The Primary Teacher Education (Prim TEd) Project:
The Annotated Bibliographies
The annotated bibliography: What/Why/What for?
• Literacy context in SA
• How? Sourcing, organisation and caveats
• What and where is the current research focus?
• What can we learn from the overview at this point?
• What next?
LAUNCHING READING ROCKETS
(REQUIRES THE TRAINING OF ROCKET SCIENTISTS)

In schooling systems around the world, by the end of Grade 3 children are expected to be able to read accurately, at a steady pace (grade appropriate), with meaning and enjoyment.

Do ITE programmes in South Africa prepare teacher trainees for this?
WHAT DO READING TEACHERS NEED TO KNOW?

Three areas of knowledge that pose challenges for many SA teachers:

**Content knowledge**
- Knowledge *about* the discipline/subject taught, e.g. knowledge of the language(s) taught and used, literacy (specifically reading and writing)

**Pedagogic content knowledge**
- Knowing *how* to teach language/reading/writing effectively. The transformation of conceptual knowledge into knowledge-in-practice.

**Curriculum knowledge**
- Being familiar with the details of what the curriculum specifies at each grade level, e.g. knowing CAPS and other education policy documents
• Primary education in South Africa is in crisis:
  • Poor learner performance
  • Teachers’ own lack of knowledge
• Literacy and mathematics are pivotal subjects at primary school
• Wide variations between initial teacher education (ITE) programmes at different higher education institutions
• There is a need to focus on ITE programme practices at universities in order to improve the quality of programmes:
  • Content, depth and breadth
  • Practice-theory balance
SEVEN WORKING GROUPS within PRIM TED

1. Consolidated Literacy Working Group (African languages and EFAL)
2. Number sense and algebra
3. Geometry and measurement
4. Mathematical thinking
5. Knowledge management and materials development
6. Assessment (of BEd students’ literacy and numeracy)
7. Work Integrated Learning (WIL)
CONSOLIDATED LITERACY WORKING GROUP: CATEGORIES OF SUB-PROJECTS

• Annotated bibliographies, literature reviews and research

• Development of core standards for teachers of literacy

• Audits of Higher Education Institutions’ qualifications, courses (modules) and materials related to literacy and language

• Development of curriculum, course and materials frameworks

• Resource repository
CONSOLIDATED LITERACY WORKING GROUP:
Data sources

Annotated bibliographies, literature reviews and research

1. Reading research in African languages 2004-2017
2. Reading research in EFAL in South Africa 2007-2017

Website address:
https://www.jet.org.za/clearinghouse/projects/primted/resources/language-and-literacy-resources
A socio-neurocognitive linguistic model of reading

Cognitive—linguistic decoding and comprehension

Socioeconomic and cultural context

Home School Community

Cognitive processes
- Working memory
- Phonological processing
- Attention

Neurological structures and pathways

Language proficiency
- Listening comprehension
- Vocabulary
- Grammar
Decoding = ability to convert a written word into speech (initially by reading aloud or by subvocalising in the head)

Speed matters - decoding must happen **quickly and accurately**

Learners must be able to sound units within words (syllables, onsets, phonemes) in order to read words

A large vocabulary helps in the development of decoding
Decoding is a necessary but not sufficient condition for reading comprehension.

Children need to learn and practise how to use their knowledge to make sense of the text that they are reading.

By the end of Grade 3 they should be able to make use of their knowledge to understand both literal and inferential information in texts.
TYPOLOGICAL AND ORTHOGRAPHIC FEATURES OF AFRICAN LANGUAGES

Southern Bantu language family in South Africa

Nguni languages (Conjunctive orthography)
- isiZulu
- isiXhosa
- Siswati
- isiNdebele

Sotho languages (Disjunctive orthography)
- Northern Sotho
- Southern Sotho
- Setswana

Other language family groupings (Features of both orthographies)
- Tshivenda
- Xitsonga

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SOURCING TEXTS

• Emails
• Table of contents of local journals
• Master’s and doctoral research
• Checked references in selected articles/dissertations/theses for further information
• Word of mouth

• Only articles in accredited journals
• 2004 - 2017
| PART 1 | POSITION PAPERS ON READING THEORY AND READING RESEARCH IN THE AFRICAN CONTEXT |
| PART 2 | **EMPIRICAL STUDIES ON FOUNDATIONAL READING SKILLS IN AFRICAN LANGUAGES**<br>**DECODING SKILLS** | PART 2
A: EMERGENT LITERACY – THE PRESCHOOL YEARS<br>B: FOUNDATION PHASE<br>C: INTERMEDIATE PHASE<br>D: HIGH SCHOOL<br>E: ADULT READERS |
| PART 3 | **COMPREHENSION IN AFRICAN LANGUAGES** | PART 3
A: FOUNDATION PHASE<br>B: INTERMEDIATE PHASE<br>C: HIGH SCHOOL<br>D: ADULTS |
| PART 4 | STANDARDISING ASSESSMENT INSTRUMENTS AND CLINICAL RESEARCH |
| PART 5 | TEACHERS AND CLASSROOM LITERACY PRACTICES IN THE AFRICAN SCHOOLING CONTEXT (List of readings) |
| PART 6 | **READING RESEARCH IN DIFFERENT AFRICAN LANGUAGES** (cross reference listings) | PART 6
NGUNI LANGUAGES<br>SOThO LANGUAGES<br>VENDA & TSONGA<br>OTHER AFRICAN LANGUAGES |
| PART 7 | LIST OF REFERENCES | Prim TEd |
## ASPECTS RESEARCHED

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<th>Components</th>
<th>Foundation Phase</th>
<th>Intermediate Phase</th>
<th>Total</th>
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<td>Vocabulary</td>
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<tr>
<td>Morphology</td>
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<td>Phonological &amp; phonemic awareness</td>
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<td>2</td>
<td>12</td>
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<td>Word reading</td>
<td>9</td>
<td>2</td>
<td>11</td>
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<tr>
<td>Non-word reading</td>
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<tr>
<td>Memory</td>
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<td>8</td>
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<tr>
<td>ORF</td>
<td>9</td>
<td>2</td>
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<tr>
<td>Reading comprehension (not PIRLS)</td>
<td>4</td>
<td>4</td>
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## SIZE OF STUDIES

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<th>No of participants/Schools</th>
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<td>&lt;100 (1-2 schools)</td>
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<td>6/7</td>
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<tr>
<td>Medium</td>
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<td></td>
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<tr>
<td>&gt;100 &lt; 500 3-6 schools</td>
<td>3</td>
<td>-</td>
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<tr>
<td>Large</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;1,000 15+ schools</td>
<td>3 (EGRS)</td>
<td>PIRLS</td>
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</table>
## LANGUAGES RESEARCHED

<table>
<thead>
<tr>
<th>NGUNI</th>
<th>SOTHO</th>
<th>VENDA</th>
<th>TSONGA</th>
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<tbody>
<tr>
<td>Xhosa</td>
<td>Zulu</td>
<td>N Sotho</td>
<td>S Sotho</td>
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<td>8</td>
<td>9</td>
<td>8</td>
<td>-</td>
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<tr>
<td>17</td>
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# Research Over the Years

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<td>9</td>
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</tbody>
</table>

Prim TEd
• Mostly small scale studies done by individual researchers; limited generalisations; besides PIRLS, larger, team-based studies appear from 2015
• Mostly descriptive studies – all show low levels of literacy in non-ideal schooling contexts. Caution needed when theorising from this base
• The schooling/classroom context often not described in quantitative studies; qualitative studies often lack rigorous assessment of reading performance
• Mostly cross-sectional studies; very few longitudinal studies
• Very few quasi-experimental pre-posttest designs; effect sizes not generally reported
• A wide variety of assessment tools used – not much standardisation of measurement
• In many cases, innovative assessments adapted to African languages, but none have been standardised
• Use of EGRA starting to emerge in some studies
• RCT is the purview of large-scale, well funded, team based research
High Level Research Findings (Decoding)

- Low literacy levels reported in all the studies, irrespective of language in which reading is tested.
- Phonological awareness and phonemic awareness show strong relation to decoding skill.
- Phonemic awareness develops on exposure to reading (and writing) practices.
- Syllable awareness prevalent in African language readers; however, phonemic awareness seems a stronger predictor of reading skill than syllable awareness (ceiling effects with syllable awareness in one study).
- Word reading and ORF scores tend to be low, indicting lack of automaticity in decoding.
- Performance on word reading and non-word reading show very high correlations (EGRS), suggesting that in transparent orthographies, both tests are tapping into the same skill.
- Morphological awareness seems to relate to reading skill, particularly in the Nguni languages (but not many studies).
- Many researchers refer to the need for a strong phonics base for decoding in agglutinating languages – but how this should be taught is not yet systematically addressed.
PEDAGOGICAL IMPLICATIONS for ITE PROGRAMMES

• Widespread failure to develop decoding skills in our schools – effective early reading instruction for African languages needs to be explicitly taught in ITE courses

• The whole word approach to early reading instruction is inappropriate for reading in agglutinating languages; English phonics approach is also not directly translatable

• Decoding cracks appear early in Foundation Phase – teachers need to be taught how to identify and remediate these, and how to prevent them in the first place. This should be a key module.

• Higher order Reading Comprehension is challenging; Reading comprehension not taught effectively;

• Familiarity with childrens’ storybooks and mediating them effectively to children should be examinable aspects of ITE courses
FURTHER DEVELOPMENTS

SIRP – Sesotho and isiZulu Reading project – develop core modules in the African languages (Nedbank and CALT@UJ)

- Evidence-based sequences to inform phonics - letter frequency in Xhosa:

- Faster pace – teach all the letter-sounds in Grade 1

- Awareness of balance between simple- complex components:

<table>
<thead>
<tr>
<th>English</th>
<th>African languages</th>
</tr>
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<tbody>
<tr>
<td>Complex vowels</td>
<td>simple vowels</td>
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<tr>
<td>Simple consonant system</td>
<td>complex consonant system</td>
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<tr>
<td>Consonant clusters</td>
<td>complex consonants – but a single phoneme</td>
</tr>
<tr>
<td>Complex syllable structures CCCVCC</td>
<td>simple syllable structures V /CV</td>
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</tbody>
</table>
THANK YOU

Human history becomes more and more a race between education and catastrophe

HG Wells