

*First Words, First Steps:
Early Learning*

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Presentation to
Connecticut Summit on the Early Years

At about 1 year, children...

- Say their first word
- Comprehend several words
- Point to objects
- Look at storybooks with a caregiver
- Use a range of strategies to get their needs met

At about 2 years, children...

- Use 100's of words
- Speak in sentences
- Ask about things
- Look at storybooks on their own
- Detect rhyme patterns
- Produce “meaningful” messages through writing

At about 4 years, children...

- Use 1000's of words
- Use complex and compound sentences
- Use language to predict, reason, imagine, hypothesize
- Read some simple words in storybooks
- Write messages to others that incorporate early spelling patterns

From birth to five years

Development of language and literacy is steep and fast

Children's MAJOR developmental task is learning language and literacy

The opportunities of early childhood come once in a lifetime

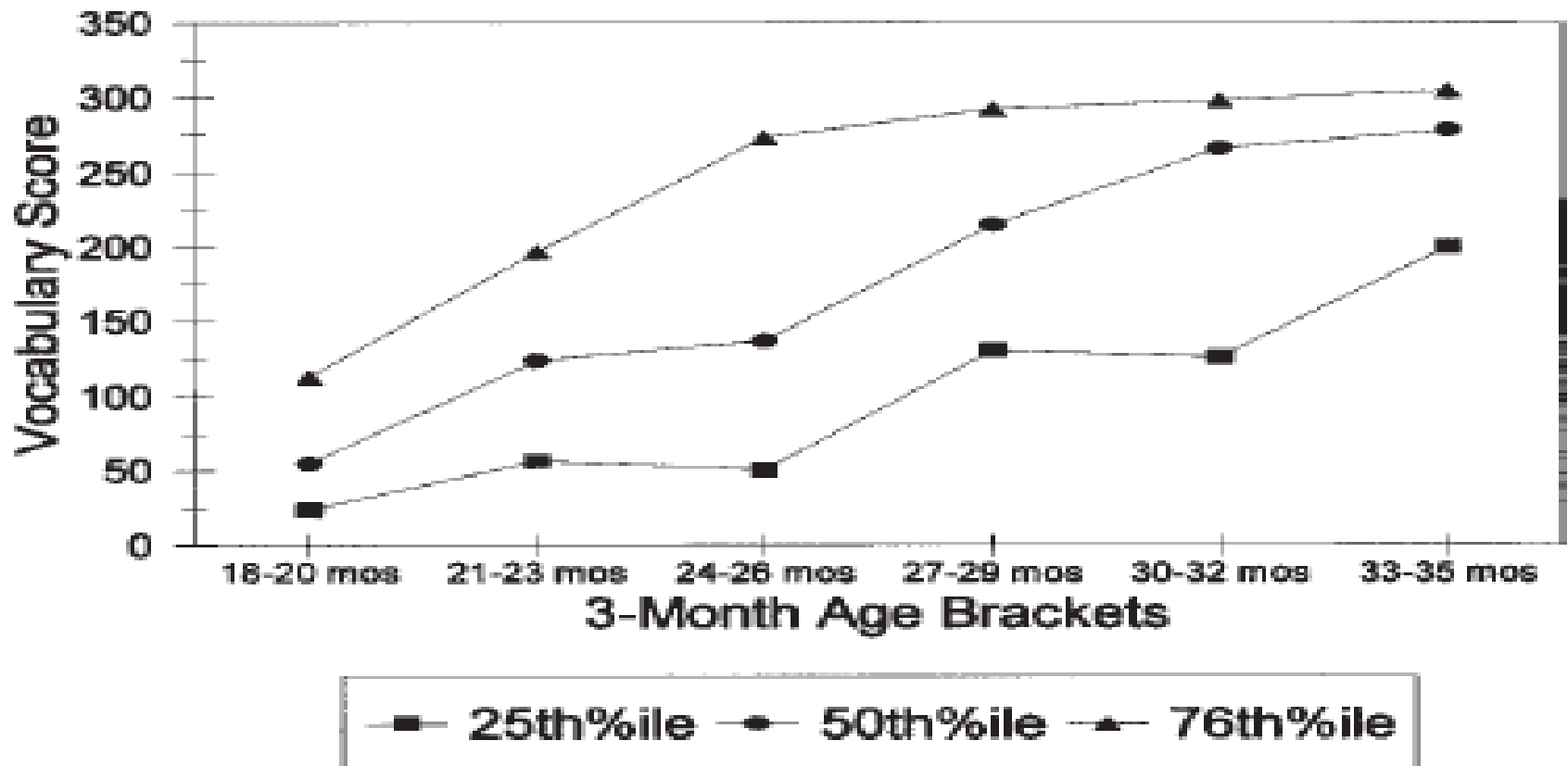
Schools and, in part, neurobiology, are not equipped to play catch up

But... These Are Averages

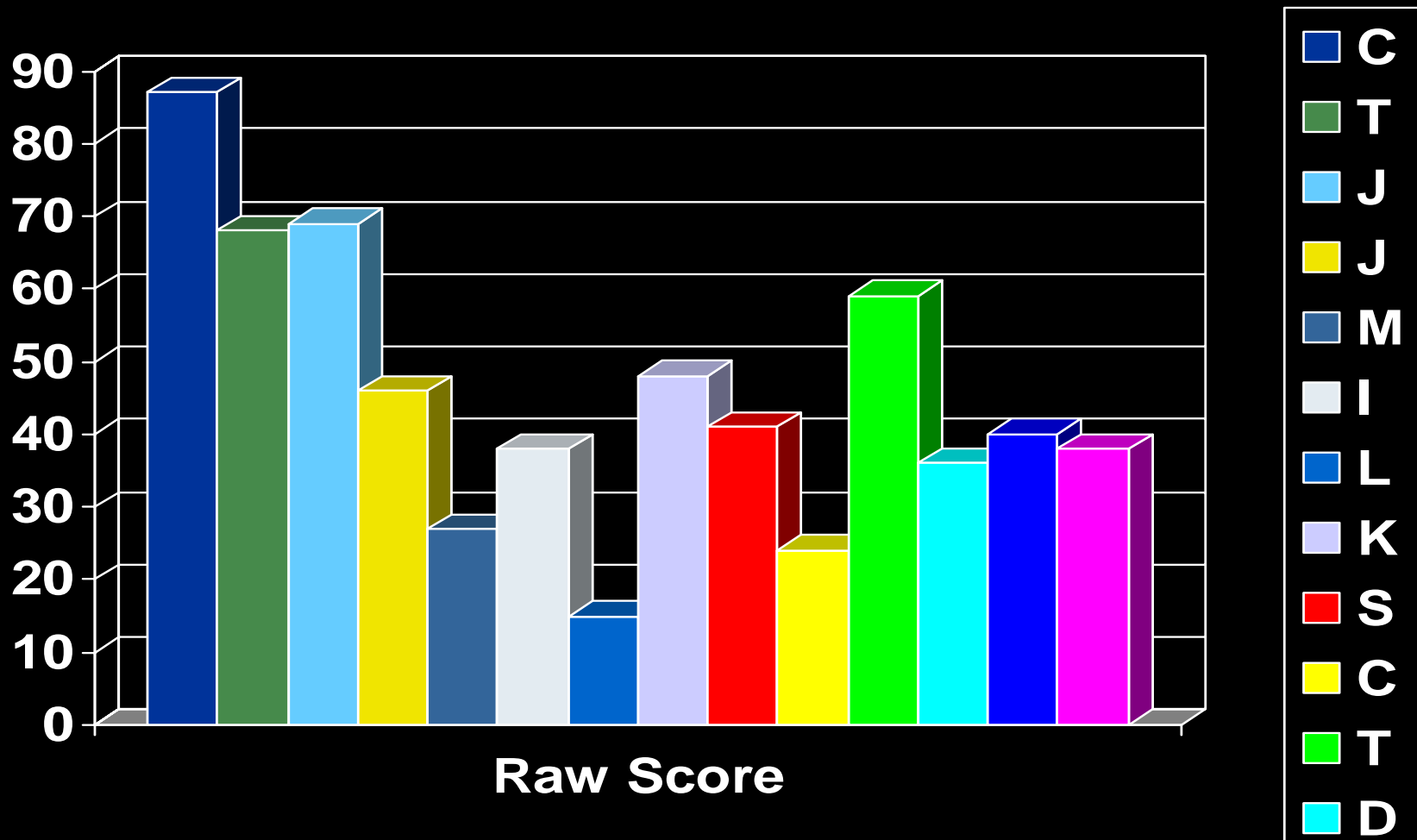
- We see tremendous variability among children in their language and literacy skills just prior to formal schooling, and
- These differences matter greatly as we predict children's future in schooling and society

Individual Differences Among Children

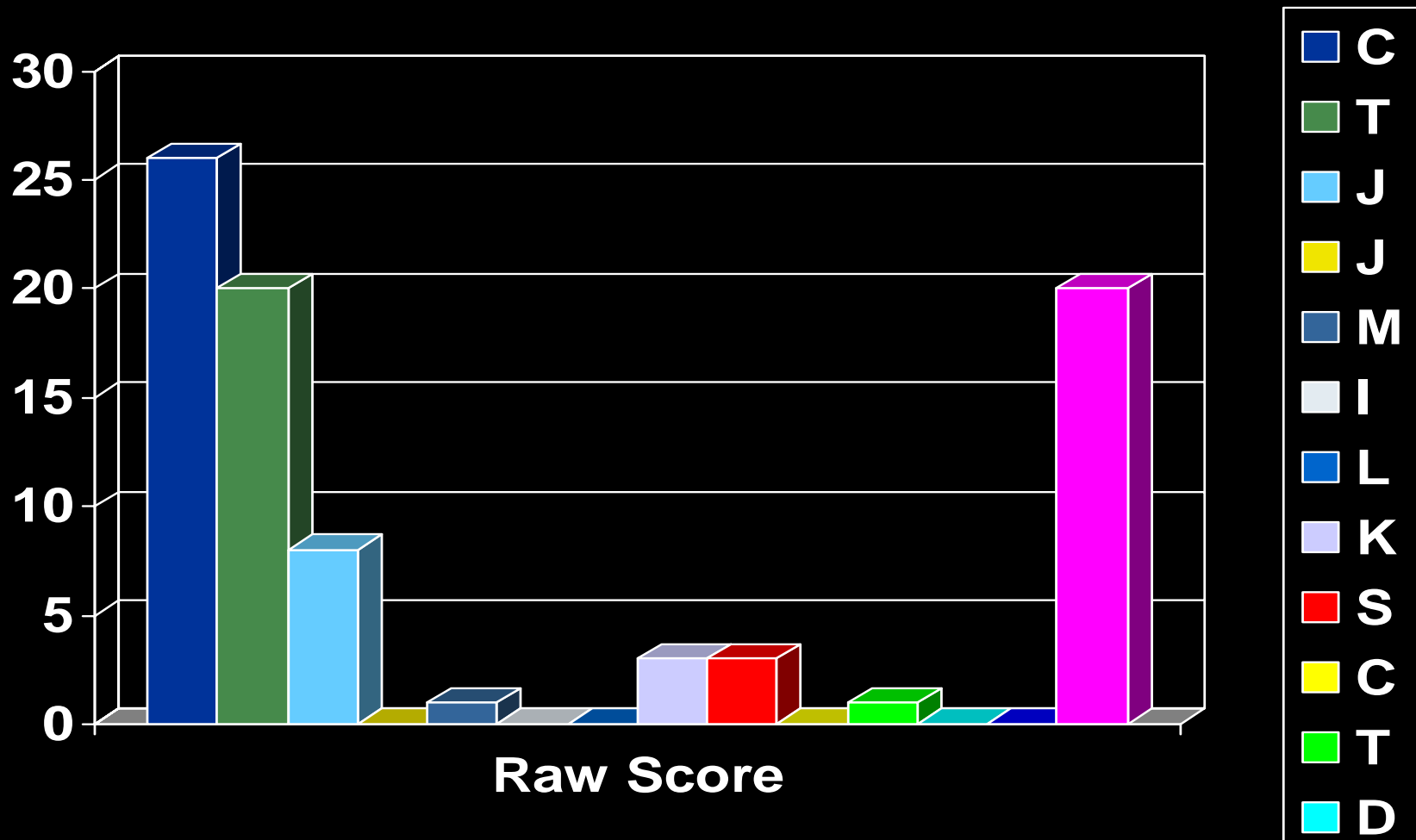
Figure 1. LDS vocabulary score by age: 25th, 50th, and 75th percentiles.



Vocabulary Performance at Age Four



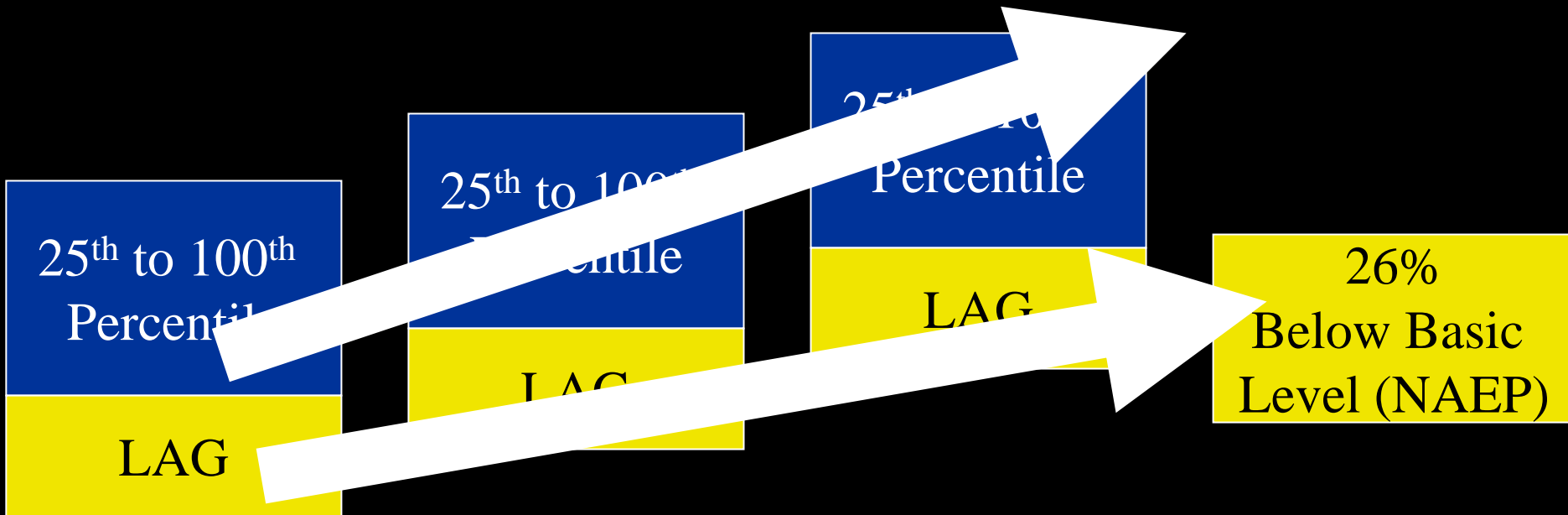
Alphabet Knowledge at Age Four



Can We Really Predict The Future?

- National Early Literacy Panel (2007) identified predictors of later reading skill from 275 studies
- Strong and consistent predictors:
 - alphabet knowledge
 - phonological awareness
 - print knowledge
 - writing
 - grammar
 - vocabulary

Cumulative Positive Trajectories



PRESCHOOL

KINDER-
GARTEN

EARLY
ELEMENTARY

FOURTH
GRADE

Language and Literacy in a Child: Multiply-Determined

Exposure/instruction

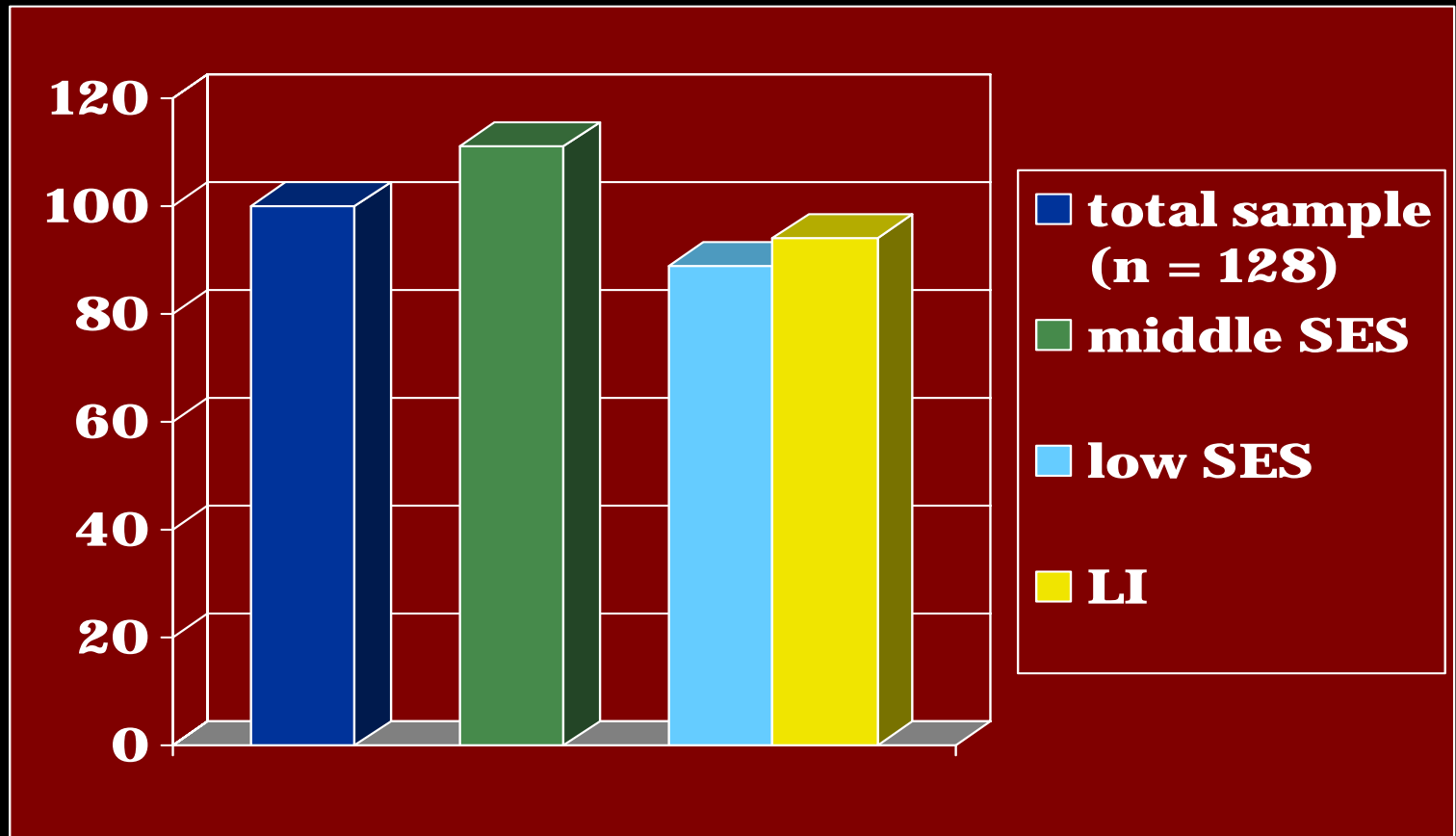
(parental teaching, parental beliefs, environmental models)

Developmental aptitude/skill

(age, cognition, memory, language)

Knowledge of 14 Print Concepts among Preschoolers

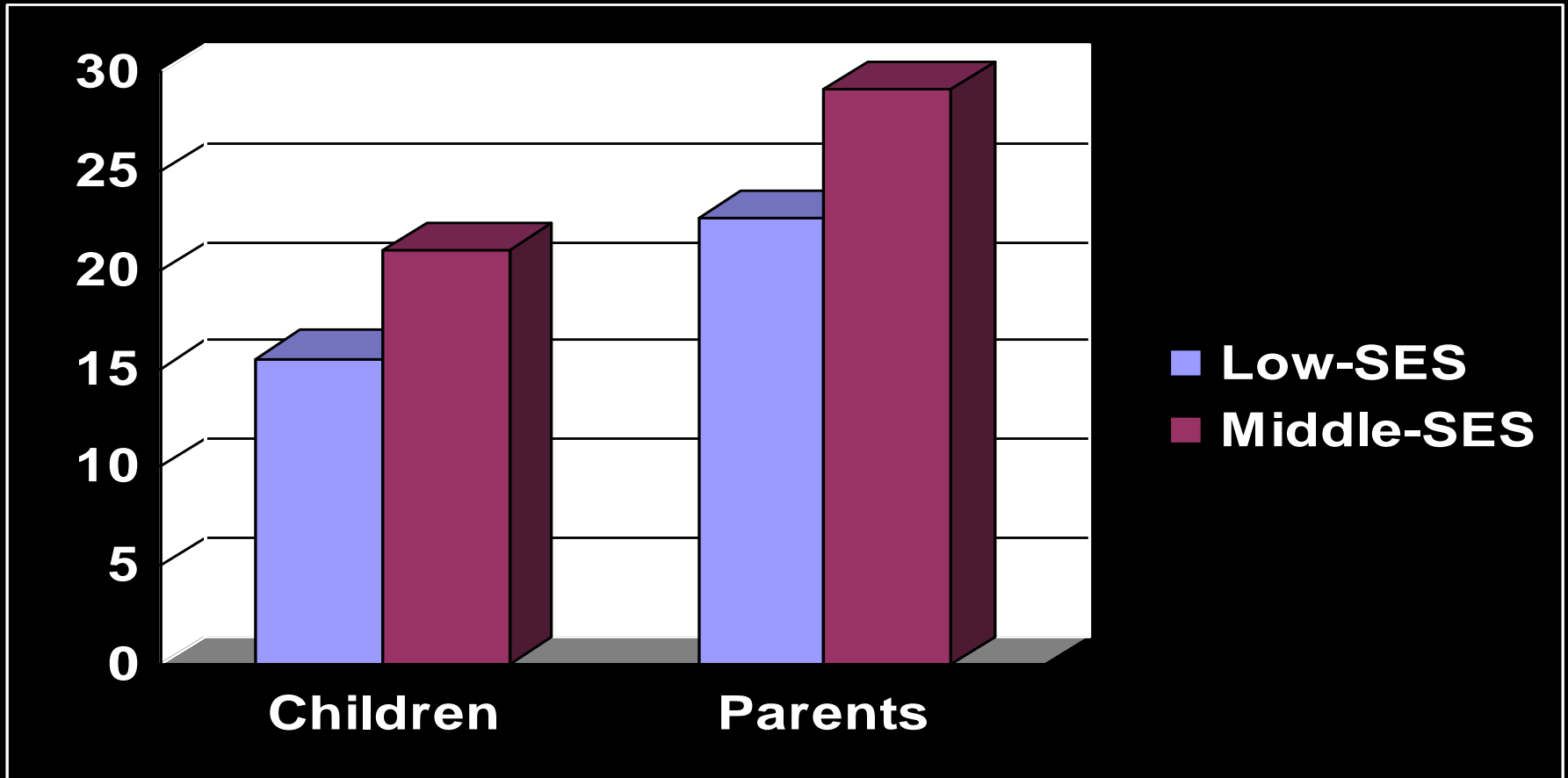
(Justice, Bowles, & Skibbe, 2006)



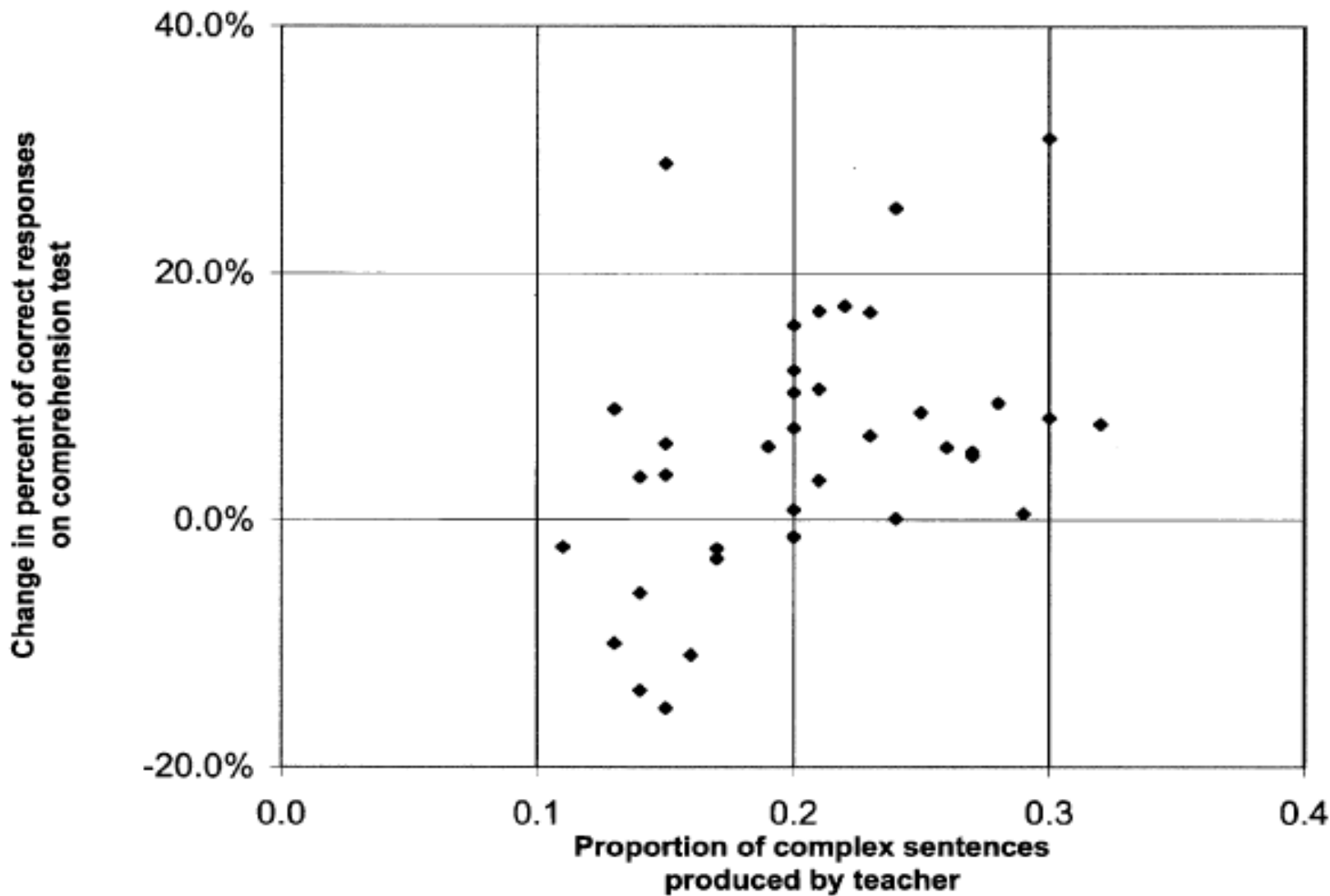
SES contrast: $d = 1.5$

LI contrast: $d = 1.2$

How do language and literacy develop? Input, input, input



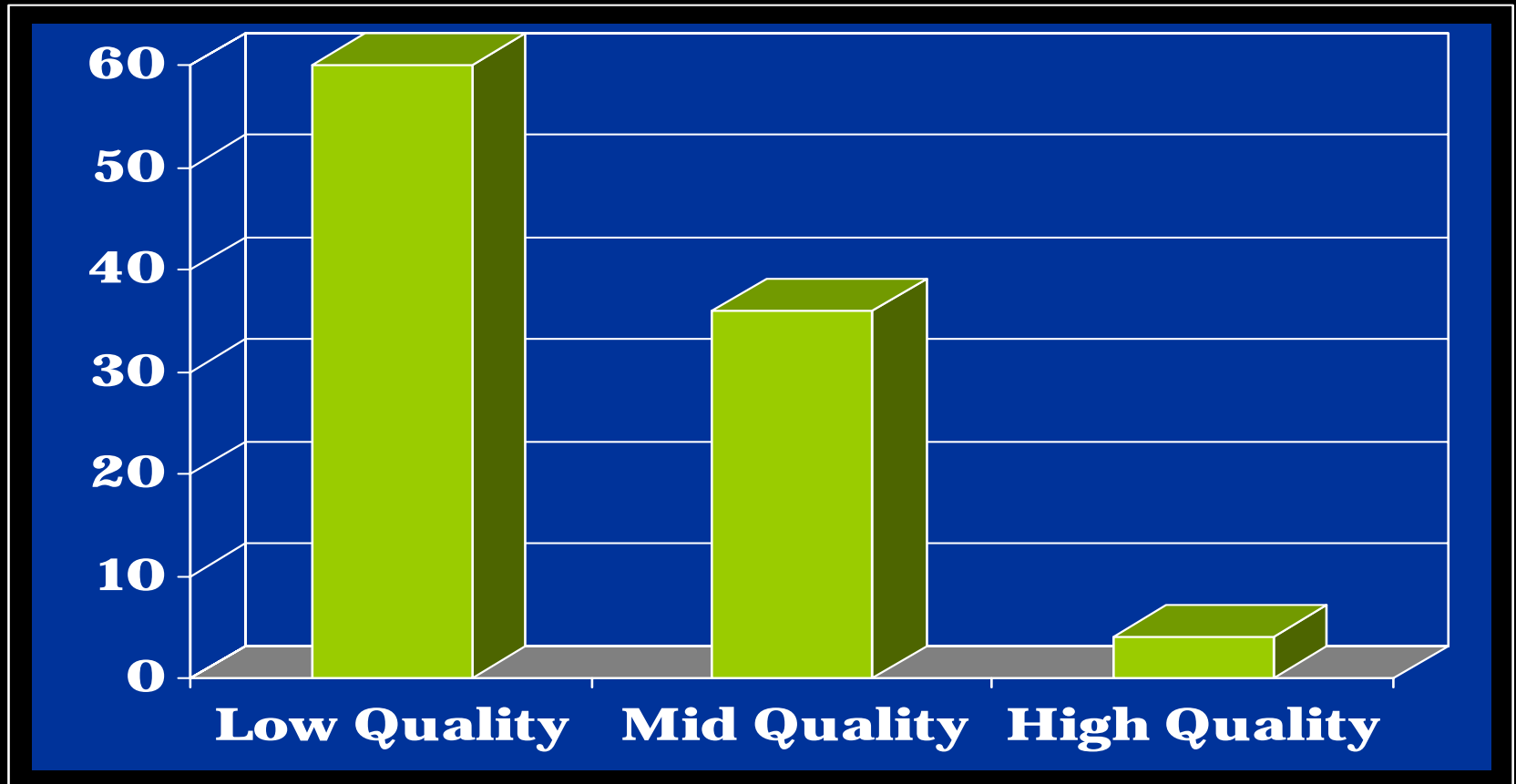
Percentage of mothers' and children's sentences containing complex syntax.
From Huttenlocher, J., Vasilyeva, M., Cymerman, E., & Levine, S. (2002).



Relationship between preschool teachers' complex syntax use and children's Syntactic comprehension. From Huttenlocher et al. (2002).

Children's Experiences in Pre-Kindergarten

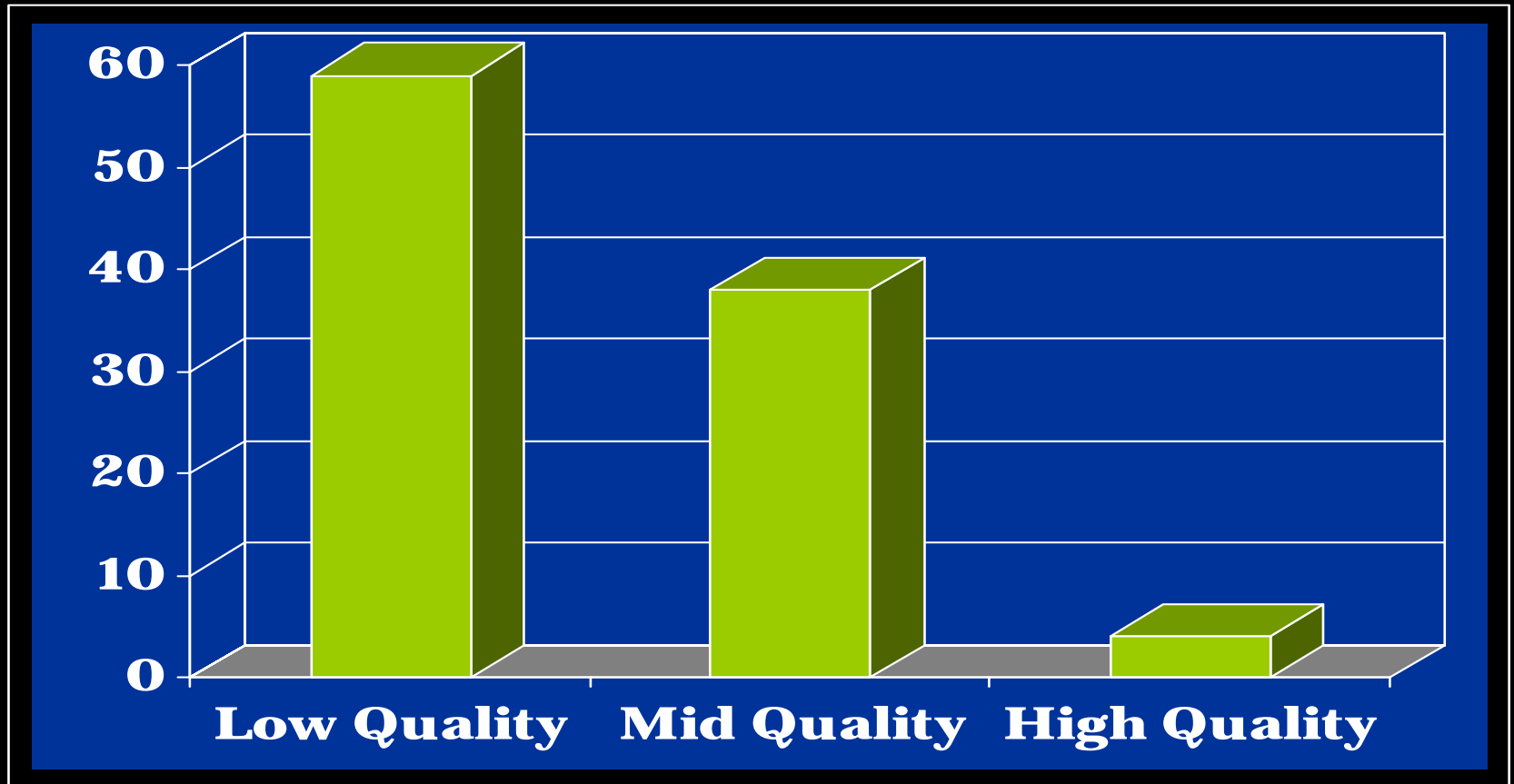
LITERACY INSTRUCTION (135 CLASSROOMS)



Justice, Mashburn, Hamre, & Pianta, *in press*

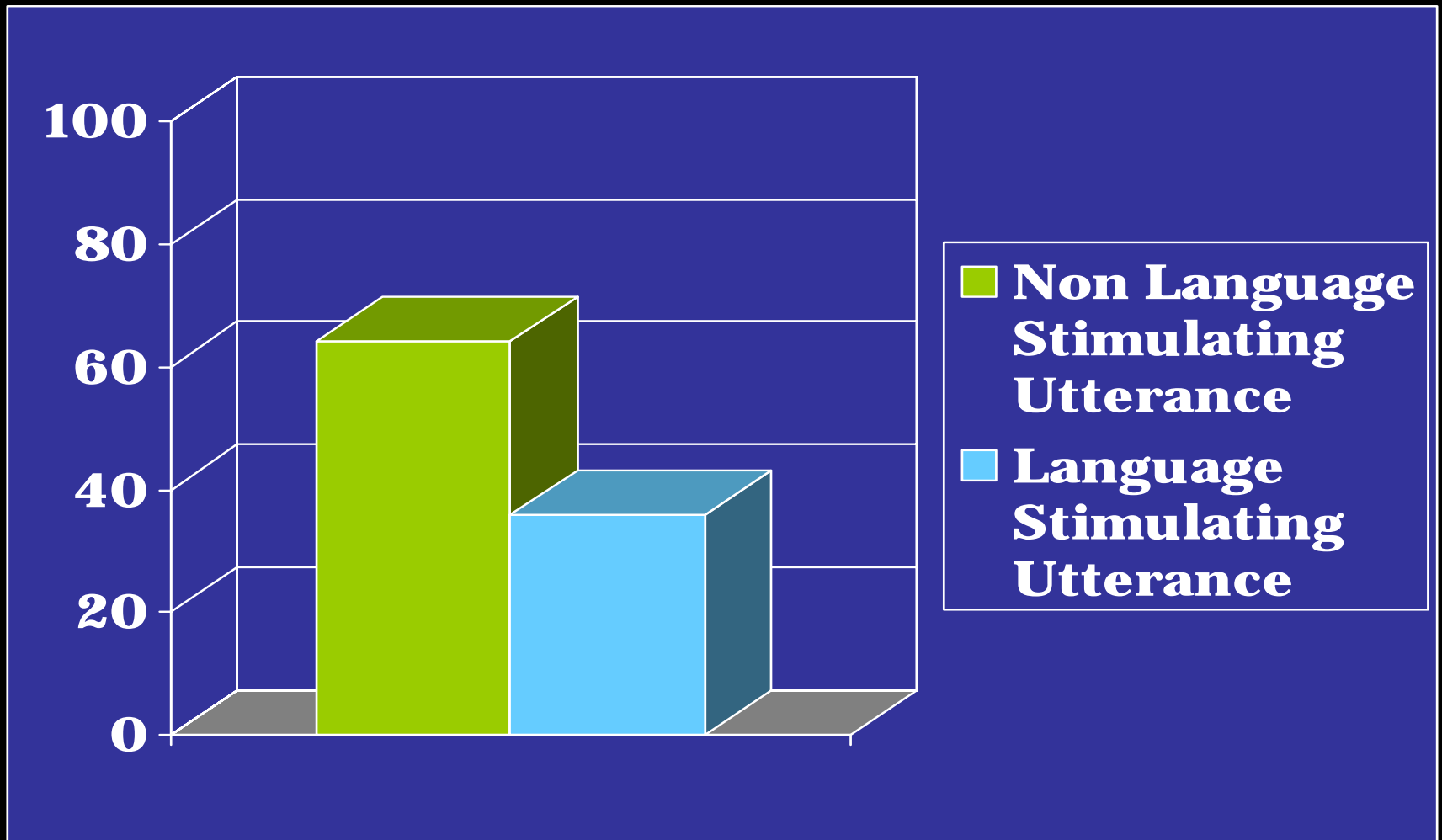
Children's Experiences in Pre-Kindergarten

LANGUAGE INSTRUCTION (135 CLASSROOMS)



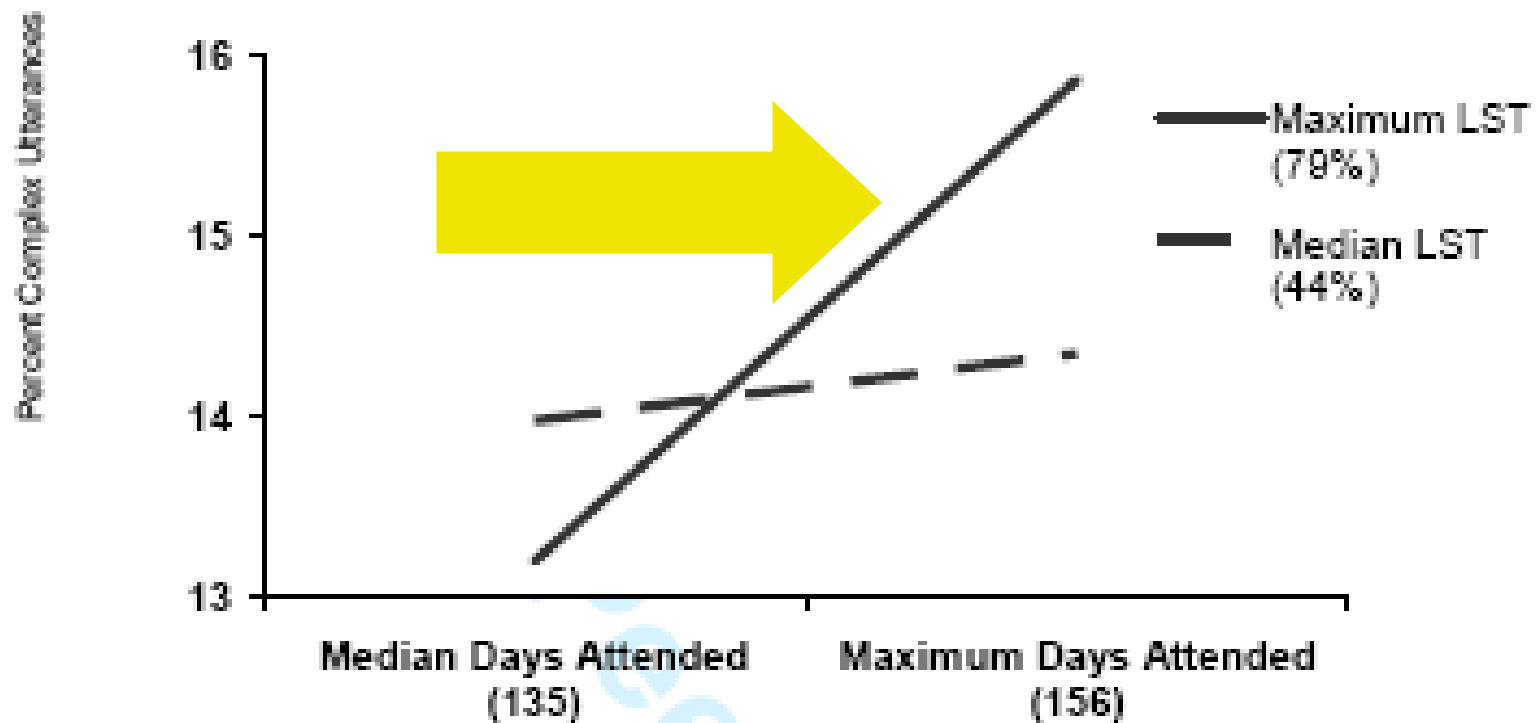
Justice, Mashburn, Hamre, & Pianta, *in press*

A Day in PreK: What do teacher utterances look like?



Pence, Justice, & Wiggins, *in press*

Accelerating children's developmental trajectories in the preschool classroom



RESEARCH

POLICY

PRACTICE



Science to Policy and Practice

- Language and literacy are critical achievements in early childhood that predict later outcomes in reading
- The differences we see among children in early language and literacy are both large and meaningful
 - “Wait and See” is the worst thing to do in most cases
 - Development is fairly stable: but most malleable in early childhood
- Language and literacy growth are shaped by environmental input – at home and school

Science to Policy and Practice

- We have more than sufficient science to guide us in
 - (1) identifying children who are lagging behind, and
 - (2) implementing interventions that will accelerate learning
- Greatest challenge faced by scientists is not what we don't know, it's what we know:
 - A pernicious gap sits between what is known and what happens everyday in the lives of children at home and school

Thank You

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