision of learning opportunities. The role of ATI is to continuously analyze and aggregate data gathered by programs. ATI provides a dynamic report on the ATI website (ati-online.com) that can be generated for each Galileo[®] assessment scale to indicate the progress of Head Start children in the various developmental domains comprising the Head Start Child Development and Learning Framework. Thus, the Portrait provides the Head Start community, researchers, policy-makers, and the public with a continuous portrait of outcomes reflecting children's learning throughout the program year.

This study utilizes the Portrait to evaluate the progress of Head Start children throughout the 2012-13 program year towards mastery of the capabilities included in the *Galileo G3 School Readiness Scale* for children 3 through 5 years. The *G3 School Readiness Scale* is a reporting tool containing 88 capabilities from the Galileo G3 assessment scales for 3 through 5 years. This scale reflects the essential capabilities for preschool-age children transitioning into kindergarten and is organized into five knowledge areas: *Cognition and General Knowledge*, *Language and Literacy*, *Approaches to Learning*, *Social and Emotional Development*, and *Physical Development and Health*.

Design: Participating Head Start programs in 25 states conducted ongoing multi-method observational assessments throughout the 2012-13 program year. The sample that contributed to the results described here included 26,960 children for whom at least one observation had been conducted in the first half of the program year (i.e., between July 31, 2012 and December 31, 2012) and at least one observation had been conducted in the second half of the program year (i.e., between January 1, 2013 and June 1, 2013).

Analysis: ATI conducts psychometric analyses for Galileo assessment scales on a regular basis using procedures based in Item Response Theory (IRT). These analyses estimate the marginal reliability for each scale as well as a difficulty and discrimination parameter for each capability within each scale. Based on these analyses and observational assessment data provided by early childhood programs, Galileo Pre-K Online provides programs with a Developmental Level (DL) score for each scale that indicates the child's position in an empirically validated progression of developmental capabilities as well as information to guide the planning of developmentally appropriate learning opportunities. Since DL scores are placed on a common scale, child progress can be measured via the change in their DL score over time. The study described herein evaluated the average DL score for children in the two designated time periods (i.e., the first and second half of the 2012-13 program year). The study also classified children into achievement levels based on the number of capabilities indicated as learned for the scale. For the *G3 School Readiness Scale* which contains 88 capabilities, possible achievement levels were defined as "Beginning" (i.e., 0-28 capabilities mastered), "Intermediate" (i.e., 29-58 capabilities mastered), and "Advanced" (i.e., 59-88 capabilities mastered).

Results: As Figure 1 illustrates, the average DL score observed for participating children was 504 in the first half of the 2012-13 program year and 572 in the second half of the year, indicating a substantial increase of 68 points. Since the standard deviation for the scale is approximately 50 points, this change represented more than one standard deviation of growth.

Progress Report



eLearning Comm: Head Start Portrait of Child Outcomes

Scale: 3-5 years: Galileo School Readiness

Period 1: 7/31/2012 to 12/31/2012

Period 2: 1/1/2013 to 6/1/2013

(88 goals in scale)

* Only includes children with observations during both periods

Achievement Level	Period 1		Period 2	
Beginning (0-28)	13287	49.28%	3998	14.83%
Intermediate (29-58)	11104	41.19%	10610	39.35%
Advanced (59-88)	2569	9.53%	12352	45.82%
Total Children	26960		26960	
Avg DL Score	504		572	

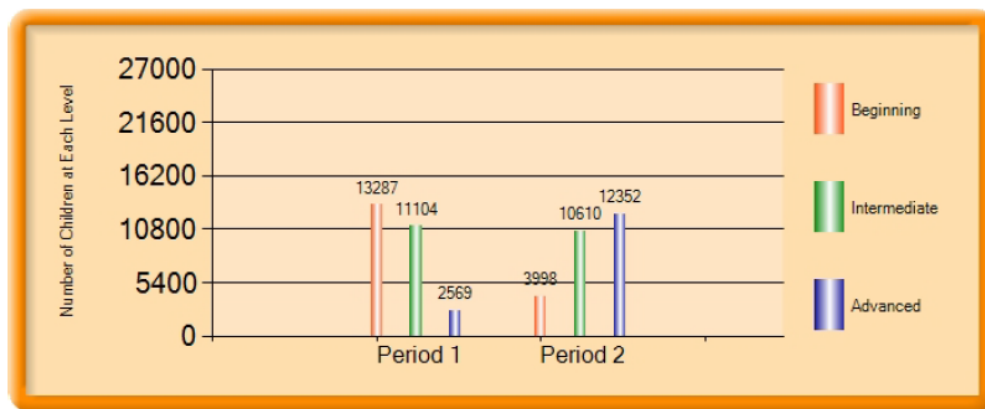


Figure 1
2012-13 Head Start Portrait of Child Outcomes: G3 School Readiness Scale for 3 through 5 years

As Figure 1 also illustrates, an examination of the achievement level classifications revealed a substantial positive shift in the achievement levels of participating children. Based on observations conducted in the first half of the year, only approximately 10 percent of children were classified as “Advanced” with 41 percent classified as “Intermediate” and 49 percent classified as “Beginning.” In contrast, based on observations conducted in the second half of the year, approximately 46 percent of children were classified as “Advanced” with 41 percent classified as “Intermediate” and only 15 percent classified as “Beginning.” This shows that a significant number of children increased their mastery of the school readiness goals over the course of the year.

Conclusion: Children in Head Start programs using Galileo® Pre-K Online displayed substantial growth on the *G3 School Readiness Scale* throughout the 2012-13 program year as evidenced by an increase in the average DL score from the first half to the second half of the year. As the DL score increases, children are able to perform progressively more difficult tasks. This increased ability is evidenced in the number of school readiness capabilities children had mastered during the first and second half of the year. In the first half of the year, the majority of children were classified as “Beginning” or “Intermediate” while in the second half of the year the majority of children were classified as “Intermediate” or “Advanced.” This change in the achievement levels of children demonstrates the substantial positive impact that Head Start programs using Galileo Pre-K Online had on child mastery of school readiness goals representing precursors to the Common Core Kindergarten Standards.