



German kindergarten and the question of phonological awareness

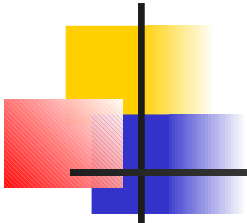
Paper presented at the 17th European
Conference
Mons

Prof. Dr. Renate Valtin



Relevance of preschool education

- The PISA-Shock in Germany: high correlation of achievement with social class, with a high proportion of pupils failing in school coming from lower socio-cultural and migrant backgrounds.
- The Standing Conference of Ministers of Education and Cultural Affairs has suggested early language training in preschool and kindergarten institutions.



The relevance of preschool education for the foundation of literacy

- Educational policy aims at improving both family literacy (Hornberg & Valtin, 2011) and the quality of early childhood education and care.
- As PIRLS demonstrates, children who have spent at least two years in kindergarten have an advantage in reading and mathematic in grade 4 over children with less or no participation in kindergarten (Bos et al. 2007).



INTERNATIONALE
GRUNDSCHUL-LESE-UNTERSUCHUNG

IGLU 2006

Lesekompetenz nach Dauer des Besuchs von Vorschule und Kindergarten in der Vergleichsgruppe 1 – Gesamtskala Lesen

Teilnehmerstaat
England

Luxemburg*

Niederlande*

Bulgarien*

Deutschland

Italien

Schweden

Ungarn

Belgien (Fl.)*

Dänemark*

Lettland

Litauen

Österreich

VG1

Schottland*

Slowakei

Polen

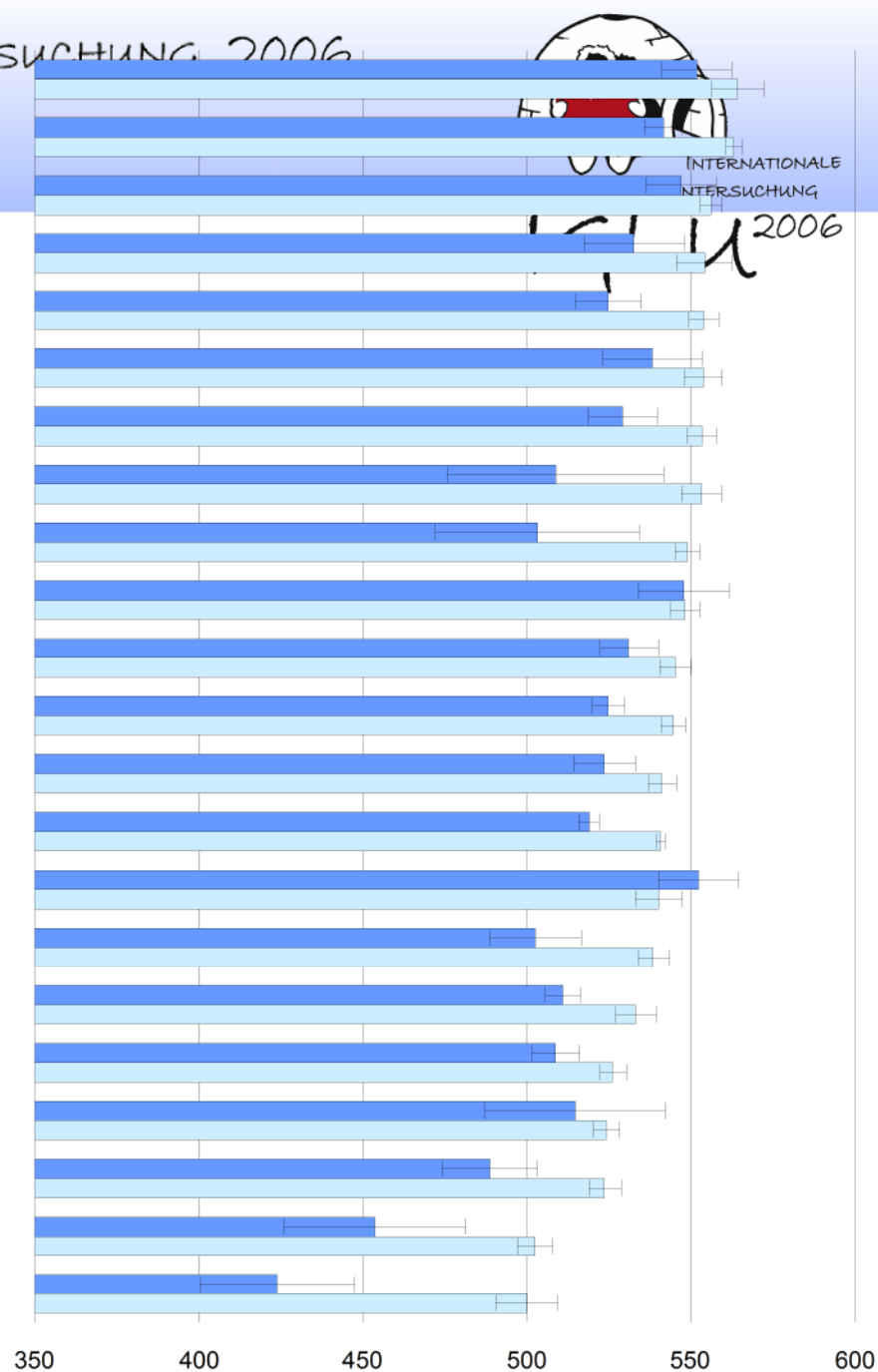
Slowenien*

Frankreich

Spanien

Belgien (Fr.)

Rumänien



■ Bis 1 Jahr
■ Mehr als 1 Jahr

* Zu Besonderheiten der Stichproben vgl. Kapitel II.



While the relevance of language training is acknowledged, however

... there is a controversy between two approaches:

- Functional training (fostering phonological awareness)
- Integrative language learning and providing a literacy rich environment



Phonological awareness (PA)

- In educational psychology awareness PA is supposed to be an important **prerequisite** skill for literacy learning;
- **deficits** are held to lead to difficulties in reading and spelling and
- should be compensated for, through **specific training prior** to the start of formal schooling.



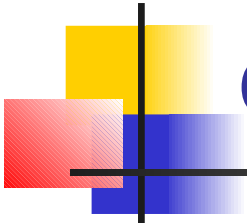
Topics of my presentation

- Is there empirical evidence of its importance for the learning of reading and spelling?
- Is phonological awareness (PA) a useful concept?
- Are phonemic training programmes in kindergarten useful?



Definition of PA

- “the ability to explicitly **reflect on the sound structure** of spoken language” (Küspert, Weber, Marx und Schneider, 2007)
- distinguishing two components:
 - in a broad sense: “analysis of broader sound structures such as **words** and **syllables**”,
 - in a narrow sense it “concerns the ability to isolate **phonemes** within words and syllables” (Schneider et al., 2000)



Empirical evidence from educational psychology

- Correlations between PA measures and reading and spelling are low to moderate
- Correlations have no explanatory power but may be attributed to common variance: IQ, vocabulary and preschool reading abilities



Low prognostic validity

- The positive correlations between reading and PA (as measured by the Bielefeld Screening, BISC) were not replicated (Brügelmann, 2005).
- The BISC could only identify fewer than 20 percent of the children with reading and spelling difficulties in first and second grade (Marx & Weber, 2006).
- Moreover, most of the “children at risk” developed normal reading and spelling competences (Brügelmann, 2005).



No or little transfer effects of a preschool training of PA

- No no shortterm effects (Rothe 2008, Wolf, Stanat & Wendt, 2010)
- No longterm effects (Hartmann 2002)
- Effects only to decoding, not to comprehension (Schneider, Marx & Weber 2008)
- No effects in first grade, in second grade only small effects on reading and spelling of girls (Roos et al. 2007)



No or little transfer effects of a preschool training of PA

- No advantage of isolated phonological training compared to integrative methods (book-rich environment, experiences with written language (Lenel 2005; Rackwitz 2008)).



Critique of the concept

- PA does not refer to a unitary function but to an **arbitrary conglomerate** of heterogeneous linguistic units and operations:
 - Syllables: speech units
 - Words: grammatical units
 - Phonemes: abstract, linguistic category

While syllables are perceptual units, words and phonemes are conceptual.



Critique of the concept of PA

The vague concept needs to be embedded

- into a **psycholinguistic theory**
 - dealing with the development of language awareness and with
- Into a **cognitive developmental theory**
 - dealing with literacy acquisition

(Andresen 1985; Downing & Valtin 1984).

PA and reading acquisition – the cognitive clarity theory

- Hypothesis : PA is a necessary prerequisite.
- Counterargument:
When learning written language children have to **gain cognitive clarity (insights)** regarding the function and the structure of print.

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𧄲 𧄲 ③ 𧄲 ⑨ ① ① ⑤



Four insights: 1. objectivation of language

- The ability to objectify language (abstraction from action context) is indeed a necessary prerequisite.
- Children have difficulty in differentiating between words and their referents:
 - > *cow* < is a longer word than > *butterfly* <
 - > *Blätter* < (leaves) are many words
 - “Listen, what does > *car* < begin with?”- “with a bumper.”



Four insights: 2. concept of a word, word segmentation

- Preschool children have difficulties to segment sentences into words.
- Only **content** words (nouns, verbs) are regarded as words, but not **function** words (articles, prepositions and conjunctions).



Writing without word spaces

Marcel

1) EASR

2) EA SR Marcel

3) OmdoPALESA

Mamaruft Ara



Four insights: 3. concept of phoneme, analysis and blending

The segmentation of words into phonemes develops gradually as invented spellings show:

- Recognition of prominent speech sounds
L (for elephant)
- Rudimentary or skeleton writings (LFT)
- Complete phonetic strategy: FEREND (friend)
- Phonemic strategy with first use of orthographic patterns



Four insights: 4. graphemes and phonemes

- The crucial point: assigning correct graphemes to phonemes by learning the phoneme-grapheme-correspondence rules and principles of orthography
- In German orthography we have 40 phonemes and 89 graphemes.

Main problem: assigning correct graphemes to the phonemes

Frühe Verunsicherung bei rechtschreibschwächeren Kindern



Älefanten
Elefanden
Elehfanten
Elefahnten
Ehlefanten
Eleffanten
Elephanten
Elevanten
Elevvanten
Ellefanten
Elefannten
Elefandden
Elefantenn
Elefanthen
Elefantehn
Elefantn
Elefantän

106
Fehlervarianten
bei Elefanten



PA and reading acquisition – the cognitive clarity theory

The acquisition of reading, writing and spelling is seen as a **sequence of characteristic strategies for dealing with written language**, reflecting growing cognitive and linguistic **insights** into the relationship between spoken and written language and the specific orthography.

Developmental model of acquisition of reading and spelling

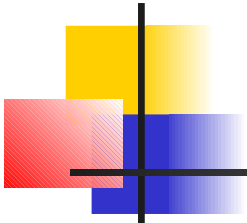
| Level* | Skills and insights* | Reading* | Spelling* |
|--------|---|---|---|
| 1* | Imitation of behaviour* | Pretend reading* | Scribbling* |
| 2* | Knowledge of single letters in a figurative sense, ¶ but no insight into the relationship between letters and sounds * | "Naive-holistic" reading. Children guess at words, orienting themselves to context and figurative cues* | Logographic strategy: drawing arbitrary sequences of letters or letterlike forms, ("pseudo-words")* |
| 3* | Beginning insight into the function of letters. ¶ Knowledge of some letters/sounds * | Beginning alphabetic strategy (phonetic cue reading) * | Rudimentary or skeleton writings* |
| 4* | Insight into the alphabetic principle, ability to segment words into speech sounds and phonemes* | Sounding-out strategy (reading letter by letter), sometimes without understanding* | Phonetic-articulatory strategy (I spell as I speak) ¶ * |
| 5* | Knowledge and use of orthographic patterns. ¶ * | Alphabetic reading with use of chunks* | Phonemic strategy with first use of orthographic patterns* |
| 6* | Automatized processes * | Automatized word recognition * | Correct spelling. ¶ * |
| - | | | |

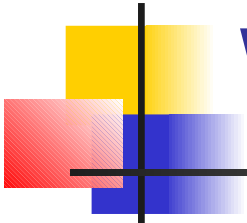


PA and reading acquisition – the cognitive clarity theory

Phoneme awareness and the ability to analyze and blend phonemes are

- central for the grasping the alphabetic code
- components (not prerequisites) of learning to read and spell
- only relevant at stage 4: sounding out strategy in reading and „spell-as-you-speak“ strategy in spelling

- 
-
- Phonological training as preparation for learning to read and write?



A critical look at a the Würzburg Training

- Children learn 12 letters and their sounds (A, E, M, I, O, R, U, S, L, B, T, N).
- Each letter is introduced with a story:
 - a (like in **f**ather): at the dentist you open the mouth and utter „aaaa“
 - „zzz“ makes the bee (für S).
- This approach has been criticised already 70 years ago and has been abandoned in primary school.

Würzburger Training

„Funny Stories“

- Children listen to a sentence with the information that all words start with the same (!) sound

Ohrwurm Olli organisiert originelle Opern.

- This is a confusion of letter name and phoneme
>O< represents 2 phonemes, a short and a long vowel sound.

Phonological training in kindergarten?



- Instead of learning meaningless elements of written language such as letter-sound-associations in didactically questionable formats, the time in kindergarten should be devoted
- to oral language development (vocabulary and grammatical structures)
- to experiences with the *functions* of written language
- by providing a rich literacy environment.

Phonological training in kindergarten?

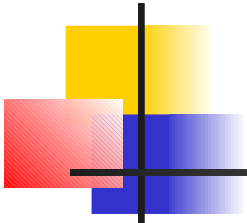


- The ability to shift the attention from content to form may be fostered in language games, using rhymes, tongue-twisters and poems.
- No isolated training seems necessary.

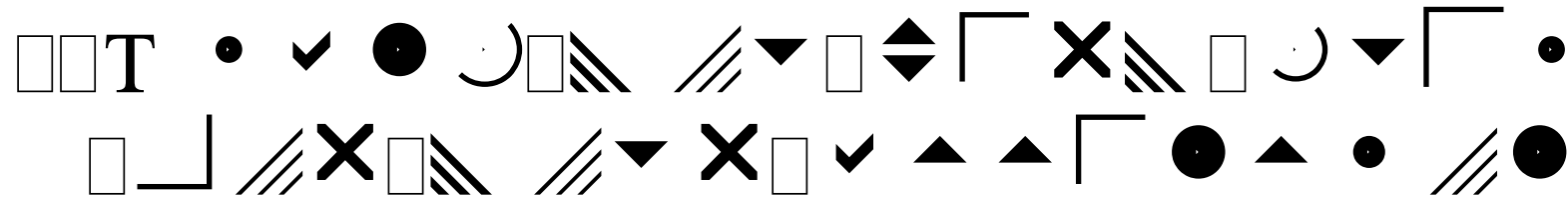
Spielerische Erfahrungen mit Sprache und Schrift

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Thank you very much for your attention!



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