Assessing writing in L1-based multilingual education

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Student assessment and multilingual education: Designing instruments, gathering data

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Organization of presentation

• Aims and practice of MLE
• Challenges in assessing MLE
• Generating useful info in L1 & L2: A simple writing assessment
• What we could show with data from Cambodia and Senegal
L1-based bi- or multilingual education programs (MLE)

- Using learners’ **strongest languages** for literacy and learning
- Teaching new languages explicitly
- Promoting **transfer of skills** between languages
- Teaching curricular content in two or more languages (depending on learners’ proficiency levels and prior exposure)
- Creating learners who speak, read and write **multiple languages** (e.g. García 2009; Benson 2019)
Progress in MLE implementation:
Teachers can be at their best in the L1
Challenges in MLE assessment internationally

1. Assessing only in the dominant language

2. Assessing only receptive (decoding) skills
   • Difficult to show what learners know in L1 that can be transferred
   • Difficult to show differences between MLE and non-MLE learning
Issues with existing assessment (EGRA)

EGRA does not pay enough attention to the L1

• Focus on phonemic awareness misses the meaning-making part of reading (for meaning, L1 is best)
• Focus on accuracy means multiple zero scores – no diagnostic value
• Provides no data on whether the learner is tested in L1, L2 or foreign language
• Fails to show real differences between MLE and non-MLE as experienced in classrooms
• Negative backwash: Teachers teach "reading fast" and policymakers see no difference between MLE/non-MLE
Our contribution: Assessment of writing

• Prompt “One night, I dreamed…” to encourage self-expression (not copying)
• L1 first, then L2 (different dream)
• Advantages over EGRA:
  – If learners can write, they can read
  – Shows what learners can do
  – Focus on productive (not receptive) skills
• Reveals learner L1 and L2 literacy and:
  – Diagnoses spelling, grammar issues
  – Shows teachers what skills to re-teach
  – Encourages teachers to teach writing
Writing assessments in Cambodia

Rationale: If students can write their own ideas, they can decode (read) and encode (write), and they can think for themselves.

In L1 Tampuen, Kreung, Bunong (& Khmer L2)
  2016: 89 students
  2017: 208 students
  2018: 162 students

Gr 3 and above assessed in L1 and L2
# Results of grade 2 writing assessment (MLE only)

<table>
<thead>
<tr>
<th>Class type</th>
<th>N</th>
<th>L1 results: N</th>
<th>Best examples of L1 expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple sents</td>
<td>2 (13%)</td>
<td>-</td>
<td>“…a big elephant run at me. When I grow up I will scare elephants.”</td>
</tr>
<tr>
<td>Long sentence</td>
<td>6 (38%)</td>
<td>Only copied intro: 4</td>
<td>“…something that was stolen from a small house on a farm.”</td>
</tr>
<tr>
<td>Copying words</td>
<td>1</td>
<td>-</td>
<td>“…I rode a motorbike and I rode in a car.”</td>
</tr>
<tr>
<td>Unintelligible</td>
<td>3</td>
<td>-</td>
<td>“…someone cut me with a knife.”</td>
</tr>
<tr>
<td>MLE</td>
<td>16</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Long sentence</td>
<td>11 (29%)</td>
<td>Short sentence: 3 (8%)</td>
<td>“…a buffalo walking and looking at a frog.”</td>
</tr>
<tr>
<td>Prompt plus one word</td>
<td>14 (37%)</td>
<td>Unintelligible: 10</td>
<td>“…an insect eating a leaf.”</td>
</tr>
<tr>
<td>MLE</td>
<td>38</td>
<td>-</td>
<td>“…a bee sting me.”</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>“…money—5000 riel!”</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>“…a dog eat rice.”</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>“…a frog sitting on a rock.”</td>
</tr>
</tbody>
</table>
### Results of grade 3 writing assessment (MLE/non-MLE)

<table>
<thead>
<tr>
<th>Class type</th>
<th>N</th>
<th>L1 results:</th>
<th>Best ex L1 expression</th>
<th>L2 results:</th>
<th>Best ex L2 expression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>“I saw…”</td>
<td>N</td>
<td>“I saw…”</td>
</tr>
<tr>
<td>MLE</td>
<td>13</td>
<td>Multiple sents: 8 (62%)</td>
<td>“…a dog bite me and I had a big wound. I saw a big god [spirit]. I got sick with malaria. I saw people steal my chicken. I bit a dog. A snake bit me. I saw people plant cassava one day but it wasn’t finished.”</td>
<td>Multiple sents: 6 (46%)</td>
<td>“…a forest cow run at me and then I climbed a big tree and then I jumped down into the water and I swam away.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long sentence: 3 (23%)</td>
<td>“…someone steal my pig and then my brother’s dog came to bite that person. Then the person ran away and we took the pig back.”</td>
<td>Long sentence: 5 (38%)</td>
<td>“…a fish in the water and then I caught it.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short sentence: 1 (8%)</td>
<td>[Unsure if they can be translated; we attempted L1 but this class never learned L1 literacy]</td>
<td>Short sentence: 2 (15%)</td>
<td>“…I was riding on the back of an elephant.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Only copied intro: 1</td>
<td></td>
<td>Only copied intro: 0</td>
<td></td>
</tr>
<tr>
<td>non-MLE</td>
<td>22</td>
<td>Short sentence attempted: 13</td>
<td></td>
<td>Prompt plus a noun: 22 (100%)</td>
<td></td>
</tr>
</tbody>
</table>
L1 writing assessment
Gr 3
Ratanakiri
(May 2017)

2017 Grade 3 Writing Assessment in L1, Results by School

Note: School 5 had no Grade 3 L1 class on the day of our visit
School 1: n=19; 2: n=25; 3: n=16; 4: n=15; 6: n=6; 7: n=31

Graph by Sarah French
Gr 3 error analysis for L1 Tampuen 2017 Ratanakiri

- Missing Letter: 18%
- Missing Vowel: 7%
- Wrong Consonant: 8%
- Wrong Letter: 14%
- Wrong Vowel: 4%
- Missing Symbol: 6%
- Missing Consonant: 1%
- Wrong Symbol: 1%
Gr 3 error analysis for L1 Kreung 2017 Ratanakiri

- Missing Symbol: 2%
- Wrong Consonant: 4%
- Wrong Vowel: 3%
- Wrong Symbol: 11%
- Extra Vowel: 2%
- Extra Symbol: 3%
- Missing Vowel: 5%
- Missing Consonant: 6%
- 24%
- 29%
- 16%
Gr 3 error analysis for L1 Bunong 2017 Ratanakiri

- Missing Symbol: 8%
- Missing Vowel: 5%
- Missing Consonant: 20%
- Wrong Word: 8%
- Missing Word: 5%
- Extra Word: 3%
- Wrong Word Order: 53%
Written assessment guided by Prof Mbacké Diagne
Photo by Carol Benson, Ecole Insa Bobo Ba, Nioro, Nov 28, 2018
Results from Senegal (386 gr 5 learners )

1. How do L1 scores differ between MLE/non-MLE students with the same backgrounds?

<table>
<thead>
<tr>
<th></th>
<th>Mean L1 writing assessment score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilingual (n=282)</td>
<td>8.5</td>
</tr>
<tr>
<td>Traditional (n=103)</td>
<td>6.39</td>
</tr>
<tr>
<td>Overall mean (n=386)</td>
<td>7.95</td>
</tr>
<tr>
<td>Urban (n=239)</td>
<td>8.33</td>
</tr>
<tr>
<td>Rural (n=147)</td>
<td>7.32</td>
</tr>
</tbody>
</table>
Results from Senegal (386 gr 5 learners)

2. How do L2 (French) scores differ between MLE/non-MLE students with the same backgrounds?

![Mean L2 assessment score by group](chart)

- Bilingual (n=282): 8.23
- Traditional (n=103): 6.44
- Overall mean (n=386): 7.76
Findings from writing assessment so far

1. **Diagnosis of literacy development stages**: Strong L1 means strong L2; stronger L1 literacy is needed for effective transfer (showing that early exit is not best).

2. **Comparison of MLE vs. non-MLE**: Demonstrates some literacy-related advantages of MLE.

3. **Comparison of class results**: Reveals which teachers are using successful methods (and which need help).

4. **Comparison of literacy results by language**

5. **Positive backwash on teaching literacy**: Teachers will exercise writing in both languages; they will pay more attention to self-expression.
References


“Beginning with our own language is what we must do.”
Taken by Erina Iwasaki, Ecole Ibrahima Fall, Kaolack, Senegal, Nov 26, 2018