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Early Grade Reading and Teacher Training in the LAC Region:

Influencing Factors, Lessons and Approaches

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Early Grade Reading and Teacher Training in the LAC Region: Influencing Factors, Lessons and Approaches

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ABSTRACT:

This document outlines factors that contribute to the success or failure of early grade literacy, including those related to teacher training. The analysis uses USAID resources such as study findings, program experiences and relevant data, as well as literature from academic and private databases. The literature and data reviewed is heavily focused on the LAC Region; however, studies from Asia and Sub-Saharan Africa are also cited.

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Early Grade Reading and Teacher Training in the LAC Region: Influencing Factors, Lessons and Approaches

SUMMARY

This document outlines factors that contribute to the success or failure of early grade literacy, including those related to teacher training. The analysis uses USAID resources such as study findings, program experiences and relevant data, as well as literature from academic and private databases. The literature and data reviewed is heavily focused on the LAC Region; however, studies from Asia and Sub-Saharan Africa are also cited.

Compared to more rigorous research conducted in developed countries, research in developing countries on early grade literacy and learning outcomes has limited systematic and/or consistent data. It is thus difficult to prescribe the relative importance of specific factors. Similarly with respect to teacher training, an IDB-authored comprehensive survey of teacher training programs in the LAC Region describes its findings as “trends associated with interesting outcomes.” The survey clearly states that its conclusions do not meet the standard of evidence-based best practices.¹ Evaluations of teacher training programs typically target understanding the outcomes associated with the knowledge gains of the teachers and the integration of new teaching practices into the classroom – rather than how, or if, the teacher training program translated into improved learning outcomes for students.

The balance of this document is organized into driving factors behind early grade literacy and learning outcomes: student characteristics, school/classroom factors, teacher-related factors, and testing/goal setting/benchmarking. In most sections, select findings from studies are highlighted, with narratives included as appropriate. Some well supported research conclusions provide specific recommendations for early grade literacy programs, such as the provision of readily available, level-appropriate reading materials, and remedial instruction for struggling readers. Additionally, a number of emerging trends in teacher training are identified and discussed.

LIMITATIONS OF DATA ANALYSIS & SYNTHESIS OF RESEARCH FINDINGS

Limitations with respect to systematic and consistent availability of data have hampered education research/evaluation efforts in developing countries. Many studies necessarily focus on a particular context or a particular research question, producing somewhat isolated and disparate “knowledge sets” that are difficult to weave together into a coherent picture. Lacking this coherent picture, it is challenging to understand how specific variables or interventions operate together or across contexts. This is especially true at the regional level as variations within the region are often notable, with significant implications for policy and program design.

Even within specific contexts, evidence about which interventions work the most effectively to improve learning outcomes is scarce. For example, a case study presented as a success in Gove, A. et al on Save the Children’s Literacy Boost program notes that prior to a year-long, multi-faceted intervention in Malawi; 95% of 2nd grade children could not read a single word. The post-test results, highlighting the program’s success, showed a 29% reduction in children who could not read a single word. What is more telling however; is that after a year-long multi-faceted program, 66% of 2nd grade children could still not read a single word in Chichewa [the native language].² Other factors combined to outweigh the positive impact of this program, leaving questions about what is really required to effectively improve reading outcomes in this particular context. Rigorous cost

¹ Navarro, Juan Carlos and Verdisco, Aimee. “Teacher Training in Latin America: Innovations and Trends” Inter-American Development Bank. August 2008.

² Gove, A. and P. Cvelich. *Early Reading: Igniting Education for All. A report by the Early Grade Learning Community of Practice*. Research Triangle Park, NC: Research Triangle Institute. 2010

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benefit/utility assessments of education interventions are also difficult to find as they rely on very robust attribution models that often do not exist in evaluations and other studies. A survey of policy makers and education planners in Latin America discovered that knowledge about the costs associated with particular education interventions is seriously lacking.³

STUDENT CHARACTERISTICS

There are a number of student characteristics that have been shown to affect learning outcomes. The primary characteristics are listed below with highlights pulled from the literature and studies specific to the LAC Region. It is important to note that very often these individual factors do not operate independently. They are frequently intertwined, usually deepening the effects of individual background factors. For instance, in some LAC countries, large percentages of indigenous students also live in rural areas with lower levels of SES and go to schools with fewer resources. Language of instruction that is different than mother-tongue is a factor for indigenous students more often than non-indigenous students – possibly because of these other prevailing characteristics. Pre-school attendance universally improved students’ performance in early primary grades – and is also strongly linked to SES and urban location. Several studies cited below have tried to tease out these different factors to understand the relative importance of each, but the current evidence on this front is limited and often very context-specific – making generalizations difficult and inadvisable. To underscore this, one study in Guatemala found that 24-45% of the achievement gap could not be attributed to either background or school effects, and as such, they were “unexplained effects”.⁴

Gender:

- The picture about gender dynamics in early grade learning outcomes in the LAC Region is somewhat mixed, but not drastically so. In general terms, gender disparities in the LAC region in early grade test scores are not significant; and in language, females often outperform males. For example, one study of 13 LAC countries found that female language test scores were on average 6 points higher than male test scores (2 points lower on math tests). (See pp. 422-423 in Willms et al for detailed data by country.)⁵
- The same 13 country study of 3rd and 4th grade students found that “sex differences in language and mathematics scores tend to be fairly small in most countries, less than one-fifth of a standard deviation.” That said, repetition rates were not consistent across sex, as “in most countries boys were less likely than girls to complete grade 3 without having repeated a grade.”⁶
- Differences in time to completion of schooling varied by country, with Brazil having one of the largest differences, in favor of females.⁷

Indigenous/Non-indigenous Characteristics:

This factor is important to capture and varies significantly by country. It also intersects with language of instruction and SES in some cases. Some illustrative of the effects of indigenous/non-indigenous status include:

³ Schiefelbein, Ernesto, Laurence Wolff, and Paulina Schiefelbein. “Cost-Effectiveness of Education Policies in Latin America: A Survey of Expert Opinion” Inter-American Development Bank, December 1998.

⁴ McEwan, Patrick and Marisol Trowbridge. “The achievement of indigenous students in Guatemalan primary schools.” *International Journal of Educational Development*, 2007. Vol.27.

⁵ Willms, J.D. and Marie-Andree Somers. “Family, Classroom and School Effects on Children’s Educational Outcomes in Latin America.” *School Effectiveness and School Improvement*. 2001 Vol.12, No.4, pp. 409-445.

⁶ Ibid.

⁷ Ibid.

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- A study in Chile suggests that teachers' lower expectations of indigenous students might be a contributing factor in their lower performance.⁸
- Indigenous students in Peru are 30-45% "less likely than non-indigenous students to have a math or Spanish book."⁹
- For Guatemalan indigenous students, the distance to school is on average twice as far than for non-indigenous students.¹⁰
- In Mexico, indigenous students' achievement is affected by mothers' attainment of *basic* education – levels beyond that do not seem to effect achievement. In contrast, for non-indigenous students, the level of achievement operates on a scale relative to the mother's education level.¹¹
- A World Bank study concludes that learning inequalities between indigenous and non-indigenous students is more pronounced in Guatemala than Chile or Bolivia, underscoring the need for context specific strategies.¹²

See Guatemala statistics section in Appendix C for examples of learning outcome differences between indigenous and non-indigenous populations.

Socio-economic status and family background:

- The scores of the children with a low SES level were systematically inferior to those of the children from the other groups.¹³
- A study of family, classroom and school effects across Latin America suggests that "schooling has a leveling effect in the region" with inequalities in achievement being lower than inequalities in family and other background factors.¹⁴
- A region-wide study found that "in both language and mathematics, the two most important predictors were parents' education and whether there were 10 or more books in the home [often a proxy for wealth]. Detailed results of the analysis suggests that "children's scores increase for each additional year of education that the parents have", with the ratio between parents' education and children's scores varying by country.¹⁵
- First generation learners might be more handicapped given their parents' lack of knowledge about the learning process, school system, advocacy and communication, etc.¹⁶
- Studies in the LAC Region have noted the persistent effects of "educational achievement across generations", perpetuating advantages or disadvantages based on parental education attainment.¹⁷

⁸ McEwan, Patrick and Marisol Trowbidge. "The achievement of indigenous students in Guatemalan primary schools." *International Journal of Educational Development*, 2007, Vol.27.

⁹ Hernandez-Zavalal, Harry Anthony Patrinos, Chris Sakellariou and Joseph Shapiro. "Quality of Schooling and Quality of Schools for Indigenous Students in Guatemala, Mexico and Peru" World Bank Publications, 2006.

¹⁰ Ibid.

¹¹ Ibid.

¹² Hernandez-Zavalal, Harry Anthony Patrinos, Chris Sakellariou and Joseph Shapiro. "Quality of Schooling and Quality of Schools for Indigenous Students in Guatemala, Mexico and Peru" World Bank Publications 2006.

¹³ Willms, J.D. and Marie-Andree Somers. "Family, Classroom and School Effects on Children's Educational Outcomes in Latin America." *School Effectiveness and School Improvement*. 2001 Vol.12, No.4, pp. 409-445.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Banerjee, Abhijit, Shawn Cole, Esther Duflo, and Leigh Linden. "Remedying Education: Evidence from Two Randomized Experiments in India" *Quarterly Journal of Economics* 2007,122(3); 1235-64.

¹⁷ Hernandez-Zavalal, Harry Anthony Patrinos, Chris Sakellariou and Joseph Shapiro. "Quality of Schooling and Quality of Schools for Indigenous Students in Guatemala, Mexico and Peru" World Bank Publications. 2006.

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- Working outside the home (for the student), which often correlates to lower SES, has been identified as contributing to lower test scores in Mexico (working inside the home lowered scores as well, but not to the degree of working outside the home).¹⁸
- Analyzing two studies across nine countries in Latin America, Gunnarson et al found a strong correlation between lower language and math test scores and child labor; even while controlling for school and household attributes.¹⁹ The test scores for children who “almost never work” were 22 percent (math) and 27 percent (language) higher than those who “often work”. It is important to note that it may be poor school performers are sent to work more than good performers.²⁰
- In the Dominican Republic, pre-school education, often linked to SES, is known to be strongly linked to: better preparation for first grade; timelier enrollment of children into the educational system; reduced probability of dropout and repetition; and improved academic performance in the first grades.²¹ Other studies notes that the quality of the pre-school program and first grade competencies.²²
- A 15-country study found a positive correlation between “children’s language performance at age 7” and “the degree of autonomy they were given during pre-school and to the pre-school’s teacher’s educational level.”²³ It is important to note that this study cites a correlation between these factors (rather than causality) and that it does not unpack the relative degree of importance between factors.

SCHOOL/CLASSROOM FACTORS:

School/Classroom Resources:

- Student achievement increased with smaller class sizes in a LAC regional study, but the effect was relatively small (compared with the effect of instructional materials, size of library and teacher training).²⁴ This is in-line with a broader (including high-income countries) survey of data on the impact of smaller class sizes that found “class size reduction does not have much impact on student outcomes.”²⁵
- The “effects associated with instructional materials were significant for language and time to completion”, with a relationship for 10 points increase per 5 instructional items. (See study for more detailed description.)²⁶
- The combined effects of reduced student:teacher ratio (reduced by 5 students), additional instructional materials (by 5 items) and additional teacher training (1 year) were estimated to be a gain of 15 points in language scores (3rd and 4th grade levels across 13 LAC countries).²⁷
- In the same study noted above, “neither teachers’ experience nor school infrastructure has a notable effect on achievement.”²⁸

¹⁸ Ibid.

¹⁹ Students were equally divided between 3rd and 4th grade. Survey questions focused on labor outside the home. It is noted in the study findings however that more informal labor inside the home did not have the same negative correlation to students’ learning outcomes.

²⁰ Gunnarsson, Victoria, Peter F. Orazem, and Mario A. Sanchez. “Child Labor and School Achievement in Latin America” *The World Bank Economic Review*. 2006, Vol.20, No.1, pp.31-54.

²¹ Ripani, L., Fernando Regalia, Carola Alvarez. “The Education Sector in the Dominican Republic: Overachievements and Underperformance” Inter-American Development Bank. November, 2006.

²² Aga Khan Foundation. “Improving Learning Achievement in Early Primary in Low-Income Countries: A Review of the Research.” 2010.

²³ Aga Khan Foundation. “Improving Learning Achievement in Early Primary in Low-Income Countries: A Review of the Research.” 2010.

²⁴ Willms, J.D. and Marie-Andree Somers. “Family, Classroom and School Effects on Children’s Educational Outcomes in Latin America.” *School Effectiveness and School Improvement*. 2001. Vol.12, No.4, pp. 409-445.

²⁵ McKinsey & Company. “How the World’s Best-Performing School Systems Come Out on Top.” September, 2007.

²⁶ Ibid.

²⁷ Ibid.

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- There have been a range of analyses on the effects of classroom size and test scores; with an attendant range of results. Of particular note is a study in Bolivia, while controlling for type of school, found that the impact of class size on test scores is in fact “negative and significant”.²⁹
- “Multi-grade schooling features prominently in Peru. In rural areas, nine out of every ten schools use the multi-grade system, yet teachers receive no consistent pre- or in-service training and salaries and the availability of teaching materials are low.
- An program evaluation in Jamaica found that “schools on multiple shifts achieved less than those on single shift”.³⁰
- A Guatemalan study found “school effects” accounted for 50-69% of differences in test scores.³¹
- A 1991 study across low-income countries and a variety of schools found that “in communities where there was a low amount of school resources, the effects of low pupil-teacher ratio, and the stock of classroom resources were more prominent [than family factors].³²
- A LAC Region study states that “school level parental involvement has a greater impact on achievement than parental participation at the student level.” This finding speaks to the importance of parent’s role in systemic change – creating greater accountability and transparency in the education system.³³
- A LAC Region study of multiple school, family and classroom factors summarized that, after controlling for student background, found the most effective schools are characterized by: sufficient school resources (e.g., low student:teacher ratio, availability of instructional materials, “large” library, and “well-trained” teachers), single-grade classrooms without ability grouping of students, frequent testing of students, high parental involvement at the classroom and school level and “positive classroom climate” with a particular emphasis on classroom discipline. The importance of each factor varies by country. For example, in Honduras, the student:teacher ratio effects on language test scores were higher than other countries, perhaps due to the country’s lower average SES.³⁴
- A multi-country study of high- and low-performing education systems (across both high- and low-income countries) found that “instructional quality” is the key determinant, and limiting factor, with respect to educational outcomes.³⁵

*Roskos, K. et al “First Principles for Early Grades Reading Program in Developing Countries” has a comprehensive guide and checklist for determining if classrooms and instruction support effective early grade literacy.*³⁶

School/Classroom Management:

- Reviews of the CETT program have indicated a need for additional attention to classroom management and class time utilization in the teacher training curricula. In-service guidance and support to increase

²⁸ Ibid.

²⁹ Urquiola, M. “Identifying Class Size Effects in Developing Countries: Evidence from Rural Schools in Bolivia”, Development Research Group, World Bank. 2000.

³⁰ Lockheed, Marlaine, Abigail Harris, Paul Gammill, Karima Barrow. “Impact of New Horizons for Primary Schools on Literacy and Numeracy in Jamaica, 1999-2004.” AED for USAID/Jamaica. March 2005.

³¹ McEwan, Patrick and Marisol Trowbidge. “The achievement of indigenous students in Guatemalan primary schools.” *International Journal of Educational Development*. 2007, Vol.27.

³² Willms, J.D. and Marie-Andree Somers. “Family, Classroom and School Effects on Children’s Educational Outcomes in Latin America.” *School Effectiveness and School Improvement*. 2001 Vol.12, No.4, pp. 409-445.

³³ Ibid.

³⁴ Ibid.

³⁵ McKinsey & Company. “How the World’s Best-Performing School Systems Come Out on Top.” September, 2007.

³⁶ Roskos, K., Dorothy Stickland, Janeen Haase, and Sakil Malik. “First Principles for Early Grades Reading Program in Developing Countries” IRA for USAID, 2009.

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teachers' competence in these areas is recommended.³⁷ This is echoed by a LAC Region-wide study citing “positive classroom climate” and classrooms “where students do not disturb others, where fights seldom occur” as positive factors for learning outcomes.³⁸

- The linkages between the quality of student-teacher interaction and mode of instruction are strong. Teacher training that emphasizes interactive instruction will be undermined if the pedagogy and curricula continues to promote rote teaching approaches.³⁹
- Consistent feedback and guidance from teachers when practicing reading aloud has been shown to increase reading speed and accuracy.⁴⁰

Learning Materials:

Abadzi emphasizes that practice is essential for early literacy to create the building blocks needed for fluency and comprehension⁴¹ Reading is also self-reinforcing; so both the time and materials to foster reading practice is critical.⁴² As such, reading materials are important. In support of this, one study in The Gambia found that 90% of students (age not included in source document) who could read at least 45 words per minute had access to books at home. In contrast, among the student cohort reading at less than 45 words per minute; only 20% had books at home.⁴³ Research on compensating strategies (such as in-class text copying) are not available and require more research to determine their efficacy. However, existing studies indicate this approach to be ineffective for emerging readers given that they do not have the fluency, processing speed and working memory to make this approach effective.⁴⁴ It is not uncommon for primary students to spend a large amount of instructional time copying from boards – even while many remain illiterate and cannot read the text they are copying.⁴⁵

Based on her research, Abadzi also recommends that students be able to take textbooks home. Many school policies do not support this, and student:textbook ratios very often make this impossible. In a region-wide study, Wilms et al found that for language and mathematics, having 10 or more books in the home was one of the two top predictors of test scores (the other was parents' education). It is important to note that books in the home can be a proxy for wealth and studies have not necessarily been able to “unpack” these different attributes.⁴⁶ Some experts assert that the “tipping point is abundance” with respect to written materials and books, requiring

³⁷ Aguirre International. “A Reflective Study of Teacher Professional Development in the Latin American and Caribbean Regional Centers of Excellence for Teacher Training: Final Report”, for USAID. April 2005.

³⁸ Willms, J.D. and Marie-Andree Somers. “Family, Classroom and School Effects on Children’s Educational Outcomes in Latin America.” *School Effectiveness and School Improvement*. 2001 Vol.12, No.4, pp. 409-445.

³⁹ Aga Khan Foundation. “Improving Learning Achievement in Early Primary in Low-Income Countries: A Review of the Research.” 2010.

⁴⁰ International Reading Association “Teaching Reading Well: A Synthesis of the International Reading Association’s Research on Teacher Preparation for Reading Instruction” 2007.

⁴¹ Abadzi, Helen. “Efficient Learning for the Poor: New Insights into Literacy Acquisition for Children” *International Review of Education*, 2008. 54:581-604. p.596.

⁴² International Reading Association “Teaching Reading Well: A Synthesis of the International Reading Association’s Research on Teacher Preparation for Reading Instruction” 2007.

⁴³ It is important to note that “books at home” can serve as a proxy for wealth, parental literacy and other factors that influence literacy levels. In Gove, A. and P. Cvelich. 2010. *Early Reading: Igniting Education for All. A report by the Early Grade Learning Community of Practice*. Research Triangle Park, NC: Research Triangle Institute.

⁴⁴ Abadzi, Helen. “Efficient Learning for the Poor: New Insights into Literacy Acquisition for Children” *International Review of Education*, 2008. 54:581-604. p.597.

⁴⁵ Ibid.

⁴⁶ Willms, J.D. and Marie-Andree Somers. “Family, Classroom and School Effects on Children’s Educational Outcomes in Latin America.” *School Effectiveness and School Improvement*. 2001 Vol.12, No.4, pp. 409-445.

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sufficient materials for children during guided instruction and independent reading in the classroom.”⁴⁷ A comprehensive survey of education experts in Latin America found a consensus that provision of learning materials ranked high among interventions with the “highest probable impact”.⁴⁸

Providing learning materials that are appropriate to the knowledge level of the students is critical and not always implemented effectively. Only the learning outcomes of higher-achieving students will be positively impacted if textbooks are not provided at the appropriate levels of difficulty.⁴⁹ Very often, textbooks are not distributed properly. For example, a study of a textbook provision program in Kenya found that “in grade 3, only 15 percent of the median students could read the grade 3 English textbook, and only 29 percent of the grade 4 median students could read their English textbooks.”⁵⁰

Remedial Instruction:

Remedial instruction has been implemented in a variety of ways. One of the more robust evaluations of remedial instruction was focused on a program in urban India utilizing secondary school educated (but not teacher-trained) women from the community to assist 3rd and 4th grade students who had not mastered grade level literacy. Through daily two hour⁵¹ small-group instruction, typically 15-20 per group, students were able to increase their reading performance by “.014 standard deviations in the first year and 0.28 in the second year. Moreover, the weaker students who are the primary target of the program gained the most.”⁵² The findings of this study indicate that it was the remedial instruction, rather than just the smaller class size⁵³ that created the positive outcomes – as the non-remedial student cohort also experienced smaller class sizes due to the breakout remedial instruction – but not the adapted instructional approach. The effects on students were shown to be cumulative over a two year period, but with variances between the two cities in which the studies were conducted. Various contextual factors and student characteristics are presented as possible reasons, but in both contexts, the two-year treatment effects were larger than the one-year treatment effect. Continuing positive effects were most pronounced for students originally in the bottom one-third in performance, and remained at about 0.10 standard deviations in testing following their 5th grade. Despite this level of persistent improved learning outcomes, the authors of the study voice concern that the “rate of decay” is high enough that gains may not be sustainable or even evident after numerous post-intervention years. The study shows little to no spill-over effects to those students attending schools with the remedial program, but not enrolled in the program itself.

Grouping of children by level:

Grouping students by ability level has mixed results in the studies consulted for this report. A study in India indicated that the grouping of children did create better learning outcomes. This study’s authors however note that the groupings may have produced a more conducive learning environment and a better dynamic between

⁴⁷ Roskos, K., Dorothy Stickland, Janeen Haase, and Sakil Malik. “First Principles for Early Grades Reading Program in Developing Countries” IRA for USAID, 2009.

⁴⁸ Schiefelbein, Ernesto, Laurence Wolff, and Paulina Schiefelbein. “Cost-Effectiveness of Education Policies in Latin America: A Survey of Expert Opinion” Inter-American Development Bank, December 1998.

⁴⁹ This data is from a study of textbook provision in Kenya beginning at Grade 3. See Glewwe, Paul, Michael Kremer and Sylvie Moulin in “Many Children Left Behind? Textbooks and Test Scores in Kenya”, *American Economic Journal: Applied Economics* 2009, 1:1, 112-135.

⁵⁰ Glewwe, Paul, Michael Kremer and Sylvie Moulin in “Many Children Left Behind? Textbooks and Test Scores in Kenya”, *American Economic Journal: Applied Economics* 2009, 1:1, 112-135.

⁵¹ Two hours accounted for half of the school day.

⁵² Banerjee, Abhijit, Shawn Cole, Esther Duflo, and Leigh Linden. “Remedying Education: Evidence from Two Randomized Experiments in India” *Quarterly Journal of Economics*, 2007, 122(3); 1235-64.

⁵³ This observation tracks with the analysis in IDB Report that teacher quality mattered more than class size.

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teacher and learners because of greater homogeneity in SES and other attributes found within groups.⁵⁴ A student grouping study in Kenya (cited in Duflo, Dupas, Kremer, 2007) found that grouping students with low pre-test scores was more successful than mixed-level groupings (with the suggestion that same-level grouping allowed teachers to focus their instruction more effectively). Alternately, a study across the LAC Region determined that students have higher test scores when they are not grouped by ability.⁵⁵ Ability grouping studies fall victim to the same attribution challenges as other studies, where determination of which features of grouping models have the greatest impact on learning outcomes is difficult at best.

Language of Instruction:

Language of instruction is emerging as an important and complex topic within international education. Within this topic there are many questions including those about different models of instruction and the nuances of how language of instruction intersects with other student characteristics to affect learning outcomes. The one point on which there does seem to be a broad consensus is that learning to read in a familiar language is easier than learning to read in an unfamiliar language (Abadzi, RTI, Save the Children, et al).

In response to these uncertainties, a range of language of instruction (LoI) models has emerged. Variances within these models include pedagogical approach, transition strategies (e.g., early exit, late exit, additive/subtractive bilingual education), learning material requirements and teacher training approaches.⁵⁶ Studies that have been focused on LoI are often narrowly defined and associated with pilot programs that have not achieved significant scale. Nonetheless, key conclusions from recent studies provide some insight and factors for consideration even though convergence among the findings can be difficult to identify.

- A case study of teacher training for early grade literacy in Kenya presented in Gove, A. et al is instructive in that the oral reading fluency gains between English and Kiswahili were the same for the treatment groups and actually higher (by 4% points) for students learning English.⁵⁷
- In a study in The Gambia, the effect of the linguistic factors (home language and language in which the children were learning to read) appears stronger than that of SES. For instance, the language spoken at home by the Gambian children was found to have an effect on their results, even when SES differences between the groups were taken into account.⁵⁸
- When the language of instruction is both complex (e.g., English, French, Portuguese) and unfamiliar – the challenges are compounded.⁵⁹ To point to a specific example, “[e]nglish-medium students require 2.5 or more years of literacy learning to master the recognition of familiar words and simple decoding” as compared to one year “for languages with simpler spelling rules.” (Seymor et al 2003).

⁵⁴ Banerjee, Abhijit, Shawn Cole, Esther Duflo, and Leigh Linden. “Remedying Education: Evidence from Two Randomized Experiments in India” *Quarterly Journal of Economics*, 2007. 122(3); 1235-64.

⁵⁵ Willms, J.D. and Marie-Andree Somers. “Family, Classroom and School Effects on Children’s Educational Outcomes in Latin America.” *School Effectiveness and School Improvement*. 2001 Vol.12, No.4, pp. 409-445.

⁵⁶ Subtractive models move learners out of the mother-tongue (L1) as early as possible. In this model, language of instruction (L2) becomes the main language for teaching and learning and there is little to no remedial assistance/structure. Transition models carry the same goal as subtractive models (e.g. single LoI), but there is a gradual move from L1 to L2. When the transition occurs between grades 1-3, this is referred to as an “early exit” transition model. When the transition is delayed to grade 6, the model is termed a “late exit” model. Additive (Bilingual) Models are those in which L1 is always used as a medium of instruction, alongside L2 (which may be used as a medium of instruction or taught as a subject).

Source: ADEA.

⁵⁷ Gove, A. and P. Cvelich. 2010. *Early Reading: Igniting Education for All. A report by the Early Grade Learning Community of Practice*. Research Triangle Park, NC: Research Triangle Institute

⁵⁸ Research Triangle Institute. “The Gambia Early Grade Reading Assessment (EGRA): Results from 1,200 Gambian Primary Students Learning to Read in English” EdData II - Report for the World Bank. January 2008.

⁵⁹ See Abadzi, Helen. “Efficient Learning for the Poor: New Insights into Literacy Acquisition for Children”, *International Review of Education* (2008) 54:581-604 and RTI “Early Reading: Igniting Education for All”.

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- A review of LoI issues in SSA concludes that mother tongue instruction should continue to the end of 6th grade at a minimum – and possibly longer. The rationale offered for this position is that the learning process should not be interrupted by a change in languages until learners can fully understand and utilize the “written texts and oral language used for learning and teaching mathematics, science, history, and geography.”⁶⁰ This argument is based on a number of underlying positions including that it takes 6-8 years (with optimal circumstances) to “learn a second language sufficiently well to use it as a medium of instruction”. The report does not however offer data in support of this position.
- LoI also impacts teaching methods and student-teacher interaction in the classroom. Alidou et al⁶¹ note that classroom observations found “the use of unfamiliar languages forces teachers to use traditional and teacher-centered teaching methods which undermine teachers’ effort to teach and students’ effort to learn.” In these scenarios, the “teachers do most of the talking while children remain silent or passive participants during most of the classroom interactions.” More traditional teaching methods such as chorus teaching, repetition and rote memorization become the norm when students do not understand the language of instruction. Teacher training programs (especially in SSA) have not adequately incorporated bilingual teaching methods into their curricula, in some cases creating disconnects between the education structure and implementation in the classroom. Teacher training programs need to be reformed to reflect context-specific LoI policies.

Heugh⁶² in a survey and analysis of the theory and practice of language education in Africa notes several major areas, from her perspective, where consensus does not exist. These include: the point at which the medium should change from MT (mother tongue) to ILWC (international language of wider communication); whether a change in medium is necessary if the ILWC is taught efficiently as a subject; and whether it is possible to use both MT and ILWC as complementary mediums of instruction through the school system.

In sum, thoughtful and context-specific consideration should be given to the following factors when addressing LoI programs and policies:⁶³

- Availability and level-appropriateness of learning materials;
- Connections between LoI and home/community;
- Composition of student body in terms of home language;
- Composition and placement of teacher corps in terms of language knowledge;
- Level of learning outcomes to inform language transition strategy; and
- Opportunities to create connections between the “home language, the language of instruction, and written language” especially for early reading programs.⁶⁴

⁶⁰ Heugh, Kathleen. “Theory and Practice – Language Education Models in Africa: Research, Design, Decision-Making , and Outcomes” in “Optimizing Learning and Education in Africa – the Language Factor: A Stock-taking Research on Mother Tongue and Bilingual Education in sub-Saharan Africa” Presented at the ADEA 2006 Biennial Meeting, March 2006.

⁶¹ Alidou, Hassanah, Aliou Boly, Birgit Brock-Utne, Yaya Satina Diallo, Kathleen Heugh, and H. Ekkehard Wolff. “Optimizing Learning and Education in Africa – the Language Factor: A Stock-taking Research on Mother Tongue and Bilingual Education in sub-Saharan Africa” Presented at the ADEA 2006 Biennial Meeting, March 2006.

⁶² Heugh, Kathleen. “Theory and Practice – Language Education Models in Africa: Research, Design, Decision-Making , and Outcomes” in “Optimizing Learning and Education in Africa – the Language Factor: A Stock-taking Research on Mother Tongue and Bilingual Education in sub-Saharan Africa” Presented at the ADEA 2006 Biennial Meeting, March 2006.

⁶³ This is not an exhaustive list, but rather high-level considerations when assessing LoI policy and programs.

⁶⁴ Roskos, K., Dorothy Stickland, Janeen Haase, and Sakil Malik. “First Principles for Early Grades Reading Program in Developing Countries” IRA for USAID, 2009.

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TEACHERS

Teachers and Learning Outcomes:

An IDB Report, “Selection into Teaching: Evidence from Enseña Perú”,⁶⁵ cites multiple studies that provide evidence about the relative impact of teacher quality on learning outcomes for students. Highlights include:

- A “one standard deviation increase in teacher quality raises reading and math test scores by approximately 0.20 and 0.24 standard deviations” (student and classroom variables were controlled for). Citing Rockoff (2004).
- The education loss for students of low-performing teachers can be “irreversible” if the situation persists for several years in a row. Citing McKinsey, 2007.
- A study using datasets from Peru found that “one standard deviation in subject-specific teacher achievement increases student achievement by about 10 percent of a standard deviation.” Citing Metzler and Woessmann, 2010. This is contrasted by the CETT evaluation findings that greater teacher knowledge acquisition was correlated with improved student test scores, but the relationship was not statistically significant.⁶⁶
- Studies, using estimates of teacher performance, have found that achievement gaps between students with low-income and high-income backgrounds can be eliminated with three consecutive years of instruction from “good” teachers.⁶⁷ Citing Hanushek, 2002; Hanushek et al., 2005.
- A US-based study found that “teacher quality” was a more effective means to increase learning outcomes than reducing class size from 23 to 15. Citing Sanders and Rivers, 1996.
- A Swedish study on the influence of teacher characteristics found that “...holding students’ background constant, teacher certification and subject-matter knowledge had great explanatory power. Teacher salaries or class size, on the other hand, did not show any significant influence. Citing Darling-Hammond, 1999.

Teacher Training:

The implications of studies, such as those referenced above, that find teacher quality can mitigate or even eliminate the effect of student background on learning outcomes is critically important and compounded by the fact that children from disadvantaged backgrounds are often taught by less qualified/skilled teachers with fewer resources at hand.⁶⁸ To reinforce this point, a survey of top-performing education systems highlights that “the quality of an education system cannot exceed the quality of its teachers” and that high-performing systems consistently recruit teachers from the top third (at minimum) of graduating cohorts.⁶⁹ Given data across the LAC Region indicating that more qualified and trained teachers have been replaced with less well-trained teachers - a troubling picture begins to emerge.

Navarro et al emphasize the similarities between management training and teacher training; two disciplines where knowledge and expertise is consolidated by “experience, trial and error and reflection on practice”.⁷⁰

⁶⁵ Alfonso, M. and Ana Santiago. “Selection into Teaching: Evidence from Enseña Peru.” Inter-American Development Bank. Technical Notes No. IDB-TN-193. October 2010.

⁶⁶ Marcia Bernbaum, Jose Rivero Herrera, and Ernesto Schiefelbein. “Evaluation of USAID/Peru’s Education Program: Aprendes and CETT-ANDINO” by The Mitchell Group for USAID. April 2010.

⁶⁷ Defined as from the 85th percentile in teacher quality in this study.

⁶⁸ Alfonso, M. and Ana Santiago. “Selection into Teaching: Evidence from Enseña Peru.” Inter-American Development Bank. Technical Notes No. IDB-TN-193. October 2010.

⁶⁹ McKinsey & Company. “How the World’s Best-Performing School Systems Come Out on Top.” September, 2007.

⁷⁰ Navarro, Juan Carlos and Verdisco, Aimee. “Teacher Training in Latin America: Innovations and Trends” Inter-American Development Bank. August 2008.

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Based on reviews of numerous teacher training programs in Latin America,⁷¹ Navarro et al identified a number of “trends” and “innovations” in teacher training – defined as “common denominators, particular features, or operating principles that have been identified in all or several of the cases” that they reviewed.⁷² The authors make a specific point of noting that these are emerging trends (with anecdotal successes), but are not to be viewed as “best practices” as such.⁷³ They are listed below in order of frequency (in terms of inclusion in training programs) and consensus (in terms of the literature and program reviews).

- **Classroom-based training** is being emphasized across the region. The sooner and the longer that classroom-based training is included in teacher training, the more positive the outcomes. This recommendation is reinforced by a study of top-performing education systems in high-income countries.⁷⁴
- An emerging trend is the **blurring of lines between pre-service and in-service teacher training**. Pre-service training programs are trying to connect to classrooms earlier and in-service programs are trying becoming more integrated with academic institutions. As a result, pre-service training is becoming shorter in duration and in-service training evolves into a continual process. This trend tracks with one finding of the CETT evaluation that the longer the training program, the less important teachers’ own education status becomes – year two of teacher training had an equalizing effect on knowledge and effective practice among teachers.⁷⁵
- **Group work and networks of teachers** is evident in some of the more successful programs; carrying particular importance to teachers in rural schools who are otherwise not connected to a large peer group.
- Supervisory functions are providing more intensive pedagogical support, evolving into supervisor-**tutor roles** rather than more traditional, and often repressive or corrupt, supervisory roles that have dominated in the past. Conflicts can arise when supervisors are not integrated into new pedagogical training. Enhancing the connection between training and in-class supervision was identified as a critical practice in high-performing education systems.
- Training structures are becoming more **integrated with teacher career regulations and incentive structures**. The focus is shifting to the “external signals of training” (e.g., classroom practices and learning outcomes) rather than just completion of training.
- Teacher training content is becoming more **closely linked with the specific social and education contexts** in which teachers work. For example, the CERP program in Chile regionalized teacher training to account for contextual differences within the country.

To accompany the “trends” noted above, the same IDB report highlights a number of emerging lessons learned that should be considered in teacher training policy and program design.⁷⁶

- Simple linkages that create a straight line between training, certification and pay are ineffective and often damaging to incentive structures that try to link performance with pay and promotion.
- Technology cannot effectively replace face-to-face training. While prevailing logistical, financial and other constraints make distance learning an attractive option for in-service teacher training, many experts advise a “blended approach” which incorporates both individual study and interactive guidance/work with

⁷¹ Gove, A. et al. on offers a listing of key factors in teacher training that stem from reviews of effective teacher training programs (p 24).

⁷² It is important to note that these reviews did not include structured evaluations (e.g., longitudinal studies), but more informal assessments of programs and their outcomes as well as literature reviews.

⁷³ Many of these points are also presented as recommendations for teacher training programs focused on literacy in Gove, et al.

⁷⁴ McKinsey & Company. “How the World’s Best-Performing School Systems Come Out on Top.” September, 2007.

⁷⁵ Marcia Bernbaum, Jose Rivero Herrera, and Ernesto Schiefelbein. “Evaluation of USAID/Peru’s Education Program: Aprendes and CETT-ANDINO” by The Mitchell Group for USAID. April 2010.

⁷⁶ Navarro, Juan Carlos and Verdisco, Aimee. “Teacher Training in Latin America: Innovations and Trends” Inter-American Development Bank. August 2008.

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a master teacher or other teacher trainer. The CETT evaluation found that overall, training was most effective in the first year (of the two-year program) and effective teaching behaviors most noticeable during the early/mid part of the year. Evaluators attributed this to the fact that the face-to-face training (rated most effective by participants) took place during the early phases of the training.⁷⁷

- The incentive structures for teachers to actively participate in in-service teacher training are still not well-understood; but it is acknowledged in some contexts that effective and relevant incentive structures are critical to the outcomes of any in-service teacher training program.⁷⁸ Distance in-service training is most effective appropriate for “upgrading subject knowledge and disseminating new information than for changing classroom behavior or teaching practical subjects.”
- Models where a core of teachers are trained and then expected to train others (often referred to as “cascading” models) do not usually work; not necessarily because of teachers’ ability or willingness, but because of intersecting institutional factors including school management and supervision.
- There is no evidence that teacher pre-service training has better outcomes when conducted at the university level (rather than at the secondary level or short-term professional programs). In fact, teacher training at the university level becomes more theoretical and less connected with classroom strategies and university graduates are often reticent to enter the teaching field.
- Building capacity for self-reflection and professional decision-making in the classroom should be prioritized as a goal of teacher training programs.
- Teacher training programs need to create space and support for “experience, trial and error and reflection on practice.” There are often disconnects between teacher’s understanding of effective reading pedagogy and effective utilization of available resources to implement newly learned pedagogy.⁷⁹
- Continuity of training is important. The CETT evaluation found that teachers’ knowledge and practice of effective teacher behaviors seemed to decline over the school break, making 2nd year training important to consolidate the gains from the first year of the program and maintain effective teaching habits. That said, there was a decline in knowledge surveys between the end of the 1st year and end of 2nd year; the reason was attributed to a lack of “specific objectives related to building knowledge in the second year of training.” The majority of knowledge gained in the 2nd year related to literacy teaching in particular.⁸⁰

Specific to advancing reading outcomes, several key components of teacher training outcomes have been identified, they include:⁸¹

- “Conceptual understanding about the foundation of language development”
- “Expertise with instructional strategies and materials for readers of all backgrounds and abilities”
- “Proficiency with formal and informal assessment tools to determine readers’ reading strengths and weaknesses”⁸²

Teacher Selection and Incentive Systems:

⁷⁷ Marcia Bernbaum, Jose Rivero Herrera, and Ernesto Schiefelbein. “Evaluation of USAID/Peru’s Education Program: Aprendes and CETT-ANDINO” by The Mitchell Group for USAID. April 2010.

⁷⁸ Teachers in many developing countries are poorly and/or inconsistently paid, lack a “professional” view of their occupation and work other jobs to supplement their income. In-service training programs that require time outside of the school day conflict with these other considerations and as such require incentives that override these other factors.

⁷⁹ International Reading Association. “Teaching Reading Well: A Synthesis of the International Reading Association’s Research on Teacher Preparation for Reading Instruction.” 2007.

⁸⁰ The overall knowledge acquisition by teachers through the CETT Peru Program was limited, although improved from baseline. Teachers averaged 30% on final surveys of knowledge acquired through the CETT program.

⁸¹ Gove, A. et al. on offers a listing of key factors in teacher training that stem from reviews of effective teacher training programs (p 24).

⁸² International Reading Association. “Teaching Reading Well: A Synthesis of the International Reading Association’s Research on Teacher Preparation for Reading Instruction.” 2007.

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Poor selection of teachers has immeasurable effects on education quality for thousands of students – and often for decades. Effective education systems incorporate more rigorous selection criteria which include: “a high overall level of literacy and numeracy, strong interpersonal and communications skills, a willingness to learn, and the motivation to teach.”⁸³ Additionally, most top-performing systems actually select recruits prior to their teacher training – placing top candidates in a limited number of training slots.⁸⁴ This has been shown to increase demand for teaching positions. Several high-income countries (Finland and the Netherlands) have restructured teacher compensation to be front-loaded; offering high starting salaries with small progressive increases.⁸⁵ The theory behind this is that higher starting salaries attract quality individuals and those motivated to continue to teach will do so regardless of lower progressive salary increases. Unfortunately, the research on different pay structures in low-income country contexts is insufficient to determine the feasibility and efficacy of front-loading teacher salaries in low resource contexts. High-performing education systems also find ways for motivated professionals with non-teaching backgrounds to move into teaching and employ private-sector marketing techniques to recruit teachers.⁸⁶ England has employed private-sector marketing strategies to build interest in the teaching profession and programs such as Teach for America have created value brands to improve perceptions of the profession.⁸⁷

Equally as important as effective recruitment and selection systems, are the management systems – especially those that efficiently remove under-performing teachers from service. A number of systems in high-income countries defer permanent status for several years until teachers have proven themselves. Implementing teacher management systems can be especially daunting in environments with strong, politically connected teacher unions (e.g., Mexico) that reinforce a lack of transparency and accountability. Transitioning teacher management systems to be more responsive to teacher performance and student learning outcomes should be a top priority for education systems.

Teacher incentive systems, while not well understood especially in low-income countries, are linked to the success and failure of any teacher-focused interventions. The generalized degradation of the status of teachers (especially at the primary level) in low-income countries has compounded this issue. There is a reciprocal and reinforcing relationship between perceptions of teachers’ status and the quality of teaching candidates – underscoring the need to take effective measures to break negative cycles that are diminishing the status of teaching in a particular context. The more effective education systems in higher-income countries, such as Finland, have taken policy measures to increase the stature and pay of primary school teachers.⁸⁸ The picture is not clear in terms of the most effective incentive structures in low-income countries to improve perceptions of the teaching profession. The few studies on teacher bonuses based on attendance or student performance in low-income countries have shown very mixed results; indicating that teacher incentive systems are multi-dimensional and likely dependent upon more effective teacher selection and management systems. It is known however that teacher placement policies, poor-performing payment systems and low overall compensation contribute to dysfunctional teacher incentive structures.

Assessment and Classroom Management Skills:

The importance of building assessment skills into teacher training for reading is echoed by a number of experts in the field. There are two aspects of assessment that should be strengthened for teachers; self-assessment and student assessment. Self-assessment skills have been identified as one of the key pillars of success in high-

⁸³ McKinsey & Company. “How the World’s Best-Performing School Systems Come Out on Top.” September, 2007.

⁸⁴ Ibid.

⁸⁵ Ibid.

⁸⁶ Ibid.

⁸⁷ Ibid.

⁸⁸ Ibid.

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performing education systems.⁸⁹ The ability of teachers to recognize their proficiencies and deficiencies is critical for the incorporation of new skills into the classroom and continual professional development.

Accurate assessments are connected to other critical success factors such as level-appropriate learning materials⁹⁰ and “grouping” of children by ability level to improve learning outcomes, when appropriate.⁹¹ Teacher training programs should incorporate these skills so that teachers can formally and informally assess the progress of their students; something of particular challenge with large class sizes and a broad range of ability/age within once classroom.

Classroom management and time utilization training were two aspects found to need improvement in early assessments of the CETT program⁹² and an opinion survey of Latin American education experts cited increased instructional time as a key intervention – in terms of cost-effectiveness and likelihood of implementation.⁹³ The need for increased classroom management skills is also stressed in a number of studies (Abadzi, RTI). Classroom management skills are tightly linked to other factors that influence learning outcomes; one of the most important of which is instruction time. In the LAC region instruction time is an issue, with one study finding that 31% of available instructional time was utilized in Guatemala and 39% in Honduras.⁹⁴ On average, scheduled instructional time in low-income countries for Grade 1 is 700 hours per year, as compared to 850 hours per year in higher-income countries. Add to that, instructional time losses due to student and teacher absenteeism, shift-teaching and other context-specific issues, and the average instructional time in low-income countries can be 200-300 hours less than that in higher-income countries.⁹⁵

In many contexts, teachers’ expectations of students and learning outcomes are drastically lower than what would be viewed as “acceptable” based on national and international standards.⁹⁶ One report cites that “nearly 75% of teachers in one francophone African country report that having a child read an unfamiliar text is an inappropriate goal before fourth grade.”⁹⁷ Other studies concur that teachers (and parents) in developing countries (primarily in SSA) often do not expect much in terms of learning outcomes in the first several years of schooling. Additionally, teachers often hold “traditional theories of instruction”, primarily “instruction as transmission and rote learning” that need to be challenged and revised during teacher training.⁹⁸

A cautionary note about the time horizons for expected positive outcomes related to investment in teacher training is appropriate. Only marginal improvements in overall numbers may be seen in the first several years given the time it takes to integrate new teachers and methods into classrooms. The CETT evaluation concludes

⁸⁹ Ibid.

⁹⁰ Glewwe, Paul, Michael Kremer, and Sylvie Moulin. 2009. “Many Children Left Behind? Textbooks and Test Scores in Kenya.” *American Economic Journal: Applied Economics*, 1(1): 112-35.

⁹¹ Note that there is not broad consensus that ability-level grouping is a successful intervention to improve learning outcomes. International Reading Association “Teaching Reading Well: A Synthesis of the International Reading Association’s Research on Teacher Preparation for Reading Instruction.” 2007.

⁹² Aguirre International. “A Reflective Study of Teacher Professional Development in the Latin American and Caribbean Regional Centers of Excellence for Teacher Training: Final Report.” For USAID. April 2005.

⁹³ Schiefelbein, Ernesto, Laurence Wolff, and Paulina Schiefelbein. “Cost-Effectiveness of Education Policies in Latin America: A Survey of Expert Opinion” Inter-American Development Bank, December 1998.

⁹⁴ Gove, A. and P. Cvelich. *Early Reading: Igniting Education for All. A report by the Early Grade Learning Community of Practice*. Research Triangle Park, NC: Research Triangle Institute. 2010. p.13.

⁹⁵ Aga Khan Foundation. “Improving Learning Achievement in Early Primary in Low-Income Countries: A Review of the Research.” 2010.

⁹⁶ Presentation at USAID by Malian MOE on EGRA results.

⁹⁷ Gove, A. and P. Cvelich. *Early Reading: Igniting Education for All. A report by the Early Grade Learning Community of Practice*. Research Triangle Park, NC: Research Triangle Institute. 2010.

⁹⁸ International Reading Association. “Teaching Reading Well: A Synthesis of the International Reading Association’s Research on Teacher Preparation for Reading Instruction.” 2007.

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that one year of training is not sufficient to consolidate gains in knowledge and classroom practices. Questions remain from that study about the relative cost:benefit ratios for additional years of teacher training – something that needs to be taken into consideration.⁹⁹ Another study focused on Latin America proposed a ten-year time horizon to begin to see the full effects of teacher training and professional development programs.¹⁰⁰

GOAL SETTING/BENCHMARKING/TESTING

When setting goals for learning outcomes, it is essential to consider contextual factors, including variances in the language of instruction. Both the complexity of language of instruction is important¹⁰¹ as well as whether the language of instruction is the same as students' home language. Different benchmarks are appropriate within countries that have multiple languages of instruction. Collecting disaggregated data within schools is important especially where indigenous populations represent a significant a portion of the student body.

Testing for early grade literacy is especially challenging given the need to effectively measure emergent reading skills among large class sizes where individualized student monitoring is rarely in place. If tests are too difficult for the student population being tested, distinctions among the student cohort are lost. This is especially relevant to measuring early grade literacy given the intermediate stages that exist in literacy acquisition.¹⁰² Cultural and linguistic differences can also place children at a disadvantage when testing and need to be taken into consideration. Care should be taken to not bundle exams required for learning assessments with those required for promotion (high-stakes exams).¹⁰³

Because of the lack of large scale benchmarking data in resource-poor education systems, finding appropriate benchmarks for early grade literacy can be a challenge. Literacy benchmarks developed based on experience in developed countries operate on the assumption of broad-based access to early childhood education (pre-school and Kindergarten), both of which are exceptions rather than the rule in many developing countries. Abadzi asserts that 45-60 words per minute (for simple text) is the minimum reading speed to process, retain and comprehend reading material.¹⁰⁴ This benchmark, as well as the emphasis on the importance of fluency in early grades, is echoed by World Bank reports.¹⁰⁵

Early grade reading assessment tools (such as EGRA, ASER, UWEZO) can be used for rapid assessments at the school level in support of ability grouping and individual student assessments. Despite advances in early grade reading assessment tools, vulnerabilities in achievement tests remain.¹⁰⁶ It is also important to note that these

⁹⁹ Note- this could be a result of the structure of the 2nd year of CETT training which was noted to not include sufficiently focused learning goals and new knowledge acquisition plans.

¹⁰⁰ Willms, J.D. and Marie-Andree Somers. "Family, Classroom and School Effects on Children's Educational Outcomes in Latin America." *School Effectiveness and School Improvement*. 2001 Vol.12, No.4, pp. 409-445.

¹⁰¹ For example, English and French are more complex languages to learn than Spanish. See Abadzi, p.588-589 and RTI "Early Reading: Igniting Education for All".

¹⁰² A useful rubric for determining the most appropriate early grade reading assessment method is found in Gove, A. and P. Cvelich. *Early Reading: Igniting Education for All. A report by the Early Grade Learning Community of Practice*. Research Triangle Park, NC: Research Triangle Institute, 2010. p.19.

¹⁰³ Lockheed, Marlaine, Abigail Harris, Paul Gammill, Karima Barrow. "Impact of New Horizons for Primary Schools on Literacy and Numeracy in Jamaica, 1999-2004." AED for USAID/Jamaica. March 2005.

¹⁰⁴ Abadzi, Helen. "Efficient Learning for the Poor: New Insights into Literacy Acquisition for Children" *International Review of Education*. 2008. 54:581-604. p.595.

¹⁰⁵ Ibid.

¹⁰⁶ Aga Khan Foundation. "Improving Learning Achievement in Early Primary in Low-Income Countries: A Review of the Research." 2010.

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rapid assessments conducted at the school level are not always appropriate to “roll up” and inform policy making at the national level.¹⁰⁷

The importance of communicating test/assessment results to all stakeholders is stressed throughout the literature with an emphasis on disseminating information at the school and community level. Broader awareness of learning outcomes builds transparency and can increase accountability.

¹⁰⁷ Gove, A. and P. Cvelich. *Early Reading: Igniting Education for All. A report by the Early Grade Learning Community of Practice*. Research Triangle Park, NC: Research Triangle Institute. 2010.

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APPENDIX A: Percentage of Repeaters in Primary - Select LAC Countries

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008
Dominican Republic	5	6	6	6	7	8	8	6	n/a
El Salvador	7	6	7	7	7	6	8	7	6
Guatemala	14	14	14	14	13	13	12	12	12
Haiti	n/a								
Honduras	n/a	n/a	n/a	n/a	8	9	7	7	5
Jamaica	5	5	3	n/a	3	3	n/a	3	3
Mexico	6	5	6	5	5	5	4	4	4
Nicaragua	5	7	9	11	11	10	10	9	11
Peru	11	11	10	8	8	9	9	8	7

Source: UNESCO

APPENDIX B: Early Grade Reading Assessments in LAC Region (as reported in Gove, A. et al).

The outcomes of the historical and planned early grade reading assessments highlighted below might be useful to develop funding, research and program priorities.

	Dominican Republic	Guatemala	Haiti	Honduras	Jamaica	Nicaragua	Peru
Languages	TBD	Spanish	Haitian Creole, French	Spanish	English	Spanish, Miskito, Kriol and Panamakha	Spanish
Approach	Snapshot	Classroom-based assessment	Program evaluation	Program Sample, multi-grade.	Snapshot	Snapshot	Snapshot
Donor	USAID	Amigos de Patzun	USAID	World Bank	USAID	World Bank	USAID
Implementer	RTI/EdData	Amigos de Patzun	AIR	RTI/EdData, CIASES	RTI/EdData; University of West Indies	RTI/EdData	RTI/EdData, Fundacion para el Desarrollo Agrario (FDA)
Year	2011	2009	2009 ¹⁰⁸	2008	2007	2009	2007

Source: Gove, A. and P. Cvelich. 2010. *Early Reading: Igniting Education for All. A report by the Early Grade Learning Community of Practice. Research Triangle Park, NC: Research Triangle Institute.*

¹⁰⁸ Report is available at <https://www.eddataglobal.org/documents/index.cfm?fuseaction=pubDetail&ID=262>

APPENDIX C: Regional Statistics for Early Grade Literacy and Learning Outcome Factors. Data below was collected through the course of literature review – not intended to be comprehensive.

Dominican Republic

- Dominican Republic 80%-90% of youth complete compulsory primary school.¹⁰⁹
- Dominican Republic 25%-30% of youth complete secondary school.¹¹⁰
- up to about age 12 the two enrollment profiles are virtually identical.(IDB Report)¹¹¹
- Rates of on-time progression to the next grade in different countries, showing that the DR is one of the worst performers in the region together with Guatemala and Ecuador.¹¹²
- Average estimated repetition rates for the first three grades are 12.4 and 7.7 percent in rural and urban areas respectively.¹¹³
- The coverage of pre-school education is still low especially among the poorest, where only 16.1 percent of children between three and five years of age receive some pre-school attention, compared to 75 percent of those in the highest deciles of income.

	Total (%)	Female (%)	Male (%)
Gross Completion Rate (primary)	62	67	56
Expected Completion Rate (primary)	83	88	78
Out-of-School	10	11	10
Survival to Grade 8	60	67	53
Survival to Grade 1 -secondary	59	66	53
Pass Rate G8 Exam (Math)	41	n/a	n/a
Pass Rate G8 Exam (English)	71	n/a	n/a

Source: di Gropello, Emanuela. “Monitoring Educational Performance in the Caribbean.” *World Bank Working Paper No. 6. 2003.*

Guatemala¹¹⁴

- 33% of Guatemalans ages 7 and older reported speaking at least one indigenous language.
- 79% of indigenous people were below the poverty line, compared with 42% of non-indigenous.
- Over half of the income disparities between indigenous and non-indigenous people have been attributed to “differences in years of schooling.”
- The gap in language scores between non-indigenous and indigenous students can be as high as one standard deviation. This gap is generally attributed to indigenous parents’ lower education and income levels, higher proportion of indigenous students that go to under-resourced schools and the more frequent misalignment of mother tongue with language of instruction for indigenous students.
- Average of 2.5 years of schooling for indigenous adults and 5.7 years of schools for non-indigenous adults.
- In urban areas, children’s earlier school starts might have a bearing on EGR outcomes.
- “19% of indigenous students repeat the first grade, compared with 25% of non-indigenous students”; later starts among indigenous students might be one of contributing factors in grade repetition.

¹⁰⁹ Jensen, Robert. “The (Perceived) Returns to Education and the Demand for Schooling.” *Quarterly Journal of Economics*, 125(2), 2010. p 515.

¹¹⁰ Jensen, Robert. “The (Perceived) Returns to Education and the Demand for Schooling.” *Quarterly Journal of Economics*, 125(2), 2010. p 516.

¹¹¹ Ripani, L., Fernando Regalia, Carola Alvarez . “The Education Sector in the Dominican Republic: Overachievements and Underperformance” Inter-American Development Bank. November 2006.

¹¹² Ibid.

¹¹³ Ibid.

¹¹⁴ 2000 data in McEwan, Patrick and Marisol Trowbidge. “The achievement of indigenous students in Guatemalan primary schools.” *International Journal of Educational Development*. 2007, Vol.27, 61-76.

- Indigenous students have: fewer textbooks, teachers with less experience and more multi-grade classrooms.
- Nationwide, the third grade gap in Spanish is over 1 standard deviation, favoring non-indigenous students.

Honduras

EGRA Report findings can be found at:

<https://www.eddataglobal.org/documents/index.cfm?fuseaction=pubDetail&ID=263>.

Jamaica

- National Exams include: Grade 1: Diagnostic Test, Grade 4: Literacy Test, Grade 6: GSAT (Grade 6 Achievement Test)¹¹⁵
- At least 10% of public sector teachers at both the primary and secondary level had only a secondary-level education (2002 data).¹¹⁶
- 57% of the public school principals said that there were safety problems with the school building (2008 survey).¹¹⁷
- 38% of schools needed major repairs according to a teacher survey (2008 survey).¹¹⁸

	Total (%)	Female (%)	Male (%)
Gross Completion Rate (primary)	95	99	91
Expected Completion Rate (primary)	93	96	90
Out-of-School	1	0	1
Survival to Grade 6	91	94	87
Survival to Grade 8	91	94	87
Survival to Grade 11	62	67	57
Pass Rate G6 Exam (Math)	49	n/a	n/a
Pass Rate G6 Exam (English)	58	n/a	n/a

Source: di Gropello, Emanuela. "Monitoring Educational Performance in the Caribbean." World Bank Working Paper No. 6. 2003.

Nicaragua

- According to the 2010 EGRA results: 74.0% of students in second grade, 82.4% of third grade students, and 91.7% of fourth grade students were reading above the standard for oral comprehension and reading fluency (among schools participating in the assessment which likely have higher scores than national average).¹¹⁹ Expanded EGRA results can be found at <https://www.eddataglobal.org/documents/index.cfm?fuseaction=pubDetail&ID=264>.

Peru

- Primary Completion Rate (2005): 100% (male), 99.8% (female).
- Survival to Grade 5 (2003/2004): 93.4% (male), 96% (female); 100 (richest), 86.8% (poorest).

¹¹⁵ di Gropello, Emanuela. "Monitoring Educational Performance in the Caribbean." World Bank Working Paper No. 6. 2003.

¹¹⁶ Youth.Now Jamaica. "Fact Sheet on Youth: Education." July 2003.

¹¹⁷ Mulcahy-Dunn, Amy. "Snapshot of School Management Effectiveness (SSME): Highlights from Jamaica." Presentation. RTI for USAID. September 2008.

¹¹⁸ Ibid.

¹¹⁹ RTI for USAID. "Promoting Quality Education in Nicaragua." February 2010.

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