

Examining Literacy Growth and Its Relation to Classroom Variables for Typical and At-Risk Preschool Children

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Introduction

- Children's literacy development in preschool years is related to becoming successful readers
- Classroom environments (e.g., activities, materials, interactions) play a central role in learning

Research Questions

- How does rate of growth of emergent literacy skills vary among preschool children with and without risk for developing literacy skills?
- What preschool classroom variables are most highly correlated with emergent literacy skill growth?
- How are classroom variables different across children in ECFE, ECSE, Head Start and Spanish-speaking groups?

Participants

	ECFE (N=12)	ECSE* (N=26)	HeadStart (N=12)	Spanish (N=19)
Gender				
Male	58%	62%	42%	68%
Ethnicity				
White	25%	48%	17%	0%
Black	25%	38%	34%	0%
Hispanic	0%	0%	0%	100%

*ECSE represents children with speech/language impairments

Measures

Early Literacy:

- Individual Growth and Development Indicators (IGDIs)
 - Picture Naming
 - Rhyming
 - Alliteration
 - Administered in fall, winter and spring

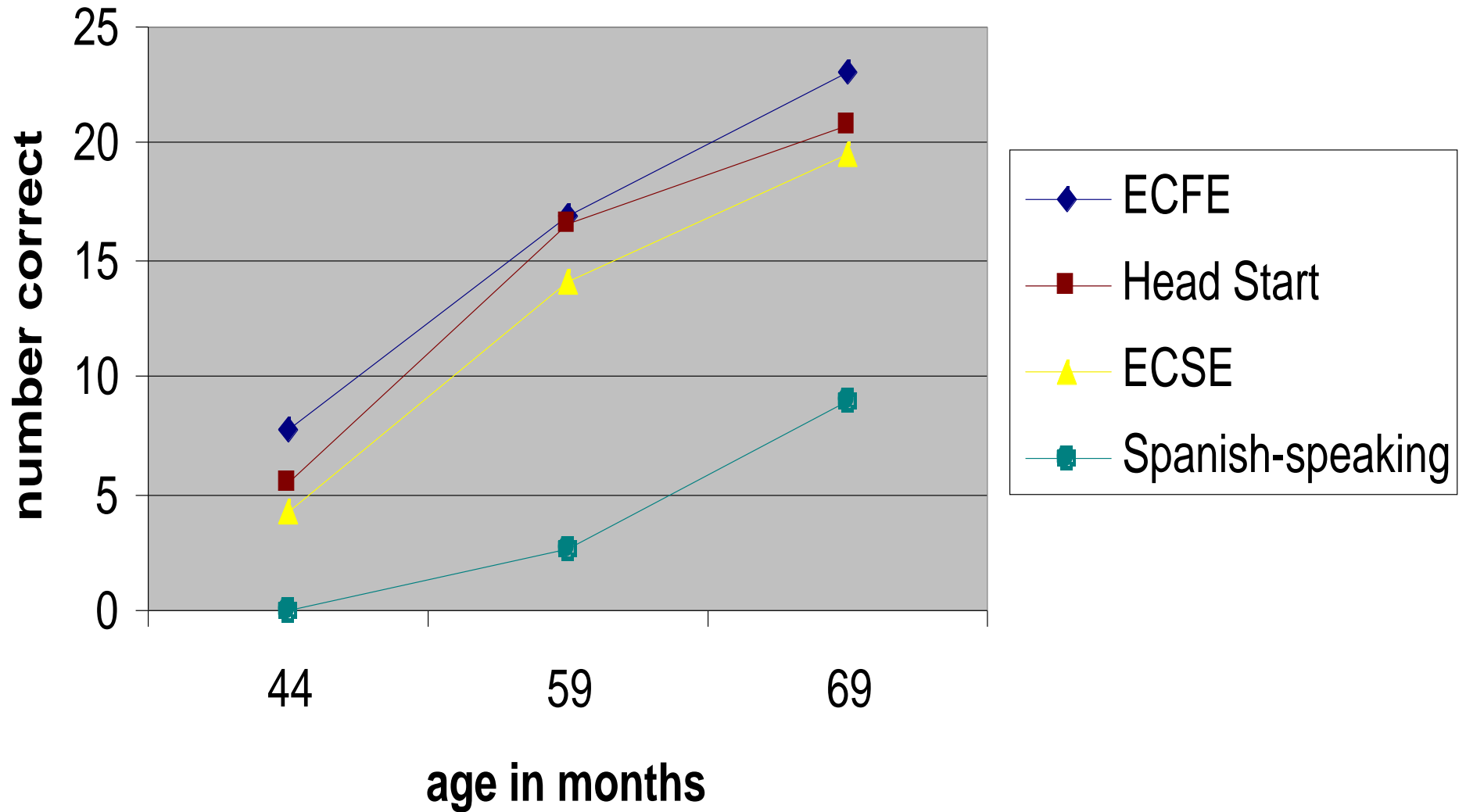
Classroom Variables:

- Eco-behavioral System for Complex Assessments of School Environments (ESCAPE)
 - Observations completed in fall and spring

HLM Results: Picture Naming

- Significant difference between mean scores at 59 months for ECFE and Spanish-speaking children
 - ECFE = 16.97
 - Head Start = 16.51
 - ECSE = 14.13
 - Spanish-speaking = 2.64
- Rate of growth significant for all 4 groups between 44 and 69 months; no difference between groups in rate of growth

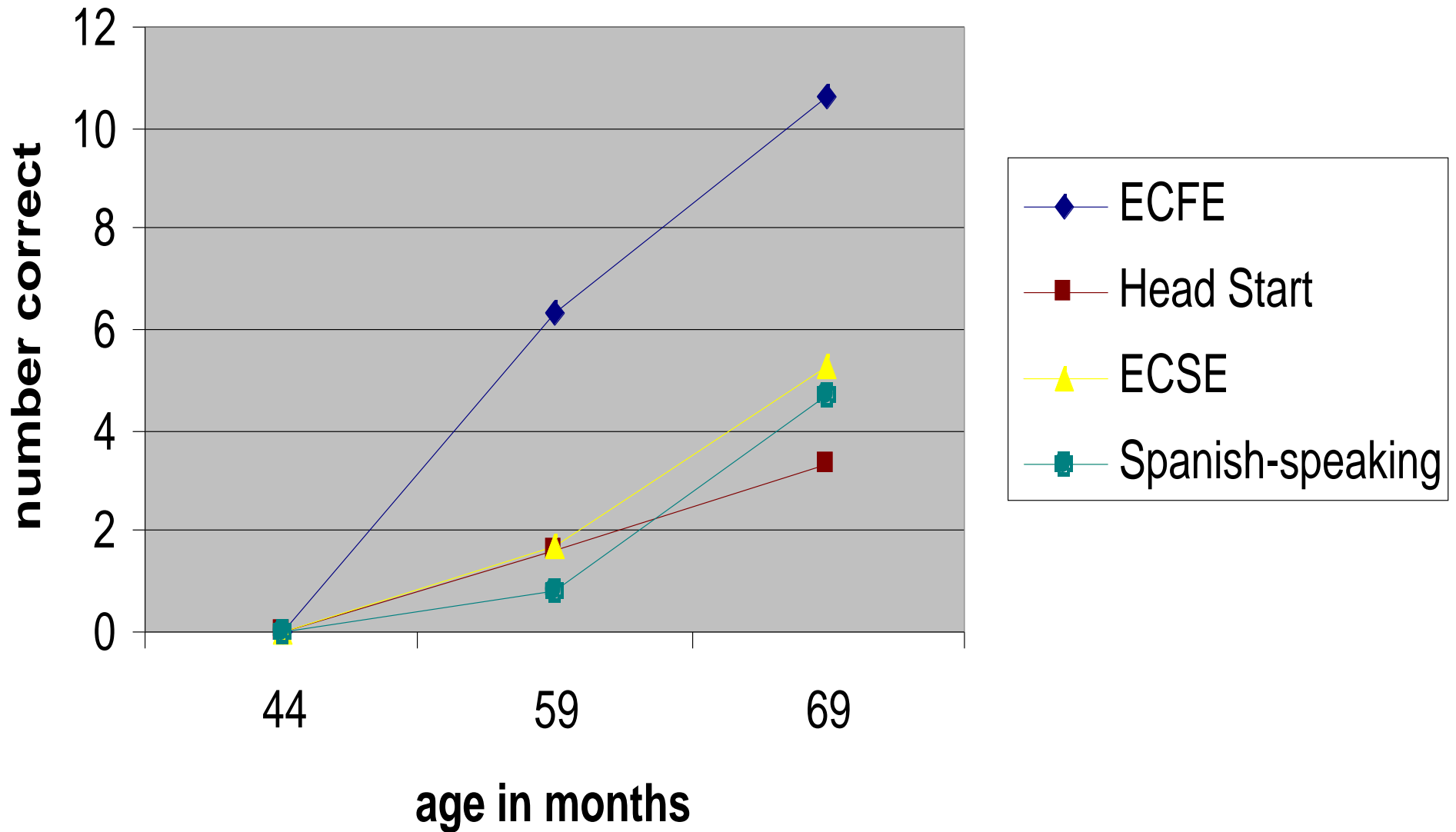
Rate of Growth on Picture Naming



HLM Results: Rhyming

- Mean scores at 59 months significantly lower for Head Start, ECSE and Spanish-speaking children in comparison to ECFE
 - ECFE = 6.29
 - ECSE = 1.68
 - Head Start = 1.66
 - Spanish-speaking = .79
- Significant rate of growth for all 4 groups
 - Rate of growth for ECFE significantly different from ECSE
 - No difference in rate of growth between ECFE and Spanish-speaking

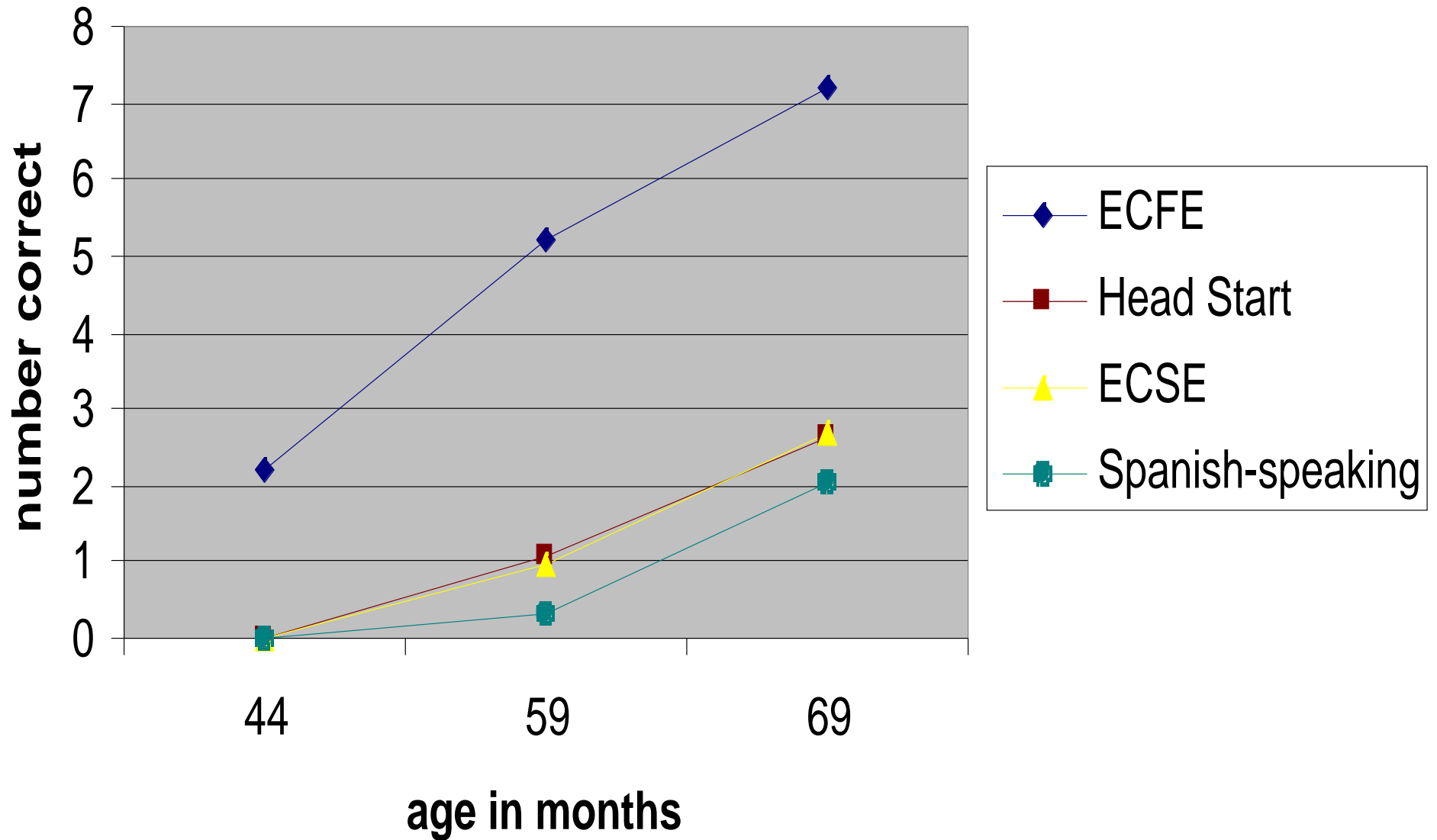
Rate of Growth on Rhyming



HLM Results: Alliteration

- Mean scores at 59 months significantly lower for Head Start, ECSE and Spanish-speaking children compared to ECFE
 - ECFE = 5.19
 - Head Start = 1.09
 - ECSE = .94
 - Spanish-speaking = .71
- Rate of growth not significant for any of the groups

Rate of Growth on Alliteration



Relations Between Rate of Growth and ESCAPE Variables

■ Head Start

- Moderate correlation ($r = .6, p < .05$) between Rhyming growth and Verbal Behavior to Peer
- Moderate correlation ($r = .5, p < .07$) between PN growth and time in Pre-Academic Activities
- Moderate correlation ($r = .5, p < .06$) between PN growth and time with Instructional Materials

Relations Between Rate of Growth and ESCAPE Variables

- Spanish-speaking children
 - Strong correlation ($r = .7, p < .01$) between PN growth and Verbal Behavior to Peer
 - Moderate correlation ($r = .6, p < .05$) between PN growth and Verbal Behavior to Teacher
- ECSE
 - Moderate correlation ($r = .5, p < .05$) between Alliteration growth and time in Story Activities
 - Moderate correlation ($r = .5, p < .05$) between Alliteration growth and time with Instructional Materials
- ECFE
 - No significant relations between IGDI growth and ESCAPE variables

Discussion: Rate of IGDI Growth

- Possible floor effects on Rhyming IGDI and Alliteration IGDI, suggesting they may not be sensitive for use with at-risk (ECSE, ELL, low-income) preschoolers
- High-risk children performing lower at age of kindergarten entrance
 - More support for teachers, families, children prior to kindergarten

Discussion: Classroom Variables Related to Emergent Literacy

- New research suggesting that different groups of children benefit from different classroom variables
- Further research...
 - Replication with larger groups and move toward intervention programs
 - Evaluate home environments: likely that income, home environments account for variance
 - Benchmark literacy measures: How much growth is enough?
 - Evaluate quality of classroom environments: Where are children spending their time?