# **Cooperation and Achievement in Preschoolers**

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## **Abstract**

- Children's ability to cooperate is an important part of the learning-related skills that contribute to classroom success.
- This study examined relations between observed peer cooperation and scores on achievement tasks.
- Using a diverse sample of 258 preschool children, results indicated that instances of observed cooperation with peers did not predict results on Woodcock Johnson III Achievement tasks.
- These results indicate that peer cooperation as observed on the Observed Child Engagement Scale is not an indicator of academic achievement, and that further research is needed to determine if more thorough measures could be used as a predictor.

#### Introduction

- Children's learning related skills, such as cooperation, self-regulation, responsibility, and independence, are significantly related to their academic outcomes (McClelland, Acock, & Morrison, 2006).
- Specifically, cooperation with peers is an easily observable behavior, and may be a predictor of children's achievement (Ladd, Birch, & Buhs, 1999).
- Peer cooperation is be measured with the Observed Child Engagement Scale (OCES), an assessment that gives scores on several dimensions based on an 8minute observation period.
- In Dr. McClelland's Touch Your Toes! Kindergarten Readiness Study, scores on the OCES are closely related to scores on the Head-Toes-Knees-Shoulders measure, which measures self-regulation, and predicts achievement outcomes (Ponitz, McClelland, Matthews, and Morrison, 2009).
- Based on this and previous research, it is possible that instances of peer cooperation might predict future achievement outcomes.

If observed peer cooperation can predict achievement outcomes, then teachers might be able to improve children's cooperation in the classroom as a way to promote academic achievement.

## Study Design/Methods Used

- My URAP project was part of Dr. McClelland's Touch Your Toes! Kindergarten Readiness Study which is examining the reliability and validity of the Head-Toes-Knees-Shoulders (HTKS) self-regulation task as a school readiness screening tool.
- I analyzed the data collected on 258 children in the spring of the preschool year.
- The sample was diverse: 50% were girls, the mean age was 61 months, and 51% of the sample was lowincome (enrolled in Head Start). The mean level of parent education was 15 years (some college).
- A subsample of 104 children were observed during free play to assess their cooperation with peers.
- Children's cooperation with peers was assessed during an eight minute observation period on the Observed Child Engagement Scale (OCES).
- Children's achievement was assessed using the Woodcock Johnson III Applied Problems, Picture Vocabulary, and Letter-Word Identification tasks.

# Goals of the Study

- The present study examined the following research questions:
  - 1. What is the relationship between children's observed cooperation with peers on the OCES and their scores on the Woodcock-Johnson III achievement tasks?

I predicted that higher scores for peer cooperation on the OCES would significantly predict higher scores on the WJ III achievement tasks for preschool children.

### Results

- \* For the first research question:
- Preliminary analyses revealed no significant correlations between observed cooperation with peers and scores on achievement tasks (rs ranging from .05-.07).
- Results of regressions indicated that there was no significant relationship between observed peer cooperation and children's achievement on the WJ III tasks after controlling for parent education and child age.

Table 1. Peer Cooperation measured on the OCES predicting scores on WJ III Achievement Tasks (N = 258)

	WJ III Letter Word Identification			WJ III Applied Problems			WJ III Picture Vocabulary		
Variables	В	SE B	ß	В	SE B	ß	В	SE B	ß
Observed Peer Cooperation (OCES)	.02	2.46	.001	.43	1.90	.02	38	1.08	03
Parent Education	2.78	.69	.41*	1.87	.53	.35*	1.37	.30	.43
Child Age	.89	.74	.12	1.72	.58	.29*	.79	.33	.23
* p < .05									

<sup>\*</sup> p < .05

## Summary/Conclusion

- Results indicated that instances of observed peer cooperation on the OCES did not signficantly predict children's scores on WJ III Achievement Tasks in preschool.
- Since research has shown that cooperation is a predictor of achievement (Ladd, Birtch, & Buhs, 1999), these results point to the need for further research on the relationship of learning related skills and academic achievement.
- Research may examine how social skills may directly or indirectly affect academic outcomes, through other variables like self-regulation.

#### References

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