Improving School Readiness: Pretend-Play’s Impact on Emotion Regulation, Physiological Reactivity, and Executive Function Development

Project Team: Rachel Thibodeau, M.A. (Scholar) and Ansley Gilpin, Ph.D. (Mentor)

Grant or Contract Number: 90YR0098

Period of Funding: September 2016 to October 2017

**Project Description**

The aim of the present study is to investigate if pretend-play serves as a protective factor to minimize deficits in school readiness in an underserved Head Start population in West Alabama.

Although previous research has demonstrated developmental benefits associated with pretend-play (e.g., Black, 1992; Carlson et al., 2014; Thibodeau et al., 2016), these studies have been conducted with samples of convenience and not with children who are at-risk for school readiness deficits, such as those attending Head Start. Furthermore, current school readiness curricula for at-risk preschoolers are often very costly and require extensive training to implement. In order to improve upon the sustainability of these programs, it is important to identify natural environmental experiences, such as pretend-play, that are implicated in normative development.

Pretend-play typically involves cooperation, shared affect, and support among peers and adults. Thus consistently engaging in pretend-play could naturally create a positive environment that may minimize the observed negative effects of poor emotion regulation/high stress reactivity on cognitive development and school readiness.

In the present study, children’s emotion regulation skills, physiological reactivity to stress, executive functions (proximal measure of school readiness), grades and behavior in kindergarten (distal measure of school readiness), and level/style of pretend-play will be assessed to determine if pretend-play moderates the relationship between emotion regulation/physiological stress reactivity and school readiness, both proximally and distally.

**Research Questions**

Does a child’s level/style of pretend-play moderate the relationship between:

1. Emotion regulation and executive function skills?
2. Physiological stress reactivity and executive function skills?
3. Emotion regulation and school readiness?
4. Physiological stress reactivity and school readiness?

**Sample**

A total of 191 children from 21 classrooms across six Head Start preschools in West Alabama participated in the present study. These children, their parents, and their teachers were concurrently enrolled in the control group of a larger federally funded, longitudinal, socio-emotional intervention (PowerPATH) for at-risk families (90YR0075).

**Methods**

All children were individually interviewed by research assistants during two separate 60-minute sessions in preschool. During these sessions, emotion regulation, executive function, and pretend-play data as well as physiological responses to mild cognitive, social, and emotional challenges were collected. Parents and preschool teachers also completed demographic, emotion regulation, executive function, and pretend-play questionnaires at this time.

In kindergarten, children will be interviewed by a research assistant at their school for approximately one hour, and teachers will report on children’s behavior and academic learning. All teachers, parents, children, and interviewers are blind to the purpose and the hypotheses of the present study.

**Progress Update**

To date, all preschool assessments and 30% of the kindergarten assessments have been completed. Preliminary data from the preschool time point indicate that a child’s level of pretend-play moderates the relationship between emotion regulation and executive function. Specifically, among children with
poor emotion regulation skills, those who engage in low levels of pretend-play demonstrate the poorest executive function skills, whereas those who engage in high levels of pretend-play demonstrate higher levels of executive functioning.

**Implications for Policy/Practice**

If pretend-play demonstrates the hypothesized interaction with emotion regulation/stress reactivity to influence school readiness, both proximally and distally, we will gain important insights into an additional, cost-effective method (i.e., pretend-play) to facilitate school-readiness among Head Start preschool children, and thus potentially help close achievement gaps throughout the nation. Because pretend-play is easily implemented into existing classroom curricula at little to no cost, the findings from the present study will have an even broader impact on curriculum development.

Children who are well prepared for school are much more likely to be occupationally successful. Indeed, a conservative estimate for the return on investment for preparing children for school is 7:1 based on several longitudinal school readiness interventions such as the Chicago and High/Scope Perry Preschool Projects (Bruner, 2004). Thus, legislators and education specialists should be very interested in learning about the effects of a low-cost intervention involving pretend-play to prepare children for school success.

**Implications for Research**

This study offers a number of key innovations:

1. The proposed study will be the first to empirically examine pretend-play as a moderator in the relationship between emotion regulation/physiological stress reactivity and executive function. In the future, the results may stimulate intervention and dissemination research including experimental studies of the effects of pretend-play in Head Start settings and inform the development of pretend-play curricula for Head Start classrooms.

2. The proposed study will also be the first to longitudinally examine how high levels of pretend-play in preschool influence school readiness in kindergarten.

3. The current study will help delineate what aspects of pretend-play are important for school readiness. Recent research indicates that certain aspects of pretend-play are influential to the observed developmental benefits (i.e., child-driven, adult guided, fantastical; Russ, 2016; Thibodeau et al., 2016; Weisberg, 2016). Thus, the result of the present study can inform Head Start teachers by emphasizing the elements they should incorporate into their classroom’s existing pretend-play structure.

4. Finally, this study will be the first to incorporate innovative physiological measures into a study of pretend-play to help us identify pathways toward differential well-being that may be poorly represented in self-report or behavioral observation measures.

**For More Information**

Please visit us at the Society for Research in Child Development April 6–8 in Austin, TX. Poster title: Improving School Readiness: Pretend-Play’s Impact on Emotion Regulation, Physiological Reactivity & Executive Function Development.

**Contact**

Rachel Thibodeau  
Graduate Student  
University of Alabama Department of Psychology  
205-348-9903  
rthibodeau@crimson.ua.edu (preferred mode of contact)