



Fostering Comprehension Skills in Preschool Children

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Four Parts

- What does it mean to 'comprehend'?
- Comprehension skills in preschool children
- What is the relation between preschool comprehension skills and later reading comprehension?
- How can we foster development of comprehension skills in preschool children, at school and at home?



Thought Experiment...

...

...

John dropped the banana peel on the floor
Mary fell on her back

...

...

What is comprehension?

- The reader constructs a coherent mental 'picture' of the text
- How? The reader identifies meaningful relations between parts of the text
- Network representation





Referential and Causal relations

- Example

The lady gave the waiter \$100

He returned to give her the change

- In real texts, relations are complex:

- They may require background knowledge

- They may extend over long distances

- They may require coordination of multiple pieces of information



Evidence for Network Representations

- The more connections an event has, the better it is remembered
- Reminding someone of one part of the text 'activates' parts that are related more than parts that are not related
- Event with many connections are judged more important by good readers
- Distinguishes good and poor readers

Comprehension in Preschool Children



- Prior research: Role of 'basic literacy skills' (phonemic awareness, letter knowledge, vocabulary, etc.)
- Little is known about preschool children's comprehension
 - Comprehension of events in other, non-reading contexts
- Comprehension in non-reading contexts may parallel understanding of texts: Identifying connections between events

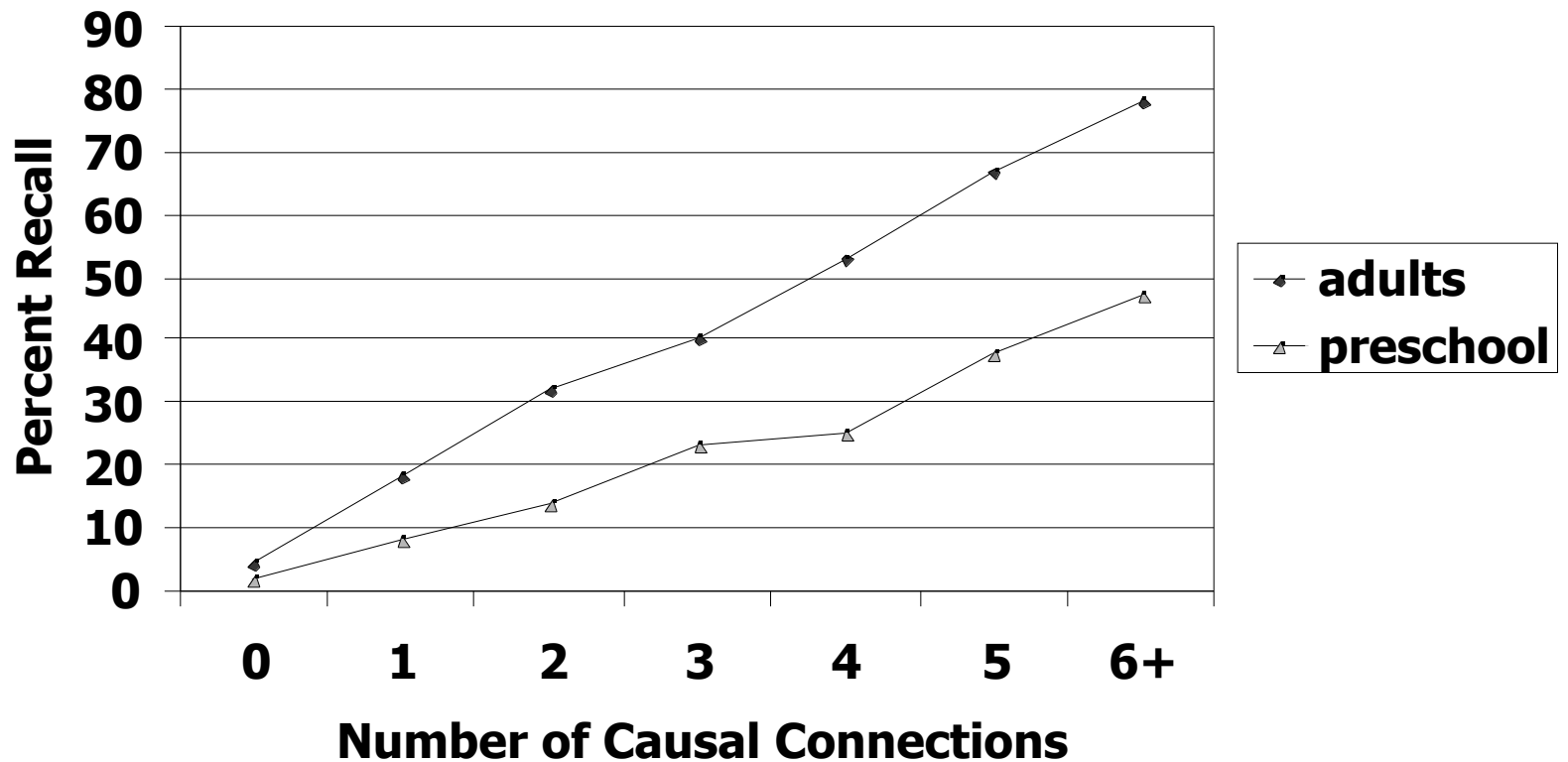


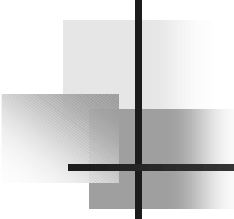
What factors determine comprehension in preschool children?

120 preschool children (5 years old)

- TV & auditorily presented narratives (Blinky Bill, Rugrats)
- Basic Skills
 - Vocabulary, general intelligence (PPVT-III)
 - Letter & word identification (Woodcock)
 - Phonological awareness (DIBELS)

Memory for Television Stories





Comprehension in Preschool Children: Results

- Pattern preschool children in TV comprehension is very similar to that in reading comprehension (correlation=.63)
- This pattern holds even after basic literacy skills are taken into account (correlation=.59)
- Of the basic skills, only vocabulary is somewhat related to memory for the events (correlation=.26)

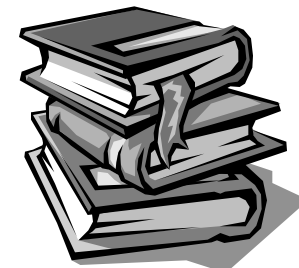


Comprehension in Preschool Children: Conclusion

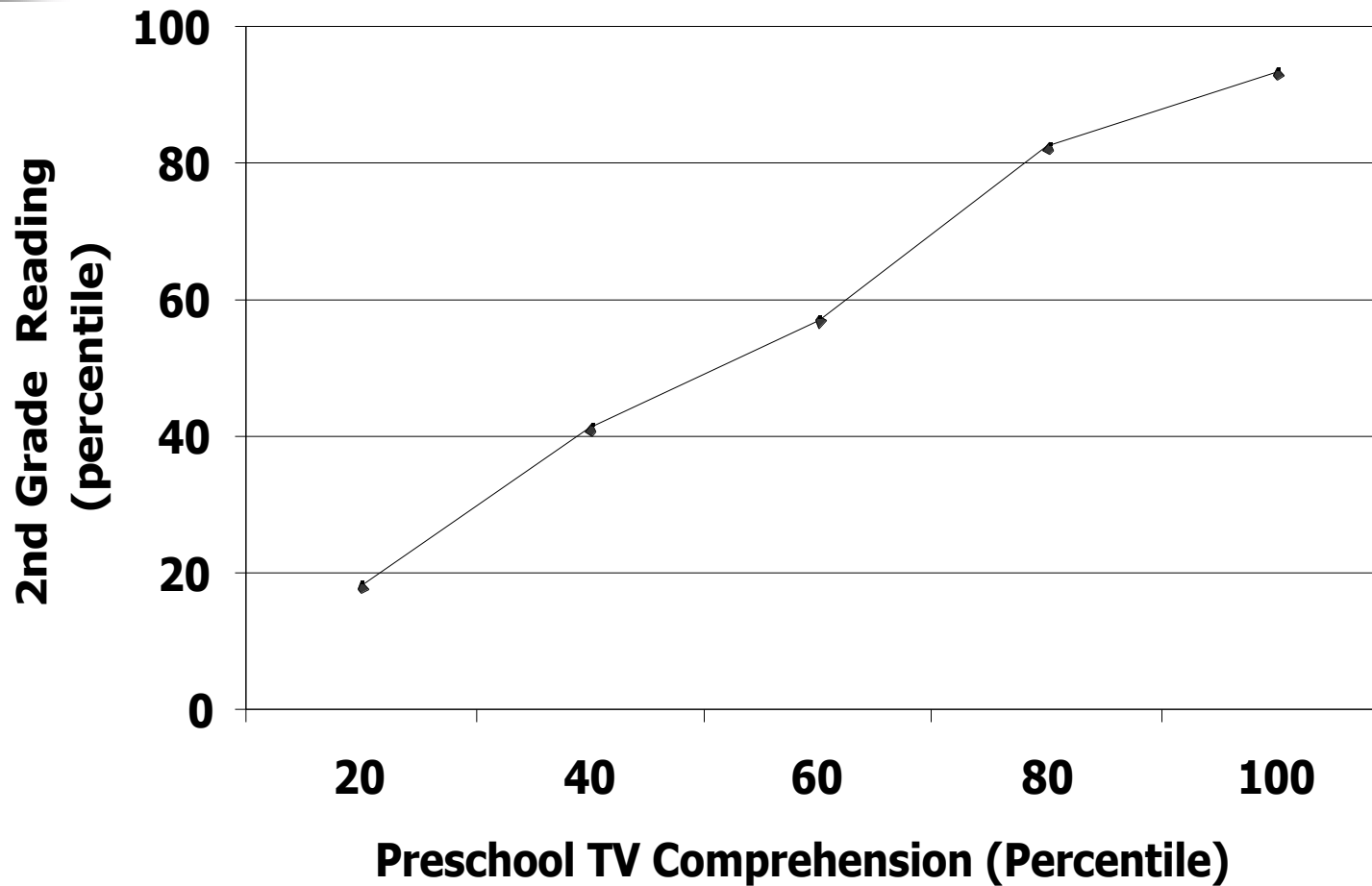
- Already during the preschool years, children engage in systematic comprehension processes: identify meaningful connections between events
- These processes are largely independent of basic literacy skills

How are preschool children's comprehension skills related to later reading proficiency?

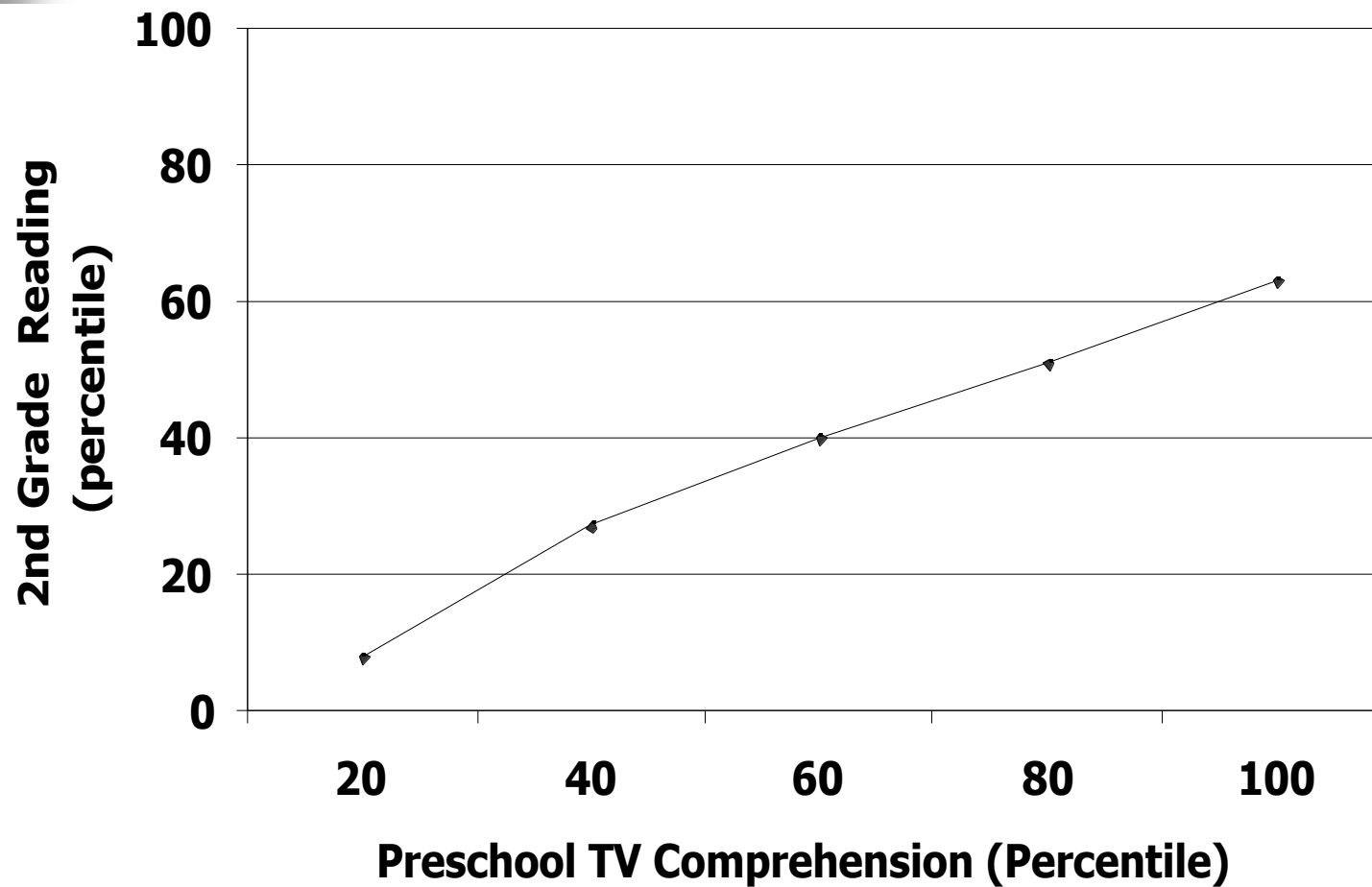
- We followed the preschool children into 2nd grade
- In 2nd grade, same tests as at preschool plus reading comprehension passages
- Outcome variables reading comprehension: Recall and comprehension questions



Reading Comprehension: Recall



Reading Comprehension: Questions



Relation between Preschool and 2nd Grade Comprehension

<u>Preschool measures</u>	<u>2nd grade measures</u>	
	<u>Recall</u>	<u>Questions</u>
TV Comprehension	.58	.53
Vocabulary	.26	.14
Letter/Word Identification	.11	.09
Phonemic Awareness	.07	.05
TV Comprehension <u>AFTER</u> Basic Skills	.53	.46



Predicting 2nd Grade Reading Comprehension: Conclusions

- TV comprehension scores in preschool strongly predict reading scores in 2nd grade
- Of the basic literacy skills, only preschool vocabulary (modestly) predicts 2nd grade reading comprehension
- When we take into account vocabulary and other basic skills, TV comprehension still strongly predicts later reading comprehension



Conclusions

- When preschool children attempt to understand events (e.g., on TV), they engage in the same comprehension processes that older children and adults use when they read
- They infer meaningful connections between events
- The ability to do so at preschool strongly predicts later reading comprehension, more so than do their basic literacy skills

The Old Model

Preschool

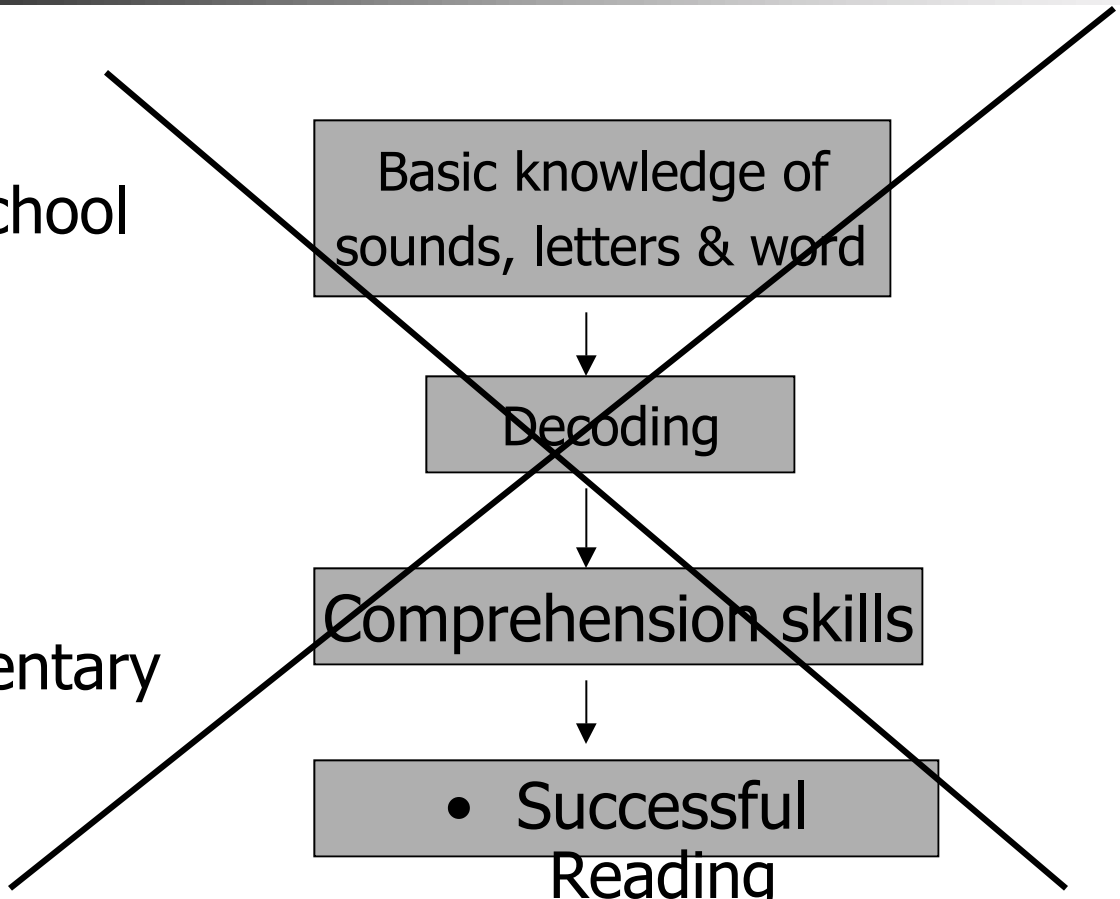
Basic knowledge of
sounds, letters & word

Decoding

Elementary

Comprehension skills

• Successful
Reading



The New Model



Preschool

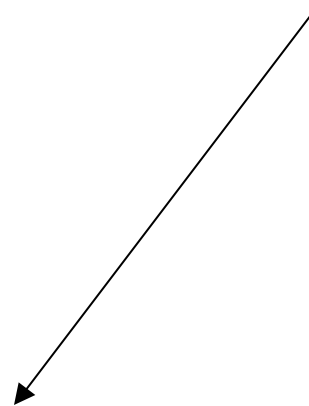
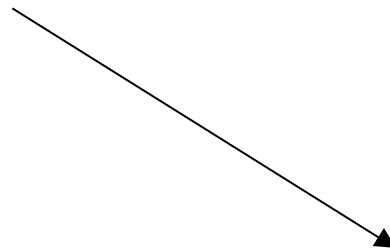
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Implications for Learning to Read (1)

- The skill to identify meaningful relations between events develops before school age
- Explicit comprehension training and practice (in addition to basic literacy skill instruction) may be beneficial
- Different media can be used (e.g., TV, auditory stories)

Implications for Learning to Read (2)

- Example techniques:
 - Question-answers (open/specific) around stories
 - Retellings
 - Teacher/parent embellishment with focus on meaningful and important relations
- Early diagnosis/intervention
- Home: Parental involvement in comprehension fostering

Factors that affect success & failure in comprehension

