

Speak Your Mind: The Relationship between Teachers' Language and Preschoolers' Linguistic, Cognitive, and Social Development



Jackie Baron '13, Margaret Kilkelly '12, Liza Rosenfield '12, & Alyssa Shaw '13

Advisors: Peter and Jill de Villiers



Introduction

- This study examined the speech of teachers in low-income preschool classes as part of a longitudinal study of the effectiveness of preschool curricular interventions on school readiness. The interventions included professional development for the teachers in the experimental classrooms during which the teachers were trained in child responsiveness and scaffolding of activities. Another group of teachers served as the control condition and did not receive additional training.
- The teachers in the experimental condition underwent one of two types of teacher training about children's emotional development; either Implicit or Explicit. The training varied in the extent to which the teachers had to convey an explicit socio-emotional curriculum, and in training in child responsiveness. The third group of teachers were placed in a control condition, called "Business as Usual" or BAU.
- The goal of the present study is to examine the differences in language use among preschool teachers across several dimensions. In the study, approximately half of the classrooms are comprised of three years olds (P1) and half of four and a half year olds (P2).
- Previous studies have demonstrated the significance of teachers' language on preschool children's vocabulary development (Klibanoff et al., 2006) The aim of the present study is to expand upon these findings by analyzing data on language about mental states.
- In the present study, we examined the differences in language use about emotions, desires, and cognitive states between P1 and P2 teachers. For the purposes of our study, cognitive states are defined as language about knowledge or beliefs (e.g. *think, know, remember, believe.*) Eventually, we hope to use this data to determine if teachers' language has a significant effect on the children's linguistic, cognitive, and social development.

Hypotheses

- We hypothesized that significant differences would exist between P1 and P2 teachers' language to reflect the varying developmental stages of the children in their classrooms.
- We hypothesized that the language of the P2 teachers would be more advanced than the language of P1 teachers. Given that on average, the P2 children are more cognitively advanced than the P1 children, we expected that teachers would use language to match the developmental stages of their children.

Procedure

- In the present study, we considered data from 20 P1 teachers and 40 P2 teachers. The teachers were filmed for approximately a half an hour while engaging in various interaction activities with the children in their classrooms -- reading, show-and-tell, math lessons, etc.



Scene in a P1 classroom



Scene in a P2 classroom

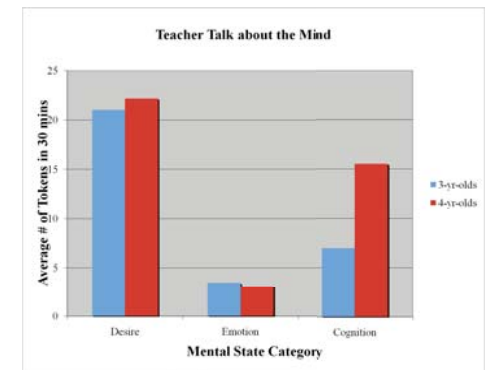
- The data were transcribed into a Filemaker Pro database (see sample below) and coded along several dimensions, including number of utterances containing talk about cognitive state, emotion, or desire. Our analysis also included previously collected data about vocabulary diversity (VOCD) for each teacher.

Results and Discussion

- The results partially supported our hypotheses and revealed both differences and similarities between P1 and P2 teachers' language.

Data	P1	P2	Total
Mean Utterances About Desire	21.05	22.20	21.82
Mean Utterances About Emotion	3.50	3.10	3.23
Mean Utterances About Cognitive State	7.00	15.53	12.68

- As hypothesized, there were differences in language use between P1 and P2 teachers. On average, P2 teachers utilized over twice as many utterances about cognitive state as did P1 teachers ($F=11.641, p=.001$). However, P1 and P2 teachers did not differ significantly in their language about desire and emotion.



- The findings that P1 teachers (mean student age=3) use less language about cognitive states than do P2 teachers (mean student age=4.5) are consistent with the fact that children develop an understanding of cognitive states at approximately age four.
- However, it is yet to be determined whether these differences are a product of the teachers adjusting their language in response to the children's advancing development, or are a result of the teachers' language driving the children's growth of understanding of this concept.