

# PIRAMIDE APPROACH: EXAMINING TEACHER AND CHILD EFFECTS TWO-YEAR EVALUATION (FALL 2010-SPRING 2012)

Written by: Dr. Martha Abbott-Shim, November 2012

Gary Bingham, Ph.D., Kyong-Ah Kwon, Ph.D., & Jennifer Barrett-Mynes, M.S.  
Department of Early Childhood Education, Georgia State University

## Conclusions

Teachers in the Piramide classrooms who were followed for two years exhibited a stable pattern of scoring higher on the CLASS (Pianta, LaParo, Hamre, 2008) measure than teachers in the comparison classrooms. These differences are encouraging and suggest that Piramide teachers appear to create more well-functioning classrooms that:

- are more productive,
- have higher quality of learning formats, and
- stronger language modeling.

Given that the characteristics of teachers, centers, and families were carefully matched in the Piramide and comparison classrooms and the relatively lower levels of teachers' education in the Piramide classrooms than in the comparison classrooms, it is reasonable to assume that the combination of Piramide trainings and focused ongoing coaching support in the centers contributed to these differences.

Although some differences existed between Piramide Approach and comparison teachers with regard to classroom quality, these differences translated into few differences in children's language, cognitive, or social emotional developmental trajectories in Year 1 or 2. Rather, children in all classrooms appeared to learn, regardless of research condition. Multiple reasons may exist for why this occurred:

- It is possible that differences in Piramide Approach and comparison teachers' scores on classroom quality indicators were not large enough to adequately predict change in children's scores.
- The language, cognitive, and social emotional indicators used in this study may not have adequately captured developmental indicators targeted by the Piramide Approach.
- The positive relation between teachers' CLASS scores and Piramide fidelity scores is encouraging and suggests that faithful implementation of Piramide Approach ensures higher quality instruction. This finding is important as it suggests that increasing the general quality of teachers' interactions with children may in turn affect children's developmental outcomes.
- Results from both the second year of this study and for the entire two-year project included a relatively small sample of children and teachers. This small sample size limited the statistical power of the analyses, making differences harder to find.

It is essential to interpret the Piramide findings in relation to existing research on preschool intervention studies. Large and small-scale studies document the significant challenge of changing teacher practices in a way that significantly alters children's developmental outcomes (Jackson et al., 2007; Maxwell et al., 2006; PCER Consortium, 2008).

# PIRAMIDE APPROACH: EXAMINING TEACHER AND CHILD EFFECTS TWO-YEAR EVALUATION (FALL 2010-SPRING 2012)

Written by: Dr. Martha Abbott-Shim, November 2012

Gary Bingham, Ph.D., Kyong-Ah Kwon, Ph.D., & Jennifer Barrett-Mynes, M.S.  
Department of Early Childhood Education, Georgia State University

## Findings

Teachers in Piramide classrooms exhibited significantly higher scores in the Classroom Organization domain which includes the Behavior Management subscale, Productivity subscale, and Instructional Learning Formats subscale of the CLASS (Pianta, LaParo, & Hamre, 2008) than teachers in the comparison classrooms.

- Teachers in Piramide classrooms used more effective behavioral management strategies.
- Piramide teachers tended to manage instructional time and routines in more effective ways so that children had greater opportunities to learn.
- Teachers in Piramide classrooms displayed higher level of skills in engaging children and providing a variety of interesting activities, instruction, centers and materials.

Teachers in Piramide classrooms scored significantly higher on Teacher Sensitivity (Emotional Support domain) and on Language Modeling (Instructional Support domain) than teachers in comparison classrooms using the CLASS.

- Teachers in Piramide classrooms were more sensitive to children's needs and interests.
- Piramide teachers provided higher quality language stimulation and facilitation through frequent conversations, open-ended questions, repetition and extension and advanced language use while interacting with children.

Children in Piramide classrooms had significantly higher story comprehension skills than children in comparison classrooms in their four-year-old spring assessment on the Narrative Assessment Protocol (NAP; Pence, Justice, & Gosse, 2007). This assessment is designed to measure complex oral syntax production in preschool children.

A smaller sample of children had assessments from both their three-year-old and four-year-old enrollment years. All children in this smaller sample both the Piramide and comparison classrooms evidenced statistically significant growth across the two years on the following measures:

- Narrative Assessment Protocol (NAP; Pence, Justice, & Gosse, 2007)
- Test of Preschool Early Literacy (TOPEL): Definitional Vocabulary subtest (Lonigan, Wagner, Torgesen, & Rachotte, 2007)
- Woodcock Johnson Applied Problems (Woodcock, McGrew, & Mather, 2001)
- Head, Shoulders, Knees, & Toes (HSKT): Self-Regulation (Ponitz, McClelland, Jewkes, Connor, Farris, & Morrison, 2008)