Our job as educators in multilingual programs is to help local language speakers to read and learn well with comprehension throughout their schooling. A well-designed national and local curriculum, from grade 1 to grade 8, can form a strong bridge to reading and learning via a language of wider communication. If a broad language gap is narrowed by a well-planned transitional reading curriculum, the final step off the bridge can be short and simple. A linguistic and pedagogical bridge can be constructed to narrow the linguistic gaps as children grow and learn.

Because of the immense linguistic and orthographic distance between European languages and Asian, Latin American, or African languages, a bridge must be carefully constructed (Schroeder 2020). It needs a far reach, and it must carry millions of learners to access higher learning at the secondary level and beyond. Such bridges have been proven effective in Mali, Burkina Faso, Ethiopia, and Nigeria (Schroeder, Trudell, and Mercado 2021).

If proven solutions are implemented on a national level, we can expect these indicators of effective bridging for speakers of minority languages: a significant increase in the proportion of language minority students entering secondary schools, and then an increase in the proportion of language minority students entering universities. These would be direct results of bridging programs which leverage the home languages (L1) of the students in learning throughout lower and upper primary school, and which also support strong acquisition of an official national L2.

Because African and Asian languages are very different from European languages such as French, Portuguese, and English, the bridging process is not as simple as the one American or British children undertake when adding Spanish or French to their repertoire (Probert and de Vos 2016, Share 2008) or the one that Spanish-speaking immigrant children undertake when learning English in the US. Those destination languages are Indo-European, not African or Asian. The “linguistic distance” (Koda
is evident in their grammars, phonologies, and lexicons. In the United States, most immigrants receiving ESL instruction are Spanish-speaking. Spanish belongs to the same language family as English and French: Indo-European. The challenge of L2 acquisition is even greater for Asia and Africa because their grammar, phonology, and lexicons are from widely divergent language families, and language-minority children rarely hear English spoken outside of school.

Currently, very limited time is given to L1 literacy in public or private schools (Bunyi and Schroeder 2017 and Kim 2016), blunting young children’s ability to gain fluency, to comprehend the texts provided, and to expand their intelligence by adding concepts and vocabulary to what they already know in their L1 (Koda 2005). The result, at the end of primary school in grade 8, is low exam scores and weak study skills which reduce minority language speakers’ access to secondary education (Heugh et al. 2010:295 and Bender 2019, personal communication; Fasokun 2000:5).

Schroeder, Mercado, and Trudell carried out an extensive desk review of multilingual education programs on the African continent, looking for factors predicting long-term academic success. They examined twenty-five countries, finding four programs which produced higher level academic success for their students. The same could assuredly be done in the Philippines, India, or Pakistan.

Indicators of academic success were identified as “measurable long-term impact”, with minority-language-speaking students entering secondary schools and universities in greater numbers. Testing outcomes at both the end of primary school and the end of secondary school were indicators of failure. The seven challenges we found are listed below. The recommended solutions, which promote bridging, were unique to the programs which led to higher education for those students (Schroeder et al. 2021).

**Seven challenges to effective bridging and seven solutions**

**Challenge 1: Linguistic distance challenge.**

American teachers explicitly teach less than 400 new words per year, following their curriculum guidelines (Walter, K. 2005). The list is relatively small because American children are expected to also acquire thousands of new words naturally, in their home environment. On the other side of the Atlantic, rural children rarely see or hear the official languages outside of school.

**Solution: Narrow the gap with systematic L2 oral instruction.**

The linguistic chasm can be narrowed considerably by national-level oral second language instruction. Truly successful multilingual education models with proven sustainability provide such curricula (Schroeder et al. 2021). Some countries, like Uganda, have already set such standards. Curriculum developers analyze the content of every required textbook, identifying key terms used and grammatical elements to be mastered yearly.

A necessary next step is developing a yearly L2 curriculum for a teacher to follow, which reflects these expectations.
- Provide L2 vocabulary development. If national content area textbooks grades 9 through 12 are to be understood, thousands of L2 vocabulary terms must be mastered yearly (Walter, K. 2005).
- Develop learners’ comprehension skills for content area textbooks, starting with their L1. Teachers of all subject areas need to ask students lots of questions as they read and listen to them, so they are aware of learners’ understanding of texts. Teachers’ guides and teacher training for all content area teachers must scaffold interactive instruction (Bender 2002:2).
- Develop L2 phonemic awareness, focusing on unfamiliar vowel contrasts and syllable structures such as word-initial and word-final consonant clusters. Start with listening and discrimination of phonemes and their positions in words and syllables, followed by speaking.
- Use a total physical response approach to introduce children to hearing, listening, doing, and speaking the L2 in grade 1 (Malone 2015).
- Use a grade 1 textbook with lots of pictures to supplement the teacher’s actions and learning activities (Trammel 2016).
- Use trans-languageing to leverage learners’ knowledge of concepts they already have, adding L2 labels to those concepts. Pair children to use each other’s knowledge of their L1 to enhance their new, growing L2 vocabulary via games (Schroeder, Trudell, and Mercado 2021; Trammel 2016).
- The L2 curriculum must systematically develop learners’ vocabulary over several years. (Walter, K. 2005:87). Walter calculates that a 95 percent density of known to unknown words will make L2 academic textbooks comprehensible. Seventy-five to ninety five percent is a minimum goal for vocabulary in L2-medium textbooks. Developing and supporting such a growing list should carry minority learners to secondary school.
- Use L2 specialists who visit each classroom daily, or extensively train every primary school teacher for this.

**Challenge 2: Orthography mismatch between local languages (L1s) and European languages (L2s) makes bridging to L2 reading challenging.**

The orthographies of most colonial languages pose challenges to reading transfer: English and French orthographies are deep and inconsistently written, and Portuguese is not far behind (Seymour, Aro, and Erskine 2003). Minority orthographies, recently developed/developing, have shallower, more consistent sound/symbol correspondences. Research has shown L2 reading to have a negative effect on L1 reading, because different reading skills and strategies are needed for the European orthographies (Schroeder 2020; Share 2008; Probert and de Vos 2016).
Solution: Once L1 decoding has been mastered (in grade 3, hopefully), introduce L2 reading systematically, for 30–40 minutes per day, over two years. Begin in early primary school and continue adding vocabulary every year.

Treat the L2 orthography as if it is consistent and decodable. Use simple rhyming word patterns, beginning with CVC monosyllabic words such as cat, hit, pot, cut, and set, in the first year of orthography bridging (around grade 3). These English examples may help.

- Use rhyming words which make initial consonant substitution possible, for example: Year 1: sat, cat, fat, mat; Year 2: gate, fate, mate, day, say, may, pain, main, gain.
- Use syllable patterns and consonant substitution for recognition of initial consonant clusters such as st, sl, sk, sp, sm; fl, fr; gr, cr, tr, fr, dr in year 1.
- Use syllable patterns and rhyming for recognition of syllable-final consonant clusters such as -nt, -nd, -ns, -nk in year 1.
- Use vowel substitution, strengthening phonemic awareness.

- Develop recognition of suffixes, such as -ing, -ed, and -er.
- Develop recognition of r-controlled vowels -ar, -er, -or, -ir and -ur (see Bear, Templeton, Invernizzi, and Johnston 2012).
- Introduce a new reading skill: recognition of L2 sight words. Limit these to two new sight words per week so learners don't completely lose trust in their strong decoding skills.
Use large group read-alongs with teacher involvement.

Use fun, predictable cloze activities which are scaffolded with limited word choices. They can be simple stories, with teachers in supporting correct answers which make sense in the context.

Use illustrations to scaffold comprehension and make grammatical words (Example: my, your, his; hers, yours, theirs) they have already learned in Oral L2 instruction.

The vocabulary used in L2 reading instruction starts with the oral L2 vocabulary they have already developed, slowly adding more to ensure all texts will be comprehensible.

Always ensure that new vocabulary is orally practiced before any L2 texts are read, and ask plenty of comprehension questions throughout the process (Brock-Utne and Alidou, 2011:187–215).

Sight word: my.
Teacher say: Children, help me read!
1. My arms are long.
2. My legs are short.
3. My ears are big.
4. My lips are thin.
5. My tail is long.
6. I am beautiful. I am a monkey.
Challenge 3: Poor comprehension of L2 textbooks, throughout primary and secondary.

Solution: Develop and use L1 textbooks which follow the national curriculum or provide textbooks which help learners comprehend the L2 content.

- Ensure that the L1 textbooks are developed to teach the same concepts and develop the same skills as the original L2 textbooks which should be discarded.
- During oral L2 sessions, extend children’s L2 vocabulary, using their L1 to explain new concepts. Give children practice using the new vocabulary in sentences, in dialogues, in games, and in other activities.
- Train teachers at all grade levels to use the L1 for scaffolding new concepts even in the oral L2 subject, including charts, advance organizers, word banks, and trans-languaging activities. Teachers will need an interactive style of teaching rather than a lecture approach, because they must constantly monitor learners’ comprehension.

Challenge 4: Students’ L1 is not the medium of instruction.

Children sit for hours looking at their teachers without understanding what they say and without being able to ask or answer the teachers’ questions (Bunyi and Schroeder 2017).

Solution: Substitute L1 for L2 as medium of instruction through the day, except for second language instruction.

- Allow children to develop their concepts and extend their intelligence and schemata (Davis 1991) in their L1.
• Promote the addition of L2 vocabulary to their schemata, piggybacking it to their continuously developing L1 knowledge and skills (Walter, K. 2005). Children will need an L2 vocabulary which includes the domains taught in the national curriculum by the time they finish upper primary. This prepares them to understand all the content area lessons they will face in secondary school.

• Promote learning using the L1 for a minimum of six years, or throughout primary school (Heugh 2011:120–121; Baker 2006:173; Walter, S. 2013:275). This learning will be the anchor for all the L2 skills they will gain, and will ensure that none of their school time is wasted.

Challenge 5: Many children are very weak in reading their own languages.

Experience in African classrooms and often Asian ones as well indicates that children’s reading ability in their own languages is poor or nonexistent. The reason, of course, is that they are not taught to read in those languages.

Solution: Provide a strong L1 reading curriculum and give it 30–45 minutes daily in the national teaching schedule, developing these skills:

• Phonemic awareness, word medially, initially, and finally
• Comprehension, which goes beyond simple word identification to summarizing, predicting, evaluating, and inference
• Skimming and scanning for information in a text
• Spelling
• Creative writing

Challenge 6: Teachers rarely teach an L1 reading curriculum and lack the knowledge and skills for doing so (Alidou and Brock-Utne 2011:159–172; Piper and Kim 2018).

Solution: Give teachers all they need to teach well, using the L1 all day, providing:

• Strong L1 reading textbooks and teachers’ guides.
• One year of formal teacher training or a minimum of three weeks of in-service training, spread over one year, with coaching also provided (Piper et al. 2018; Piper and Kim 2018; Kim, Boyle, Zuilkowski, and Nakamura, 2016:51–54).
• Even secondary school instructors would benefit from training in evaluating and strengthening the comprehension and growing vocabulary of their learners (Schroeder 2020).
• Provide L1 textbooks, rather than L2 textbooks, for every subject through at least grade 6. This will encourage teachers to use the L1 for all subjects except oral L2.
• Transfer reading pedagogical materials to be used all day for two weeks, with all content area teachers in charge of one class for that time.

Challenge 7: Teachers rarely use the L1 for teaching subjects because examinations don’t cover these areas/skills using the L1.


• Work with a national board or commission to ensure that local exams match a set of national standards for measurable skills.

Research has substantiated the power of good multilingual programs to bring students across a skills bridge, using the power of their L1s to add the official languages for access to higher learning. Each of the seven factors is essential to success, but details were provided for designers and users of oral second language curricula and of transitional reading curricula. Both require high professionalism and knowledge of applied linguistics. The results are worth it: equal access to higher education for all language groups.

References


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