

The concurrent development of phonological awareness, word recognition and spelling

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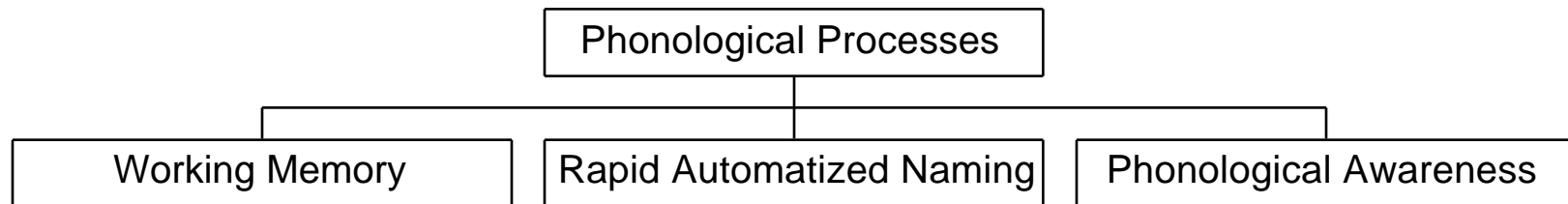
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What is Phonological Awareness?

- Process
- Awareness

Process Model



From the Comprehensive Test of Phonological
Processing (C-TOPP)

In a process model

- Phonological awareness is treated as a continuous variable. This way it can be entered into parametric statistical models.
- Recently some researchers have used the term “phonological sensitivity” instead of “phonological awareness.”

Process models

- Often, in order to get continuous measurement, use tasks that are far too difficult for children to use purely phonological processing on.
- For all too many tasks, children need to be able to spell in order to complete the tasks
 - E.g., elision tasks
- Thus, researchers are correlating spelling with word recognition.

- The alternative is to treat phonological awareness as an awareness of sounds in spoken words, an insight, or meta-linguistic knowledge
- In this case, either a child has it or does not have it.

Awareness of Consonants and Vowels

- We believe that there is no such thing as “phonological awareness.”
- Instead, children are aware first of consonants, then of vowels.
- These successive insights work with children’s exposure to written words to lead to growth in word recognition and spelling.

Analysis issues

- If we treat phonological awareness as an insight, we cannot use parametric statistics.
- We need to use non-parametric statistics.

The key role of the alphabet

- A root of phonological awareness is knowledge of the alphabet.
- Children's exposure to the alphabet, especially alphabet books, may underlie their acquisition of the phonological insight.

Alphabet books

• **L** is for Lion



Development of Word Recognition

- Visual Cueing
 - Child uses a visual cue, such as the two “eyes” in look or the “tail” in monkey.
- Partial Alphabetic Cueing
 - Child uses salient letter, usually beginning, sometimes last.

Development of Word Recognition

- Full Alphabetic Coding
- Automaticity
- Child uses all letters, including vowels, to “sound out” words
- Child recognizes words automatically, using chunks or analogies

Developmental Test of Word Recognition

- Partial alphabetic cueing
 - Initial consonants
 - Final consonants
- Full Alphabetic cueing
 - Short vowels
 - Consonant blends and digraphs
 - Long vowels
- Consolidated Reading
 - Polysyllabic words

Developmental Test of Word Recognition

- Mag Bag Pag Cag
- Nin Min Hin Yin
- Gop Sop Bop Lop

Development of Invented Spelling

- Preliterate
- Early Letter Name
- Letter Name
- Within Word Pattern
- Pictures
- Scribbles
- Random letters
- BP (bump)
- BOP (bump)
- FLOTE (float)

The development of word recognition and spelling

- We suggest that children first learn the alphabet.
- Knowledge of the alphabet, for many children, underlies rudimentary phonological awareness.
- Rudimentary phonological awareness, in turn, underlies children's use of a feature in word recognition and spelling.
- This process is repeated for initial consonants, final consonants, and short vowels.

Current Study

- Participants -- 99 children in kindergarten, first grade and second grade.
- Children came from two schools, both in Georgia. One was small city and one rural.
- Small city reports 68.1% of students on free/reduced price lunch. Rural school reports 58.1% of students on free/reduced price lunch.

measures

- Alphabet measure (given only at kindergarten)
- Developmental Test of Word Recognition
- Spelling Measure (PALS Spelling Protocol)
- Phonological Awareness
 - Isolation (First sound of “fish” Last sound of “cap”)
 - Blending
 - Deletion

Relationship of Alphabet Knowledge and Phonological Isolation of Initial Consonants

	Phonological Awareness	
Lowercase Letters	Not Mastered	Mastered
Not Mastered	3	2
Mastered	19	15

Interpretation

- Alphabet knowledge appears necessary, although not sufficient for children to acquire initial consonant phonological awareness

Relationship of Phonological Isolation of Initial Consonants and use of Initial Consonants in Word Recognition

	Phonological Awareness	
Initial Consonants	Not Mastered	Mastered
Not Mastered	16	5
Mastered	2	76

Interpretation

- Results in the hypothesized direction, but not statistically significant
- Few students in the off diagonal cells.

Blending and word recognition

	Blending CVC Words	
Initial Consonants	Not Mastered	Mastered
Not Mastered	5	2
Mastered	12	80

interpretation

- Children appear to need to be able to use initial consonants in written words before they can blend. The same is true with the deletion task.
- This suggests that children may use their word knowledge to perform these phonological awareness tasks. Thus, these tasks seem to be measuring word recognition, rather than a precursor to word recognition.
- Thus, the correlations discussed by Mike Pressley may be spurious for some tasks.

Final consonants

- No significant relation between use of final consonant in word recognition and phonological awareness of final consonants
- Strong relations between phonological awareness of final consonants and children's ability to use final consonants in spelling

Word recognition and spelling

- In our data, children acquired initial consonants about the same time in word recognition and spelling. This finding is limited by the fact that 84 out of 98 children had mastered both. Only 2 had mastered neither.
- For final consonants, mastery in word recognition seemed necessary for their use in spelling.

Final consonants

	Use of final consonant in spelling	
Use of final consonant in word recognition	Not mastered	Mastered
Not mastered	2	4
Mastered	40	46

Short vowels

- For short vowels, the same pattern was found. Mastery of short vowels in word recognition preceded mastery of short vowels in spelling.

Short vowels

	Use of short In spelling	Vowels
Use of short vowels in word recognition	Not mastered	Mastered
Not mastered	19	8
Mastered	24	34

conclusions



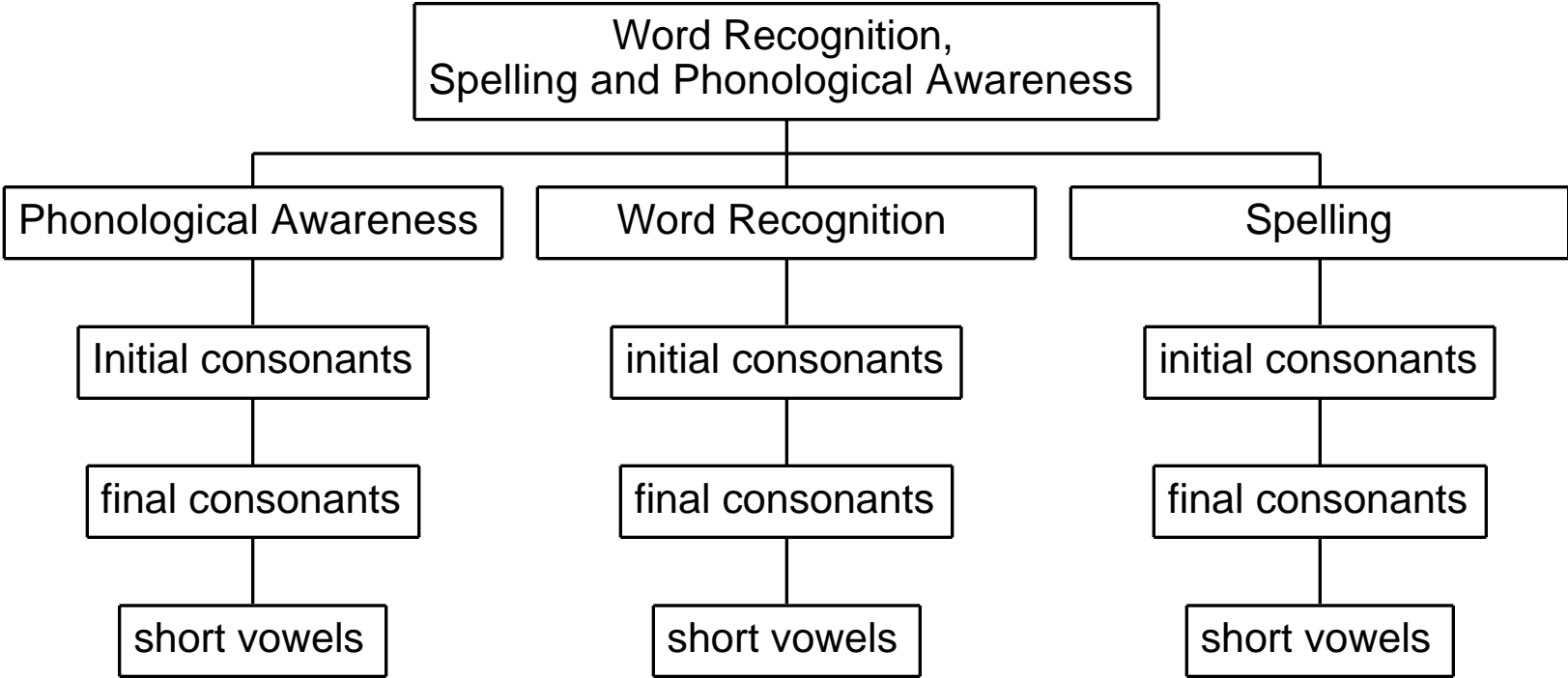
- Our basic model seems to hold:
 - Knowledge of the alphabet precedes rudimentary phonological awareness.
 - Rudimentary phonological awareness precedes use of initial consonants in word recognition and spelling

conclusions

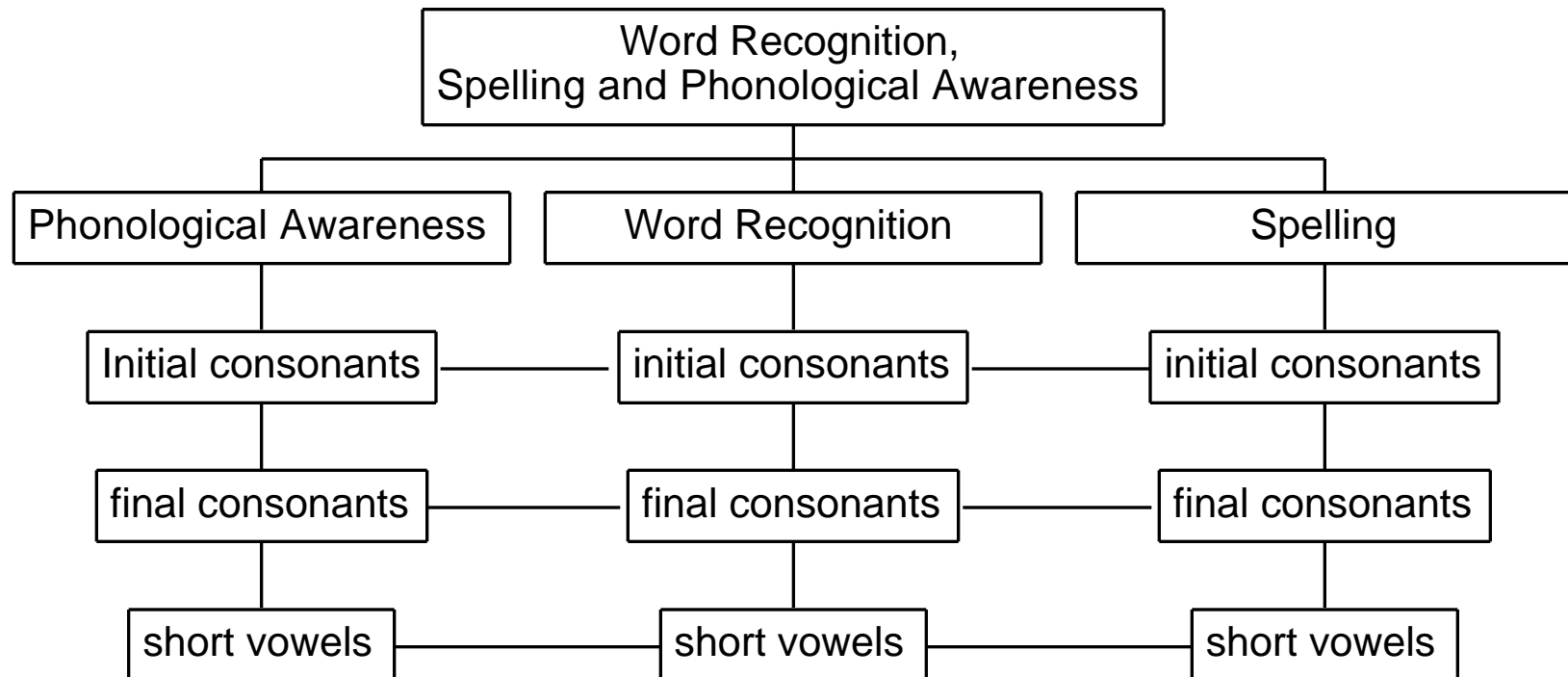
- -Knowledge of final consonants and short vowels in word recognition seems to precede the use of these features in spelling.



conclusions



conclusions



conclusions

- This suggests that children need some instruction in rudimentary phonological awareness prior to reading, but that phonological awareness beyond that point needs to be taught in conjunction with word recognition and spelling. This is in consonance with the National Reading Panel recommendations.

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