Accessible textbooks for learning in a European language in Africa

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EdQual Language and Literacy Project

- This textbook readability study is a small-scale research project on the readability of school textbooks, within a larger Language and Literacy research project

- The project is part of the EdQual Research Project Consortium, funded by the UK Department for International Development, and is run at the Universities of Dar-Es-Salaam Tanzania, Cape Coast Ghana, Bristol UK and directed by Prof. Casmir Rubagumya, University of Dodoma

- Fundamentals
  - Countries: Tanzania and Ghana
  - Age group: 1st year of English-medium education: in Ghana primary Year 4; in Tanzania secondary form 1
  - Textbooks: in English, science, maths
  - Schools: Ghana: 3 schools; Tanzania: 4 schools; urban and rural

- The study is still incomplete

Background Concerns

- We initially constructed a number of hypotheses about L2-medium classroom reading in African schools:
  - Textbooks are in short supply
  - Textbooks are written with English-fluent readers in mind
  - Not enough reading occurs in lessons conducted in English (L2)
  - Learner reading ability in L2 is often low
  - Subject teachers working in English L2 are not trained to help learners read subject textbooks in L2
- Teachers and learners struggle valiantly to use textbooks under these difficult circumstances

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Textbook readability measures

We used various measures to analyse the readability of textbooks:

- Quantitative measures: formal characteristics of texts at syllable, word, sentence and discourse levels

- Qualitative measures: published checklists; analysis of L2 accessibility

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Quantitative measures:

- Word/sentence level, e.g.: Fry, SMOG, FOG, Flesch, Coleman-Liau

- Vocabulary level, e.g.: Dale-Chall; Academic word list

- Grammatical complexity, e.g.: The *Passive Sentences readability score formula*

- Discourse level: Coh-metrix

Qualitative measures

- Checklists, e.g.: General readability checklist, Friendly text evaluation scale, Group reading inventory
- L2-accessibility features, e.g.: textual features, visuals (photos, diagrams, charts etc), relation of visuals to text, language supportive task repertoire

Interim Conclusions 1: textbook readability

Many textbooks are too difficult for learners to read:

- Most readability measures relate to L2-fluent readers. Even for these readers, some textbooks are difficult to read; e.g. a Tanzanian biology textbook for grade 1 secondary (year 7) is readable at year 9-10 by English-fluent readers.
- Some textbooks are therefore very difficult to read for low-L2 readers:
- Textbooks are often not written with low-L2 readers in mind; they are written as if learners were fluent English speakers. This increases reading difficulty.

Interim conclusions 2: classroom reading processes

- Very little reading in L2 took place in the lessons analysed in this sample

- Learner L2 reading ability in this sample seems to be low

Further questions

Further questions (not tested in this research):

- Some teachers themselves may find it difficult to read some textbooks with confidence

- Teachers are unlikely to have been trained in initial teacher education help learners to read difficult textbooks in the subject classroom

Implications

If learners have little access to textbooks, there are implications for...:

- curriculum access: minimal reading greatly restricts access to curriculum: textbooks are a crucial source of subject learning

- literacy skills: reading and writing skills are also restricted: learners get limited experience of formal writing

- cognitive skills: development of thinking skills is impaired: reading strengthens thinking processes

- L2 development: development of L2 ability is impaired: learners read minimally in English

- rights: equity principles are breached: learners have a right to be educated in a language they understand

Awareness of the reading issue

- Low awareness amongst publishers of the demands of L2-medium learning and teaching: most textbooks in Africa are published with little reference to the reading ability of learners in the European language of instruction.

- Low awareness amongst governments and agencies and within teacher education institutions that:
  - classroom reading opportunities may be rare
  - reading ability of learners may be low
  - textbooks are often inaccessible to their readers

- Little African research activity in the domain of classroom reading of textbooks

High-accessibility Textbooks

- It is not difficult to produce textbooks which are accessible to learners working in L2: the features of L2-accessible textbooks are known (though not widely), e.g.:
  - Textual features: sentence length and complexity; explicitness of organisational signals, vocabulary support
  - Visuals (photos, diagrams, charts etc): relation of visuals to text; relation of visuals to speech and writing tasks
  - Language supportive task repertoire: support for listening, speaking, reading, writing within the subject
- High-accessibility textbooks ≠ cognitively easy textbooks
- High-accessibility textbooks also support teachers in the classroom
- Producing L2-accessible textbooks is an eminently tractable problem with potentially very positive effects on both teaching and learning

Action

a) Publishing: draft, trial and agree with publishers an accessibility protocol for designing subject textbooks to be used by L2-medium learners in Africa. Train textbook writing teams.

b) Teacher education: Design, trial and implement ITE and INSET modules for developing reading skills within subjects in L2 (and L1) in selected ITE centres in Africa.

c) Campaigning: lobby education authorities and agencies in Africa on the issue of accessibility of textbooks and classroom reading.

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