

Outcomes
Study

LEVEL OF EVIDENCE
Gold Standard

Comparing Child Outcomes:

Examining the Impact of
The Creative Curriculum® for Preschool

A Summary of Research Using *Teaching Strategies GOLD®*
Data to Examine Child Outcomes

Comparing Child Outcomes:

Examining the Impact of *The Creative Curriculum*® for Preschool

Curriculum provides the framework around which teachers organize the learning environment, experiences, and interactions. There is general agreement among leaders in the field of early education that curriculum should be based on research evidence and evaluated for its effectiveness with populations similar to those with whom the curriculum will be used (NAEYC & NAECS/SDE, 2003). In high-quality early education programs, the curriculum is thoughtfully planned to focus children's attention on important concepts, skills, and behaviors in critical areas of development and learning. When curriculum is developmentally appropriate, it is challenging, engaging, culturally and linguistically responsive, and it promotes positive outcomes for all children (Copple & Bredekamp, 2009; NAEYC & NAECS/SDE, 2003). Unless teachers know where each child is with respect to learning outcomes, they cannot be intentional about helping them progress (Copple & Bredekamp, 2009). Teachers' instructional practices can be improved, opportunities to individualize instruction can be increased, and standards can be met when curriculum and assessment are linked (Grisham-Brown, Hallam, & Brookshire, 2006; Gullo, 2006).

One such curriculum/assessment link is *The Creative Curriculum*® for Preschool and the *Teaching Strategies GOLD*® assessment system. *Teaching Strategies GOLD* is an authentic, observation-based assessment tool designed to assess the development and learning of children from birth through kindergarten. Although *Teaching Strategies GOLD*® is closely aligned with *The Creative Curriculum*®, the assessment measure can be used in programs that do not use the curriculum (Teaching Strategies, LLC, n.d.). This study explored the differences in outcomes between preschool children in classrooms where teachers used *The Creative Curriculum*® for Preschool and children in classrooms where teachers used a curriculum other than *The Creative Curriculum*® for Preschool. Children in both types of classrooms were assessed using *Teaching Strategies GOLD*®.

***The Creative Curriculum*® for Preschool: Background**

The Creative Curriculum® for Preschool is a comprehensive curriculum based on child development and early education research and theory (Dodge, Durham, Duckett, & Stover, 2011). It is widely used in programs across the United States (Hyson, 2008). Curriculum materials detail how to (a) create learning environments, (b) individualize for diverse learners, (c) teach content areas, and (d) integrate in-depth investigations of topics of interest to children. Embedded within the curriculum resources are links to the *Teaching Strategies GOLD*® assessment system that provide opportunities for daily, guided observation of children's progress toward learning objectives.

Effectiveness of *The Creative Curriculum*® for Preschool was recently examined in a study conducted by independent researchers. The study focused on preschool children's cognitive achievement when teachers used *The Creative Curriculum*® for Preschool for one or for two years. Children in classrooms where teachers had been using *The Creative Curriculum*® for Preschool for two years had significantly higher literacy and mathematics scores than children in classrooms where the teachers used another curriculum or where teachers had used *The Creative Curriculum*® for Preschool for only one year. These results imply that *The Creative Curriculum*® for Preschool is effective in promoting children's cognitive achievement when teachers have sufficient time to implement the program. Another study examined curriculum/assessment linkages. Preschool children enrolled in programs using *The Creative Curriculum*® for Preschool made expected progress on knowledge, skills, and behaviors in the areas of development and learning assessed by *Teaching Strategies GOLD*® (Durham, 2013). These results suggest that when used in concert, *The Creative Curriculum*® for Preschool and *Teaching Strategies GOLD*® can support the development and learning of preschool children representing diverse backgrounds.

The Teaching Strategies GOLD® Assessment System: Background

Teaching Strategies GOLD® has 23 objectives organized within six areas: Social–Emotional (9 items), Physical (6 items), Language (8 items), Cognitive (10 items), Literacy (12 items), and Mathematics (7 items). Objectives were developed from research-based predictors of school and life success (Heroman, Burts, Berke, & Bickart, 2010), and they align with the *Head Start Child Development and Early Learning Framework* and with early learning standards in every state (Teaching Strategies LLC, n.d.). The objectives help teachers focus the assessment process as they gather information from observations, conversations, artifacts, etc. during typical daily activities. Teachers use the information to plan and individualize instruction and to monitor and communicate child progress with families and other stakeholders. Assessment information is summarized and reported at three to four checkpoints (i.e., fall, winter, spring, and summer).

Teaching Strategies GOLD® is widely used in all states for pre-K assessment. Its publisher, Teaching Strategies, LLC, has 22 state-level agreements for pre-K assessment and 12 state-level agreements for kindergarten assessment. This makes it especially important that the measurement properties and effectiveness of the instrument be reported (Snow & Van Hemel, 2008).

Independent researchers conducted several studies to explore the reliability and validity of *Teaching Strategies GOLD®*. A preliminary study with a subsample of infants through children two years of age showed moderate to high reliability of the measure (Kim & Smith, 2010). Results from several large-scale studies conducted by researchers at the University of North Carolina–Charlotte indicated strong psychometric properties of *Teaching Strategies GOLD®* with diverse populations of children and program delivery (Kim, Lambert, & Burts, 2013; Kim, Lambert, & Burts, in press; Lambert, Kim, & Burts, 2012, 2013; Lambert, Kim, Taylor, & McGhee, 2010). More recently, the concurrent validity of *Teaching Strategies GOLD®* (Decker, 2013; Lambert, Kim, & Burts, 2013) or a modified version of *Teaching Strategies GOLD®* (Soderberg, Stull, Cummings, Nolen, McCutchen, & Joseph, 2013) was evaluated. Researchers compared teacher ratings using *Teaching Strategies GOLD®* with children’s scores obtained from well-established assessment instruments. The correlations of the external measures with *Teaching Strategies GOLD®* domains were generally moderate and in expected, aligned areas. Taken together, these studies indicate that *Teaching Strategies GOLD®* yields valid and reliable inferences for the intended population and that teachers are able to use the measure to accurately assess children’s development and learning across the designed age range.

Current Study: Comparing Child Outcomes

The present study was conducted by independent researchers to examine the language, cognitive, literacy, and mathematics outcomes as assessed by *Teaching Strategies GOLD®* for preschool children in classrooms where teachers used *The Creative Curriculum® for Preschool* and for children in classrooms where teachers used a curriculum other than *The Creative Curriculum® for Preschool*.

Participants

At the winter checkpoint, *Teaching Strategies GOLD®* users were asked to identify the curriculum they used. From the over 400,000 prekindergarten children with *Teaching Strategies GOLD®* data, a sample of 16,717 children was selected where teachers used both *The Creative Curriculum® for Preschool* and *Teaching Strategies GOLD®*. A sample of 18,000 children was selected in classrooms where teachers used a different curriculum and *Teaching Strategies GOLD®*. Sample children (n=34,717) were enrolled in Head Start, child care, and school-based programs and were paired geographically and by other demographic factors to ensure comparable and representative samples. Only children who had at least 70% of their child data completed for each developmental and learning area were included in the study. Of the sample children, 58% were white; 16% were Black; and 26% were unknown, mixed race, or other. The majority of the children were of non-Hispanic ethnicity (70%); the remainder were Hispanic (22%) or of unknown ethnicity (8%).

Study Results and Discussion

Results indicated that children in classrooms where teachers used both *The Creative Curriculum® for Preschool* and *Teaching Strategies GOLD®* scored higher in Language, Cognitive, Literacy, and Mathematics than did children in classrooms where their teachers used a different curriculum along with *Teaching Strategies GOLD®*. These results were statistically significant ($p < .001$). Effect sizes were moderate (Cohen, 1988). These results agree with previous studies examining the effectiveness of *The Creative Curriculum® for Preschool*. The study extends the work of Durham and colleagues (Durham, 2013) by adding a comparison group who did not use *The Creative Curriculum® for Preschool*, thereby strengthening the findings and their inferences for practice.

Current study results imply that the curriculum and assessment measure work in concert with one another to support the development and learning of children from diverse backgrounds. Both *The Creative Curriculum® for Preschool* and *Teaching Strategies GOLD®* are rooted in theory and research, with particular emphasis on predictors of school success

(Heroman et al., 2010; Teaching Strategies, n.d.). The reinforcement of the objectives and learning goals in both the curriculum and the assessment likely focused teachers' attention on these important areas. According to NAEYC, teachers cannot be intentional about helping children to progress if they do not know where each child is with regard to learning goals (Copple & Bredekamp, 2009).

Findings from the current study also indicated high internal consistency reliability of *Teaching Strategies GOLD®* (α s for Language = .96, Cognitive = .96, Literacy = .95, and Mathematics = .94). These results corroborate the strong psychometric properties of the measure found in prior research (Decker, 2013; Kim et al., 2013; Kim et al., in press; Kim & Smith, 2010; Lambert et al., 2012, 2013; Lambert et al., 2010; Soderberg et al., 2013). Taken together, findings imply that *Teaching Strategies GOLD®* is a viable authentic assessment measure and can be used with confidence with children representing diverse backgrounds.

The high visibility and widespread use of *The Creative Curriculum® for Preschool* and the *Teaching Strategies GOLD®* assessment system make the research findings particularly timely and noteworthy. Leaders in the field of early education call for curriculum that is based on research evidence (NAEYC & NAECS/SDE, 2003). Curriculum should be evaluated for its effectiveness using measures that demonstrate acceptable psychometric properties (Frede, Gilliam, & Schweinhart, 2011; NAEYC & NAECS/SDE, 2003; Snow & Van Hemel, 2008). Results from the current study along with previous research imply that *The Creative Curriculum® for Preschool* and *Teaching Strategies GOLD®* meet these criteria for effectiveness and as such are viable options for promoting and assessing young children's development and learning.

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