Role of Home Literacy Environment and Language in the Development of Rhyme Awareness Skills in Preschool children in Lusaka Province, Zambia

Janet Serenje\textsuperscript{a}, Beatrice Matafwali\textsuperscript{a}, Sylvia Mwanza-Kabaghe\textsuperscript{a}, Mubanga Mofu\textsuperscript{a}

\textsuperscript{a}University of Zambia

Southern Africa Regional ECD Conference
28th – 30th March 2023
Taj Pamodzi Hotel in Lusaka, Zambia
Introduction

Rhyme awareness skills

• Rhyme awareness is an understanding that words that end with the same sound (e.g. bat, rat) are pronounced in the same way.

• Rhyme awareness has been associated with other PA skills and later reading development (Bryant et al., 1990; Dunst et al., 2011; Goswami, 1999; Harper, 2011; MacLean et al., 1987)

• It is one of the earliest PA skills to develop in children. 2-year children

• They are expected to develop in children as young as three who are not yet in school (Cunningham & Stanovich, 1993). Hence literacy home environment (HLE) is key.
HLE, oral language and rhyme awareness

• Rich home literacy environment is associated with better rhyme awareness skills (Foy & Mann, 2003; Reade, 2017)

• Better language abilities are connected with better rhyme awareness (Foy & Mann, 2003).

• Poor literacy environment in most resource-contained Zambian families may hamper the development of rhyme awareness abilities (Chansa-Kabali, 2014, Mwanza-Kabaghe 2022)
  • We wondered the extent to which the HLE supports the development of rhyme awareness skills.
Methods

• Description of Sample
  • 14 public preschools,
  • 353 preschoolers (169 boys and 189 girls)
  • $M_{age}=81.1$ months; SD=15.7

• Measures
  • Home literacy environment factors (literacy activities; literacy materials)
  • SES (home possession index)
  • Language tests (Receptive, Expressive picture vocabulary test; Familiar Language)
  • Rhyming awareness skills (Rhyme recognition; Rhyme production)
Results

Table 1: Descriptions statistics for the rhyme awareness tests

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhyme Production</td>
<td>351</td>
<td>2.30</td>
<td>3.097</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Rhyme recognition</td>
<td>351</td>
<td>5.49</td>
<td>3.915</td>
<td>0</td>
<td>17</td>
</tr>
</tbody>
</table>
## Home Literacy activities and rhyme awareness

Table 2: Summary of Estimates of Fixed Effects on rhyme awareness

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Est</th>
<th>SE</th>
<th>df</th>
<th>t</th>
<th>Sig.</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.479</td>
<td>.284</td>
<td>61.157</td>
<td>5.201</td>
<td>.000</td>
<td>.910 to 2.048</td>
</tr>
<tr>
<td>Reading activities</td>
<td>.448</td>
<td>.205</td>
<td>58.010</td>
<td>2.188</td>
<td>.033</td>
<td>.038 to .858</td>
</tr>
<tr>
<td>Language total score</td>
<td>.140</td>
<td>.049</td>
<td>62.766</td>
<td>2.869</td>
<td>.006</td>
<td>.043 to .238</td>
</tr>
<tr>
<td>No. of books at home</td>
<td>.041</td>
<td>.156</td>
<td>54.316</td>
<td>.261</td>
<td>.795</td>
<td>-.271 to .3521</td>
</tr>
<tr>
<td>No. of times parents read</td>
<td>.051</td>
<td>.037</td>
<td>59.133</td>
<td>1.383</td>
<td>.172</td>
<td>-.023 to .1243</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Rhyme awareness
Conclusions

- Aspects of the home literacy environment were associated with rhyme awareness skills of preschool children from resource-constrained homes (Foy & Mann, 2003)
  - Literacy activities were connected to rhyme awareness skills (Reade, 2017)
  - Literacy materials did not predict rhyme awareness skills (Castro et al., 2008)

- Language skills predicted rhyme awareness skills of preschool children from resource-constrained homes (Foy & Mann, 2003; et al., 2011).
Implication and recommendations

• Rhyme awareness skills predict future reading and are associated with advanced PA skills.

• They are among the earliest PA skills to develop. Children need to develop these skills way before grade one.

• Exposing children to literacy activities that support rhyme awareness skills at home before beginning grade one is crucial.

• Children with better oral language skills display better rhyme awareness than their counterparts with poor language skills. Hence oral language development should be supported at home.
References


Acknowledgements

- Lolla Nauta foundation of the Netherlands for the funding
- Parents, preschool children

• Janet.serenje@unza.zm