Phonologically related reading problems: Persistence and relevance for students with dyslexia.

Åke Olofsson
Umeå University, Sweden

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The modern history of phonological awareness

The old history of phonological writing

The modern history of phonological reading problems
The modern history of phonological awareness

History of phonological awareness

Ortgeist (Boston, Moscow)

Zeitgeist (Cognitive psychology, Developmental psychology)

Linguistic awareness: phonological and phonemic aw.

The concept was presented in: Kavanagh & Mattingly (1972). *Language by ear and by eye.*

*Phonological awareness*
- Ill defined
- The combination of two problematic concepts

How could such a construct survive?

Precursors

Bruce, D. J. (1964). The analysis of word sounds by young children. *Br J of Educ Psychol*


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Precursors


- Brian Simon (1915 – 2002) was an English educationist and historian.
- John A **Downing** (1922-1987)
- **Liberman,** Isabelle and Alvin.
Pioneering work by L.E. Zhurova

Talking to children, and playing games, about “the first sound in a word”.
E.g. What sounds first when you are saying your name?


What is the first sound in ...

- Кошка (cat) [gatto]
- кролик (rabbit) [coniglio]
- лиса (fox) [volpe]
- Панда (panda)
- Тигр (tiger) [tigre]

See Chirkina & Grigorenko (2014) for a recent review of early research in Russia and its dissemination in English research literature.
Non successful attempts to replicate … ?


Scandinavian research

The old history of phonological writing

The old Egyptians could write alphabetically with a subset of hieroglyphs that coded phonemes.

They did not understand how great this idea was, but the Phonesians did, and they “invented” the alphabet.

- to Greece.
- to Etruscans in e.g. San Marino and Rome
The Vikings learned to read – no school?

Thanks to the futhork (alphabet) and phonological awareness

F U q O r k
h n i A s
t b m L y

Norwegian runic inscriptions on wood sticks, 12 to 14-century

All types of literacy

• religious, secular, commercial correspondence, everyday messages and intimate communications including pornography and obscenities,
• writing exercises and indecipherable hocus-pocus
The Vikings learned to read – no school?

A fubork (below) with additional characters (new letters) inserted

- a vowel after the i
- a labial consonant (p) inserted after the b
- a vowel inserted before the final y

Fuqø R khnieë sbPmtlNy
fuþo r khnieø sbpmtlæy

Fjellhammer Seim K. *The west-nordic futhark-inscriptions*, 347, Number A24.
As the spoken language changed ...

Voicing of stops was marked by a dot but the similar dot marking was also used for devoicing

That is,

\[ k. = g \]
\[ t. = d \]
\[ b. = p \]

The alphabet as a teaching device

The structural stability of the fuþark can be an indication of the runic writers’ explicit awareness of the importance of fuþark as a primary tool in literacy learning.
References


Spurkland, Terje. Norwegian runes and runic inscriptions. Woodbridge, UK: Boydell, 2005

The modern history of phonological reading problems

Phonological awareness predict reading development

Kindergarten training in phonological awareness give positive effects on learning to read
- especially if combined with the teaching of letter knowledge
- Especially for children at risk for reading problems

Phonological awareness and other reading related phonological tasks is a distinctive feature in dyslexia-
- Problems with phonology tend to be persistent
University students with dyslexia: Reading skills, learning strategies, outcomes and implications for teaching

Åke Olofsson, Astrid Ahl and Karin Taube
Umeå University

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Open higher education (HE) welcomes everybody equally

International trend

- increasing recruitment generally
- increasing recruitment from under-represented groups
- regardless of ... functional disability, Dyslexia.
The Discrimination Act 2008:567
The Equality ombudsman (diskrimineringsombudsman) [www.do.se](http://www.do.se)

..”to ensure that discrimination associated with sex, transgender identity or expression, ethnicity, religion or other belief, disability, sexual orientation or age does not occur in any areas of the life of society. ”

### Students with dyslexia in H.E. in Sweden 2010-2012 (out of approx 350 000)

<table>
<thead>
<tr>
<th></th>
<th>female</th>
<th>male</th>
<th>Total</th>
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<tbody>
<tr>
<td>2010</td>
<td>2 800</td>
<td>1 570</td>
<td>4 370</td>
</tr>
<tr>
<td>2011</td>
<td>2 589</td>
<td>1 558</td>
<td>4 417</td>
</tr>
<tr>
<td>2012</td>
<td>3 274</td>
<td>1 665</td>
<td>4 939</td>
</tr>
</tbody>
</table>

Prevalence. 1 – 1.4% in Sweden. 1.5 - 2.18% in England
(Mortimore & Crozier, 2006; Singleton, 1999)
Problem

- Students:
  Skills, strengths, weakness, strategies
- Institutions:
  need for new kind of support and teaching. Counselling
- Outcome. Study rate. Attainment? Drop out? “Right person in the right place”?

Aims

- to survey the reading skills, study behavior, difficulties and support needs of a sample of university students with dyslexia
- to describe the university teachers view on students with dyslexia
- to describe the study outcome after 2-3 years in H. E.
**Method.**

Participants
- Teacher programme N=22
- Nursing programme N=13
- Others N=15

- 50 students with dyslexia (15m 35f, age M=27, range 19-49, SD=7.5) from 3 universities in northern Sweden. *Tests, interviews, questionnaires, arc*

- 42 Lecturers and student counsellors (14m 28f) *Interviews*

**Results**

University students with dyslexia.

- Poor word decoding speed and non-word reading
- Poor spelling ability
- Poor vocabulary (phonol)
- Slow naming (RAN digits)

Conclusion: Previous research findings validated
University students with dyslexia.

- have the same amount of foreign language courses as students without dyslexia.
- have more foreign language courses than non-students with dyslexia.
- have a longer period of studies before university.
- 84% report dyslexia in the family.

University students with dyslexia

- Far from all tell about their problems.
- There is a fear for negative treatment, discrimination or harrassment.
- Report normal leisure reading but read less in english.
- Report most problems with reading english text and taking notes during lectures.
Available support

- Recorded literature
- Note taking support
- Translation software (and hardw.)
- Spelling software
- Support centre for inform. technol.
- Extended time and a private room at examinations
- Tape recording of lectures
- Support with language/writing
- Mentorship

Strategies

- Use a variety of functions available via internet
- Adjusted/tailored examination procedures
- Audio books
- Reduce the amount of reading (read summaries, alternative (shorter) texts, cooperate with classmates, see old exam questions)
- Attend all lectures (a few record lectures)
Strategies, cont.

- Seek help from family and classmates for writing assignments
- Seek help from counsellors, librarians, and student center
- Be **positive**, fight and hold out
- Spend a lot of time on studying
- Try to keep your goal visible (dream)
- Never say "I can't"

Staff: observed changes in students

- Increased differences in students’ skills
- Increased number of students with no study habits
- More students with great difficulties in expressing themselves in spoken and written Swedish
- Among the weak students there are many with low motivation
Staff: What difficulties are most apparent?

- Writing problems (difficulties with structure, scientific writing, sentence construction, spelling and splitting)
- Reading problems (difficulties with long texts, don’t get the meaning, don’t understand the words)
- Poor study habits

Adjustments done with reference to students with dyslexia?

Several teachers responded “No, I focus on the average student”
There are teachers who try to adjust without lowering the standards:
- Use simple language
- Stress clarity and structure
- Make presentations available to students
- Refer students to available support
- The importance of dialogue
Achievement  Md=26 ECTS per semester
9 Very low 1-15 hp. 15 Slow 16-24 hp. 25 Normal 25-35 hp

Outcome 2012/2013 for 50 students with dyslexia
20 (40%) graduated
14 (28%) still in programme
16 (32%) left
Those who left:
3 nursing programme
7 teacher programme
6 other
Analysis: Drop outs have lower scores on the reading comprehension test
General conclusion

Higher education institutions should be prepared for students with dyslexia.

Students with dyslexia are not doing “too” bad.

• The organisation of teaching
• Student services
• Staff training

References


Tops, W. et al. (2013). Beyond spelling: the writing skills of students with dyslexia in higher education. Reading and Writing, 26, 705-720. DOI 10.1007/s11145-012-9387-2
To discuss:

- Should we be more “service minded”?
- Increased demands combined with widening participation – dilemma?
- “We can support them when they are in education but what about the future when they work as professionals without any safety net”?
- Who is pleading the third part’s cause? (children at school, patients at the hospital, etc.)