

We Do Not Have Language at Our House: Disentangling the Relationship Between Phonological Awareness, Schooling, and Literacy

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This study examined phonological awareness (PA) and literacy among 108 children aged 7-10 years, who were attending (or not attending) school in rural East Africa. Implicit and explicit PA skill with small or large units was related to letter naming ability. Basic PA develops prior to the attainment of literacy, and learning to read improves PA.

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The aim of this study was to examine phonological awareness (PA) and literacy among 108 children aged 7–10 years, who were attending (or not attending) school in rural East Africa. Implicit and explicit PA skill with small or large units was related to letter naming ability. Some PA tasks were performed

above chance levels by children who could not recognise letters. Basic PA develops prior to the attainment of literacy, and learning to read improves PA.

- Phonological awareness (PA) is a metalinguistic skill that has been defined as the ability to reflect on phonological properties of words, for example, seeing similarities between words, manipulating words (including forming new words), and awareness of the constituent parts of words.
- Two hypotheses concerning the association between literacy and PA skills were included in the study: either earlier PA skills contribute to later literacy skills or earlier literacy skills contribute to later PA skills.
- If training in PA leads to improvement in reading skills, this might indicate that earlier PA contributes to later literacy skills.
- If PA can be shown to exist in individuals who have not yet learned any literacy skills, this would help discriminate between these two alternative theories.
- It has been suggested that once children learn to read, they carry out PA tasks in a qualitatively different way.

What is the structure of PA?

- Metalinguistic awareness of the phonological components of words can occur at a variety of levels of representation: from small to large units, as well as sub-syllable units such as onset and rime.
- While different aspects of PA may appear to develop at different times (implying that PA is in fact a set of skills rather than a unitary ability), this may be an artefact based on the varying difficulty of different types of PA tasks.

- Factor analysis suggests that this ability is indeed a single skill, manifesting in different ways at different developmental time points.
- Children are aware of larger unit sizes (syllables) before reading instruction; however, explicit awareness of smaller unit sizes (phonemes) usually only reaches mature levels after reading instruction has commenced.



The study

This study was conducted in coastal Tanzania, where approximately 65% of children attend school. The language spoken is Kiswahili. Children are not explicitly taught the phonemes associated with letters, only the syllabic letter name. Some of the children not in school can nonetheless read, while some attending school cannot. This study examines the influence of literacy experience and skill on PA using tasks at a variety of levels of representation and variety of levels of response.

The sample

108 children (54 boys and 54 girls) with between 0 and 2 years of educational experience participated in the study. They were between 7 and 10 years old and all spoke Kiswahili.

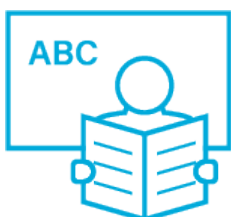


Findings

- Significant numbers of children not attending school were found to perform on the letter and/or word reading tasks at levels significantly above chance.
- This finding means that it is possible to analyse the effects of schooling and of literacy skills separately.
- Non-readers performed significantly less well at all PA tasks, except counting syllables, counting sounds, and nonsense word repetition.
- Letter naming, memory, and vocabulary were significant predictors of the majority of PA tasks. However, word reading did not independently predict PA.

Summary

Performance of PA tasks at a variety of levels of response or size of unit was related to the ability to perform on the letter reading task at above chance levels. This is consistent with the hypothesis that basic letter reading ability would influence PA. Neither verbal cognitive test performance, nor family or environmental variables explained the relationship between PA and letter naming. This might be because learning to read alters the way children carry out PA tasks. Children who have not yet learned to read are capable of performing above chance on PA tasks, but the main predictor of performance is letter naming ability, whilst some of the PA tasks appear impossible for non-readers. These results provide evidence of implicit PA and some evidence of more explicit PA among children who had not yet learned to read letters.



Implications

- PA does not improve solely due to maturation.
- Some level of PA, including some phoneme awareness, develops before children learn to read; however, that literacy acquisition is necessary for further development of PA.
- All children performed very poorly on the most explicit phoneme manipulation task (phoneme segmenting), although children who could read letters performed better.
- Thus, although children (even those children who could not yet read letters) do have some PA, they may not have explicit phoneme awareness.
- For explicit phoneme awareness tasks, knowing how to read letters is a necessary, but not sufficient, condition for success.