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READING RESEARCH

Language and Literacy Growth in Preschool Predicts Beginning Writing

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Study Purpose

Examined the extent to which children's **initial skill level** and **growth** in children's language and literacy skills during the preschool period predicted subsequent writing ability a year and a half later, when students were in the primary grades (K/1).



The Roots of Beginning Writing Ability

- Traced to the preschool years
- Early oral language and literacy skills lay a foundation for later achievement
 - Language Skills
 - – vocabulary, syntactic knowledge
 - Literacy Skills
 - phonological awareness, alphabet knowledge



Reading and Writing

- Reading and writing develop together
 - “reading and writing are not modular or unidirectional systems, but instead interact, influence, mutually reinforce, and develop together” (Kim, in press)
- Dependent on underlying skills that overlap
 - “two buckets drawing from a common well” (Shanahan, 2016)
 - Roots of these skills can be traced to preschool years
- Much research on early predictors of reading but not writing



Simple View of Writing

Spelling

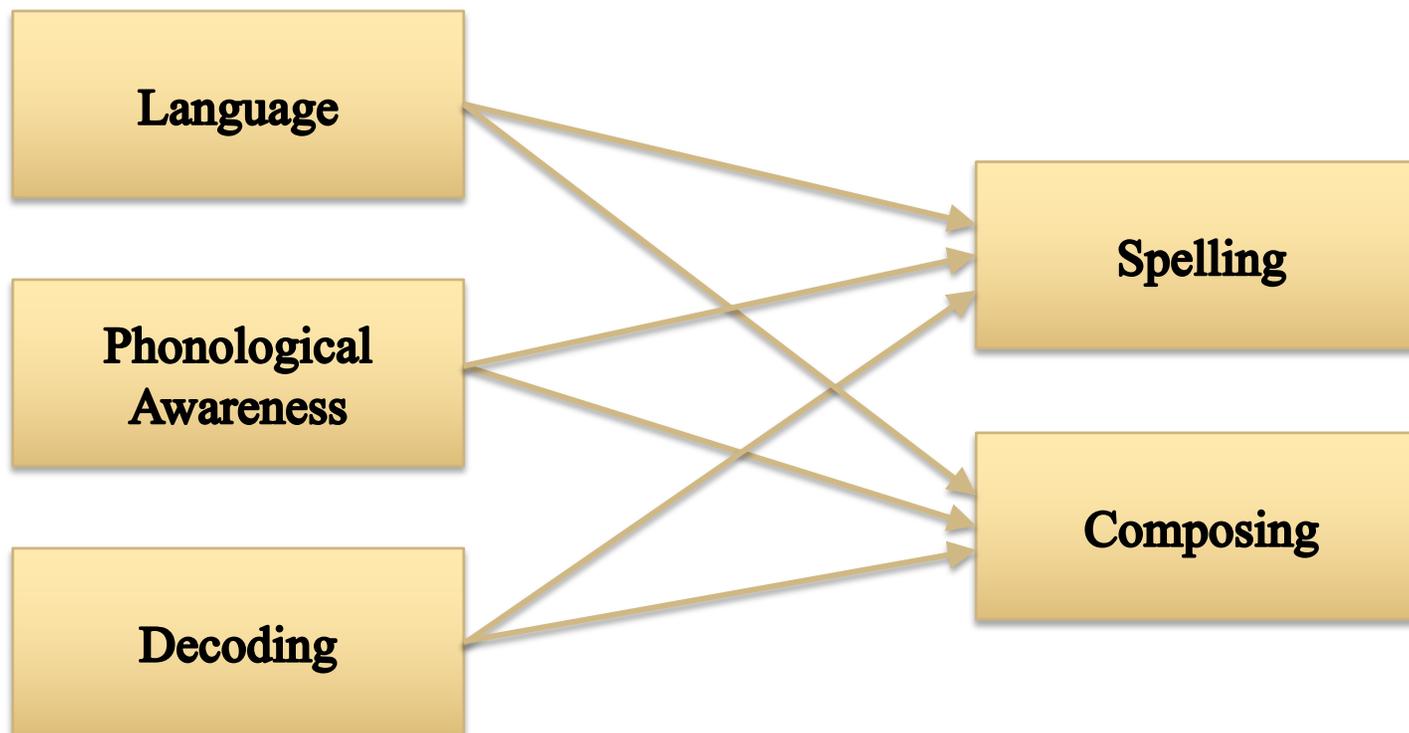
- showcases growing knowledge of the alphabetic system and how written language represents spoken language

Composing

- Idea and text generation
- Ultimate goal of writing



Predictors of Writing



Abbott & Berninger, 1993; Graham et al., 2018; Kent, Wanzek, Petscher, Al Otaiba, & Kim, 2014; Kim et al., 2011; National Early Literacy Panel, 2008; Puranik & Al Otaiba, 2012



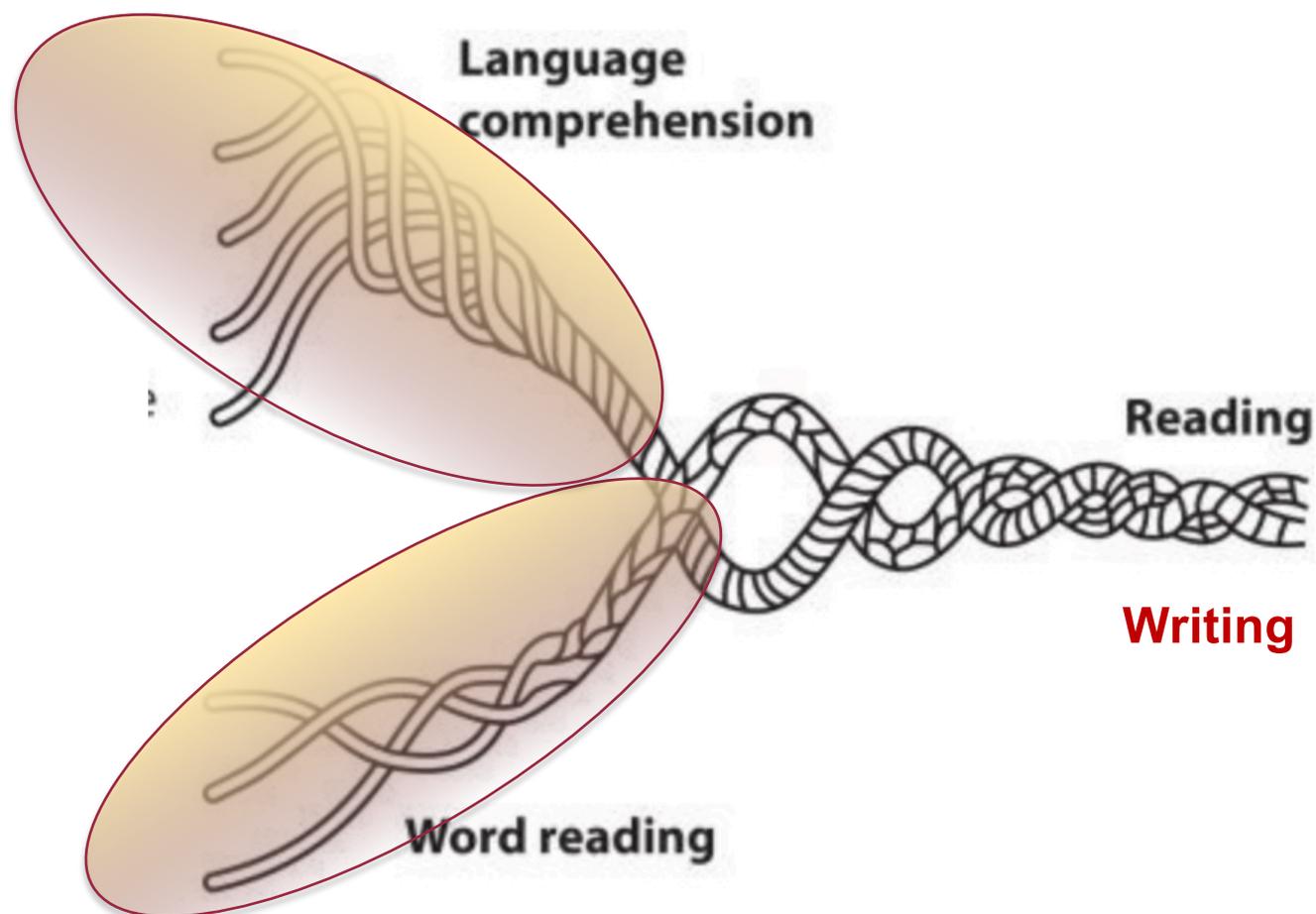
Growth Trajectories

- Prediction from a single time point is only a snapshot.
- Growth trajectories can help us understand how the rate of development of component skills might contribute to subsequent writing achievement.





Consolidation and Integration of Skills



Scarborough, 2001



Growth Trajectories

- Strong reading-to-writing developmental relation reported for grades 3-6
- Faster growth in word reading predicts spelling development
- We are examining similar relations at an earlier time point

Ahmed et al., 2014; Kim, Petscher, Wanzek, & Al Otaiba, 2018





The earlier that children develop component language and literacy skills, the earlier they can take advantage of other learning opportunities afforded to them.



Research Question

Do preschool children's levels at study entry (i.e., intercept) and growth rates (i.e., slope) of oral language and early literacy skills (i.e., phonological awareness, decoding) during the early childhood period predict spelling and written composition a year and a half later?



Participants

- 313 children
- Lived in Midwest
- Part of a larger non-intervention study of language development
- Enrolled in preschool, spoke English fluently
- 58% Caucasian, 18% African American
- Range of SES
- Age at start of study: 4.23 years ($SD = 0.61$)
- Age at end of study: 5.96 years ($SD = 0.63$)



Procedures and Measures

- Individually tested 4 times, 6 months apart
- **Language**
 - Sentence Structure, Word Structure, Expressive Vocabulary(CELF: P2)
- **Early Literacy**
 - Phonological Awareness (CELF: P2)
 - Decoding (WJ III ACH Letter-Word ID)
- **Writing** (at 4th time point only)



Writing Measures

- Spelling: Word writing
 - Five CVC words
 - Developmental scoring
 - Included linearity, directionality, case
- Written Composition: Story Writing
 - Total number of words written (productivity)



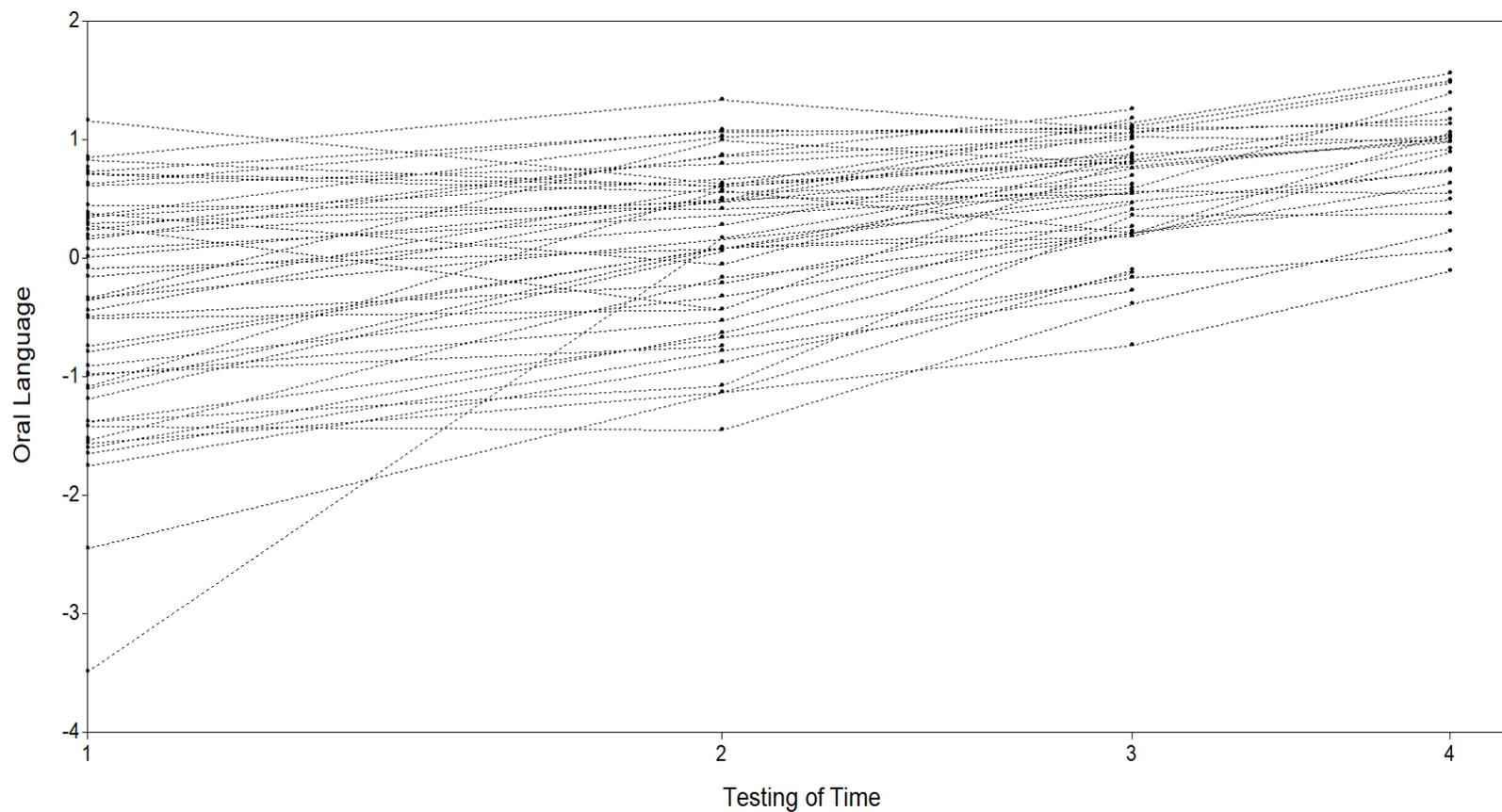


Data Analysis

- Latent growth curve modeling (LGC)
- Considered linear and non-linear models
- To account for missing data, full-information maximum likelihood estimation with robust standard errors

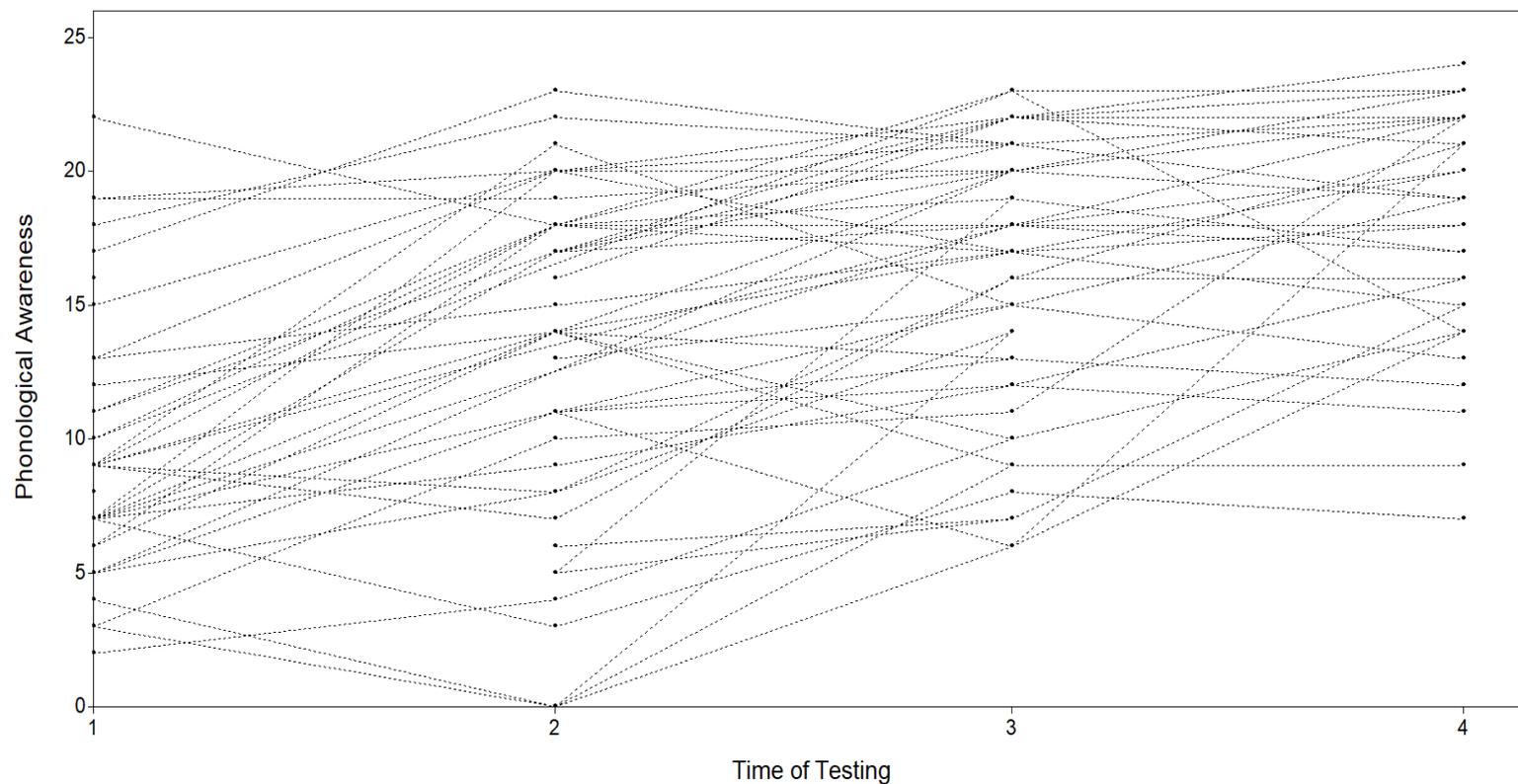


Language Growth



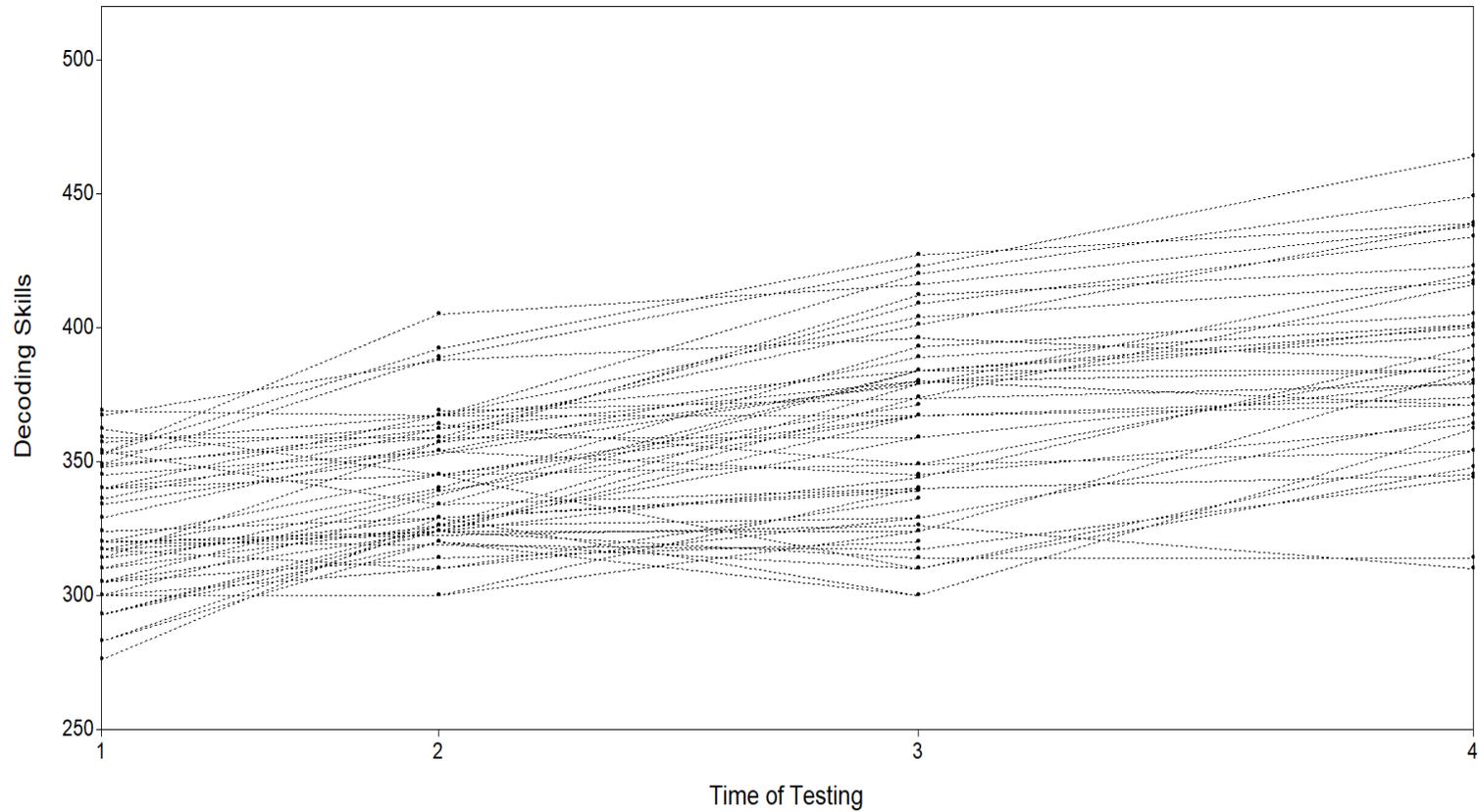


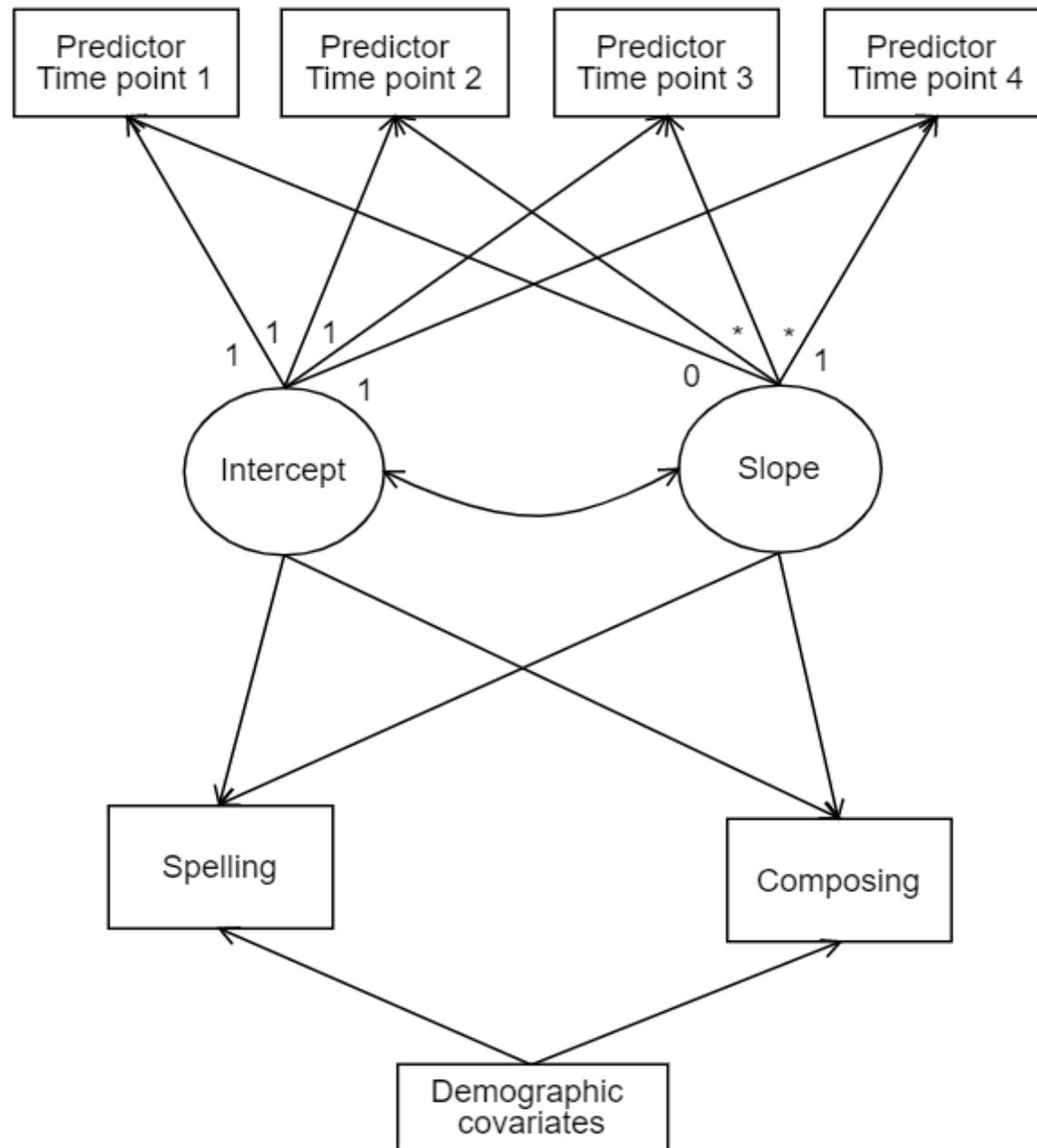
Phonological Awareness Growth





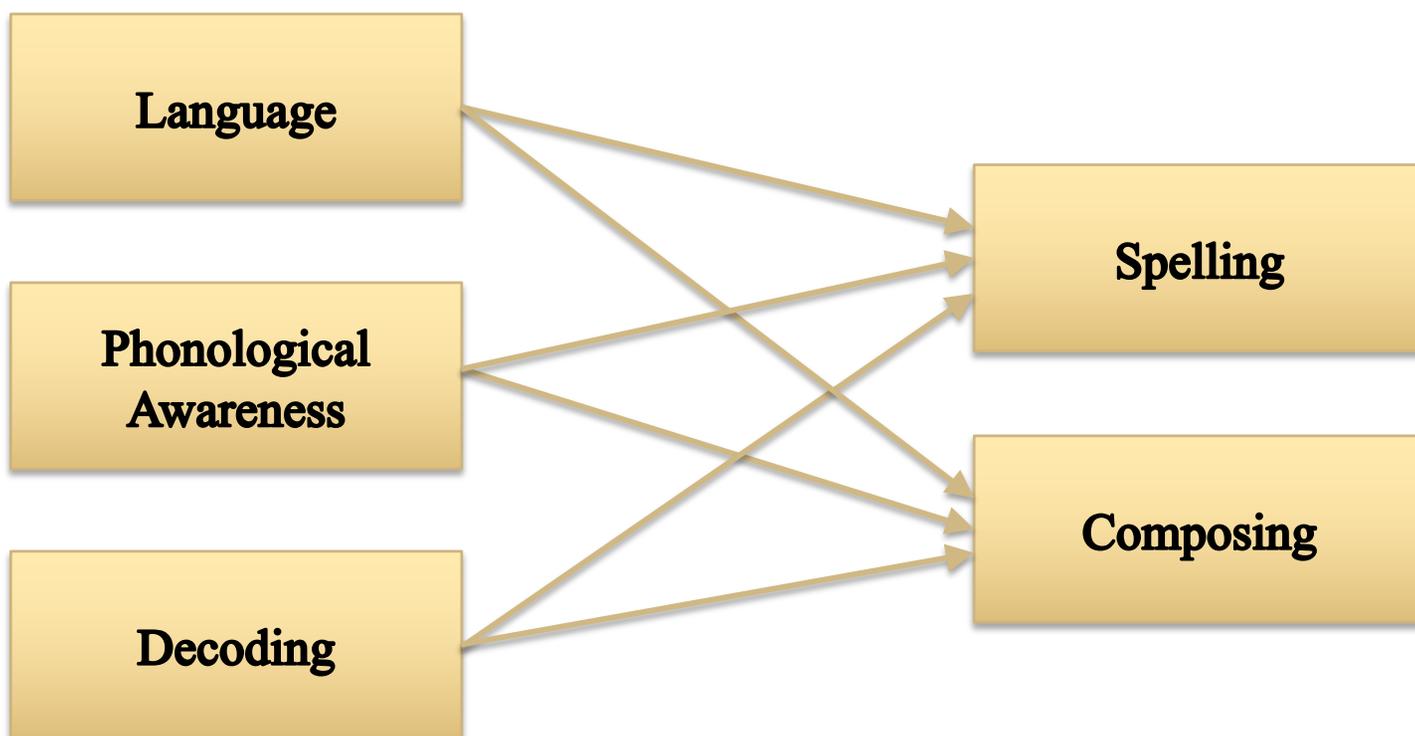
Decoding Growth







Early Skill Level Predicted Writing





Growth Predicted Writing

- Growth rates of language and decoding significantly and positively related to spelling and composing outcomes
- Not the case for phonological awareness





Discussion

- Known precursors of beginning reading are also precursors of beginning writing
- Complements existing work by:
 - Extending predictors to an earlier developmental timepoint
 - Including composing outcomes



Discussion

- Novel contribution of the predictive value of pre-reading growth trajectories to beginning writing outcomes in K/1st grade.
- Consolidation of skills may matter for writing.



Discussion

- Unexpectedly, growth in language related to spelling achievement.
 - Highlights importance of language for transcription skills.
- Lack of relation between growth in phonological awareness and writing



Implications

- Preschool is an important time for language and literacy instruction
- Learning can be integrated effectively within preschool activities and settings



Limitations

- Phonological awareness measure did not assess phonemic awareness
- Composing measure limited to productivity
- Did not examine handwriting
- Broader set of predictors could be used



This study suggests that the ways in which children develop language and literacy skills during early childhood is **as important as** the initial skills they bring with them to the first day of school.



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THANK YOU!

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