



Tonga Early Grade Reading Assessment (TEGRA) Baseline Survey

Results Report

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ABSTRACT

As part of the Government of Tonga's effort to improve reading levels, an early grade reading baseline assessment was conducted in November, 2009 with support from regional education partners. Survey results are cause for concern. While most students develop some fundamental skills in grades Classes 1, 2 and 3, only 3 in 10 students at the end of Class 3 are able to develop fluency in reading, ability strongly related to reading comprehension. Factors that are shown to be predictors of better reading performance in the early grades include: having literate parents and/or siblings, having books at home, and receiving help from a family member to do homework. Among teachers, having and using the recommended Tongan reading texts demonstrated a statistically significant association to better reading performance. In regards to teacher instructional methods, from the seven reading instructional activities, only frequent story retelling associated to better reading outcomes. Finally, in terms of teacher expectations, having high expectations –i.e., above median value- about student reading outcomes did not render significant results; however, if a teacher had low expectations –i.e., below median- about when a student should demonstrate a given skill, low expectations appeared to negatively affect student performance at statistically significant levels. Based on the analysis presented in this report, it is recommended that Tongan educators address reading deficits through interventions that provide additional support to teachers to improve their practice, increase the exposure of children to books and other reading materials beyond the classroom, and promote greater parental involvement in the reading development of their children.

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The Tonga Early Grade Reading Assessment (TEGRA) baseline survey is the result of the Government of Tonga's commitment to improve reading levels in the country through a mid-term process incorporating assessments, improvements in reading instruction and greater parental and community involvement. This report jump-starts such process -- the first among Pacific island countries -- by providing Tongan education officials with a system-level diagnosis of how well -- and at what pace -- Tongan children are developing foundational skills needed to become literate.

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EXECUTIVE SUMMARY

This report summarizes the results of a Tongan language early grade reading assessment conducted in a sample of 1,203 students from 60 randomly-selected primary schools in the Kingdom of Tonga. The Tonga Early Grade Reading Assessment (TEGRA) was carried out in November, 2009 by consultants and staff of the Ministry of Education, Women's Affairs and Culture (MEWAC) with financial support from the Australian Agency for International Development (AusAID), the New Zealand Agency for International Development (NZAID), and the Education for All – Fast Track Initiative (EFA-FTI). Technical assistance and management support was provided by the World Bank.

The assessment, the first among Pacific island countries, is part of a global initiative aimed at helping countries measure how well children are learning to read in the early grades of primary education. It aims to help educators develop local knowledge about the specific *skills* students are struggling with and the *factors* that appear contribute to reading development in their country. Equipped with such evidence, education stakeholders can come together to devise response strategies to improve reading instruction, monitor student progression in the classroom, and promote greater parental and community involvement to ensure all children develop the skills needed to become effective readers.

The TEGRA assessment consisted of eight modules or sub-tests covering basic reading skills such as phonemic awareness, recognition of letter names and sounds, automatic word reading, decoding, oral reading fluency, and comprehension – both in terms of reading of and listening to short narrative passages. A short dictation exercise was included to test early writing skills such as spelling, orientation to write, spacing, capitalization, and punctuation. The TEGRA student test was complemented by a student contextual interview which collected information about socioeconomic characteristics such as availability of reading books at home and literacy prevalence among family members. TEGRA also included a teacher questionnaire which gathered data on teacher qualifications, expectations and methods of instruction and assessment.

All survey instruments were developed in Tongan, the national language, and the language of instruction in the first three years of primary education. The reliability of the instrument to capture reading abilities in Tonga was estimated using Cronbach's alpha – a common measure of reliability of survey instruments- at a coefficient of 0.9 – the minimum coefficient acceptable in research is 0.7. Because TEGRA instruments were developed in Tongan to suit language and reading performance in the country, results are not meant for cross-country comparison, but to assist MEWAC to establish reference reading benchmarks in the Tongan language against which improvements in reading outcomes can be measured.

The analysis of TEGRA student data included descriptive statistics (means and standard deviations) to measure average levels in basic reading skills; an Analysis of Variance was carried out to determine the statistical significance of differences in average scores between groups with and without factors identified as predictors of reading. Finally, regression analyses were carried out to estimate the association of a given teacher characteristic and student reading

outcomes. The most relevant results are presented below, followed by policy implications on reading instruction and teacher professional development in the country.

Survey results and main findings

The TEGRA survey results showed evidence of good and poor performance. While some basic foundation of pre-reading skills is established for the majority of children, students lack the ability to distinguish the sounds of letters in the context of a word and do not understand the relationship between letters and their sounds. Poor knowledge of how letters and sounds go together to make words, appears to be one of the main reasons why students struggle to read words both in isolation and in the context of a text, and may be contributing to hinder the development of oral reading fluency. Failure by many children to read narrative passage fluently to focus on meaning puts in doubt their ability to cope with an increasingly difficult curriculum in later grades. Some specific survey findings are summarized below.

Average scores across sub-tests show evidence of both good and poor performance among Tongan students. On average, students demonstrated a good knowledge of the names of letters, were able to extract meaning from a short story they listened to, and were able to spell some words correctly and use some of the basic writing conventions appropriately in a 10-word sentence dictated to them. By contrast, students lack the ability to recognize the initial sound in a word, to understand letter-sound correspondences in the Tongan language, and to distinguish Tongan letter-sound patterns in invented words. Poor knowledge of letter-sound correspondences may be hindering the development of automatic word reading and oral reading fluency.

Low scores are partly due to the sizeable number of students for whom the test had to be discontinued due to the lack of the minimum knowledge tested. In TEGRA, student performance in timed-sub-tests could be considered “early stop cases” if a particular sub-test had to be discontinued due to the student’s inability to read the minimum number of letters or words needed. Early-stop cases –i.e., zero-score students- serve as a measure of the number of students with the lowest score possible. In TEGRA, the proportion of zero-score students is larger in subtasks dealing with letter-sound correspondences and word reading. 21% of the students in the sample were unable to recognize the correct sound of at least one in the first 10 letters presented in a page with 100 randomly distributed letters. 35% of the students were unable to identify the initial sound in a word from a list of 10 one and two-syllable words, signaling very low levels of phonemic awareness -an essential skill in reading acquisition. Similarly, 13% and 15% of the students in the sample were unable to read familiar and invented words, respectively. Early-stop cases were allowed in all sub-tests except in two -listening comprehension and dictation.

Achieving oral fluency in reading is crucial to improve reading comprehension among students. An analysis of oral reading fluency and reading comprehension levels among Tongan students showed that Tongan students achieve greater levels of reading comprehension (between 60% and 100%) when they read at an average rate of at least 50 correct words per minute in the oral reading passage. At this standard, only 192 out of 1,203 students (17% of the sample) could be considered fluent in reading. Differences in reading comprehension between fluent and less-

than-fluent students are important: while fluent students read an average of 67 correct words per minute and were able to understand about 80% of the text they read; less-than-fluent students read at an average pace of 23 correct words per minute for an average comprehension of only 16%.

Low oral fluency levels in Tongan early graders suggest only few students are able to read with enough fluency to extract meaning. Students do increase their reading fluency from Class 1 to Class 2 and from Class 2 to Class 3, but average levels are low and progress is modest. Using a standard of reading at least 50 words per minute correctly in the oral reading passage, only 2% of Class 1 students, 15% of Class 2 students, and 34% of Class 3 students were able to demonstrate enough reading fluency to extract meaning from the text they read. This is the same as only 3 in 10 Class 3 students who after three years of primary education are able to read with enough fluency to focus on comprehension.

More girls appear to learn to read fluently than boys do. In terms of fluency, 54 out of 596 boys (9% of the male sample) were able to read 50 or more correct words per minute in the oral reading passage whereas 152 of 607 girls (25% of the female sample) achieved the fluency standard. Also, survey results provided evidence of a gender gap in all the skills tested.

Factors contributing to greater reading fluency and comprehension in Tonga

At the student level

We explored the association between student characteristics and reading performance using student responses to a series of questions about their family and personal characteristics such as attendance to kindergarten before primary school enrollment or prevalence of literate family members, among others. Students with literate parents, with a literate sibling, who had books at home, and those who do homework and receive help from a family member showed better reading outcomes in some of TEGRA sub-tests. Some of these differences are even statistically significant across gender. Also, students who attended kindergarten, were overage - as a proxy for repetition and were absent for more than one week in the school year performed worse in some sub-tests, and some of these differences are also significant across gender. A summary of this analysis is presented below.

On family literacy:

- Across classes, students with both literate parents performed better when asked to identify the initial sound in a word (sub-test 2) than those without. These differences were also significant across gender, especially for boys where the differences were statistically significant at the 1% level.
- Having at least one literate sibling is positively associated with better performance in sub-test 2 across classes and gender; for boys, having a literate sibling is also associated to better reading performance in all sub-tests.
- Family literacy seems to play a greater role on the reading outcomes of boys than of girls. Having literate parents was associated to better reading performance among boys in half of the sub-tests included in TEGRA whereas the presence of a literate sibling was

associated to better performance in *all* sub-tests. For girls, literate parents only associated to better student performance in sub-test 2 whereas literacy of siblings associated to sub-test 2 and 5, only.

On the availability of books at home:

- Students with books at home -other than school books such as school readers and/or text books- showed better reading performance than those without. This difference was statistically significant only for Class 3 students in word-level sub-tests. In the oral reading passage, the average difference in reading performance between students with books at home and those without is 7 words read per minute.
- Having books at home was associated with better performance for girls and boys, in almost all sub-tests except identification of the initial sound in a word, letter sound recognition, and invented word reading –only for boys.

On doing homework and receiving help from a family member to do it:

- On average, students that reported doing homework had better performance than those reporting they did not. The differences were statistically significant for two out of three class levels. For Class 1 students, doing homework was associated to better average scores in three sub-tests: letter-name knowledge, invented word reading and the oral reading passage. For Class 2 students, doing homework is associated to the same sub-tests that showed significance in Class 1 plus the sub-test assessing familiar word reading. Differences in student performance brought about by doing homework were not statistically significant in any sub-test.
- Doing homework appeared to have a positive and statistically significant effect on boys' performance in all but one sub-test –initial sound recognition. For girls, doing homework was only significant in the learning of the names of letters.
- Receiving help with homework from a family member appeared to improve performance in boys' knowledge of letter names, familiar word reading, and reading ability in the oral reading passage, but showed no significance to affect girls' performance in any TEGRA sub-test.

At the teacher level

We also explored the association between teacher characteristics and student performance using data collected through the teacher questionnaire on experience, certification, methods of instruction and assessment, and learning expectations. Interestingly, teacher experience and certification exerted almost no effect on oral reading fluency. The same was observed if the teacher reported attending in-service teacher training on general content or reading instruction. This could be possibly related to the small number of in-service courses offered in the last 3 years (2 courses on average), the scope of such courses, or the small proportion of teachers from the sample that attended (37%). A summary of this analysis is presented below.

Among teacher characteristics, only two of them (having the recommended reading texts and using them in the classroom) were found to be associated with better student performance:

- Students, whose teachers have the recommended Tongan reading text, on average, read 4 more words than those whose did not.
- Students, whose teachers use the recommended text, on average, read 7 words more than students whose teachers do not use the text.

In terms of teacher expectations to the appropriate class level in which students should develop certain basic reading skills:

- On average, teachers expect students to write their name, recognize and say letter names, recite the alphabet, and understand stories they hear by the end of Class 1; to understand stories they read and sound out invented words by the end of Class 2; and to read aloud with few mistakes by the end of Class 3.
- Reading outcomes in Tonga are consistent with these expectations. Students whose teachers think students should understand stories they hear by Class 3 instead of class 1 read an average of 4 fewer words. Students whose teachers think students should recite the alphabet in Class 3 instead of Class 1 read an average 5 words fewer. Students whose teachers think reciting the alphabet is not important at all read about 17 words fewer in the oral reading passage than students whose teachers considered knowledge of the alphabet to be a skill to be developed in the first three grades of primary education.

Finally, in terms of the methods used during reading instruction and assessment:

- Most teachers ask students to repeat sentences, retell a story they read, sound out invented words, learn meanings of new words, read aloud, or perform silent reading between 1-2 days a week to daily. Few teachers require students to copy text from the board.
- From these methods, only retelling of a story was associated with higher levels of oral reading fluency. Students who retell a story either 2-4 days per week or daily read on average 5 and 4 more words per minute respectively relative to students who never retell a story they read.
- Students that copy text from the chalkboard, learn the meaning of new words or perform silent reading, on average, had lower reading performance than those whose teachers never assign the tasks. These results may be related either to the small proportion of students doing these activities or the way in which the activity is typically carried out in the classroom.
- In terms of assessment, most teachers provide written and oral evaluations, review portfolios and projects, copy books and homework. Average student scores associated to these methods were low probably because of the way and the type of feedback provided to students. These issues were outside of the scope of the survey.

From assessment to intervention: next steps

Survey results call for an immediate response to improve reading instruction and ensure all Tongan children are equipped with the abilities needed to become skilled readers. Specific recommendations to be considered are as follows:

- **Improve instruction in Tongan phonics and increase phonemic awareness levels among students.** TEGRA data suggested students were either not receiving any instruction to develop phonemic awareness or this training was not sufficient or appropriate. Survey results suggest this may also be the case of instruction of letter-sound correspondences. Without the ability to distinguish the sounds in words and a solid understanding of how letters and sounds go together to create words, students are bound to struggle in their reading development paths and have a limited understanding of what they read. However, improvements in reading instruction should not focus on phonics exclusively but should be incorporated into a comprehensive system of reading instruction aimed at developing reading skills as early and comprehensively as possible.
- **Better reading instruction calls for additional support to teachers.** Improvements to reading instruction start with additional support to have shape more informed expectations about reading development in the early grades. TEGRA results identified how low expectations on reading outcomes had a negative impact on student performance, especially when teachers believed specific fundamental skills should be developed in later years. Better informed expectations on reading outcomes should be coupled with information the specific methods, classroom activities and assessment methods that can allow teachers improve their practice through clear instruction and monitoring indicators.
- **Teacher support should be constant.** TEGRA survey results showed how only 27% of the teachers had received any in-service training on reading instruction in the last three years. If less than 3 out of 10 teachers in the country benefit from learning about specific ways in which they can improve their practice, Tongan teachers will continue to practice their profession in isolation. Moreover, teachers need to become aware of the fundamentals of reading development in both pre- and in-service training. The current syllabus for primary teachers at the Tongan Institute of Education (TIOE) has no mention of grade-level methods or expected reading outcomes in the early grades. Specific reading instruction training should be a centerpiece of the Tonga Education Sector Program (TESP) Phase II.
- **Increase the availability of books and other reading materials to children to read at home.** Survey results showed how students who have reading books at home have better reading outcomes and are more likely to become fluent. Having access to books at home and the possibility to read and develop a sense of enjoyment will be critical to ensure students engage in reading on a regular basis. While English language books tend to be available, most reading materials in Tongan are limited and complex for beginning readers –e.g., newspapers and the Bible. Production of reading books and stories in Tongan written by Tongans would be important not only to allow students to read child-appropriate stories but to preserve the rich oral tradition of Tongan story tellers.

- **Introduce policy actions that increase student exposure to literacy outside the school.** Making more books available to students will not per se ensure better reading outcomes. Along with access to more and relevant reading materials in Tongan, children will need support to develop a reading habit beyond the requirements of the school curriculum. One way of improving this would be to develop community literacy programs where schools become focal point of literacy in the community. Building on the success created by the school-grants program, schools can encourage parents and literate siblings –a predictor of better reading scores in Tonga- to become more involved in the reading development of young children by participating in “peer readings” and activities reading clubs both in school and at home.
- **Establish reading standards to monitor improvements across classes.** As MEWAC moves on to establish an oral reading fluency benchmark for the early grades to monitor reading improvements, it is important to consider that initial standards should be considered temporary reference standards since not enough is currently known about when and at what rate Tongan children should progress when learning to read in their own language. In this sense, reading standards should not be seen as high-stakes but an essential piece to monitor reading progression in the classroom. One way of doing this would be to use the percentage of zero-score students in selected sub-tests as a marker and track reductions in the shares at least biannually. Monitoring achievements over time will eventually provide more information on the rate and the way in which average fluency develops in the Tongan language. A modified version of the test could be used to screen students during the school year in need of additional support.
- **Support teachers to establish reading goals for individual students which they can monitor throughout the school year.** In order for teachers and schools to be able to be held accountable for reading outcomes, teachers, school officials and parents need to understand what these standards mean and how each can support reading development in their own school in order to reach national standards. School development plans should contain reading improvement goals as part of their minimum service standards, as well as a description of activities aimed at encouraging reading. Parents and the community as a whole should be brought into this effort.
- **More research is needed on how instruction methods and activities are carried out in the classroom.** Many of the teacher factors traditionally associated to better reading outcomes such as teacher certification or learning of new words showed contradictory or counterintuitive results in Tonga. Although there are several potential explanations for this phenomenon, this calls for more research on **how** instruction takes place in the classroom. For example, average reading scores among students whose teachers promote the learning of new words are lower than those whose teachers rely less in this activity. A question that could be look further into would have to analyze how learning of new words takes place –e.g., through explicit decoding and association with similar vocabulary or by memorization- in order to recommend specific improvements to current instructional methods.

- **Last but not least, it is clear that more research is needed to better understand the factors that contribute to differences in reading performance between boys and girls.** An analysis of the factors that contribute to these differences is beyond the scope of this survey. However, it is cause of great concern that boys are already in academic disadvantage after completing just one year of education. A better understanding of this phenomenon is critical to inform sector policies and increase the success of future reading development programs.

Structure of the Report

Chapter 1 briefly presents the purpose of the survey and how TEGRA results are expected to improve learning outcomes in Tonga. Chapter 2 summarizes the overall implementation of the survey, in particular, on the process followed to develop the TEGRA instrument. Chapter 3 presents the main results from each of the sub-tests administered. Chapter 4 presents the analysis of oral fluency and reading comprehension levels and the discussion on the establishment of a reference standard of oral reading fluency in the country. Chapter 5 and Chapter 6 present the results of the analysis of student and teacher factors associated with reading acquisition among Tongan students. Finally, Chapter 7 draws conclusions about the key results to present possible recommendations for improving the quality of reading instruction in Tongan schools.

Chapter 1 – Introduction

In 2007, the Tongan Ministry of Education, Women’s Affairs and Culture (MEWAC) administered the Standardized Test of Achievement of Tonga (STAT), a national assessment of literacy and numeracy skills for students in Class 4 and Class 6 of primary education¹. The test, administered in both English and Tongan, aimed to evaluate if students were developing the literacy and numeracy skills expected at their grade levels. STAT reading results revealed the need for major improvements on reading comprehension and writing composition in both languages and grade levels (MEWAC, 2008). Although informative of the overall status of reading in the country, STAT results provided a limited diagnosis. Since the test only measured reading comprehension and composition –two skills expected of Class 4 and Class 6 students–, it is difficult to know if STAT results are due to the lack of assessed knowledge or to the lack of basic reading and comprehension skills typically developed before Class 4.

To complement STAT data and inform literacy improvements, the Tongan government sought to learn if students in Class 1 to Class 3 develop the basic reading skills needed to *read* and *understand* what they read. If the poor performance in STAT could be linked to low mastery of specific basic reading skills, it was necessary to identify the where additional instruction was needed. Moreover, in order to keep track of quality improvements in reading, MEWAC required a suitable set of indicators to identify students falling behind and monitor student progression in the classroom and at the school level.

In response to these issues, the Tongan government, local education stakeholders, and the World Bank joined efforts to conduct a national assessment of basic reading skills, using an adapted version of the Early Grade Reading Assessment (EGRA) tool appropriate to the Tongan context. The assessment², the first among Pacific island countries, is part of a global initiative aimed at helping countries measure how well children are learning to read in the early grades of primary education.

From October 12 and December 15, 2009, a team of Tongan reading and language specialists, consultants, and staff from the Ministry of Education worked together with the World Bank to develop, trial, and administer the Tonga Early Grade Reading Assessment (TEGRA) Survey before the end of the 2008-2009 school year. The purpose of the TEGRA survey was three-fold:

1. To develop baseline survey of basic reading skills and temporary reference standards to monitor reading performance in schools and system wide;
2. To build local capacity to replicate early grade reading assessments in the future; and
3. To work with local education stakeholders to interpret TEGRA findings and analyze their policy and sector investment implications.

¹ In the Tongan education system, grade levels are called classes so that Grade 1 corresponds to Class 1. This report will follow this convention and Class should be understood as a synonym for grade level.

² Financial support for this survey was given by the Australian Agency for International Development (AusAID), the New Zealand Agency for International Development (NZAID), and the Education for All – Fast Track Initiative (EFA-FTI). Technical assistance and management support was provided by the World Bank.

In particular, the Tonga assessment aimed to answer the following questions:

- **What are the basic reading skills acquired by Tongan students in Class 1, Class 2 and Class 3?**
- **What are the reading fluency levels where Tongan students reach high enough levels of comprehension to understand what they read?**
- **What are the factors that influence the acquisition of reading skills among Tongan students?**

To answer these questions, the EGRA tool was developed in Tongan language, the national language and the language of instruction in the first years of primary education.³ Because the EGRA tool is an orally-administered test –i.e., carried out as an interview–, it is suitable to be administered to young children whose reading and writing skills have not fully developed. The Tonga-adapted EGRA tool (i.e., TEGRA) comprised three instruments: (1) a diagnostic instrument assessing basic reading, listening and writing skills among Class 1, Class 2, and Class 3 students; (2) a student contextual interview gathering information on the student's background, administered to all participating students; and (3) a teacher questionnaire regarding teacher characteristics, expectations, and assessment and instruction methods, answered by all Class 1, Class 2 and Class 3 teachers in sample schools.

This report summarizes the survey's main findings and provides policy recommendations to inform sector discussions and literacy improvements in Tonga. Equipped with information about the specific *skills* students are struggling with and the *factors* that appear to contribute to reading development in their country, education stakeholders in Tonga can come together to develop response strategies to improve reading instruction and monitor student progression, to ensure all children develop the skills needed to become effective readers.

³ The new curriculum for primary education –in effect since 2007– requires the use of Tongan as the language of instruction for the first three years of education (Class 1 to Class 3) and the progressive introduction of English as the language of instruction starting in grade Class 4 to full instruction in English in grade Class 6.

Chapter 2: Survey Implementation⁴

In order to build local capacity to replicate early grade assessments in the future, MEWAC requested technical assistance from the World Bank during survey preparation and administration. From October 12 to November 13, 2009, the World Bank provided in-country support to Ministry staff and national consultants appointed to conduct the survey, to select the sample design; develop the TEGRA instruments in Tongan language; facilitate the training of enumerators and supervisors visiting schools; coordinate survey logistics during the pilot and fieldwork; and carry out test marking and data entry.

Sample Design

On October 12 and 13, 2009, a series of preparatory meetings took place to discuss the scope and purpose of the survey. MEWAC was mainly interested in generating baseline data on average reading skills in Classes 1 to 3 to (a) identify areas where additional instruction is needed, to (b) inform the establishment of reference reading standards that can help educators monitor student's reading progression throughout the school year. With advice from the World Bank, MEWAC chose a national representative sample with contrast groups according to class level (Classes 1, 2, and 3). The final sample design did not incorporate contrast groups by school type and regions, thus, survey results can only suggest estimates by class level and gender.

The target population was defined as students enrolled in Classes 1 to 3 in primary schools implementing the national curriculum in Tongan language.⁵ Using the 2008 School Census completed in March of 2009 as a sample frame, a sample of 60 schools was selected using a stratified random design with proportional allocation based on school type –single-class (SCT), composite-class (CCT), and multi-class (MCT)⁶- and region⁷, to ensure all school types and regions would have a probability of selection equal to their actual distribution in the country. The final sample consisted of 1,203 students –607 girls and 596 boys- which reflects the gender parity characteristics of the target population (Tables 1 and 2).

⁴ Throughout the report, the term “survey instruments” is used to describe the set of TEGRA documents administered to students –i.e., diagnostic instrument (or assessment) and student background questionnaire- and teachers –i.e., teacher questionnaire- during data collection. The term “assessment” or “instrument” refers to the TEGRA diagnostic instrument consisting of 8 sub-tests or sections. The term “EGRA tool” is used as reference to the latest English, French and Spanish versions of the tool which have been adapted in all EGRA-participating countries to fit the local context.

⁵ A small share of private primary schools (3%) has the autonomy to implement changes to the national curriculum. To avoid the risk of bias in the results, these schools were considered non-eligible.

⁶ School types include: (1) SCT or single-class teacher –i.e., one teacher per class/grade level-; (2) CCT or composite-class teacher –i.e., one teacher per two class/grade levels; and (3) MCT or multi-class teacher –i.e., one teacher per three or more class/grade levels.

⁷ Four of the five regions in the country were selected: Tongatapu (TBU), Vavau (VAV), Hapai (HAP), and Eua (EUA). The Niua (NIU) was excluded since TEGRA took place in the aftermath of the 2009 tsunami hitting the region.

Table 1 - TEGRA Sample by school type, class level and gender

School Type	Class 1			Class 2			Class 3			Total
	Girl	Boy	Total	Girl	Boy	Total	Girl	Boy	Total	
SCT	173	168	341	161	163	324	161	155	316	981
CCT	20	21	41	29	29	58	35	33	68	167
MCT	8	10	18	12	8	20	8	9	17	55
Total	201	199	400	202	200	402	204	197	401	1203

Table 2 - TEGRA Sample by region, class and gender

Region	Class 1			Class 2			Class 3			Total
	Girl	Boy	Total	Girl	Boy	Total	Girl	Boy	Total	
TBU	143	140	283	140	140	280	138	136	274	837
EUA	14	12	26	13	11	24	12	11	23	73
HAP	14	13	27	16	13	29	18	16	34	90
VAV	30	34	64	33	36	69	36	34	70	203
Total	201	199	400	202	200	402	204	197	401	1203

Development of the TEGRA Instrument

Due to differences in language, culture, and expectations about learning outcomes, the EGRA tool is adapted and piloted anew to fit the context of each country where applied. From October 14 to 26, Tongan language and reading specialist focused on learning the research foundations and structure of the EGRA tool to develop the TEGRA instrument in the Tongan language. The TEGRA team produced a series of reference documents—e.g., a list of familiar words in Tongan language taught in Class 1 to Class 3- that were not readily available for the Tongan language (see Annex 4 for a full description on the process). A draft version of the TEGRA assessment with several narrative passages was discussed in two focus groups with MEWAC officials and non-government literacy experts in the country. The TEGRA team incorporated the participants' feedback and the TEGRA instrument was piloted on October 26, 2009.

From October 28 to November 06, 2009, 28 Ministry staff from the 4 provinces in the country attended the training workshop to learn about the scope and purpose of the survey, the research foundations behind the EGRA tool and its administration guidelines. On November 05, a pilot of the TEGRA assessment took place in 3 schools in Nuku'alofa, collecting data for 108 students in Classes 1, 2 and 3. A team of 4 national consultants and a Tongan language specialist was trained on how to test mark survey instruments and were responsible for marking all pilot and fieldwork scripts for analysis.

TEGRA pilot data prompted a few changes to specific items that appear to be very difficult for most students. Inter-rater reliability –i.e., the ability of enumerators to administer the assessment correctly and consistently- was calculated with results of 85% and above for all sub-

tests except one –Sub-test 2: initial sound identification- where most enumerators had difficulty understanding student responses.⁸ Using enumerator and supervisor feedback, the instrument’s layout was adjusted to improve readability and ease administration. Additionally, pilot versions of the student and teacher questionnaires were improved to ensure questions were properly framed.

Fieldwork and Data Entry

Data collection took place between November 09 and December 12, 2009. Over a period of 5 weeks, teams of enumerators and supervisors visited sample schools in the country. Complete survey documents were brought back to Nuku’alofa by the TEGRA team members for marking. Data entry took place between January 25 and February 05, 2010. For the 171 teachers surveyed, the overall response rates to the survey items are above 86%. For the 1,203 students in the sample, the overall survey response rates are above 93%.

Reliability of the Instrument

Cronbach’s alpha was calculated for the TEGRA instrument to measure the reliability of the test to capture reading abilities. Results showed a strong internal consistency with a coefficient of 0.91. As a rule of thumb, an alpha coefficient of 0.80 considered good and 0.7 an absolute minimum. The alphas for each sub-test were close to 1, suggesting high reliability across TEGRA sub-tests (see Table 25 in Annex 1 for the TEGRA reliability matrix).

Table 3 - Reliability of TEGRA assessment

Item	Sign	Item-test correlation	Item-rest correlation	Average inter-item correlation	Alpha
Letter Name Knowledge (correct letters per minute)	+	0.8137	0.7556	0.5439	0.9051
Initial Sound Identification	+	0.5934	0.4883	0.5989	0.9227
Letter Sound Knowledge (correct sounds per minute)	+	0.6462	0.5503	0.5857	0.9188
Familiar Word Reading (correct words per minute)	+	0.8993	0.8656	0.5225	0.8975
Invented Word Reading (correct invented words per minute)	+	0.9088	0.8781	0.5202	0.8966
Oral Reading (correct words per minute)	+	0.8892	0.8525	0.525	0.8984

⁸ This section showed an average inter-rater reliability (IRR) of 73%. To correct for this, changes were made to the instrument to avoid two similar sounds (e.g. “s” and “t”) to be placed in sequence. After additional practice was given to all enumerators, the IRR for this section increased to 79%.

Item	Sign	Item-test correlation	Item-rest correlation	Average inter-item correlation	Alpha
Reading Comprehension (percentage correct)	+	0.8328	0.7798	0.5391	0.9035
Listening Comprehension (percentage correct)	+	0.5733	0.4648	0.6039	0.9242
Writing (percentage correct; weighted score)	+	0.8312	0.7779	0.5395	0.9036
Test scale				0.5532	0.9176

Chapter 3: TEGRA Results

Structure of the Assessment

As has been confirmed by scholars working to understand reading acquisition in multiple languages, (Jimenez and O'Shanahan Juan, 2008; Linan-Thompson and Vaughn, 2007; Abadzi, 2006; Sprenger-Charolles, 2004; Chiappe et al., 2002), in almost any alphabetic language in which print can be decoded into sounds, being able to read well requires a grasp of five basic skills (National Reading Panel, 2000):

- **phonemic awareness**—focusing on, manipulating, breaking apart, and putting together sounds orally;
- **phonics**—linking written letters to their sounds and forming spelling patterns;
- **fluency**—achieving speed, accuracy, and expression in reading;
- **vocabulary**—knowing words (both oral and written) and their meaning; and
- **comprehension**—understanding the concepts read or heard.

Though not all children develop their reading abilities in the same way or pace, the literature shows that all readers progress through a series of phases or stages –sometimes simultaneously– in their reading development process (RTI, 2010).

Figure 1 - Stages of Reading Development

Exhibit 3. Stages of Reading Development		
Stage	Name	The Learner
Stage 0: Birth to Grade 1	Emergent Literacy	Gains control of oral language; relies heavily on pictures in text; pretends to read; recognizes rhyme
Stage 1: Beginning Grade 1	Decoding	Grows aware of sound/symbol relationships; focuses on printed symbols; attempts to break code of print; uses decoding to figure out words
Stage 2: End of Grade 1 to End of Grade 3	Confirmation and Fluency	Develops fluency in reading; recognizes patterns in words; checks for meaning and sense; knows a stock of sight words
Stage 3: Grade 4 to Grade 8	Learning the New (Single Viewpoint)	Uses reading as a tool for learning; applies reading strategies; expands reading vocabulary; comprehends from a singular point of view
Stage 4: Secondary and Early Higher Education	Multiple Viewpoints	Analyzes what is read; reacts critically to texts; deals with layers of facts and concepts; comprehends from multiple points of view
Stage 5: Late Higher Education and Graduate School	A Worldview	Develops a well-rounded view of the world through reading

Source: Roskos et al., 2009.

Source: RTI, 2010.

Once children learn to apply the foundational reading skills with a certain level of reflex or automaticity, they can move beyond the task of decoding a text (Stage 1) to begin deriving its meaning (Stage 2). As children learn sounds that link to form words, they can begin connecting those sounds to printed words and the idea behind those words. Then they can link words to form sentences, paragraphs, and stories. In other words, children transition from *learning to read*

to *reading to learn* (Stage 3 and beyond). Comprehension is the ultimate prize—the difference between “reading it” and “getting it.” (RTI, 2010). The structure of the EGRA tool in different international applications used this knowledge as a reference point during the adaptation of the tool to local contexts.

Figure 2 - Early Grader Reading Assessment Components

Stage	Test Components*
Stage 0: Emergent Literacy Birth to grade 1	<ul style="list-style-type: none"> • Concepts about print • Phonemic awareness • Listening comprehension
Stage 1: Decoding Beginning grade 1	<ul style="list-style-type: none"> • Letter naming • Letter sounds • Syllable naming • Nonsense word reading • Familiar word reading
Stage 2: Confirmation and Fluency End of grade 1 to end of grade 3	<ul style="list-style-type: none"> • Paragraph reading (oral reading fluency) with comprehension • Dictation

* Not all components are tested in all languages.

Sources: RTI, 2009; Roskos et al., 2009.

Source: RTI, 2010.

In particular, the TEGRA assessment focused on measuring these skills plus basic listening and writing skills through eight modules or sub-tests: (1) letter name knowledge; (2) identification of initial sounds in words; (3) letter sound knowledge; (4) familiar word reading; (5) invented word reading; (6) oral reading fluency with comprehension; (7) listening comprehension; and (8) dictation (see Annex 5 for copies of the TEGRA instruments). Table 4 below shows how these skills relate to each of the TEGRA components, measures and indicators.

Table 4 - TEGRA Instrument Structure and Early Skills Tested

Sub-test	Early reading skill	Skill demonstrated by students' ability to:	Measure and Indicator
1. Letter name knowledge	Letter recognition	Provides the name of upper- and lower-case letters distributed in random order	Letter name fluency in terms of correct letter names identified per minute (CLPM)
2. Identification of initial sounds	Phonemic awareness	Segment words into 2 to 5 phonemes Identify words with different beginning or ending phoneme	Phoneme segmentation as the number of sounds correctly identified
3. Letter sound knowledge	Phonics	Provides the sound of upper- and lowercase letters distributed in random order	Letter name fluency in terms of correct letter sounds identified per minute (CLPM)
4. Familiar word reading	Word reading	Read simple and common one- and two-syllable words	Familiar word fluency in terms of correct familiar words read per minute (CFWPM)

Sub-test	Early reading skill	Skill demonstrated by students' ability to:	Measure and Indicator
5. Invented word reading	Alphabetic principle	Make grapheme-phoneme correspondences (GPCs) through the reading of simple invented –i.e., invented- words to test decoding skills	Invented word fluency in terms of correct invented words read per minute (CUWPM)
6. Oral reading fluency with comprehension	Oral reading fluency	Read a text with little effort and at a sufficient rate	Oral reading fluency in terms of correct words read per minute in a narrative passage (CWCPM)
	Reading comprehension	Respond correctly to different types of questions, including literal and inferential questions about the text they have read	Response to questions after reading a story as a percentage of correct answers
7. Listening comprehension	Listening comprehension	Respond correctly to different types of questions including literal and inferential questions about the text the enumerator reads to them	Response to questions after hearing a story as a percentage of correct answers
8. Dictation	Alphabetic principle	Write, spell, and use grammar properly through a dictation exercise	Write, spell, and use grammar properly through a dictation exercise, determined by the percentage of overall early writing skills (spelling and basic conventions), weighted score.

Note: Adapted by the authors, based on RTI, 2009 and Linan-Thompson, 2010.

Administration of the TEGRA Instrument

The TEGRA assessment was administered via face-to-face interviews of about between an enumerator⁹ and the student. Each interview lasted 15 to 25 minute from the onset of the test to completion of the student background questionnaire. In six of the eight sub-tests in TEGRA instrument, students had 60 seconds to complete the sub-test in order to assess automaticity in a given skill. To be successful readers, basic reading competencies have to be automatic. Fluency measures assess not only whether or not a child knows something, but whether they have integrated the knowledge and can process the information automatically (Linan-Thompson, 2007). Time-limitation allows proper comparison of fluency across slow readers and fast readers who may register the same scores at different periods of time (RTI, 2009).

In TEGRA, student scores in time-limited sub-tests are calculated as the number of correct items –i.e., letter names, letter sounds, or words- read per minute. If a student completes all of the words before the time expires, the time of completion is recorded and the number of items correctly read per minute is estimated on that time period.¹⁰ Selected sub-tests applied an “early-stop rule” to discontinue the administration of a sub-test if students were unable to correctly respond to any of the items in the first of ten lines (Sub-tests, 1,3,4,5, and 6), or if their

⁹ The term enumerator is used in reference to purposely trained interviewers administer early grade reading assessments.

¹⁰ Correct Items Per Minute = (Total items read – Total items incorrect) / [(60 – Time remaining on stopwatch) / 60] (RTI, 2009)

responses for the first five items were incorrect (Sub-test 2).¹¹ In this situation, the enumerator was asked to mark the box that read “Check this box if the exercise was discontinued because the child has no correct answers in the first line” and to proceed to the next sub-test in the test (RTI, 2010).¹² The justification to discontinue a sub-test has two reasons. First, the early stop rule helps avoid frustration among students whose dispirit may affect their performance in subsequent sub-test. Second, the early stop rule is also an approximation of zero-scores throughout the test: as in most psychometric tests, it is assumed that students who fail the first initial items will fail the remainder of the test, especially if the first items are also the easiest, as it was in the case of TEGRA. Sub-tests 7 and 8 did not apply the “early stop rule” so results in these sub-tests relate to the total sample of students and report percentage of correct answers over the total number of items in the sub-test.

Across sub-tests and class levels, the largest proportions of early-stop cases appeared in sub-test 2 (initial sound identification), sub-test 3 (letter sound knowledge), and sub-test 6 (oral passage reading). Sub-test 2 and 3 entail skills related to letter-sound correspondences so students struggling to match letters and sounds in isolation are likely have difficulties when reading isolated words (sub-tests 4 and 5) and words in the oral reading passage (sub-test 6). The sub-test that showed the lowest percentage of early-stop cases was sub-test 1 (letter name knowledge) where the test had to be discontinued only for 3% of the students in the sample -8% in Class 1, 1% in Class 2 and 0% in Class 3-.¹³ As expected, the assessment had to be discontinued for a larger percentage of Class 1 students (see Figure 1 below) though significant reductions in the number of discontinued cases are observed in Class 2 and Class 3.

Table 5 – Zero-score cases per class and sub-test

Class	Letters	Initial Sound	Letter Sounds	Familiar Word	Unfamiliar Word	Oral Passage Reading
Class 1	32	206	140	120	141	148
Percentage/Total Sample in Class 1	8%	52%	35%	30%	35%	37%
Class 2	5	133	69	26	30	35
Percentage/Total Sample in Class 2	1%	33%	17%	6%	7%	9%
Class 3	1	79	40	6	9	12
Percentage/Total Sample in Class 3	0%	20%	10%	1%	2%	3%
Total (per sub-test)	38	418	249	151	180	276
Percentage over total sample	3%	35%	21%	13%	15%	23%

¹¹ The rule was established to avoid frustrating students who did not have the skill or did not understand the task of the sub-test (RTI, 2010).

¹² See Annex 5 for a bilingual copy of the Tongan instrument.

¹³ Total percentages per class per skill –i.e., number of cases / total sample size per class- do not add up to the total percentage of early-stop cases per skill –i.e., number of cases per skill / total sample size.

TEGRA Results per Sub-test

TEGRA results show reading gains across the three class levels tested. Overall, students struggled with sub-tests requiring a solid knowledge of letter-sound correspondences -even as late as in Class 3 students. Across grades, Tongan students seem to have mastered letter name recognition as early as in Class 1, with a minimal number of students classified as an early-stop cases. TEGRA results showed evidence of gender differences, with girls outperforming boys in all sub-tests.

For each of the sub-tests below, average results are presented for the sample as a whole –i.e., total average- as well as without the proportion of zero-score students –i.e., early stop cases. There are two reasons behind the decision to present these two results. On the one hand, some researchers argue that in cases where there is a large presence of zero-score students, overall means tend to underestimate the true average score of the population. On the other, the use of average means without zero-score students tends to overestimate the true average score. Since the purpose of this survey is to inform policy decisions over the establishment of temporary reference standards of oral reading fluency in the country, we believe it was important to present both results in order to inform policy discussions and future decisions over where and how to establish adequate reference reading standards for Tonga.

Sub-test 1 – Letter Name Knowledge¹⁴

The test of letter name knowledge is the most basic of assessments of student reading preparedness (and risk). Letter name knowledge is a consistent predictor of reading development for native speakers of English, French, and other alphabetic languages (Chiappe, Siegel, & Wade-Woolley, 2002). It has also proved to be a useful indicator for nonnative speakers (Chiappe, 2006).

In the sub-test of letter name knowledge, students are asked to provide the names (not the sounds) of all of the letters they could read, within a one-minute period. The full set of letters of the Tongan alphabet was listed in random order, 10 letters to a row, for a total of 100 letters. Letters were selected based on the frequency with which they occur in Tongan. Randomization was used to prevent students from reciting a memorized alphabet—that is, to test for actual automaticity of letter recognition and translation of print to sound.

TEGRA students showed an overall positive performance on recognizing letters, defined by the indicator “number of correct letter names identified per minute” (CLPM). Table 6 shows average scores in sub-test 1 by class and gender, and overall scores excluding zero-scoring students for those unable to recognize any letters. TEGRA scores show students in Tonga have a good understanding of names of letters. On average, students correctly identified 55 letter names per minute. Zero-score students appear to reduce the average mean by two letter names correctly identified (from 55 to 57). Class and gender bring about important differences to the

¹⁴ Throughout this section, sub-test description is based on the *Early Grade Reading Assessment Toolkit* (RTI, 2009).

knowledge of letter names. The largest increase in letter name knowledge takes place between Class 1 and Class 2 with an average difference of 22 letter names -twice the gain observed between Class 2 and Class 3. Overall, girls are more accurate readers of letter names (about 59 letters correctly identified) than boys (51 letter names). This difference is even greater (7 letter names) if zero-score students are excluded.

Table 6- Sub-test 1 Letter Name Knowledge: Results by Class and Gender

Sub-test 1 - Number of correct letter names identified per minute (CLPM)		N	Mean	SD	Min	Max
	CLPM - overall	1,203	55.1	25.6	0	130
	CLPM - minus zero score students	1,165	56.7	24.1	1	130
Class						
Class 1	CLPM - overall	400	37.0	22.7	0	100
	CLPM - minus zero score students	368	40.1	20.8	1	100
Class 2	CLPM - overall	402	59.0	21.8	0	130
	CLPM - minus zero score students	397	59.6	21.1	4	130
Class 3	CLPM - overall	401	69.3	21.0	0	124
	CLPM - minus zero score students	400	69.3	20.9	4	124
Gender						
Girls	CLPM - overall	607	58.7	26.3	0	130
	CLPM - minus zero score students	590	60.3	24.7	3	130
Boys	CLPM - overall	596	51.3	24.4	0	118
	CLPM - minus zero score students	575	53.0	22.9	1	118

Sub-test 2 – Initial Sound Recognition

In order to read, each of us must turn the letters we see into sounds, sounds into words, and words into meaning. Successfully managing this process requires the ability to work in reverse; that is, students should also grasp that words are composed of individual sounds and understand the process of separating (and manipulating) words into sounds (Snow et al., 1998). The ability to identify sounds in words, to separate words into sounds, and to manipulate those sounds is termed *phonemic awareness*, found to play an important role in reading acquisition and the number one predictor of success in reading, better than socioeconomic status, preschool attendance, or reading time in the home (Share, Jorm, Maclearn, & Matthews, 1984). Testing for and remediating this skill is thus important for later reading development.

Thus far, the EGRA tool has piloted an assessment of phonemic awareness in two different ways: using phoneme segmentation and identification of onset and rime sounds (first and last sounds). Phoneme segmentation –i.e., the division of words into phonemes- is one of the most complex skills of phonological awareness and should be emphasized in the early grades (Linan-Thompson & Vaughn, 2007). It is also one of the most predictive of later learning skills. Thus far, phoneme segmentation has proved difficult to administer. The TEGRA instrument selected a simpler task –i.e., initial sound identification- to assess student’s ability in phoneme segmentation. A set of 10 familiar words in the Tongan language was selected. Students were asked to identify the initial sound in each of the words. The enumerator read each word aloud

twice before asking the student to identify the sound before recording the student's answer – i.e., correct, incorrect, no answer- in each item in the sub-test.

Student performance in this sub-test showed one of the lowest average scores in the TEGRA test, suggesting most students in Tonga struggle to understand and separate the sounds in the words they hear, an essential skill in reading development. Scores are defined as the average number of initial sounds identified from a list of 10 one and two-syllable words included in the exercise. On average, students are able to correctly identify 4.2 initial sounds of words; excluding zero-score students (418 in the sample) the average increases to 6.2 initial sounds.

Moreover, although average scores improve as a result of student progression across classes, these are very small -only 1 more initial sound correctly identified, on average- to the extent that after three years of primary education, Class 3 students are able to identify only half of the words they hear (average score of 5.2 correct initial sounds). Although girls appeared to be only slightly better than boys in identifying initial sounds in words –about half a sound- fewer girls than boys scored zero in the sub-test (197 and 221, respectively).

Table 7 – Sub-test 2 Initial Sound Recognition: Results by class and gender.

Sub-test 2 -Number of correct initial sounds identified		N	Mean	SD	Lower bound	Upper Bound
	Overall	1,203	4.2	3.3	4.0	4.4
	Minus zero score students	785	6.2	2.1	6.0	6.3
Class						
Class 1	Overall	400	3.1	3.4	2.8	3.4
	Minus zero score students	194	6.0	2.1	5.7	6.3
Class 2	Overall	402	4.3	3.3	4.0	4.6
	Minus zero score students	269	6.2	2.0	5.9	6.4
Class 3	Overall	401	5.2	3.0	4.9	5.4
	Minus zero score students	322	6.2	2.1	6.0	6.5
Gender						
Girls	Overall	607	4.4	3.4	4.1	4.6
	Minus zero score students	410	6.2	2.1	6.0	6.4
Boys	Overall	596	4.0	3.3	3.7	4.2
	Minus zero score students	375	6.1	2.0	5.9	6.30

Average performance in sub-test 2 related to the complexity of the word presented. A review of percentage correct answers to each of the 10 words presented shows that students have a good knowledge of the sounds of vowels but are unable to correctly understand and separate the sounds of consonants –especially of “ng”- in the context of a word. Sample students were able to correctly identify the initial sounds of words that begin with a vowel –*ifo, uta, ou, ako*- in about 54% to 59% percent of the cases. Performance for consonants decreases to 24% - 28%, and is particularly low for the nasal consonant “ng”(13%).

Table 8 - Percentage of correct initial sounds identified per item in the sub-test, by class

Items	Class 1			Class 2			Class 3			Total		
	Girl	Boy	Total	Girl	Boy	Total	Girl	Boy	Total	Girl	Boy	Total
Initial sound: niu	0.27	0.23	0.25	0.35	0.28	0.32	0.37	0.32	0.35	0.33	0.28	0.30
Initial sound: tali	0.17	0.23	0.20	0.29	0.22	0.26	0.35	0.33	0.34	0.27	0.26	0.27
Initial sound: kovi	0.21	0.18	0.19	0.35	0.26	0.31	0.42	0.43	0.42	0.33	0.29	0.31
Initial sound: ifo	0.45	0.42	0.43	0.65	0.56	0.61	0.77	0.70	0.73	0.62	0.56	0.59
Initial sound: uta	0.46	0.42	0.44	0.66	0.58	0.62	0.74	0.69	0.72	0.62	0.56	0.59
Initial sound: ou	0.40	0.41	0.41	0.63	0.53	0.58	0.73	0.68	0.70	0.59	0.54	0.56
Initial sound: hao	0.24	0.23	0.24	0.37	0.28	0.32	0.40	0.41	0.40	0.33	0.30	0.32
Initial sound: ako	0.46	0.42	0.44	0.63	0.58	0.61	0.66	0.66	0.66	0.59	0.56	0.57
Initial sound: ngu	0.10	0.10	0.10	0.14	0.11	0.13	0.15	0.15	0.15	0.13	0.12	0.13
Initial sound: 'eni	0.44	0.35	0.40	0.57	0.51	0.54	0.65	0.68	0.67	0.56	0.51	0.54

Note: Weighted averages.

Sub-test 3 – Letter Sound Identification

Knowledge of how letters correspond to sounds is another critical skill children must master to become successful readers. Letter-sound correspondences are typically taught through phonics-based approaches. In this sub-test, students were asked to provide the sounds (not the names) of as many letters they could identify within a one-minute period. The full set of letters and graphemes¹⁵ in the Tongan alphabet –e.g., graphemes “a” and “ā”- was listed in random order, 10 letter sounds to a row, for a total of 100 letter sounds.

TEGRA average scores in sub-test 3 indicate students have not mastered knowledge of the relationship between sounds and letters in the Tongan alphabet. Scores in sub-test 3 are defined as the number of correct letter sounds identified per minute (CSPM) and use the 60-second time base of all timed-sub-tests to compare fluency and accuracy in letter sound identification. On average, students correctly identified 21 letter sounds per minute. Excluding the 249 students with zero-scores (21% of the sample), the average score increases by about 5 words from 21 to 26 correct letter sounds per minute. At the end of Class 1, students are able to correctly identified 16 sounds of letter per minute. This average increases to 23 at the end of Class 2, and

¹⁵ A grapheme is the most basic unit in the alphabetic system and can be made up of one or more letters. Graphemes combine to create phonemes –i.e., smallest distinctive unit of sound which allows differentiation between words such as the phoneme “t” in “top” vs “mop”.

25 at the end of Class 3. On average, girls correctly identify 3 sound letters (or 4, if one excludes zero-score students) more than boys even though the proportion of zero-score students between the two is fairly similar.

Table 9 – Sub-test 3 Letter Sound Identification: Results by class and gender.

Sub-test 3 - Number of correct letter sounds identified per minute (CSPM)		N	Mean	Min	Max
	CSPM - Overall	1,203	21.5	0	89
	CSPM - Minus zero score students	954	26.3	1	89
Class					
Class 1	CSPM - Overall	400	16.3	0	86
	CSPM - Minus zero score students	260	23.8	1	86
Class 2	CSPM - Overall	402	23.2	0	83
	CSPM - Minus zero score students	333	27.2	1	83
Class 3	CSPM - Overall	401	25.1	0	89
	CSPM - Minus zero score students	361	27.3	1	89
Gender					
Girls	CSPM - Overall	607	22.8	0	88
	CSPM - Minus zero score students	479	28.1	1	88
Boys	CSPM - Overall	596	20.2	0	89
	CSPM - Minus zero score students	475	24.4	1	89

Sub-test 4 – Familiar Word Reading

Children who are able to read words that are familiar to them often do that by automatic recognition. Automated word recognition in reading allows a beginning reader to ‘read’ a familiar word not by its letters, but as a whole. For this assessment, high-frequency familiar words were selected from early grade reading materials, story books, and school visits to primary schools to ask teachers in Classes 1 to 3 about the vocabulary used during their lessons. Words were arranged horizontally, in good separation from each other, written in a familiar (lower case) font, comprising 10 rows, five familiar words per line.

TEGRA average scores in sub-test 4 showed a low automaticity in word reading, ability closely associated to word reading in the oral reading passage and ultimately, comprehension. Scores in sub-test 4 are defined as the number of correct familiar words read per minute (CFWPM). On average, students were able to correctly read about 19 familiar word sounds in a minute. Excluding the 151 students with zero-scores (13% of the sample) the average score increases by 2 words. At the end of Class 1, students are able to read about 9 familiar words per minute. This average increases to 19 and 28 at the end of Class 2 and Class 3, respectively. On average, girls correctly read 6 familiar words more than boys (22 and 16, respectively) but showed more variability in their results (with a standard deviation of 16 CFWPM) and a wider range of scores (0 – 130 CFWPM) compared to those of boys (standard deviation of 12 CFWPM and a range of 0-72 CFWPM). The difference is similar (6 familiar words) if zero-score students are excluded.

Table 10 – Sub-test 4 Familiar Word Reading: Results by Class and Gender

Sub-test 4 - Number of correct familiar words read per minute (CFWPM)		N	Mean	Min	Max
	CFWPM - Overall	1,203	18.5	0	103
	CFWPM - Minus zero score students	1,051	21.1	1	103
Class					
Class 1	CFWPM - Overall	400	9.0	0	50
	CFWPM - Minus zero score students	280	12.7	1	50
Class 2	CFWPM - Overall	402	19.1	0	59
	CFWPM - Minus zero score students	376	20.4	1	59
Class 3	CFWPM - Overall	401	27.6	0	103
	CFWPM - Minus zero score students	395	27.9	1	103
Gender					
Girls	CFWPM - Overall	607	21.5	0	103
	CFWPM - Minus zero score students	542	24.0	1	103
Boys	CFWPM - Overall	596	15.5	0	72
	CFWPM - Minus zero score students	510	18.0	1	72

Sub-test 5 – Invented Word Reading

Invented or invented word reading is a measure of decoding ability and is designed to avoid the problem of sight recognition of words. Many children in the early grades learn to memorize or recognize by sight a broad range of words. Children's decoding skills are often assessed using reading lists of unrelated words. This allows for a purer measure of word recognition and decoding skills than does reading comprehension paragraphs, as children are unable to guess the next word from the context. This sub-test included 50 one- and two-syllable invented words, five per row, with the vowel-consonant patterns of letters typical to the Tongan language.

TEGRA results in this sub-test showed a slightly lower performance to the average scores in familiar word reading. Scores in sub-test 5 are calculated as the number of correct invented words read per minute (CIWPM). On average, students attempted to read 16 familiar words and were able to correctly read 19 familiar words sounds in a minute. Excluding the 180 students with zero-scores (15% of the sample) the average score increases by 3 words.

At the end of Class 1, students are able to read about 8 invented words correctly per minute. This average increases to 17 and 24 at the end of Class 2 and Class 3, respectively. On average, girls correctly read 5 invented words more than boys (19 and 14, respectively) and had a wider (SD of 16 words in a range of 0 – 130 familiar words read correctly) than boys in the sample (SD of 12 familiar words in a range of 0-72 familiar words read correctly). This difference is similar (6 invented words) if zero-score students are excluded.

Table 11 – Sub-test 5 Invented Word Reading: Results by Class and Gender

Sub-test 5 - Number of correct unfamiliar words read per minute (CUWPM)		N	Mean	Min	Max
	CUWPM - Overall	1,203	16.3	0	67
	CUWPM - Minus zero score students	1,023	19.0	1	67
Class					
Class 1	CUWPM - Overall	400	8.3	0	49
	CUWPM - Minus zero score students	259	12.4	1	49
Class 2	CUWPM - Overall	402	17.3	0	53
	CUWPM - Minus zero score students	372	18.6	1	53
Class 3	CUWPM - Overall	401	23.5	0	67
	CUWPM - Minus zero score students	392	23.9	2	67
Gender					
Girls	CUWPM - Overall	607	18.7	0	67
	CUWPM - Minus zero score students	531	21.2	1	67
Boys	CUWPM - Overall	596	13.9	0	53
	CUWPM - Minus zero score students	492	16.6	1	53

Sub-test 6a – Oral Passage Reading

Oral reading fluency is a measure of overall reading competence: the ability to translate letters into sounds, unify sounds into words, process connections, relate text to meaning, and make inferences to fill in missing information (Hasbrouck & Tindal, 2006). As skilled readers translate text into spoken language, they combine these tasks in a seemingly effortless manner. Because oral reading fluency captures this complex process, it can be used to characterize overall reading skill. Poor performance on a reading comprehension tool would suggest that the student had trouble with decoding, or with reading fluently enough to comprehend, or with vocabulary.

Sub-test 6a produced a 60-word narrative passage from children’s reading materials. The narrative passage began where the characters are introduced, a middle section containing some dilemma, and an ending section with an action resolving the dilemma. The passage provided the basis for the comprehension questions presented in sub-test 6b.

Scores in sub-test 6a are calculated as the number of correct words read in the 60-word oral reading passage. On average, students were able to read 27 words correct words per minute (CWCPM). Excluding the 195 students with zero-scores (16% of the sample), the average score increases by 5 words. At the end of Class 1, students are able to read 12 correct words of the oral reading passage in a minute. This average increases to 28 and 42 at the end of Class 2 and Class 3, respectively. On average, girls correctly read 10 more words of the passage than boys (32 and 22, respectively) leading to a wider range of responses (0-148 CWCPM) compared to that of boys (0-91 CWCPM) – a difference of 57 correct words read in the oral reading passage. The difference is slightly larger (11 words) if zero-score students are excluded.

Table 12 – Sub-test 6a Oral Passage Reading: Results by Class and Gender

Sub-test 6a - Number of words correct words read per minute (CWCPM) in the oral reading passage		N	Mean	Min	Max
	CWCPM - Overall	1,203	27.1	0	148
	CWCPM - Minus zero score students	1,008	32.0	1	148
Class					
Class 1	CWCPM - Overall	400	11.8	0	120
	CWCPM - Minus zero score students	252	18.3	1	120
Class 2	CWCPM - Overall	402	28.1	0	103
	CWCPM - Minus zero score students	367	30.5	2	103
Class 3	CWCPM - Overall	401	41.8	0	148
	CWCPM - Minus zero score students	389	42.6	1	148
Gender					
Girls	CWCPM - Overall	607	31.9	0	148
	CWCPM - Minus zero score students	519	37.0	1	148
Boys	CWCPM - Overall	596	22.2	0	91
	CWCPM - Minus zero score students	489	26.6	1	91

Sub-test 6b – Reading Comprehension

Average reading comprehension levels in sub-test 6b are largely explained by the poor performance in the oral reading passage. Without sufficient skills to read into the text, students focus on reading words one-by-one, sometimes letter-by-letter. By the time they reach the end of the text, students have already forgotten what they read first. Scores in sub-test 6b are calculated as the percentage of correct answers in the sub-test -5 questions in total. The number of questions a student received depended on the number of words read in sub-test 6a, so that students had to respond only to questions related to the segment of the text they were able to read.

The early-stop marker was placed at 19 words –i.e., first row in the text- so that those unable to correctly read any of the first 19 words received a zero-score in this task. Students that read the first 19 words with at least one word read correctly were given only first question of the sub-test. Students that read up to 28 words -at least one of the first 19 correct- were given the first two questions. Only students who read all the narrative passage –a total of 60 words- were given all of the questions in the sub-test.

On average, students correctly answered 24% of the text they read. Excluding the 660 students with zero-scores (55% of the sample), the average scores increase to 52%, so students who were able to complete the exercise (45% of the sample) understand, on average, about half of the text they read. At the end of class 1, the average student correctly answered 10% of the questions. In class 2, the average increases considerably to 26% and by class 3, the average student correctly answered 44% of the questions. On average, girls performed better, correctly answering 34% of the questions while boys answered 22%.

Table 13 – Sub-test 6b Reading Comprehension: Results by Class and Gender

Sub-test 6b - Percentage of overall reading comprehension in the oral reading passage		N	Mean	Lower bound	Upper Bound
	Percentage of correct answers - Overall	1,203	24%	22%	26%
	Percentage of correct answers - Minus zero score students	543	52%	50%	55%
Class					
Class 1	Percentage of correct answers - Overall	400	6%	5%	8%
	Percentage of correct answers - Minus zero score students	60	37%	31%	43%
Class 2	Percentage of correct answers - Overall	402	24%	21%	27%
	Percentage of correct answers - Minus zero score students	184	50%	46%	54%
Class 3	Percentage of correct answers - Overall	401	43%	40%	46%
	Percentage of correct answers - Minus zero score students	299	57%	54%	60%
Gender					
Girls	Percentage of correct answers - Overall	607	30%	27%	32%
	Percentage of correct answers - Minus zero score students	314	55%	52%	59%
Boys	Percentage of correct answers - Overall	596	19%	16%	21%
	Percentage of correct answers - Minus zero score students	229	48%	44%	51%

Looking at the distribution of the average percentages of correct answers presented in Table 8, we observe that an overwhelming majority of Class 1 (76%) have an average comprehension of 0%. This proportion reduces significantly in Class 2 (50%) and Class 3 (23%). Less than 3% (7 out of 252 Class 1 students) have developed enough fluency in reading to read all of the passage and provide correct answers to 4-5 of the question presented. Class brings about an increase in average reading comprehension as shown in a better distribution of Class 3 students at various levels of reading comprehension. In terms of gender, differences in average comprehension levels between boys and girls are evident at the 0%, 80% and 100% reading comprehension levels.

Figure 3- Distribution of percentage of correct answers by class

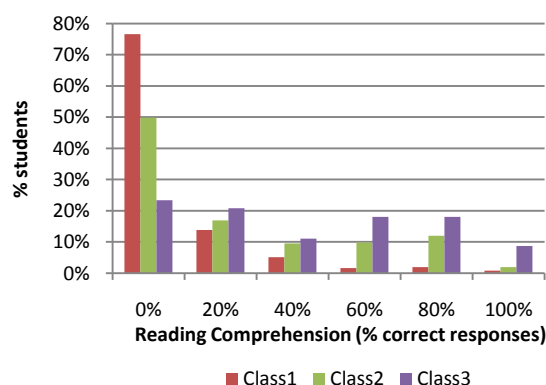
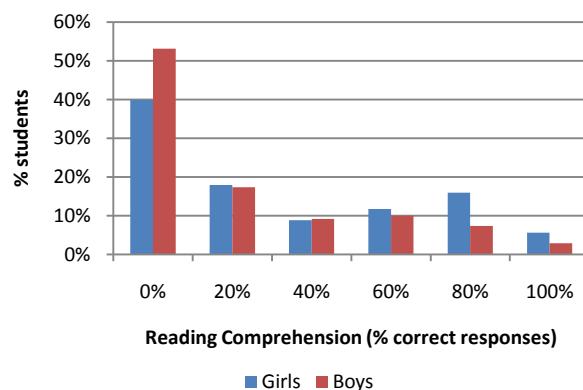


Figure 4 - Distribution of percentage of correct answers by gender



Average performance in this sub-test related to the complexity of the question presented and the order in which it was presented –i.e., later questions required students to read more words fluently. A review of percentage correct answers in the 5 questions in sub-test 6a shows question 1 to be very difficult for students to answer for all students in the sample, including those in Class 3. A possible explanation for this is that question 1 required student to show mathematical inference along with comprehension. The explicit question included in the sub-test had the smallest variance from students. Across grades, student comprehension increases irrespective of the type of question asked.

Table 14 - Percentage of Correct Answers by Questions in Sub-test 6b

Items	Class 1			Class 2			Class 3			Total		
	Girl	Boy	Total	Girl	Boy	Total	Girl	Boy	Total	Girl	Boy	Total
RC Q1: How many live in Malakai's home? Five	0.08	0.09	0.08	0.15	0.13	0.14	0.23	0.16	0.20	0.16	0.13	0.15
RC Q2: Where did Malakai and Mina go? To the shop	0.26	0.19	0.22	0.53	0.34	0.44	0.76	0.65	0.70	0.55	0.42	0.49
RC Q3: What happened to Mina? She fell and hurt herself	0.11	0.08	0.10	0.41	0.22	0.32	0.62	0.42	0.53	0.41	0.26	0.34
RC Q4: Why was she hurt? Malakai challenged her to a race	0.05	0.05	0.05	0.31	0.16	0.24	0.53	0.33	0.43	0.33	0.20	0.27
RC Q5: Who fixed Mina's wound? Their grandparent	0.04	0.01	0.03	0.21	0.07	0.15	0.46	0.18	0.33	0.26	0.10	0.18

Note: Weighted means.

Looking at differences in the difficulty of the questions suggest question 1 was the most difficult item in the sub-test –i.e., lowest percentage of correct answers-, which may be one of the reasons behind the large number of incorrect answers to this question. Average comprehension in questions 2 to 5 show most students get at least 75% of the questions correctly.

A closer look at differences in comprehension between students who were asked to answer questions based on the oral reading passage show important differences in the share of students in each category and the average comprehension based on questions asked. Table 15 shows the distribution of correct answers depending on the number of questions asked.

Table 15 - Percentage of Correct Answers in Sub-test 6b

Overall	# questions asked						
# questions correct	0	1	2	3	4	5	N
0	195	419	44	4	0	1	663
column %	100%	94%	21%	8%	0%	0%	
1		27	138	6	6	0	177
		6%	66%	12%	6%	0%	
2			28	31	22	10	91
			13%	62%	23%	5%	
3				9	54	47	110
				18%	56%	23%	
4					15	104	119
					15%	51%	
5						43	43
						21%	
Total (N)	195	446	210	50	97	205	1203

Numbers in gray show column percentages: of the 446 students that correctly read between 1 – 19 words in the first segment of the oral reading passage, only 6% (27) were able to answer the question correctly. 195 students were not given any questions – zero questions asked- as they correspond to early stop cases. On average, the more fluent in reading students are –i.e., they receive 3 or more questions-, the better comprehension as more students are able to provide correct answers to most, if not all, the questions asked: the proportion of students in the 0 and 1 correct are less than 15% for columns 3, 4 and 5. Among the most fluent (columns 5), 72% are able to understand 80% or more of the text they read (51% with 4/5 correct answers and 21% with correct answers to all questions).

Sub-test 7 – Listening Comprehension

Assessment of listening comprehension does not involve any reading from the student but involves the processing of oral language information only. Testing of listening comprehension separately from reading comprehension is important due to the different ways in which learners approach, process, and respond to text. More importantly, listening comprehension is

an important contributor to reading comprehension, which tends to increase with reading acquisition.

The narrative passage in TEGRA's sub-test 7 was about 30 words long and narrated an activity or event familiar to Tongan children. Students then responded to oral comprehension questions –5 in total. Scores in sub-test 7 are calculated as the percentage of correct answers in the sub-test. On average, students in the sample responded 55% of the questions correctly (Table 15). There is evidence of progression in listening comprehension abilities, shown in the significant increase of percentage of correct answers given by Class 1 (43% correct answers), Class 2 (56% correct answers) and Class 3 (68% correct answers).

Table 16- Sub-test 7 Listening Comprehension: Results by Class and Gender

Sub-test 7 - Percentage of overall listening comprehension		N	Mean	Lower bound	Upper Bound
	Percentage of correct answers - Overall	1,203	55%	54%	57%
	Percentage of correct answers - Minus zero score students	1,111	60%	58%	61%
Class					
Class 1	Percentage of correct answers - Overall	400	43%	40%	45%
	Percentage of correct answers - Minus zero score students	334	51%	48%	53%
Class 2	Percentage of correct answers - Overall	402	56%	54%	59%
	Percentage of correct answers - Minus zero score students	386	58%	56%	61%
Class 3	Percentage of correct answers - Overall	401	68%	65%	70%
	Percentage of correct answers - Minus zero score students	391	69%	66%	71%
Gender					
Girls	Percentage of correct answers - Overall	607	54%	52%	56%
	Percentage of correct answers - Minus zero score students	560	58%	56%	60%
Boys	Percentage of correct answers - Overall	596	57%	55%	59%
	Percentage of correct answers - Minus zero score students	551	61%	59%	63%

As in sub-test 6b, average performance is related to the question presented. Overall, students were able to draw meaning of the story read to them. Of the 5 questions presented, only one (Question 3) showed average performance below 50% even among students in Class 3.¹⁶ A possible explanation for this performance may be related to the way the enumerators read the story to children –either too slow or unintelligible.

¹⁶ Based on pilot data, a common word for stones/sticks across the islands was included to improve understanding.

Table 17 - Percentage of Correct Answers by Questions in Sub-test 7

Items	Class 1			Class 2			Class 3			Total		
	Girl	Boy	Total	Girl	Boy	Total	Girl	Boy	Total	Girl	Boy	Total
LC Q1 Who's Peta's friend? Siale	0.39	0.45	0.42	0.60	0.53	0.57	0.65	0.76	0.70	0.55	0.58	0.56
LC Q2 Who wanted to eat Mangoes? Peta	0.42	0.43	0.42	0.58	0.58	0.58	0.69	0.71	0.70	0.56	0.57	0.57
LC Q3 What were they going to throw to the trees? Sticks/stones	0.24	0.30	0.27	0.32	0.36	0.34	0.40	0.50	0.45	0.32	0.39	0.35
LC Q4 What where they throwing stones/sticks to the trees? to get the mangoes	0.58	0.61	0.59	0.75	0.72	0.73	0.82	0.86	0.84	0.71	0.73	0.72
LC Q5 Why did Siale refused? The neighbors would be mad at them	0.44	0.40	0.42	0.58	0.62	0.60	0.65	0.74	0.69	0.56	0.59	0.57

Note: Weighted means.

Sub-test 8 – Dictation

Dictation assessment is frequently used by teachers to test both oral comprehension and writing skills. Students' ability to hear sounds and correctly write the letters and words corresponding to the sounds they hear demonstrates their success with the alphabetic principle. The dictation sentence in the TEGRA assessment was 10 words long and contained two difficult or irregular items: the use of the glottal stop and the macron¹⁷. Students received a weighted score capturing the accuracy for vowel and consonant sounds, spelling, spacing and direction of text, capitalization, and punctuation. As in sub-test 1 and 7, student performance in dictation was positive in terms of scores and overall progression across classes. Scores in sub-test 8 are calculated using weights¹⁸ to create a variable with a maximum score of 100%. For the spelling

¹⁷ The glottal stop (') has a distinct sound in isolation and can modify the sound of letter when preceding it. The macron (¯) serves as a modifier of letters increasing the length of the sounds of vowels.

¹⁸ Due to similarities in the components used in the TEGRA instrument, the weights for this score follow the score used in the Guyana EGRA test.

component: spelling of word *kaukau*, use of glottal stop in the context of a word, and the use of macron, each question receives 10 points (for a total of 60% of the total weights). The remaining 4 items focused on writing conventions: capitalization and glottal stop, direction, spacing and the use of the full stop, receive 5 points each (for a total of 40% of the total weights).¹⁹ Each of these weights were multiplied by the score, 0 for incorrect, 1 for partially correct or 2 for correct response, and added to obtain a final score for each student. The spelling component received more weight due to our interest in understanding reading ability.

On average, students in the sample responded 50% of the questions correctly. Excluding the 123 students with zero-scores (10% of the sample), the average score increases to 55% (Table 13). There is evidence of progression in basic spelling and writing skills, shown in the significant increase of percentage of correct items written in Class 1 (27%), Class 2 (53%) and Class 3 (69%). Girls outperformed boys and the difference is statistically significant.

Table 18 –Sub-test 8 Dictation: Results by Class and Gender

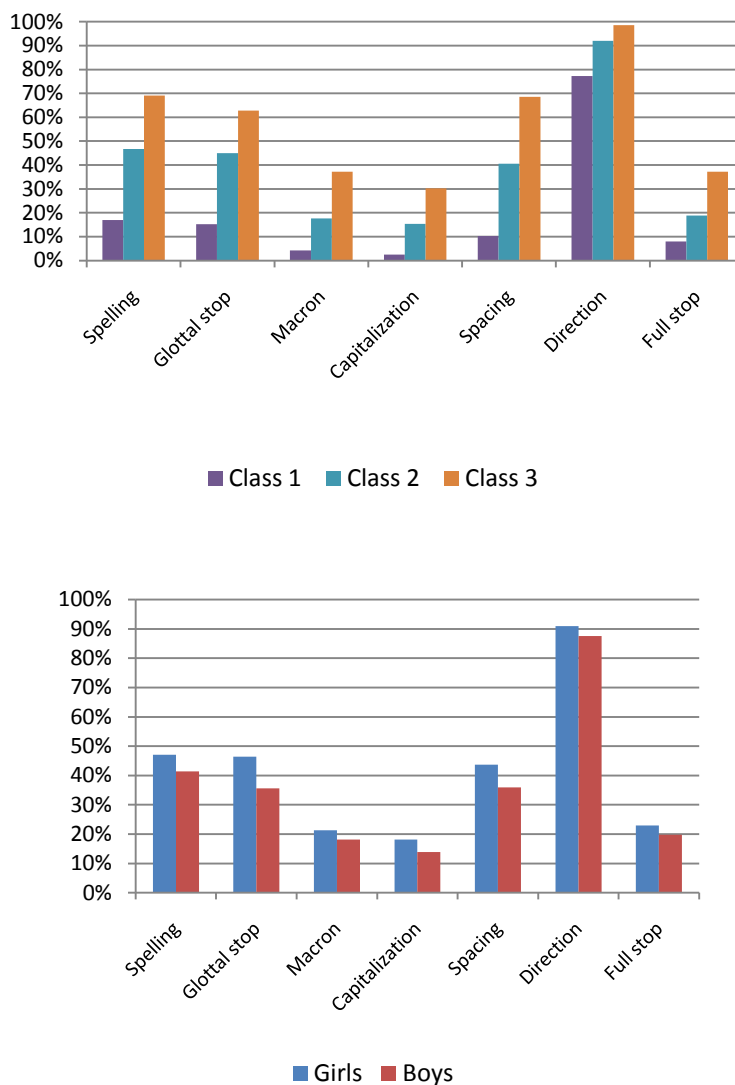
Sub-test 8 - Percentage of overall early writing skills (spelling and basic conventions)		N	Mean	Lower bound	Upper Bound
	Percentage of correct answers - Overall	1,203	50%	48%	51%
	Percentage of correct answers - Minus zero score students	1,080	55%	53%	56%
Class					
Class 1	Percentage of correct answers - Overall	400	28%	26%	31%
	Percentage of correct answers - Minus zero score students	312	36%	33%	38%
Class 2	Percentage of correct answers - Overall	402	53%	50%	55%
	Percentage of correct answers - Minus zero score students	373	56%	54%	58%
Class 3	Percentage of correct answers - Overall	401	69%	67%	71%
	Percentage of correct answers - Minus zero score students	395	69%	67%	71%
Gender					
Girls	Percentage of correct answers - Overall	607	52%	50%	55%
	Percentage of correct answers - Minus zero score students	556	57%	55%	59%
Boys	Percentage of correct answers - Overall	596	47%	45%	49%
	Percentage of correct answers - Minus zero score students	524	53%	51%	55%

Performance in spelling items shows a similar pattern to previous sub-tests, with significant progression across grades, especially from Class 1 to Class 3. However, results of basic writing

¹⁹ In spelling the use of the glottal stop had the purpose of altering the sound of a letter and a marker to separate two words. As a convention, it was considered as part of the capital letter at the beginning of the sentence.

skills indicate that while most students acquired an understanding of the orientation to write as early as Class 1 (77% correct answer), other skills such as capitalization and spacing show great variance even as late as Class 3. Moreover, the use of the full stop is not developed in almost all students (61% non-response in Class 3) although this is an frequent element during dictation in the classroom²⁰. Although gender differences are present, the average patterns in performance are similar.

Figure 5 – Percentage of Correct Answers in Each Task of Sub-test 8 by Class and Gender



²⁰ During the pilot of the instrument, the team monitored that enumerators were not dictating the final point to students, as it is often the way teachers do during dictation lessons.

Summary of Assessment Results

TEGRA results provide evidence of both good and poor performance in reading abilities among beginning readers in Tonga. Across grades, students perform well on three fundamental skills: letter name knowledge, listening comprehension, and basic writing skills. However, most students struggle to identify the sounds of letters when presented as both isolated letters and as part of a larger word. Students also struggle to read familiar and invented words, which extends to errors in reading fluency, reading comprehension and spelling.

Comparing across groups, there are significant gains in reading from Class 1 to Class 3, and girls appear to perform better than boys; however, there are no differences in reading skills across school types and the regions of Tonga. In all eight skills, there is evidence of reading progression across classes as students in Class 2 perform better than students in Class 1, and students in Class 3 perform better than students in Class 2. The fraction of fluent girls is almost three times that of boys.

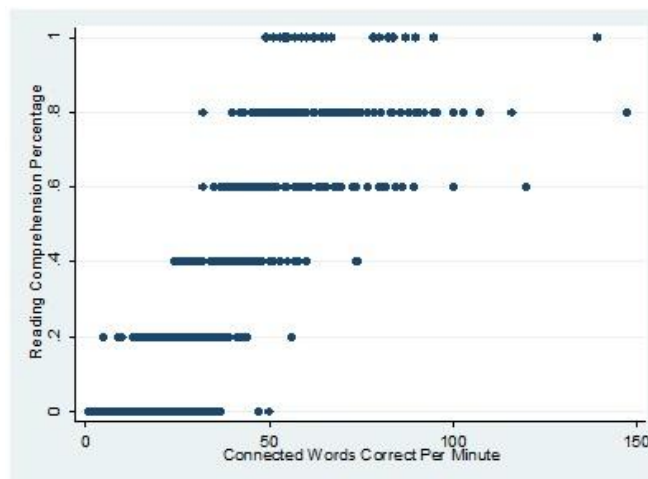
Chapter 4: Performance in Oral Reading Fluency and Reading Comprehension

Fluency and comprehension

As stated before, oral reading fluency is a measure of overall reading competence: the ability to translate letters into sounds, unify sounds into words, process connections, relate text to meaning, and make inferences to fill in missing information (Hasbruck and Tindal, idem; Fuschs et al, 2001). This is not to say, however, that oral reading fluency is the only predictor of reading comprehension among readers. Because oral reading fluency captures this complex process and it is strongly associated to both listening and reading comprehension, it is typically used as a marker of overall reading ability.

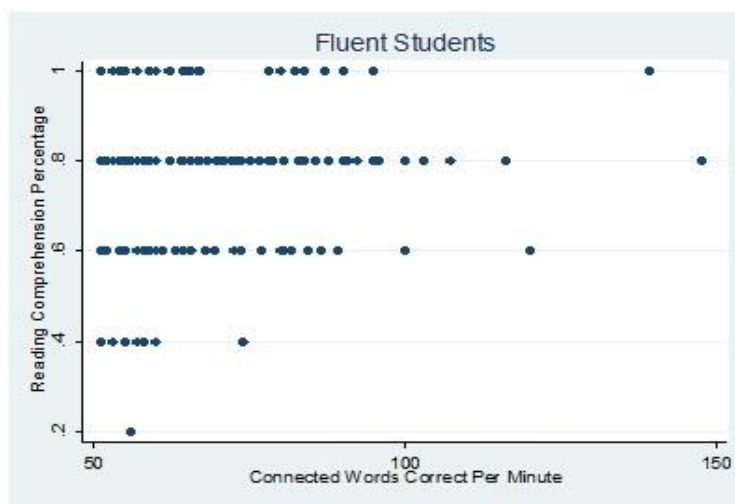
For more researched languages, specific benchmarks of oral reading fluency have already been developed. These benchmarks help educators monitor student progression in reading during the school year to identify students at risk of failing to become literate. Until 2009, oral reading had not been measured in Tonga which made it impossible to have a Tongan-language standard for oral reading fluency. For this reason, we sought to identify what are the oral reading fluency levels where Tongan children demonstrate higher reading comprehension levels. Using data from sub-test 6a and 6b, we observed that children reading less than 40 correct words per minute in the oral reading passage understand, on average, 40% or less of what they read. Conversely, students that read least 50 correct words per minute understand about 60% or more of the text they read (Figure 5). Even though a small group of students read between 35 and 50 correct words per minute and showed 60% or more understanding of the text, all the students who were able to understand all of the text read more than 50 correct words per minute.

Figure 6 – Percentages of Average Reading Comprehension by Number of Correct Words Read Per Minute in the Oral Reading Passage



Using a reference standard of 50 correct words per minute to classify students as “fluent readers”, we observe that with the exception of few students who read 50 correct words per minute but showed little or no understanding of the text, students at this fluency level are able to understand more than 60% of the text they read (Figure 7). Moreover, students able to provide correct answers to all the questions asked read between 50 and 139 correct words per minute (average fluency at 67 CWPM).

Figure 7 – Average Reading Comprehension Levels in Fluent Students



In terms of their distribution in the sample, fluent students -i.e., reading at a reference standard of at least 50 CWCPM - account for 17% of the sample. Differences by class level show that fluency emerges among students in Class 3 but only for a third of them. Overwhelmingly, 25% of the girls in the sample can be considered fluent in reading, whereas only 9% the boys achieved the fluency reference standard.

Table 19- Distribution of Students by Fluency

	Less than fluent			Fluent students		
	Reading 0 to 49 words per minute			>50 correct words in a narrative passage		
	Mean (%)	SD (%)	N	Mean (%)	SD (%)	N
Overall	83%	38%	1,203	17%	38%	1,203
Class1	98%	14%	400	2%	14%	400
Class2	85%	36%	402	15%	36%	402
Class3	66%	47%	401	34%	47%	401
Female	75%	43%	607	25%	43%	607
Male	91%	28%	596	9%	28%	596

Excluding the early-stop cases from the sample brings slight changes to the distribution of fluent (20% students in the sample) and less-than-fluent students (80% of the sample). Differences by class level remain almost the same between fluent and less-than-fluent students. The ratio of fluent girls to fluent boys remains also the same (about three-times that of boys).

Table 20- Percent Distribution of Students by Fluency (no zero-score students)

	Less than Fluent Students			Fluent Students		
	Reading 1 to 49 words per minute			>50 correct words in a narrative passage		
	Mean (%)	SD (%)	N	Mean (%)	SD (%)	N
Overall	80%	40%	1,008	20%	40%	1,008
Class1	97%	18%	252	3%	18%	252
Class2	83%	37%	367	17%	37%	367
Class3	66%	48%	389	34%	48%	389
Female	71%	45%	518	29%	45%	519
Male	90%	31%	489	10%	31%	489

Note: This table excludes students in the early-stop group for CWCPM

Differences in the number of words are also significant across grades and gender. While less-than-fluent students read an average of 23 CWCPM, fluent students read 67 CWCPM –a difference in fluency of 44 correct read words per minute in the oral reading passage. In terms of average comprehension levels, while less-than-fluent students do increase their average comprehension as their fluency level increases, average reading comprehension for fluent students remains at around 70% to 80%.

Table 21 - Average Fluency Levels (Fluent Vs. Less than Fluent) Excluding Zero-score Students

	Less than Fluent Students			Fluent Students		
	Reading 1 to 49 words per minute			>50 correct words in a narrative passage		
	Mean	SD	N	Mean	SD	N
Overall	23	13	815	67	15	192
Class1	17	12	244	60	8	7
Class2	24	12	308	65	13	59
Class3	29	12	263	68	16	126
Female	24	13	377	69	15	141
Male	22	13	438	62	13	51

Table 22 – - Average Reading Comprehension (Fluent Vs. Less than Fluent) Excluding Zero-score Students

	Less than Fluent Students			Fluent Students		
	Reading 1 to 49 words per minute			>50 correct words in a narrative passage		
	Mean (%)	SD (%)	N	Mean (%)	SD (%)	N
Overall	16%	22%	815	79%	16%	192
Class1	7%	15%	244	84%	22%	7
Class2	16%	23%	308	76%	15%	59
Class3	25%	25%	263	80%	15%	126
Female	16%	21%	377	79%	15%	141
Male	16%	23%	438	78%	16%	51

Interestingly, once students read at a fluent level, word reading gains among fluent students are not substantial (5 words from Class 1 to Class 2, and 3 more from Class 2 to Class 3) which may suggest that once students reach fluency in oral reading, these remain constant in the following class levels. All in all, average scores in CWCPM and reading comprehension levels suggest that although the system seems to contribute to develop fluency in reading, once Tongan children are able to read fluently, instruction in the classroom is falling short to support their transition onto more complex texts and/or promoting adequate reading comprehension strategies.

In summary, there is much variation in reading fluency and comprehension among Tongan students. Greater oral reading fluency is associated with higher levels of reading comprehension, with fluent students—identified as the 17% of students who were able to read at least 50 correct words per minute—being able to comprehend about 80% of what they read, compared to only less-than-fluent student who are able to understand only 16% of what they read. The results suggest that reading fluency differs across both classes and gender. In particular, the results provide evidence that schooling increases fluency levels, as students in Class 3 demonstrated the highest fluency levels while students in Class 1 demonstrated the lowest fluency levels. Girls also exhibited greater reading fluency than boys. However, comparing at the same fluency level, girls and boys exhibited the same level of reading comprehension, suggesting that while reading fluency varies across gender, reading comprehension depends on reading fluency rather than gender.

Chapter 5: Analysis of Student Factors Associated with Better Reading Scores

We sought to explore the association between students' characteristics and performance using data collected in the student questionnaire. Students were asked questions on their background such as their parents' literacy, whether they attended kindergarten, and whether they had books for school and other books. We also include questions measuring socio-economic status (SES) such as asset ownership; however, the low variation in the SES indicators prevented us from creating an index of SES. Below, is the distribution of relevant variables among students in the sample.

Table 23 - Characteristics of students in the sample along several student and family factors

	Mean (%)	SD	N
Student speaks the same language at home as in the school	98	14	1,189
Student has a literate family member :			
Student has a literate mother	62	48	1,203
Student has a literate father	47	50	1,203
Student has both parents literate	39	49	1,203
Student has at least one literate sibling	59	49	1,203
Student has other literate family member (e.g., grandparent)	2	14	1,203
Student is in overage (as a proxy for repetition)	6	23	1,203
Student attended kindergarten before Class 1	64	48	1,188
Student has books at home	67	47	1,185
If yes to above, language in books at home are written:			
Tongan	59	49	1,203
English	14	35	1,203
Student was absent from school for more than 1 week	33	47	1,129
Student has the School Reader	84	37	1,187
Student reported s/he does homework	95	21	1,196
Student reported s/he gets help from a family member to do his/her homework:			
From his/her mother	59	49	1,203
From his/her father	27	44	1,203
From his/her sibling	37	48	1,203
From another relative of his	1	9	1,203

Note: Missing data explains cases where N is less than 1,203.

We explored how nine student characteristics contribute to performance in the following six sub-tests: 1) number of letters recognized per minute; 2) number of sounds recognized in a

word (out of 10 words); 3) number of letter sounds recognized per minute; 4) number of familiar words recognized per minute; 5) number of invented words recognized per minute; and 6) number of correct words read in a connected passage per minute. In general, students with each of those factors performed better on the sub-tests, but these differences were not always statistically significant. Family literacy seems to affect boys more than girls, and family literacy seems to strongly influence student performance in sound recognition in a word. Having a literate mother is associated with better performance for each level and for both boys and girls. However, the p-values presented below show that the differences are not statistically significant except for boys' performance in letter recognition and sound recognition in a word.

We used sample weights for all the analysis because of the sample stratification present in the data.²¹ Tables 5.1 – 5.10 compare the mean scores by class and gender of the six sub-tests for the group of students who had the factor –e.g., students with a literate mother- with the group of students who did not have the factor –e.g., students without a literate mother. Table 24 below summarizes the statistical differences found in TEGRA results which are marked in tables 5.1 to 5.10 in **bold** ($p < 5\%$), and ***bold and italicized*** ($p < 1\%$).

Table 24 – Summary of ANOVA Results by Student Factors

Table	Class	Gender
5.1 - Literate mother	No statistical differences	Statistical differences in better performance of boys in sub-tests 1 and 2; no differences among girls
5.2 - Literate father	Statistical differences in sub-test 2 for Class 1 students	Statistical differences in better performance of boys in sub-tests 1,2, and 3; no differences among girls
5.3 - Both parents are literate	Statistical differences in sub-test 2 for all class levels	Statistical differences in better performance of boys in sub-tests 1,2,3 and 4; for girls only in sub-test 2
5.4 - Literate sibling	Statistical differences in sub-test 2 for all class levels	Statistical differences in better performance of boys in all sub-tests; for girls, in sub-test 2 and 5
5.5 - Books at home	Statistical differences in sub-tests 1, 4,5,6 for Class 3 students	Statistical differences in better performance of boys in sub-tests 1, 4 and 6; for girls in sub-test 1,4,5, and 6
5.6 - Does homework	Statistical differences in sub-tests 1,5 and 6 in Class 1; and in sub-test 1,4,5,6 in Class 2; no statistical differences for Class 3	Statistical differences in better performance of boys in all sub-tests except sub-test 2; for girls, only in sub-test 1
5.7 - Family helps with homework	No statistical differences	Statistical differences in better performance of boys in sub-tests 1, 4 and 6; no differences among girls
5.8 - Attended kindergarten	Statistical differences in sub-test 2 for all class levels, and sub-test 4 for Class 3 students	Statistical differences in worse performance of boys in sub-tests 2; for girls, in sub-test 4
5.9 - Overage	Statistical differences in sub-tests 5 and 6 for Class 2 students; and sub-tests 4,5,6 in Class 3 students	No statistical differences
5.10 - Absenteesm	Statistical differences in sub-test 3 for Class 2 students; and sub-tests 3 and 6 for Class 3 students	Statistical differences in worse performance of boys only in sub-test 3

²¹ Since simple t-tests would not allow us to use sample weights, we used a regression to determine the significance of student characteristics. The p-value on the coefficient of an unweighted regression is equivalent to the p-value of a two-sided t-test, so using p-values from a weighted regression would allow us to use the sample weights and test for the significance of the factors.

Table 25 - Results from differences in average scores determined by factor (tables 5.1 to 5.10)

Table 5.1 Student Factor 1 - Mother's literacy

Subtest	By Class								By Gender					
	Group with Factor				Group without Factor				Group with Factor			Group without Factor		
	Class 1	Class 2	Class 3	Total	Class 1	Class 2	Class 3	Total	Girls	Boys	Total	Girls	Boys	Total
Letter Recognition	37.8	59.6	69.4	55.7	35.9	58.1	69.5	54.1	58.4	53.0	55.7	59.2	48.6	54.1
Sound Recognition in a Word	3.3	4.5	5.2	4.4	2.7	3.9	5.1	3.9	4.4	4.3	4.4	4.2	3.5	3.9
Letter Sound Recognition	17.1	23.3	25.6	22.0	15.1	23.2	24.1	20.7	23.2	20.8	22.0	22.3	19.1	20.7
Familiar Word Recognition	9.0	19.5	26.7	18.5	9.1	18.6	29.6	18.7	20.9	16.0	18.5	22.5	14.7	18.7
Unfamiliar Word Recognition	8.4	17.5	23.1	16.4	8.1	17.2	24.2	16.3	18.2	14.5	16.4	19.4	12.9	16.3
Words in a Connected Passage	12.0	28.7	40.4	27.1	11.5	27.3	44.2	27.1	31.6	22.5	27.1	32.3	21.6	27.1

Note: bold numbers denote significant differences between groups at $p < 5\%$; bold and italicized numbers denote significant differences between groups at $p < 1\%$.

Table 5.2 Student Factor 2 - Father's literacy

Subtest	By Class								By Gender					
	Group with Factor				Group without Factor				Group with Factor			Group without Factor		
	Class 1	Class 2	Class 3	Total	Class 1	Class 2	Class 3	Total	Girls	Boys	Total	Girls	Boys	Total
Letter Recognition	37.8	59.6	69.8	55.8	36.4	58.6	69.1	54.5	57.5	54.0	55.8	59.7	48.9	54.5
Sound Recognition in a Word	3.6	4.6	5.5	4.6	2.7	4.0	4.8	3.8	4.6	4.5	4.6	4.2	3.5	3.8
Letter Sound Recognition	16.3	23.6	25.9	22.0	16.3	22.9	24.3	21.2	21.6	22.3	22.0	23.9	18.2	21.2
Familiar Word Recognition	9.0	19.5	26.9	18.6	9.0	18.8	28.5	18.6	20.5	16.6	18.6	22.3	14.6	18.6
Unfamiliar Word Recognition	8.4	17.3	23.0	16.3	8.2	17.4	24.0	16.4	17.9	14.7	16.3	19.3	13.2	16.4
Words in a Connected Passage	12.4	29.8	40.8	27.7	11.2	26.8	42.7	26.6	32.0	23.5	27.7	31.8	20.9	26.6

Note: bold numbers denote significant differences between groups at $p < 5\%$; bold and italicized numbers denote significant differences between groups at $p < 1\%$.

Table 5.3 Student Factor 3 - Literacy in both parents

Subtest	By Class								By Gender					
	Group with Factor				Group without Factor				Group with Factor			Group without Factor		
	Class 1	Class 2	Class 3	Total	Class 1	Class 2	Class 3	Total	Girls	Boys	Total	Girls	Boys	Total
Letter Recognition	38.5	59.3	68.8	56.1	36.2	58.9	69.9	54.4	58.2	54.1	56.1	59.0	49.5	54.4
Sound Recognition in a Word	3.8	4.9	5.5	4.8	2.7	3.9	4.9	3.8	4.8	4.8	4.8	4.1	3.4	3.8
Letter Sound Recognition	17.5	23.6	26.8	22.8	15.6	23.0	23.8	20.7	22.5	23.1	22.8	23.0	18.2	20.7
Familiar Word Recognition	9.6	20.0	27.0	19.2	8.7	18.6	28.3	18.2	21.4	17.0	19.2	21.5	14.5	18.2
Unfamiliar Word Recognition	9.0	17.6	22.8	16.8	7.9	17.2	24.0	16.1	18.5	15.0	16.8	18.8	13.1	16.1
Words in a Connected Passage	12.8	30.6	40.3	28.5	11.2	26.6	42.9	26.3	33.2	23.8	28.5	31.1	21.1	26.3

Note: bold numbers denote significant differences between groups at $p < 5\%$; bold and italicized numbers denote significant differences between groups at $p < 1\%$.

Table 5.4 Student Factor 4 - Literacy in at least one sibling

Subtest	By Class								By Gender					
	Group with Factor				Group without Factor				Group with Factor			Group without Factor		
	Class 1	Class 2	Class 3	Total	Class 1	Class 2	Class 3	Total	Girls	Boys	Total	Girls	Boys	Total
Letter Recognition	37.3	59.8	69.4	57.3	36.8	58.0	69.5	52.0	61.0	53.6	57.3	55.6	47.9	52.0
Sound Recognition in a Word	3.7	4.8	5.5	4.8	2.5	3.5	4.5	3.3	4.9	4.7	4.8	3.7	2.9	3.3
Letter Sound Recognition	17.4	24.0	24.9	22.5	15.3	22.2	25.5	20.1	23.4	21.7	22.5	22.1	17.9	20.1
Familiar Word Recognition	9.5	19.4	28.0	20.0	8.5	18.7	27.0	16.5	22.8	17.2	20.0	19.7	13.0	16.5
Unfamiliar Word Recognition	8.8	17.7	23.8	17.6	7.8	16.9	22.9	14.6	19.9	15.3	17.6	17.0	11.8	14.6
Words in a Connected Passage	12.0	28.7	41.9	29.1	11.5	27.4	41.6	24.3	33.7	24.5	29.1	29.3	18.6	24.3

Note: bold numbers denote significant differences between groups at $p < 5\%$; bold and italicized numbers denote significant differences between groups at $p < 1\%$.

Table 5.5 Student Factor 5 - Student has books at home

Subtest	By Class								By Gender					
	Group with Factor				Group without Factor				Group with Factor			Group without Factor		
	Class 1	Class 2	Class 3	Total	Class 1	Class 2	Class 3	Total	Girls	Boys	Total	Girls	Boys	Total
Letter Recognition	38.1	60.9	71.2	57.6	35.8	55.9	65.2	50.7	61.0	53.7	57.6	54.1	47.5	50.7
Sound Recognition in a Word	3.3	4.4	5.3	4.4	3.0	4.1	4.8	3.9	4.6	4.2	4.4	4.0	3.7	3.9
Letter Sound Recognition	17.0	24.1	25.7	22.5	15.4	21.9	23.9	20.0	23.6	21.3	22.5	21.4	18.6	20.0
Familiar Word Recognition	9.5	19.8	29.4	20.0	8.3	18.0	23.1	15.7	23.2	16.5	20.0	17.7	13.9	15.7
Unfamiliar Word Recognition	8.6	17.7	24.7	17.4	7.7	16.7	20.4	14.3	20.0	14.5	17.4	15.8	12.9	14.3
Words in a Connected Passage	12.7	29.2	44.5	29.6	10.3	26.2	34.6	22.4	34.9	23.6	29.6	25.3	19.7	22.4

Note: bold numbers denote significant differences between groups at $p < 5\%$; bold and italicized numbers denote significant differences between groups at $p < 1\%$.

Table 5.6 Student Factor 6 - Student does homework

Subtest	By Class								By Gender					
	Group with Factor				Group without Factor				Group with Factor			Group without Factor		
	Class 1	Class 2	Class 3	Total	Class 1	Class 2	Class 3	Total	Girls	Boys	Total	Girls	Boys	Total
Letter Name Knowledge	38.0	60.2	69.6	56.1	26.4	36.3	65.1	37.0	59.4	52.7	56.1	46.2	28.9	37.0
Initial Sound Recognition	0.3	0.4	0.5	0.4	0.2	0.3	0.5	0.3	0.4	0.4	0.4	0.4	0.3	0.3
Letter Sound Recognition	16.4	23.6	25.2	21.8	16.2	17.4	22.6	17.8	23.0	20.6	21.8	21.8	14.2	17.8
Familiar Word Reading	9.2	19.6	27.6	18.9	7.2	11.2	32.3	13.2	21.7	15.9	18.9	17.1	9.7	13.2
Invented Word Reading	8.6	17.7	23.5	16.7	4.0	10.3	26.7	10.4	19.0	14.3	16.7	13.3	7.8	10.4
Words in Oral Reading Passage	12.2	28.8	41.7	27.7	6.2	15.5	46.9	17.0	32.3	22.8	27.7	23.0	11.7	17.0

Note: bold numbers denote significant differences between groups at $p < 5\%$; bold and italicized numbers denote significant differences between groups at $p < 1\%$.

Table 5.7 Student Factor 7 - Student receives help with homework at home

Subtest	By Class								By Gender					
	Group with Factor				Group without Factor				Group with Factor			Group without Factor		
	Class 1	Class 2	Class 3	Total	Class 1	Class 2	Class 3	Total	Girls	Boys	Total	Girls	Boys	Total
Letter Name Knowledge	37.7	60.0	69.6	56.6	38.6	62.4	71.8	52.8	59.2	53.7	56.6	62.1	45.9	52.8
Initial Sound Recognition	3.1	4.4	5.2	4.2	3.7	4.3	5.1	4.2	4.4	4.0	4.2	4.3	4.1	4.2
Letter Sound Recognition	16.5	23.7	25.3	22.1	15.8	21.8	23.2	19.2	23.3	20.8	22.1	19.7	18.9	19.2
Familiar Word Reading	9.0	19.7	27.4	19.2	10.1	18.8	33.0	17.6	21.7	16.4	19.2	23.5	13.1	17.6
Invented Word Reading	8.3	17.7	23.2	16.8	10.1	17.9	28.6	16.4	18.7	14.6	16.8	21.7	12.4	16.4
Words in Oral Reading Passage	11.9	28.7	41.3	28.1	13.2	30.1	48.8	25.8	32.2	23.5	28.1	35.2	18.8	25.8

Note: bold numbers denote significant differences between groups at $p < 5\%$; bold and italicized numbers denote significant differences between groups at $p < 1\%$.

Table 5.8 Student Factor 8 - Student attended kindergarten

Subtest	By Class								By Gender					
	Group with Factor				Group without Factor				Group with Factor			Group without Factor		
	Class 1	Class 2	Class 3	Total	Class 1	Class 2	Class 3	Total	Girls	Boys	Total	Girls	Boys	Total
Letter Name Knowledge	36.1	58.6	68.3	54.1	39.5	60.3	71.2	57.5	57.1	50.9	54.1	62.0	52.8	57.5
Initial Sound Recognition	2.8	3.9	4.9	3.9	3.8	5.0	5.5	4.8	4.2	3.6	3.9	4.8	4.8	4.8
Letter Sound Recognition	15.3	22.6	24.5	20.7	18.6	24.6	26.2	23.2	21.6	19.8	20.7	25.3	21.1	23.2
Familiar Word Reading	9.0	18.7	26.3	17.8	9.5	20.2	29.9	20.2	20.2	15.3	17.8	24.0	16.3	20.2
Invented Word Reading	8.1	16.8	22.8	15.7	9.0	18.5	24.7	17.6	17.8	13.6	15.7	20.4	14.7	17.6
Words in Oral Reading Passage	11.6	27.1	40.9	26.1	12.6	30.5	43.2	29.2	30.6	21.5	26.1	34.5	23.8	29.2

Note: bold numbers denote significant differences between groups at $p < 5\%$; bold and italicized numbers denote significant differences between groups at $p < 1\%$.

Table 5.9 Student Factor 9 - Student is overage (as a proxy for repetition)

Subtest	By Class								By Gender					
	Group with Factor				Group without Factor				Group with Factor			Group without Factor		
	Class 1	Class 2	Class 3	Total	Class 1	Class 2	Class 3	Total	Girls	Boys	Total	Girls	Boys	Total
Letter Name Knowledge	47.0	49.9	64.1	53.3	36.3	59.5	69.7	55.2	51.9	54.2	53.3	59.0	51.1	55.2
Initial Sound Recognition	3.6	3.8	4.3	3.9	3.1	4.3	5.2	4.2	3.8	3.9	3.9	4.4	4.0	4.2
Letter Sound Recognition	28.6	27.8	20.4	25.7	15.4	23.0	25.4	21.3	31.5	22.2	25.7	22.5	20.0	21.3
Familiar Word Reading	14.2	13.9	19.7	15.9	8.6	19.4	28.2	18.7	18.2	14.4	15.9	21.6	15.6	18.7
Invented Word Reading	12.1	11.8	18.1	13.9	8.0	17.6	23.8	16.5	16.7	12.2	13.9	18.8	14.0	16.5
Words in Oral Reading Passage	18.5	18.1	31.2	22.4	11.3	28.7	42.4	27.4	25.6	20.5	22.4	32.2	22.3	27.4

Note: bold numbers denote significant differences between groups at $p < 5\%$; bold and italicized numbers denote significant differences between groups at $p < 1\%$.

Table 5.10 Student Factor 10 - Student was absent for more than one week in the school year

Subtest	By Class								By Gender					
	Group with Factor				Group without Factor				Group with Factor			Group without Factor		
	Class 1	Class 2	Class 3	Total	Class 1	Class 2	Class 3	Total	Girls	Boys	Total	Girls	Boys	Total
Letter Name Knowledge	37.2	58.0	67.6	55.2	37.7	59.9	70.8	56.9	57.6	52.8	55.2	60.6	52.9	56.9
Initial Sound Recognition	3.2	4.1	5.0	4.1	3.1	4.5	5.3	4.3	4.2	4.1	4.1	4.6	4.1	4.3
Letter Sound Recognition	17.3	20.2	22.1	20.0	17.0	25.2	26.8	23.2	21.1	18.8	20.0	24.5	21.9	23.2
Familiar Word Reading	9.1	18.6	26.3	18.4	9.2	19.7	28.6	19.6	20.4	16.4	18.4	22.9	16.0	19.6
Invented Word Reading	7.6	16.9	22.4	16.1	8.8	17.8	24.3	17.3	17.9	14.2	16.1	19.8	14.6	17.3
Words in Oral Reading Passage	12.0	27.7	38.4	26.8	12.3	28.6	43.8	28.9	30.4	23.0	26.8	34.1	23.3	28.9

Note: bold numbers denote significant differences between groups at $p < 5\%$; bold and italicized numbers denote significant differences between groups at $p < 1\%$.

In summary, there is some evidence that students with literate parents, literate siblings, books at home, and help with homework perform better on tests of literacy, while students who attend kindergarten, are overage, and absent for more than one week in the school year perform worse on tests of literacy²². Family literacy seems to affect boys more than girls, and family literacy seems to strongly influence student performance in sound recognition in a word. Having at least a literate sibling is associated with better performance for initial sound recognition at each class level, and it seems to exert a stronger positive effect in the development of basic reading skills of boys than of girls. Having books at home is associated with better performance for girls, boys, and class 3 students, especially in the oral reading passage. Receiving help with homework at home appears to improve performance in boys' recognition of letters and familiar word, and reading of connected words in a passage, but this may not improve literacy performance in girls. Students without kindergarten outperformed students who attended kindergarten on some sub-tests, indicating possible issues with the quality of kindergarten. The lower performance of overage students in class 2 and 3, but not in class 1, may be the effect of grade retention in later classes. Finally, there is some evidence that being absent for more than one week in a school year is associated with poorer literacy outcomes for boys and students in class 2 and class 3.

²² This finding results counterintuitive. Because TEGRA did not look into differences in teacher practice in reading among kindergarten teachers, this finding is inconclusive and requires further investigation.

Chapter 6: Analysis of Teacher Factors Associated with Better Reading Scores

We sought to explore the association between teacher characteristics –e.g., years of experience, professional qualification, in-service training, etc.- and student reading outcomes using data collected in the teacher questionnaire. As shown in the table below, most teachers in the sample exhibit high teaching experience, hold teaching certificates, and are actively involved with Parent-Teacher Associations (PTAs) and hold meetings with their students’ parents. Although there is little consensus among sample teachers on how best to engage parental support, most teachers agreed on the importance on getting family members to help students with their homework, to read with the students at home, and for parents to be more consistent in their attendance to PTA meetings. Table 26 below summarizes the profile of teachers in the TEGRA sample.

Table 26 – Profile of Teachers in TEGRA

	Mean	SD	N
Years of experience (in total)	15.70	10.78	168
Years of experience (as certified teacher)	13.53	9.66	158
Percentage of teachers that hold a Trained Teacher Certification (0=no; 1=yes)	97%	0.18	170
Year in which s/he acquired this certification	1995	9.71	148
Difference between total and certified years of experience	2.59	5.55	150
Percentage that received in-service training in last 3 years (0=no; 1=yes)	50%	0.50	171
Percentage that received in-service reading training in last 3 years (0=no; 1=yes)	27%	0.44	171
In the last 3 years, percentage that received 1 in-service training in reading instruction (0=no; 1=yes)	23%	0.42	171
In the last 3 years, percentage received 2 in-service trainings in reading instruction (0=no; 1=yes)	8%	0.27	171
Average total number of hours spent in training in the last 3 years	92	144	29
Percentage of teachers that work in a school with a functioning PTA (0=no; 1=yes)	96%	0.21	169
Percentage of teachers that meet with the parents of his/her students (0=no; 1=yes)	95%	0.22	171
Percentage of teachers that have the recommended Tongan Reading Text (0=no; 1=yes)	66%	0.48	171
If teacher has the recommended reading text, percentage who use as part of their lessons (0=no; 1=yes)	92%	0.27	135
Percentage of teachers that have the teacher guide for reading instruction (0=no; 1=yes)	55%	0.50	170

In order to identify the teacher characteristics associated with better student reading outcomes, we conducted separate regression analyses for each factor (see table below). The dependent variable was the average number of correct words read per minute in the oral reading passage – i.e., scores from sub-test 6a. The factors used in the analysis included 1) teachers’ experience level; 2) whether or not they were certified; 3) if they’d receive any in-service training in the last 3 years; 4) if any of this training was related to reading instruction; 5) whether the teacher had the recommended Tongan reading text; 6) whether they used the recommended text; and 7) whether they had the guide for reading instructions. We then include class and gender in the regression analysis.

Effect of Teacher Characteristics on Student Performance

Table 27 provides results of seven regression analyses to show the relationship of seven teacher characteristics on student performance, using the oral reading fluency indicator measured as the number of correct words read per minute in sub-test 6a. Results on the contribution of teacher experience and training on student performance are inconclusive. Two factors showed statistical significant results (regressions 5 and 6, marked with ** in table 27). Students whose teachers have the recommended Tongan reading text read on average 4 more words per minute than students whose teachers who do not have the text. Furthermore, students whose teachers use the recommended Tongan reading text read on average 7 more words per minute than students whose teachers do not use the text.

Table 27 - Regression analyses of teacher characteristics on student literacy performance

Dependent variable = number of correct words read per minute in a passage	
<u>Independent Variables</u>	<u>Coefficient</u>
Reg 1 - Years of Experience	-0.112
Reg 2 - Holds Teaching Certificate	-0.050
Reg 3 - Received in-service training in last 3 years	-0.221
Reg 4 - Received in-service reading training in last 3 years	-0.580
Reg 5 - Teacher has recommended Tongan Reading Text	4.454 **
Reg 6 - Teacher uses Tongan Reading Text	6.581 **
Reg 7 - Teacher has teacher guide for reading instructions	-0.460

** p < .01

Effect of Teacher Expectations on Student Performance

Teachers were also asked to report their expectations of student performance. Table 28 provides results of seven regression analyses to show the relationship of seven indicators of teacher expectations on student performance, measured as the number of correct words students read per minute from the assessment. Each regression analysis consists of two models: 1) a model of the independent variable only, and 2) a model of the independent variable while controlling for

gender. We determined the reference category as the median expectation of all teachers for each indicator. For example, we identified class 2 as the reference category in regression 3 because the median response of teachers for students to understand stories they read was by the end of class 2. The positive coefficient of 2.70 in class 1 indicates that students' whose teachers have higher expectation for them to understand stories a year earlier than the median expected time read on average 2.7 more words per minute relative to students whose teachers with average expectations for their students. The negative coefficient of -2.5 in Class 3 indicates that students whose teachers have lower expectation for them to understand stories a year later than the median expected time read on average 2.5 fewer words per minute relative to students whose teachers with average expectations for their students. It is important to note inconsistent patterns such as the negative coefficient associated with kindergarten in regression 3. Although it is not certain, this inconsistency could suggest poor quality kindergarten education in the country.

Overall results of the regression analysis show that students performed worse when teachers had lower expectations, thought the task was not important, or expected students to be able to perform the tasks later. In addition, controlling for gender changes the magnitude of the coefficient, but the sign and significance levels remained the same in nearly all cases. However, the analyses did not provide significant results that teachers with high expectations are associated better student performance.

Regression 1 shows that students whose teachers think students should read aloud a short passage with few mistakes by kindergarten read on average 26 fewer words per minute relative to students whose teachers think it should be done by class 3. Regression 2 shows that students whose teachers think students should write their name later than class 3 read on average 15 fewer words per minute relative to students whose teachers think it should be done by class 1. Regression 3 shows that students whose teachers think they should understand stories they read by kindergarten read on average 27 fewer words per minute relative to students whose teachers think it should be done by class 2. Regression 4 shows that students whose teachers think students should recognize and say letter names by class 2 read on average 8 fewer words per minute relative to students whose teachers think it should be done by class 1. Regression 5 does not contain statistically significant differences between when teachers think students should sound out invented words. Regression 6 shows that students whose teachers think students should understand stories they hear by class 3 read on average 4 fewer words per minute relative to students whose teachers think it should be done by class 1. Regression 7 shows that students whose teachers think students should recite the alphabet in class 3 read on average 5 fewer words per minute, while students whose teachers think reciting the alphabet is not important read an average 18 fewer words per minute relative to students whose teachers think it should be done by class 1. Teachers also reported similar expectations by class. Results indicated that on average, teachers expected students to be able to do the following by the end of class 1: write their name, recognize and say letter names, and recite the alphabet. Teachers expected students to be able to do the following by the end of class 2: read aloud with few mistakes, understand stories they read, sound out invented words, and understand stories they hear.

Table 28 - Regression analyses of average effects of teachers' expectations on student literacy performance

Dependent variable = number of correct words read per minute in a passage				
Controlling for Gender (F=1)				
<u>Independent Variables</u>	<u>Coefficient</u>	<u>SD</u>	<u>Coefficient</u>	<u>SD</u>
Reg 1 - Grade students should read aloud a short passage with few mistakes				
Kindergarten	-25.950 ***	(1.284)	-30.410 ***	(1.582)
Class 1	3.578	(1.939)	3.517	(1.892)
Class 2	0.524	(1.823)	0.743	(1.784)
Class 3	—	—	—	—
Not important	-3.948 **	(1.284)	0.831	(1.343)
Reg 2 - Grade students should be able to write their name				
Kindergarten	-0.572	(1.988)	-1.064	(1.949)
Class 1	—	—	—	—
Class 2	-10.300	(9.483)	-14.980	(9.536)
Class 3	-14.550 ***	(2.945)	-14.070 ***	(2.834)
Reg 3 - Grade students should understand stories they read				
Kindergarten	-27.040 ***	(1.141)	-31.740 ***	(1.489)
Class 1	2.700	(1.975)	2.428	(1.910)
Class 2	—	—	—	—
Class 3	-2.537	(1.714)	-2.635	(1.682)
Reg 4 - Grade students should recognize and say letter names				
Kindergarten	1.587	(2.103)	1.441	(2.063)
Class 1	—	—	—	—
Class 2	-7.530 **	(2.667)	-7.698**	(2.628)
Reg 5 - Grade students should sound out unfamiliar words				
Kindergarten	0.931	(5.973)	0.557	(5.917)
Class 1	1.044	(1.769)	0.831	(1.719)
Class 2	—	—	—	—
Class 3	-2.666	(1.954)	-2.850	(1.915)
Reg 6 - Grade students should understand stories they hear				
Kindergarten	2.091	(4.800)	0.927	(4.546)
Class 1	—	—	—	—
Class 2	0.660	(1.944)	0.588	(1.900)
Class 3	-4.187 *	(1.886)	-4.119 *	(1.856)

Dependent variable = number of correct words read per minute in a passage				
Controlling for Gender (F=1)				
<u>Independent Variables</u>	<u>Coefficient</u>	<u>SD</u>	<u>Coefficient</u>	<u>SD</u>
Reg 7 - Grade students should recite alphabet				
Kindergarten	0.581	(2.411)	0.399	(2.285)
Class 1	—	—	—	—
Class 2	-3.221	(2.787)	-2.622	(2.688)
Class 3	-4.979 *	(2.076)	-5.414 **	(2.091)
Not important	-17.530 ***	(0.925)	-22.190 ***	(1.322)

* p < 0.05, ** p < 0.01, *** p < 0.001

* p < 0.05, ** p < 0.01, *** p < 0.001

Effect of Teacher Instructional and Assessment Methods

The final set of teacher analyses observed the relationship between instructional and assessment methods and student performance. Tables 29 and 30 provide results of 12 regression analyses of the frequency in which students and teachers performed twelve instructional and assessment methods within the course of the week. The dependent variable was measured as the number of correct words students read per minute from the assessment. The reference category for all models is zero frequency (i.e., the task never occurs). Although each regression analysis included separate models of the independent variable alone and of the independent variable while controlling for gender, the results indicate changes in the magnitude of the coefficient, but the sign and significance levels remained the same in nearly all cases.

In terms of the methods used during reading instruction, most teachers ask students to repeat sentences, retell a story they read, sound out invented words, learn meanings of new words, read aloud, or perform silent reading between 1-2 days a week to daily. Most teachers do not require students to copy text from the board. Teachers also provide written and oral evaluations, review portfolios and projects, copy books and homework (see table 27 in Annex 1).

Results of the regression analyses in Table 28 provide evidence that several common instructional methods that teachers ask students are associated with higher levels of student literacy, while other methods are associated with lower levels of student literacy. Regression 3 shows that students who retell a story either 2-4 days per week or daily read on average 5 and 4 more words per minute respectively relative to students who never retell a story they read. However, regression 2 shows that students who copy text from the chalkboard either 1-2 days or 2-4 days per week read on average 4 and 10 fewer words per minute respectively relative to students who never copy text from the chalkboard. Regression 5 also shows that students who learn the meaning of new words either 1-2 days or 2-4 days per week read on average 7 and 10 fewer words per minute relative to students whose teachers never assign the task. Finally, regression 7 shows that students who perform silent reading 1-2 days per week read on average 22 fewer words per minute relative to students who never perform silent reading. Regressions 1, 4, and 6 did not show statistically significant differences in student performance for students who repeated sentences, sounded out invented words, and read aloud.

The regression analyses in Table 30 also identified several common assessment methods that are associated with lower levels of student performance. Regression 8 shows that students of teachers who perform written evaluations 1-2 days per week read on average 7 fewer words per minute relative to students whose teachers never perform written evaluations. Regression 11 shows that students of teachers who review copy books 2-4 days per week read on average 9 fewer words per minute relative to students of teachers who never review copy books. Finally, regression 12 shows that students of teachers who review homework read on average 10 fewer words per minute relative to students whose teachers never review homework. Regressions 9 and 10 did not show statistically significant differences in student performance of teachers who performed oral evaluation or reviewed portfolios.

Table 29 - Regression analyses of average effects of frequency of instructional methods on student literacy performance

Dependent variable = number of correct words read per minute in a passage				
<u>Independent Variables</u>	<u>Coefficient</u>	<u>SD</u>	<u>Controlling for Gender (F=1)</u>	
			<u>Coefficient</u>	<u>SD</u>
Reg 1 - The whole class repeated sentences the teacher said first				
1-2 days	6.364	(3.302)	6.374 *	(3.217)
2-4 days	2.594	(1.846)	2.460	(1.802)
Daily	-0.976	(2.191)	-0.464	(2.116)
Reg 2 - Students copied down text from the chalkboard				
1-2 days	-4.030 *	(1.602)	-3.910 *	(1.555)
2-4 days	-10.070 ***	(2.815)	-10.190 ***	(2.622)
Daily	-2.858	(3.916)	-3.776	(3.899)
Reg 3 - Students retold a story that they had read				
1-2 days	-3.083	(3.528)	-2.626	(3.406)
2-4 days	4.713 *	(1.879)	4.830 **	(1.824)
Daily	3.821 *	(1.943)	3.451	(1.897)
Reg 4 - Students sounded out unfamiliar words				
1-2 days	-0.041	(2.771)	-0.446	(2.773)
2-4 days	1.555	(1.853)	1.598	(1.813)
Daily	1.475	(1.909)	1.392	(1.856)
Reg 5 - Students learned meanings of new words				
1-2 days	-6.984 ***	(1.174)	-1.939	(1.231)
2-4 days	-9.925 ***	(2.008)	-9.620 ***	(1.962)
Daily	-1.989	(1.632)	-1.423	(1.588)
Reg 6 - Students read aloud to teacher or to other students				
1-2 days	1.590	(4.057)	1.549	(3.793)
2-4 days	0.619	(2.606)	0.607	(2.561)
Daily	-2.075	(1.689)	-2.009	(1.635)
Reg 7 - Students were assigned reading to do on their own during school time				
1-2 days	-22.150 ***	(3.998)	-23.990 ***	(3.489)
2-4 days	-2.688	(1.694)	-2.966	(1.643)
Daily	1.232	(1.906)	0.547	(1.849)

* p < 0.05, ** p < 0.01, *** p < 0.001

Table 30 - Regression analyses of average effects of frequency of assessment methods on student literacy performance

Dependent variable = number of correct words read per minute in a passage				
<u>Independent Variables</u>	<u>Coefficient</u>	<u>SD</u>	Controlling for Gender (F=1) <u>Coefficient</u>	<u>SD</u>
Reg 8 - Teacher performed written evaluations				
1-2 days	-7.071 *	(3.324)	-6.987 *	(3.241)
2-4 days	-2.435	(3.329)	-2.816	(3.380)
Daily	2.501	(1.579)	2.439	(1.535)
Reg 9 - Teacher performed oral evaluations				
1-2 days	-3.674	(2.675)	-4.034	(2.598)
2-4 days	-1.568	(2.183)	-2.023	(2.178)
Daily	-0.753	(1.745)	-0.816	(1.687)
Reg 10 - Teacher reviewed portfolios and other projects				
1-2 days	0.787	(1.635)	0.660	(1.603)
2-4 days	2.818	(2.369)	2.935	(2.242)
Reg 11 - Teacher reviewed copy books				
1-2 days	0.739	(3.099)	0.748	(3.075)
2-4 days	-9.483 *	(3.987)	-9.030 *	(4.159)
Reg 12 - Teacher reviewed homework				
1-2 days	-2.640	(3.608)	-2.274	(3.673)
2-4 days	-9.630 ***	(1.932)	-10.200 ***	(2.001)

* p < 0.05, ** p < 0.01, *** p < 0.001

In conclusion, results of the analysis of teacher factors on student reading outcomes suggest that few teacher characteristics but a number types of teacher expectations, instructional methods, and assessment methods in Tonga have an effect on student reading performance, measured as the average number of words per minute that students read correctly. Surprisingly, teacher education and training was not associated with student performance, but the use of the Tongan Reading Texts appears to promote better reading outcomes. The results did not identify possible areas where high teacher expectations can improve student performance, but low teacher expectations can hinder student performance in several areas, namely the level in which teachers expect their students should be able to read aloud, write their names, understand stories they read and hear, recognize and say letters, and recite the alphabet. Although it is beyond the scope of this study, the negative relationship between kindergarten and student performance presents suggests a need to improve the quality of kindergarten in Tonga. The study also found that while instructional methods such as asking students to retell a story can

improve student literacy, several tasks can also hinder student performance, including asking students to copy from the chalkboard and silent reading.

Learning the meaning of new words was also found to be negatively associated with student performance. This may not suggest that students should stop learning new words altogether, but a possible problem in how new words are taught, such as through rote memorization. The study did not find assessment methods that could improve student performance, but it did identify several methods that may hinder literacy, namely if teachers performed written evaluations or reviewed copy books. Reviewing homework was also negatively associated with student performance. Similar to learning new words, this may reflect a problem in the process of how teachers review homework, such as a poor review of homework or a large number of students failing to complete their homework, and hence, not engaged in reviewing homework. Finally, gender does not appear to strongly influence teacher's expectations, instructional methods, and assessment methods.

Chapter 7 – Next Steps

TEGRA results call for immediate attention to the way reading development is taking place in the country. As a diagnosis study, its main purpose was to (a) generate data on the extent reading deficits in the first cycle of primary education, (b) identify specific skills that could be hampering reading comprehension among Tongan students, and (c) identify student and teacher factors that contribute to better reading outcomes in Tonga.

TEGRA results indicated that while most students are able to develop some of the basic skills needed to become effective readers, most students are not able to distinguish the sounds in words or understand the relationship between sounds and letters, whether in isolation or in the context of a word. As a result, few students are able to read fluently by the end of Class 3 to focus on the meaning of what they are reading. This in turn, leads to average low reading comprehension levels, already identified in previous STAT Class 4 assessments.

Based on the data presented, specific recommendations to be considered are presented to improve the quality of reading instruction in Tongan schools:

- **Improve instruction in Tongan phonics and increase phonemic awareness levels among students.** TEGRA data suggested students were either not receiving any instruction on the alphabetic principle or this training was not sufficient or appropriate to develop an understanding of letter-sound correspondences. Without the ability to distinguish the sounds in words –i.e., phonemic awareness- and a solid understanding of how letters and sounds go together to create words, students are bound to continue to struggle in their reading development paths and have a limited understanding of what they read. However, improvements in reading instruction should not focus on phonics exclusively but should be incorporated into a comprehensive system of reading instruction covering the fundamental skills tested, to support students develop sufficient reading skills as early and comprehensively as possible.
- **Better reading instruction calls for additional support to teachers.** In order to improve reading instruction in Tonga, teachers will require additional support to have more informed reading expectations about reading development in the early grades. TEGRA results identified how incorrect expectations had a negative impact on student performance, especially when teachers believed specific fundamental skills should be developed in later years. Better learning expectations should be coupled with information the specific methods, classroom activities and assessment methods that can allow teachers improve their practice through clear instruction and monitoring indicators. More research will be needed on the specific way silent reading and the learning of new words –the two methods associated with better reading outcomes- take place in the classroom, to identify, on the one hand, the specific elements that make this methods work in the Tongan context place; an and on the other, what aspects of the

teacher's practice –i.e. ,planning, instruction, teaching materials, specific methods, etc.- are falling short to develop basic reading skills among children.

- **Teacher support should be constant.** TEGRA survey results showed how only 27% of the teachers had received any in-service training on reading instruction in the last three years. If less than 3 out of 10 teachers in the country benefit from learning about specific ways in which they can improve their practice, Tongan teachers will continue to practice their profession in isolation. Moreover, teachers need to become aware of the fundamentals of reading development in both pre- and in-service training. The current TIOE syllabus for primary teachers has no mention of grade-level methods or expected reading outcomes in the early grades. Specific reading instruction training should be a centerpiece of TESP II.
- **Increase the availability of books and other reading materials to children to read at home.** Survey results showed how students who have reading books at home have better reading outcomes and are more likely to become fluent. Having access to books at home and the possibility to read and develop a sense of enjoyment will be critical to ensure students engage in reading on a regular basis. While English language books tend to be available, most reading materials in Tongan are limited and complex for beginning readers –e.g., newspapers and the bible. Production of reading books and stories in Tongan written by Tongans would be important not only to allow students to read child-appropriate stories but to preserve the rich oral tradition of Tongan story tellers.
- **Introduce policy actions that increase student exposure to literacy outside the school.** Making more books available to students will not per se ensure better reading outcomes. Along with access to more and relevant reading materials in Tongan, children will need support to develop a reading habit beyond the requirements of the school curriculum. One way of improving this would be to develop community literacy programs where schools become focal point of literacy in the community. Building on the success created by the school-grants program, schools can encourage parents and literate siblings –a predictor of better reading scores in Tonga- to become more involved in the reading development of young children by participating in “peer readings” and activities reading clubs both in school and at home.
- **Establish reading benchmarks to monitor improvements across classes.** As MEWAC moves on to establish an oral reading fluency benchmark for the early grades against which reading improvements can be monitored, it is important to consider that initial standards should be established at relatively low levels since not enough is currently known about when and at what rate Tongan children should progress when learning to read in their own language. One way to establish a benchmark would be to use it as a marker to track reduction in the percentage of student scoring zero across sub-tests –as opposed to establish fluency targets. Monitoring achievements of standards over time

will eventually provide more information on the rate and the way in which average fluency develops in the Tongan language.

- **Support teachers to establish reading goals for individual students which they can monitor throughout the school year.** In order for teachers and schools to be able to be held accountable for reading outcomes, teachers, school officials and parents need to understand what these standards mean and how each can support reading development in their own school in order to reach national standards. School development plans should contain reading improvement goals as part of their minimum service standards, as well as a description of activities aimed at encouraging reading. Parents and the community as a whole should be brought into this effort.
- **More research is needed on how instruction methods and activities are carried out in the classroom.** Many of the teacher factors traditionally associated to better reading outcomes such as teacher certification or learning of new words showed contradictory or counterintuitive results in Tonga. Although there are several potential explanations for this phenomenon, this calls for more research on **how** instruction takes place in the classroom. For example, average reading scores among students whose teachers promote the learning of new words are lower than those whose teachers rely less in this activity. A question that could be look further into would have to analyze how learning of new words takes place –e.g., through explicit decoding and association with similar vocabulary or by memorization- in order to recommend specific improvements to current instructional methods.
- **Last but not least, it is clear that more research is needed to better understand the factors that contribute to differences in reading performance between boys and girls.** An analysis of the factors that contribute to these differences is beyond the scope of this survey. However, it is cause of great concern that boys are already in academic disadvantage after completing just one year of education. A better understanding of this phenomenon is critical to inform sector policies and increase the success of future reading development programs.

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ANNEX 1 / TABLES

Table 31 -TEGRA Reliability Matrix

Items	Letters Correct Per Minute (LCPM)	Phonemic Awareness – Initial Sound (PAIS)	Sounds Correct Per Minute (SCPM)	Sight Words Correct Per Minute (SWCPM)	Invented Words Correct Per Minute (IWCPM)	Connected Words Correct Per Minute (CWCPM)	Reading Comprehension (RC)	Listening Comprehension (LC)	Writing (W)
LCPM	1	.409**	.518**	.699**	.707**	.673**	.594**	.408**	.679**
PAIS	.409**	1	.489**	.388**	.440**	.360**	.334**	.319**	.409**
SCPM	.518**	.489**	1	.458**	.531**	.435**	.388**	.274**	.423**
SWCPM	.699**	.388**	.458**	1	.897**	.898**	.807**	.394**	.742**
IWCPM	.707**	.440**	.531**	.897**	1	.879**	.794**	.387**	.716**
CWCPM	.673**	.360**	.435**	.898**	.879**	1	.860**	.380**	.728**
RC	.594**	.334**	.388**	.807**	.794**	.860**	1	.387**	.656**
LCPM	.408**	.319**	.274**	.394**	.387**	.380**	.387**	1	.456**
W	.679**	.409**	.423**	.742**	.716**	.728**	.656**	.456**	1
Statistics									
Average	53.83	0.39	20.33	17.77	15.66	26.27	0.23	0.55	0.48
Std Dev	25.36	0.33	16.72	14.57	12.54	23.51	0.31	0.29	0.29
Min	0	0	0	0	0	0	0	0	0
Max	130.43	1	89	103.45	66.67	147.5	1	1	1

Table 32 - ANOVA Results: Differences in Means across Sub-tests (ST)

		Sum of Squares	df	Mean Square	F	Sig
ST1 - Number of letters read correctly						
by class	Between Groups	208623.945	2	104311.972	221.9	0.000
	Within Groups	564103.442	1200	470.086		
	Total	772727.387	1202	642.868		
by gender	Between Groups	16505.7	1	16505.7	26.21	0.000
	Within Groups	756221.686	1201	629.66		
	Total	772727.387	1202	642.868		
ST2 - Number of sounds correctly identified in a word						
by class	Between Groups	9.22	2	4.61	45.58	0.000
	Within Groups	121.355	1200	0.101		
	Total	130.575	1202	0.109		
by gender	Between Groups	0.374	1	0.374	3.45	0.064
	Within Groups	130.201	1201	0.108		
	Total	130.575	1202	0.109		
ST3 - Number of sounds read correctly						
by class	Between Groups	21615.451	2	10807.726	41.27	0.000
	Within Groups	314268.224	1200	261.89		
	Total	335883.675	1202	279.437		
by gender	Between Groups	1480.027	1	1480.027	5.32	0.021
	Within Groups	334403.648	1201	278.438		
	Total	335883.675	1202	279.437		
ST4 - Number of familiar words read correctly						
by class	Between Groups	68550.682	2	34275.341	219.89	0.000
	Within Groups	187048.151	1200	155.873		
	Total	255598.833	1202	212.645		
by gender	Between Groups	9387.388	1	9387.388	45.79	0.000
	Within Groups	246211.445	1201	205.005		
	Total	255598.833	1202	212.645		
ST5 - Number of unfamiliar words read correctly						
by class	Between Groups	46224.003	2	23112.001	194.37	0.000
	Within Groups	142688.979	1200	118.907		
	Total	188912.982	1202	157.166		
by gender	Between Groups	5771.712	1	5771.712	37.85	0.000
	Within Groups	183141.27	1201	152.491		
	Total	188912.982	1202	157.166		

		Sum of Squares	df	Mean Square	F	Sig
ST – 6a Number of words read in a narrative passage						
by class	Between Groups	177289.932	2	88644.966	218.48	0.000
	Within Groups	486871.654	1200	405.726		
	Total	664161.586	1202	552.547		
by gender	Between Groups	26768.557	1	26768.557	50.44	0.000
	Within Groups	637393.029	1201	530.719		
	Total	664161.586	1202	552.547		
ST 6b - Reading comprehension (% of correct responses)						
by class	Between Groups	26.331	2	13.165	173.77	0.000
	Within Groups	90.916	1200	0.076		
	Total	117.246	1202	0.098		
by gender	Between Groups	3.019	1	3.019	31.75	0.000
	Within Groups	114.227	1201	0.095		
	Total	117.246	1202	0.098		
ST7 -Listening comprehension (% of correct responses)						
by class	Between Groups	12.882	2	6.441	90.91	0.000
	Within Groups	85.02	1200	0.071		
	Total	97.903	1202	0.081		
by gender	Between Groups	0.054	1	0.054	0.66	0.418
	Within Groups	97.849	1201	0.081		
	Total	97.903	1202	0.081		
ST8 - Writing (weighted score - spelling/writing)						
by class	Between Groups	33.885	2	16.943	301.39	0.000
	Within Groups	67.458	1200	0.056		
	Total	101.343	1202	0.084		
by gender	Between Groups	0.951	1	0.951	11.38	0.001
	Within Groups	100.392	1201	0.084		
	Total	101.343	1202	0.084		
Note: Pairwise tests by school type and region are not significant						

Table 33 - Frequency of methods of instruction used by Tongan teachers in the early grades

		Never	1-2days	2-4days	Daily
The whole class repeated sentences that you said first.	Mean	0.086	0.312	0.225	0.377
	SD	0.281	0.465	0.419	0.486
Students copied down text from the chalkboard.	Mean	0.577	0.304	0.092	0.027
	SD	0.495	0.461	0.290	0.161
Students retold a story that they had read.	Mean	0.052	0.436	0.341	0.171
	SD	0.222	0.497	0.475	0.378
Students sounded out invented words.	Mean	0.046	0.266	0.273	0.415
	SD	0.210	0.443	0.447	0.494
Students learned meanings of new words.	Mean	0.003	0.188	0.380	0.429
	SD	0.059	0.392	0.487	0.496
Students read aloud to teacher or to other students.	Mean	0.005	0.112	0.331	0.551
	SD	0.071	0.317	0.472	0.499
Students were assigned reading to do on their own during school time.	Mean	0.029	0.230	0.365	0.376
	SD	0.169	0.422	0.483	0.486
Written evaluations	Mean	0.012	0.043	0.369	0.576
	SD	0.109	0.204	0.484	0.496
Oral evaluations	Mean	0.101	0.159	0.301	0.439
	SD	0.303	0.366	0.460	0.498
Review of portfolios and other projects	Mean	0.000	0.401	0.455	0.144
	SD	0.000	0.492	0.499	0.353
Review of copy books	Mean	0.000	0.010	0.017	0.973
	SD	0.000	0.101	0.128	0.162
Review of homework	Mean	0.000	0.022	0.083	0.895
	SD	0.000	0.146	0.277	0.307

ANNEX 2/ READING INSTRUCTION IN TONGA

Reading as described in the curriculum

The curriculum identifies Reading in Tongan as a communication skill alongside Listening, Speaking, Writing and Spelling. (*Silapa 'o e Lea Faka-Tonga, 1969*) The aim of this syllabus is to develop children's skills in these areas and address the weaknesses that exist in any of these areas.

Other additional skills that are related to reading are also included in the detailed description of skills to be taught at primary level. One such skill is sound identification. Students are to be taught the following:

- Sounds of the letters of the Tongan alphabet
- Sounds made by a range of birds
- Sounds made by the cry of a variety of animals
- Sounds of bottles and cans
- Sounds of babies and mothers.

With regards to listening, the curriculum highlights the 'fragility' of the aural tools and that communication may be severely affected if children have a problem in this area. Students are to be guided to be able to transmit and interpret sounds correctly.

The curriculum highlights the urgent need to teach Tongan children to read well for here lays a window of opportunity to higher learning. The curriculum also states the need to ensure that all Tongan children learn to read well for with this knowledge, they will be able to solve problems and easily understand that which is unclear.

The following items list possible reading texts and activities that may be used.

- Reading from pictures
- Reading word lists
- Reading sentences
- Reading paragraphs
- Reading passages
- Guessing Riddles
- Poetry
- Legends
- Myths (of Origin)
- Stories eg, Fables etc

- Reading books etc (from MEWAC's Curriculum Development Unit)

The *Scope and Sequence Chart for Language Education* identifies language forms and focus which pertain to both literary and non-literary forms and with a focus on number and nursery rhymes, everyday experiences (eg, going to the market) and songs and hymns of Tongan life

Reading as described in the classroom

Teachers plan an overview from the syllabus and at the beginning of each term, this overview is confirmed and weekly and daily planning is based on this. This overview covers, for the Tongan Language, activities such as Story Reading, Shared Reading, Guided Reading, Printing and Story Writing. Other development activities are also planned where all the skills listed in the syllabus, which are critical to reading, are required to be taught/ developed. In the Teachers' Daily Planner Book, a time schedule is given for the teaching of the Tongan Language, beginning with Development Activities and leading into Story Reading – Shared and Guided, followed by Printing and Story Writing. All Tongan Language Instruction and activities are carried out in the morning.

In reality, a lot of teachers select only what they want to teach. Comments from Education Officers reveal that teachers may plan an overview according to the syllabus and plan weekly and daily for activities but the actual delivery may not be according to the plan. One example is the use of speech training in these levels, used in the previous syllabus which included Oral English (Tate). 'Older' teachers found this very useful and continued to use this speech training. Younger teachers do not use this activity. The mismatch between planning and reality needs to be addressed.

Materials used in the syllabus and Teacher's Guide are sometimes not available so teachers either go without or they write their own stories and create their own teaching resources. Teachers are also assisted by the daily radio broadcast to primary schools, guiding teachers through various activities like listening comprehension, dictation and others.

Instructional Methods

The instructional methods as instructed by the syllabus state that both English and Tongan should be used to develop the skills identified as vital to one's development and ability to communicate.

A mostly student-centered approach is encouraged and teachers mostly carry out a class that starts with a demonstration, group work on a cooperative learning task and followed by individual work.

Teachers are encouraged to identify their students' individual learning styles and needs and to cater for this in their planning. A variety of teaching strategies are suggested in the syllabus so teachers can give differentiated instruction to their classes. Composite and multi-grade classes also have special needs and are also addressed in their planning.

Results from survey on language instruction

The *Scope and Sequence for Language Education* states that "Tongan and English are compulsory subjects throughout all years of primary and secondary school. While Tongan is more important in early primary years, English becomes of equal importance by the time secondary school is reached. This ensures that the policy of bilingualism can achieve its purposes."

ANNEX 3 / TONGAN LANGUAGE

Although Tongan is the official language of Tonga, it's role as such in the current social structure of the country is in question. However, it is still the dominant language, but mainly spoken and hardly written. English is taught in all schools.

Tongan belongs to the Oceanic languages, a subgroup of the Malayo-Polynesian branch of the Austronesian language family. All Oceanic languages have numerous linguistic features in common but the closest relatives of Tongan are the other languages of the Polynesian subgroup.

In Tonga, the only dialect diversity is with the language of Niuafo'ou, which historically belongs to the Samoic-Outlier languages. It has five vowels (a, e, i, o, u) which makes a phonemic difference between short and long vowels. There are 12 consonant with twelve phonemes (f, h, k, l, m, n, ng [velar nasal], o, p, s, t, v & '[glottal stop]). It is a very transparent language in regards to the relationship of its phonemes and its orthographic symbols.

The syllable structure is Consonant – Vowel (CV). Tongan only allows open syllables and does not permit consonant clusters. Stress is usually on the penultimate vowel but it is only marked if it is shifted to the last (short) vowel as a definite accent.

Policies & Preservation

Since there is only less than one hundred and thousand people in this tiny island, in comparison to other dominant world languages, Tongan is near extinct from the sheer smallness of its number of speakers.

There are other major powers at play, of course. Our smallness, our economic dependence on English-speaking countries play a bit part. In addition, Language Policies in the Ministry of Education have not helped. There has been an insistence in teaching children in both Tongan and English in the primary level and when children go to secondary schools, all subjects (except for Tongan and Religious Studies/Scripture) are to be taught and examined in English. This extremely harmful language policy has persisted for nearly 5 decades now and has resulted in the elevation of English as an “elite language” while Tongan is regarded as inferior.

Nevertheless, the Ministry of Education is very much aware of these issues and has passed a language policy in 2009 which emphasizes the necessity of teaching young Tongan children in

Tongan first for it is in acquiring skills from the learning of the mother-tongue, that children can learn the second language better, using these important language learning skills.

EGRA has come at a most opportune time. It reinforces our desire as language educators, to be vigilant in keeping our indigenous language robust. This survey will indicate the much-needed future directions for us to follow.

[Some of linguistic information above is taken from Svenja Volkel's PhD thesis, "*Social Structure, space and possession in Tongan culture and language*". An ethnolinguistic study, Mainz, 2007].

ANNEX 4 / DEVELOPMENT OF TEGRA INSTRUMENTS

Due to the express desire of the TEGRA team to downplay using this assessment as a “test”, we avoided at almost all times (with a few slips of course!) using the words “test” or “sub-test”. This was due to our understanding of how these words were used in our exam-oriented Tongan context. Instead we used the word “survey” for “test” and “sections” for “sub-tests”.

Introduction:

The Tongan Alphabet

The following letters make up the Tongan Alphabet:

a e f h i k l m n ng o p s
 t u v ‘

There are five vowels: a e i o u

There are twelve consonants: f h k l m n ng p
 s t v ‘

Section 1: Letter Name Knowledge (‘Ilo’i ‘o e ngaahi mata’itohi)

A corpus of texts, written in the Tongan language and collected for linguistic analysis (such as for forming a letter frequency table) did not exist. As it is a language from a predominantly oral culture, it was a challenge to set up this corpus. However, because of time constraints and the difficulty of getting electronic copies of these texts, we managed to collect texts that were representative of the Tongan reading material which almost all Tongans read or are most readily available to most Tongan homes. This corpus included the most popular local newspaper (also available for all Tongan communities in New Zealand, Australia and the United States), the latest Tongan translation of the Four Gospels from the Bible (Mathew, Mark, Luke & John), junior readers for Classes 1 – 3 and the latest Free Wesleyan Church hymn book.

The FWC Church is the largest religious denomination in the country and their hymn book is widely used by all sectors.

The above-mentioned electronic texts were analyzed according to the instructions in the EGRA toolkit. It can be deemed as quite a small corpus but when letter frequency tests were conducted with each text, there were very little variations from the table below, which was the final letter frequency used.

Letters in the Tongan Language: Frequency of Use (%)

A	18.6614	N	5.3543
E	10.8661	NG	2.3622
F	3.7007	O	9.2125
H	5.6692	P	2.1259
I	10.4724	S	1.8110
K	8.0314	T	3.0708
L	2.8346	U	4.8031
M	2.1259	V	0.4724
		'	7.559

Letters for Stimulus Material 1 (refer to Stimulus Material 1 - used for this section and also used in Section 3) were then selected based on the frequency with which letter occurred as shown in the table. These letters were then randomly placed, 10 words in ten lines.

Although one font was used, from enumerators' feedback (due to their experience in Primary teaching), certain letters such as the "h" and the glottal stop (') needed a different font so that these letters had the appearance of how the letters looked when teachers wrote them and how students used them.

Section 2: Phonemic Awareness ('Ilo'i 'a e ongo 'o e 'uluaki mata'itohi)

We decided to use the second approach suggested in the EGRA toolkit, which was to focus on the Initial Sound Identification. This was to have students identify the first sound in a selection of common words.

From our experience as local language teachers and educators, we felt that this section would be challenging for our students. To ask students to identify and sound out each sound present in the word (which is the first approach of 'phoneme segmentation', would unduly pressurize the students. We thought that it would be much better for them to identify only the first sound in these common words.

Simple words (in according to Tongan pronunciation) were selected from the corpus, especially from the junior readers. There was also a consideration of a progression of simple to slightly less simple syllables. For example, the first word was [niu], the consonant "n" has a very distinct sound, while the vowel combination of the sixth word [ou] is slightly more challenging. A letter frequency test was also conducted for the ten words so that the letters reflect the letter frequency table.

Section 3: Letter Sound knowledge ('Ilo'i 'a e ongo 'o e ngaahi mata'itohi)

Although the TOOLKIT suggested that the same laminated page of letters used in the first Stimulus Material, be also used for this section, there was a slight deviation with the Tongan Instrument. This was with the consonant "fakau'a" or the glottal stop (the last letter). To quote C.M. Churchward, a renowned Tongan linguist, in the first page of his book "Tongan Grammar" – "In non-technical language, it may be described as a miniature clearing of the throat!"). Although the glottal stop is taught in all schools as a separate consonant, it does not have a distinct phonetic sound attached it. It must be accompanied by a vowel because it is sounded only before vowels and words mean differently when it appears.

Therefore, in Stimulus Material 3, in all spaces in which a glottal space appeared, a vowel was added to it and the five vowels appeared according to the letter frequency in which they had occurred in the letter frequency table in Section 1.

Section 4: Familiar Word Reading (Lau 'o e Ngaahi Lea Maheni)

As with section 4, there were no official word lists. Nevertheless, there were informal "sight words" which the curriculum language writers and Class 1 – Class 3 teachers used. We collected these sight words from primary school teachers in primary schools in Nuku'alofa

(capital) and from MEWAC's (Ministry of Education, Women Affairs & Culture) Curriculum Development Unit.

The words selected from the list of sight words collected for Stimulus Material 4 for this section, was based on their representing certain areas which class 1 – 3 curriculum covered and also children's life experience in Tonga at this age group. We conducted cross-checking amongst selected words (in rows & columns) so that there be no relationship between the words.

Section 5: Invented Word Reading (Lau 'o e ngaahi lea fa'u)

A list was compiled and was generated in combinations of increasing difficulty.

- Criteria for the selection of non-familiar words (vowel/ consonant combinations in the Tongan language and proposed variations for the EGRA test)
- The glottal stop (') is considered to be a consonant so therefore, it may not be used at the end of a word or between a vowel and a consonant.
- Two consonants may not stand together and words may not end in a consonant.
- Words may contain up to four vowels together and even without a consonant.
- The consonant 'ng' represents one sound only /ŋ/.

Tongan vowel and consonant combinations may include:

- CVCV
- CVVCV
- CVVCVV
- CVV
- VVCV
- VCV
- VV
- VVV
- VVVV

The selection of non-familiar words will be based on consonant-vowel combinations typical of the Tongan language. In the Stimulus, the students are presented with forms legal to the Tongan language and using letters in legitimate positions. Students are tested on their ability to decode these words and the sounds they produce, regardless of whether they have meaning or not. The words will be tested against the letter frequency count identified for Sub-Test 1 and will progress in difficulty.

Section 6 Passage Reading and Comprehension (Laukonga mo e Mahino)

A number of narratives were written using a variety of sentence structures, names of characters, vocabulary etc. They were also tested for their letter frequency to ensure that the narratives also contained about the same letter frequency likely to be found in any document written in Tongan. We were mindful to keep to the narrative structure of having a beginning, a dilemma and resolution at the end, retain cultural appropriateness and to keep a 'local' flavour at all times.

A narrative was chosen which followed the structure and requirements outlined in the EGRA guide and told of an everyday experience that was familiar to children in Tonga. A variety of sentence structures were used as well as some complex vocabulary. Questions were based directly on the narrative and were both fact-based and requiring inference from the text.

Section 7 Listening Comprehension (Fanongo mo e Mahino)

A number of very short narratives were constructed with accompanying questions.

A short conversation between two friends was selected and questions for the students to respond to. The activity in the very short narrative was again familiar to students and the questions relatively easy to respond to.

Section 8 Dictation (Tala Kae Tohi)

A number of sentences were constructed for selection in varying degrees of semantic and lexical complexity.

Semantic Structure applied to examples for Dictation: All sentences begin with a capital letter and end with a fullstop unless it is a question and exclamation which end with the conventional punctuation marks. Long vowels are marked by a macron (̄) or a double vowel (VV) and stress is marked by the symbol ('). A number of sentences were developed and follow basic Tongan sentence structure. This is the sentence constructed for ST8.

Ha'u ke tau ̄o 'o kaukau tahi he 'oku 'afu.

Come, let's go for a swim because it's hot.

Command/Imperative sentence – Used widely and often in the Tongan context. Children hear these kinds of constructions every day. These types of sentences will always begin with an imperative.

ANNEX 5 / TEGRA INSTRUMENT (Bilingual Version)



MINISTRY OF EDUCATION, WOMEN'S AFFAIRS & CULTURE (MEWAC) POTUNGAUE AKO, KAKAI FEFINE & TALA FAKAFONUA

Tonga Early Grade Reading Assessment (TEGRA) Survey: Student Response Sheet VAKAI'I 'O E LAUKONGA FANAU IIKIANGE 'I TONGA / TEGRA: PEPA TALI 'A E FĀNAU & FAKAHINOHINO KI HE TOKOTAHĀ FAKAHOKO SAVEA

General Instructions / Ko e Ngaahi Fakahinohino:

It is important to establish a playful and relaxed rapport with the children to be assessed, via some simple initial conversation among topics of interest to the child (see example below). The child should perceive the following assessment almost as a game to be enjoyed rather than a severe situation. **It is important to read ONLY the sections in boxes aloud slowly and clearly.**

'Oku mahu'inga ke ma'u 'e he fānau' ha ongo'i fiefia mo fie kau mai ki he savea ko eni'. 'Oku fiema'u ke ke kamata'aki ha talanoa mo kinautolu fekau'aki mo ha ngaahi me'a 'oku mahu'inga kiate kinautolu. 'Oku totonu ke mahino ki he fānau' ko ha ki'i va'inga pe 'eni 'o 'ikai ko ha sivi. 'Oku mahu'inga foki ke lau 'a e ngaahi lea pē ko ia 'i he loto puha'.

Good morning. My name is ____ and I live in _____. I'd like to tell you a little bit about myself. [Number and ages of children; favourite food, breakfast, sports; etc] You may want to shake hands with the child.

1. Could you tell me a little about yourself and your family? [Wait for response; if student is reluctant, ask question 2, but if they seem comfortable continue to verbal consent].
2. What do you like to do when you are not in school?

Mālō e lelei. Ko hoku hingoa' ko pea 'oku ou nofo 'i 'Oku ou fie fai atu ha ki'i talanoa fekau'aki mo au. (Tokolahi mo e ta'u ho'o fānau', me'akai manako', kai pongipongi, sipoti) Mahalo pē te ke fie lulululu mo e tamasi'i/ ta'ahine ako'.

1. ***Te ke lava 'o talamai ha ki'i talanoa fekau'aki mo koe? (Tatali ki he tali 'a e fanau'. Kapau 'e 'ikai fie tali, pea ke 'eke 'a e fehu'i fika 2 pea ka ne tali pea ke hoko atu koe ki he kole pē 'oku loto ke kau ki he savea')***
2. ***Ko e hā 'a e me'a 'oku ke sai'ia ke fai he taimi 'oku 'ikai te ke 'alu ai ki he ako'?***

Verbal Consent: *Ko e vakai pe 'oku fie kau mai ki he savea'*

- Let me tell you why I am here today. I work with the Ministry of Education and we are trying to understand how children learn to read. You were picked by chance.
- We would like your help in this. But you do not have to take part if you do not want to.
- We are going to play a reading game. I am going to ask you to read letters, words and a short story out loud.
- Using this stopwatch, I will see how long it takes you to read.
- This is NOT a test and it will not affect your grade at school.
- I will also ask you other questions about your family, like what language your family uses at home and some of the things your family has.
- I will NOT write down your name so no one will know these are your answers.
- Once again, you do not have to participate if you do not wish to. Once we begin, if you would rather not answer a question, that's all right.
- Do you have any questions? Are you ready to get started?

--

- *Ko e 'uhinga eni 'oku ou 'i heni ai he 'aho' ni. 'Oku ou ngāue 'i he Potungaue Ako' pea 'oku fiema'u ke mau 'ilo ki he tu'unga 'oku 'i ai 'a e laukonga fakatonga 'a e fanau iiki he Kalasi 1 – 3. Na'e fili koe hangē koia kuo hoko he 'aho' ni.*
- *'Oku mau fiema'u ho'o tokoni' ka 'oku 'atā pē ke 'oua te ke kau ki ai kapau 'oku 'ikai te ke fie kau mai.*
- *'E fai 'eta fanga ki'i va'inga pea te u kole atu ki'ate koe ke ke lau 'a e ngaahi mata'itohi, talamai 'a e ngaahi ongo 'o e ngaahi mata'itohi' pea lau mai mo e ongo ki'i talanoa nounou. 'E toe fiema'u foki ke ke tohi'i mai ha ki'i sētesi.*
- *Te u ngāue'aki 'a e uasi ko 'eni' ke taimi'i 'a ho'o laukonga'.*
- *'Oku 'ikai ko e sivi 'eni pea 'e 'ikai ke ne uesia ha'o ola 'e taha 'i he 'apiako' ni.*
- *Te u toe 'eke atu foki mo ha ngaahi fehu'i kehe fekau'aki mo ho fāmilī' hangē ko e lea 'oku ngāue'aki 'i 'api' pea mo e ngaahi tohi 'oku ke lau'.*
- *'E 'ikai te u tohi ho hingoa', 'a ia 'e 'ikai 'ilo 'e ha taha ia ko ho'o ngaahi tali' eni.*
- *'Oku 'ikai fakamalohi'i koe ke ke kau mai ki he savea ko 'eni'. Kapau te ke kau mai ki he savea' pea 'oku 'i ai ha fehu'i ia 'oku 'ikai te ke fie tali, 'oku sai pe ia.*
- *'Oku 'i ai ha toe fehu'i? Kuo ke maau ke ta kamata?*

Check box if verbal consent is obtained: YES ☐

Faka'ilonga'i 'a e puha' (✓) kapau 'e tali 'e he tokotaha ako' ke kau ki he savea': 'IO ☐

(If verbal consent is not obtained, thank the child and move on to the next child, using this same form)

(Kapau 'oku 'ikai tali 'e he tamasi'i ako' ke kau ki he savea', fakamālō ki ai pea hoko atu ki he tokotaha hono hoko' kae kei ngaue'aki pe 'a e foomu ko eni'.)

1. Date of assessment: 1. 'Aho 'o e savea':	
2. Enumerator's name : 2. Hingoa 'o e tokotaha 'oku ne fakahoko 'a e savea':	
3. NAME and location of school: 3. Hingoa mo e feitu'u 'oku 'i ai 'a e 'apiako':	
4. Unique School code : 4. Fika 'o e 'apiako':	
5. Unique TEGRA school code: 5. Fika TEGRA 'o e 'apiako':	
6. School type: 6. Founa Faiako':	<input type="radio"/> 1 = Single Teacher (ST) = Faiako 'e taha kihe kalasi 'e taha <input type="radio"/> 2 = Composite Teacher (CT) = Faiako 'e taha kihe kalasi 'e ua. <input type="radio"/> 3 = Multigrade Teacher (MT) = Faiako 'e taha ki he kalasi laka hake he ua. <input type="radio"/> 4 = Mission School (MS) = Ako Siasi
7. Student's Class 7. Kalasi 'a e tokotaha ako':	<input type="radio"/> 1 = Class 1/ Kalasi 1 <input type="radio"/> 2 = Class 2/ Kalasi 2 <input type="radio"/> 3 = Class 3/ Kalasi 3
8. Name of teacher: 8. Hingoa 'o e faiako':	
9. Student's month and year of birth : 9. Māhina mo e ta'u na'e fā'ele'i ai':	Month : _____ Mahina: _____ <hr/> Year : _____ Ta'u: _____
10. Student's gender: 10. Ta'ahine pe tamasi'i:	<input type="radio"/> 1 = girl = ta'ahine <input type="radio"/> 2 = boy = tamasi'i
11. Time Started: 11. Taimi 'oku kamata ai 'a e savea':	_____: _____ am / pm _____: _____ pongipongi/ efiafi

Section 1. Letter Name Knowledge

KONGA 1: 'ILO'I 'O E NGAHI MATA'ITOH

FAKATĀTĀ 'O E ME'A KE FAKAHOKO 'I HE KONGA KO ENI 'O E SAVEA:

Show the child the sheet of letters in the student stimuli booklet. Say:

Fakahā ki he tokotaha ako' 'a e la'ipepa 'oku 'i ai 'a e ngaahi mata'itohi' pea ke lea 'o pehē:

Here is a page full of letters of the alphabet. Please tell me the NAMES of as many letters as you can--not the SOUNDS of the letters, but the names.

For example, the name of this letter [point to O] is "O"

Let's practise: tell me the name of this letter [point to V]:

If the child responds correctly say: Good, the name of this letter is "VAA."

If the child does not respond correctly, say: The name of this letter is "VAA."

Now try another one: tell me the name of this letter [point to L]:

If the child responds correctly say: Good, the name of this letter is "LAA."

If the child does not respond correctly, say: The name of this letter is "LAA."

Do you understand what you are to do?

When I say "Begin," please name the letters as quickly and carefully as you can. Start here and continue this way. [Point to the first letter on the row after the example and draw your finger across the first line]. If you come to a letter you do not know, I will tell it to you. Otherwise I will keep quiet & listen to you. Ready? Begin.

Ko e la'ipepa 'eni 'oku fonu 'i he ngaahi mata'itohi kehekehe 'o e 'alafapeti'. Kātaki ko 'eku tuhu pē ki ha mata'itohi, pea ke talamai 'a e hingo 'o e mata'itohi ko ia'. Talamai pē 'a e mata'itohi ko ee teu tuhu ki ai'.

Hangē ko 'eni', ko e mata'itohi ko 'eni' (tuhu ki he "O") ko e "o". Sai. Talamai angē 'e koe pe ko e hā 'a e mata'itohi ko 'eni' (tuhu ki he V).

• *Kapau 'e tonu 'a 'ene tali' pea ke talaange ki ai:*
Sai 'aupito, ko e mata'itohi ko 'eni', ko e "Va".

• *Kapau 'e hala 'a 'ene tali' pea ke talaange ki ai:*
Sai. Ko e mata'itohi ko 'eni' ko e "Va".
Sai. Ta hoko atu, ke ta toe 'ahi'ahi' ha fo'i mata'itohi 'e taha. Talamai angē 'a e mata'itohi ko 'eni'. (tuhu ki he L).

• *Kapau 'e tonu 'a 'ene tali' pea ke talaange ki ai:*
Sai 'aupito, ko e mata'itohi ko 'eni', ko e "La".

• *Kapau 'e hala 'a 'ene tali' pea ke talaange ki ai:*
Ko e mata'itohi ko 'eni' ko e "La".

Kuo u tui kuo mahino 'a e me'a te ke fai'. Ko 'eku pehē atu pē ke ta kamata pea ke talamai leva 'a e ngaahi mata'itohi' 'o kamata hee (tuhu ki he mata'itohi 'uluaki' 'o toho'i ho nima' ke a'u ki he mata'itohi faka'osi 'i he laine 'uluaki').

- **Manatu'i ke ke lau hokohoko pē 'e koe.**
- **Kapau 'e a'u atu ki ha mata'itohi 'oku 'ikai ke ke manatu'i, pea sai pe ia he teu talaatu ia 'e au kia koe, pea ke hoko atu pe ho'o lau' 'au.**
- **Te u fakalongolongo pē au ka ke lau hokohoko pē 'e koe. Sai pē? Sai, ta kamata leva.**

Start the timer when the child reads the first letter. Follow along with your pencil on the Student Response Form and **clearly** mark any incorrect letters with a slash (/). Count self-corrections as correct. If you've already marked the self-corrected letter as incorrect, circle the letter and go on.

Stay quiet, except when providing answers as follows: if the child hesitates for 3 seconds, provide the name of the letter, point to the next letter and say **"Please go on."** Mark the letter you provide to the child as incorrect. If the student gives you the letter sound, rather than the name, provide the letter name and say: **"Please tell me the NAME of the letter"**. This prompt may be given only once during the exercise.

AFTER 60 SECONDS SAY, "stop." Mark the final letter read with a bracket (]).

Early stop rule: If the child does not give a single correct response on the first line, say **"Thank you!"**, discontinue this exercise, check the box at the bottom, and go on to the next exercise.

- Lomi'i 'a e uasí 'i he kamata lau 'a e tokotaha ako'.
- Muimui pē mo ho'o pení 'i he pepa tali 'a e fanau' pea ke koho'i fakahihifi (/) 'a e ngaahi mata'itohi 'oku 'ikai 'ilo'i 'e he tokotaha ako'.
- Kapau te ne toe fakatonutonu ha'ane 'uluaki lea na'e hala (self-correct), pea ke lau pē 'oku "tonu" 'eni. Siakale'i 'a e mata'itohi kuo fakatonutonu.
- Fakalongolongo pē, ka ke toki 'oange pē 'a e talí 'o kapau 'e :
i) Longo 'a e tokotaha ako' 'o laka hake 'i he sekoni 'e 3. Talaange 'e koe 'a e mata'itohi ko ia' pea ke tuhu leva ki he mata'itohi hoko' mo talaange ki ai, **"Kātaki pē 'o hoko atu"**.
- Manatu'i ke koho'i (/) 'a e mata'itohi 'a ē na'a ke talaange ki ai' he 'oku lau ia 'oku hala.
- Kapau 'e hanga 'e he tokotaha ako' 'o pu'aki atu 'a e ONGO 'o e mata'itohi', pea ke talaange: **Kātaki 'o talamai pe 'a e mata'itohi'**. Ngāue'aki tu'o taha pē 'a e sētesi koení.

Ko 'ene 'osi pē 'a e sekoni 'e 60, pea ke talaange leva ki he tokotaha ako', **"Fe'unga, mālō"**. Tohi'i 'a e mata'itohi na'e ngata ai' 'aki 'a e faka'ilonga (J).

Tu'utu'uni ki he fakangata vave ange 'o e savea':

- Kapau 'e 'ikai ke lava 'a e tokotaha ako' 'o tali ha me'a 'i he laine 'uluaki' 'o tonu pea ke talaange pē ki ai **"Mālō 'aupito"**, pea ke fakangata leva 'a e konga ko 'eni'.
- Faka'ilonga'i 'a e ki'i puha 'oku 'i lalo 'i he lekootí' pea mo hoko atu leva ki he konga hono hoko'.

Example: O v L

Fakatātā: O v L

1	2	3	4	5	6	7	8	9	10	
E	A	u	p	'	L	e	o	a	n	(10)
k	'	A	o	K	a	f	E	u	e	(20)
L	S	'	i	a	p	h	u	a	K	(30)
o	F	e	O	I	H	A	o	u	a	(40)
'	a	m	K	o	f	N	h	o	A	(50)
U	i	V	e	'	E	k	S	E	ng	(60)
K	l	A	k	h	T	O	e	'	i	(70)
F	E	'	l	i	NG	a	'	M	t	(80)
s	A	H	T	a	U	K	u	A	F	(90)
'	s	i	E	k	e	a	i	A	e	(100)

Time on stopwatch at completion (number of SECONDS) :

Check this box if the exercise was discontinued because the child had no correct answers in the first line.

☐

Sekoni 'oku hā he uasí he 'osi 'a e lau'

Faka'ilonga'i 'a e puha ko 'ení kapau na'e 'ikai ha tali tonu 'i he 'uluaki laine'

Good effort! Let's go on to next section.

Sai 'aupito ia. Ta hoko atu eni ki he kongā hono ua'.

Section 2. Initial Sound Identification

KONGA 2: 'ILO'I 'A E ONGO 'O E NGAHI MATA'ITOH:

'Ilo'i 'o e ongo 'uluaki 'o ha fo'i lea.

This is NOT a timed exercise and **THERE IS NO STUDENT SHEET**. Read aloud each word twice, and have the student say the sounds. Remember to model the "pure" sounds: /p/, not "puh" or "pay." Say:

FAKATĀTĀ 'O E ME'A KE FAKAHOKO 'I HE KONGA KO 'ENI 'O E SAVEA':

- 'I he konga ko 'eni 'o e savea', 'e 'IKAI ke taimi'i pea 'E 'IKAI KE 'I AI HA LA'IPEPA NGĀUE 'A E TOKOTAHA AKO'.
- Te ke lau tu'o ua 'a e fo'i lea kotoa koe'uhī ke hanga 'e he tokotaha ako' 'o pu'aki 'a e ongo 'uluaki 'o e fo'i lea ko ia'.

This is a listening exercise. I want you to tell me the beginning sound of each word. For example, in the word "sio", the first sound is "/s/". In this exercise, I would like you to tell me the first sound you hear in each word. I will say each word two times. Listen to the word, then tell me the very first sound in that word.

Let's practise. What is the first sound in "poto"? "/p/".

[If the child responds correctly, say]: Very good, the first sound in "poto" is /p/.

[If the child does not respond correctly, say]: Listen again: "poto". The first sound in "poto" is /p/.

Now let's try another one: What is the first sound in "ofa"? "/o/".

[If the child responds correctly, say]: Very good, the first sound in "ofa" is "o".

[If the child does not respond correctly, say]: Listen again: "ofa". The first sound in "ofa" is "o".

Do you understand what you are to do?

- Ko e konga ko 'eni' 'e fiema'u ke ke fanongo tokanga 'aupito. 'Oku ou loto ke ke talamai ko e hā 'a e ongo 'oku kamata'aki 'a e ngaahi fo'i lea ko 'eni teu lau atu'. Hangē ko 'eni', ko e ongo 'uluaki 'o e fo'i lea ko e "sio", ko e "ssss".
- 'Oku fiema'u ke ke talamai 'a e 'uluaki ongo 'oku ke fanongo ki ai' 'i he fo'i lea kotoa pē teu lau atu'.
- Te u pu'aki tu'o 2 atu 'a e fo'i lea kotoa pē. Fanongo lelei ki he fo'i lea', pea ke talamai 'a e fo'i ongo 'uluaki 'o e fo'i lea ko ia teu lau atu'.
- Ta ki'i 'ahī'ahi pē. Ko e hā 'a e ongo 'uluaki 'i he fo'i lea ko e "poto"? "pppp".
- [Kapau 'e tonu 'a 'ene talī' pea ke pehē ange]: Lelei 'aupito, ko e ongo 'uluaki 'i he fo'i lea "poto" ko e "p".
- [Kapau 'e 'ikai ke tonu 'a 'ene talī' pea ke pehē ange]: Toe fanongo lelei pe: "pppoto". Ko e ongo 'uluaki 'o e fo'i lea ko e "poto" ko e "ppppp".

Sai, 'ai ke ta toe 'ahī'ahi ha fo'i lea 'e taha. Ko e hā 'a e ongo

'uluaki 'i he fo'i lea ko e "ofa"?

- [Kapau 'e tonu 'a 'ene talī' pea ke pehē ange]: Tōtōatu, ko e ongo 'uluaki 'i he fo'i lea ko e "ofa", ko e "o".
- [Kapau 'e 'ikai ke tonu 'a 'ene talī' pea ke pehē ange]: Toe fanongo lelei pe: "ofa". Ko e ongo 'uluaki 'i he fo'i lea ko e "ofa" ko e ("o").

Read the prompt and then pronounce the target word a second time. Accept only as correct the isolated sound (without a shwah). If the child does not respond after 3 seconds, mark as

“No response” and say the next prompt. Enunciate clearly, but do not overemphasize the beginning sound of each word.

- Lau ‘a e ‘uluaki fo’i lea’ pea ke fakatātā ‘a e ongo totonu’ tu’o ua.
- Tali pē ‘a e fo’i ongo totonu taha’.
- Kapau ‘oku a’u ‘o sekoni ‘e 3 ‘oku te’eki ke lea, pea ke faka’ilonga’i pē ‘oku ‘ikai ha tali pea ke hoko ki he fo’i lea hono hoko’.
- **Pu’aki lelei mo mahino ‘a e ngaahi fo’i lea’ pea ‘oua ‘e fakamamafa’i ‘a e ongo ‘uluaki’.**

Early stop rule: If the child responds incorrectly or does not respond to the first five words, say “**Thank you!**”, discontinue this exercise, check the box at the bottom of the page, and go on to the next exercise.

Tu’utu’uni ki he fakangata vave ange ‘o e savea’:

- Kapau ‘e ‘ikai ke tonu ‘a e tali ‘a e tokotaha ako’ pē ‘e ‘ikai ke ne lava ‘o pu’aki ‘a e ongo ‘uluaki ‘i he ‘uluaki fo’i lea ‘e **nima**, talaange pē ki ai “**Mālō ‘aupito**”, pea ke fakangata leva ‘a e kongā ko ‘eni’.
- Faka’ilonga’i ‘a e ki’i puha ‘i lalo ‘i he lekooti’ pea mo hoko atu leva ki he kongā hono hoko’.

What is the first sound in “_____”? “_____”? [Repeat the word twice] Ko e hā ‘a e ongo ‘uluaki ‘i he “_____”? “_____” [Pu‘aki tu‘o ua ‘a e fo‘i lea kotoa pē.]				
niu coconut	/nnnn/	o Correct Tonu	o Incorrect ‘Ikai Tonu	o No Response ‘Ikai ha tali
tali wait	/tttt/	o Correct Tonu	o Incorrect ‘Ikai Tonu	o No Response ‘Ikai ha tali
kovi bad	/kkkk/	o Correct Tonu	o Incorrect ‘Ikai Tonu	o No Response ‘Ikai ha tali
ifo delicious	/iiii/	o Correct Tonu	o Incorrect ‘Ikai Tonu	o No Response ‘Ikai ha tali
uta (to) load	/uuuu/	o Correct Tonu	o Incorrect ‘Ikai Tonu	o No Response ‘Ikai ha tali
ou me	/oooo/	o Correct Tonu	o Incorrect ‘Ikai Tonu	o No Response ‘Ikai ha tali
hao fit/ fit in	/hhhh/	o Correct Tonu	o Incorrect ‘Ikai Tonu	o No Response ‘Ikai ha tali
ako school/ education	/aaaa/	o Correct Tonu	o Incorrect ‘Ikai Tonu	o No Response ‘Ikai ha tali
ngu (a sound)	/ng/	o Correct Tonu	o Incorrect ‘Ikai Tonu	o No Response ‘Ikai ha tali
‘eni here	/’/ or /’eee/	o Correct Tonu	o Incorrect ‘Ikai Tonu	o No Response ‘Ikai ha tali

Check this box if the exercise was discontinued because the child had no correct answers in the first line.

☐

Faka‘ilonga‘i e puha ko eni’ kapau na’e ‘ikai ha tali tonu ‘i he ‘uluaki laine ‘

☐

Good effort! Let’s go on to next section.

Sai ‘aupito ia. Ta hoko atu ‘eni ki he kongia hono tolu’.

Section 3. Letter Sound Knowledge

KONGA 3: 'ILO'I 'O E ONGO 'O E NGAHI MATA'ITOH

Show the child the sheet of letters in the student stimuli booklet. Say:

FAKATĀTĀ 'O E ME'A KE FAKAHOKO 'I HE KONGA KO ENI 'O E SAVEA':

Fakahā ki he tokotaha ako' 'a e la'ipepa 'oku 'i ai 'a e ngaahi mata'itohi' pea ke lea 'o pehē:

Here is a page full of letters of the alphabet. Please tell me the SOUNDS of as many letters as you can--not the NAMES of the letters, but the SOUNDS. For example, the sound of this letter [point to O] is "O" as in "OLOTELE" or "OOOO" as in "Ō".

Let's practise: tell me the sound of this letter [point to V]:

If the child responds correctly say: Good, the sound of this letter is "VVVV."

If the child does not respond correctly, say: The sound of this letter is "VVVV."

Now try another one: tell me the sound of this letter [point to L]:

If the child responds correctly say: Good, the sound of this letter is "LLL."

If the child does not respond correctly, say: The sound of this letter is "LLL."

Do you understand what you are to do?

When I say "Begin," please sound out the letters as quickly and carefully as you can. Tell me the sound of the letters, starting here and continuing this way. [Point to the first letter on the row after the example and draw your finger across the first line]. If you come to a letter sound you do not know, I will tell it to you. Otherwise I will keep quiet and listen to you. Ready? Begin.

- Ko e la'ipepa 'eni 'oku fonu 'i he ngaahi mata'itohi kehekehe 'o e 'alafapeti'. Kātaki ko 'eku tuhu pē ki ha mata'itohi' pea ke talamai 'a e ONGO 'o e mata'itohi ko ia'. Pu'aki mahino mai 'a e ONGO 'o e mata'itohi te u tuhu ki ai'.
- Hangē ko 'eni', ko e mata'itohi ko 'eni' (tuhu ki he "O") ko hono ongo' ko e "ooo". Sai. Talamai angē 'e koe pe koe hā 'a e ONGO 'o e mata'itohi ko 'eni' (tuhu ki he v).
- Kapau 'e tonu 'a 'ene talī' pea ke talaange ki ai: Sai 'aupito, ko e ongo 'o e mata'itohi ko 'eni', ko e "vvv".
- Kapau 'e hala 'a 'ene talī' pea ke talaange ki ai: Sai. Ko e ongo 'o e mata'itohi ko 'eni' ko e "vvv".
- Sai. Ta hoko atu ke ta toe 'ahi'ahi'i ha fo'i mata'itohi 'e taha. Talamai ange' 'a e ongo 'o e mata'itohi ko 'eni'. (tuku ki he L).
- Kapau 'e tonu 'a 'ene talī' pea ke talaange ki ai: Sai 'aupito, ko e ongo 'o e mata'itohi ko 'eni', ko e "lll".
- Kapau 'e hala 'a 'ene talī' pea ke talaange ki ai: Ko e ongo 'o e mata'itohi ko 'eni' ko e "lll".
- Kuo u tui kuo mahino 'a e me'a te ke fai'. Ko 'eku pehē atu pē ke ta kamata pea ke pu'aki mai leva 'a e ongo 'o e ngaahi mata'itohi' 'o kamata hee' (tuhu ki he mata'itohi 'uluaki' 'o toho'i ho nima 'o a'u ki he mata'itohi faka'osi 'i he laine 'uluaki').
- Pu'aki tu'o taha pē 'a e ongo 'o e mata'itohi ko ia'. Manatu'i ke ke pu'aki hokohoko pē 'e koe. Kapau 'e a'u atu ki ha mata'itohi 'oku 'ikai ke ke manatu'i, pea sai pē ia he te u talaatu ia 'e au pea 'e hoko atu pē 'a ho'o lau' 'a'au. Te u fakalongolongo pē au kā ke pu'aki hokohoko pē 'e koe. Sai pē? Sai, ta kamata leva.

Start the timer when the child reads the first letter. Follow along with your pencil in the Student Response Form and **clearly** mark any incorrect letters with a slash (/). Count self-corrections as correct. If you've already marked the self-corrected letter as incorrect, circle the letter and go on. **Stay quiet**, except when providing answers as follows: if the child hesitates for 3 seconds, provide the sound of the letter, point to the next letter and say **"Please go on."** Mark the letter you provide to the child as incorrect. If the student gives you the letter name, rather than the sound, provide the letter sound and say: **"Please tell me the SOUND of the letter"**. This prompt may be given only once during the exercise.

AFTER 60 SECONDS SAY, "stop." Mark the final letter read with a bracket (]).

- Lomi'i 'a e uasi' 'i he kamata pu'aki 'e he tokotaha ako' 'a e ongo 'o e 'uluaki mata'itohi'.
- Muimui pē mo ho'o peni' 'i he pepa tali 'a e fanau' pea ke kōhi'i fakaheihēi (/) 'a e ngaahi mata'itohi 'oku 'ikai ke ne 'ilo'i'.
- Kapau 'e toe fakatonutonu pē 'e he tokotaha ako' ha'ane 'uluaki lea na'e hala (self-correct), pea ke lau ia 'oku "tonu". Siakale'i 'a e mata'itohi kuo fakatonutonu.
- Fakalongolongo pē, kā ke toki 'oange pē 'a e tali' 'o kapau 'e :
 - i) Longo 'a e tokotaha ako' 'o laka hake 'i he sekoni 'e 3. Talaange 'e koe 'a e fo'i mata'itohi ko ia' pea ke tuhu leva ki he mata'itohi hoko' mo talaange ki ai, **"Kātaki pē 'o hoko atu"**.
 - ii) Manatu'i ke faka'ilonga'i 'a e mata'itohi 'a ee na'a ke talaange ki he tokotaha ako' (he na'e 'ikai ke ne 'ilo'i' pea 'oku lau pē ia ko e "hala").
 - iii) Kapau 'e hanga 'e he tokotaha ako' 'o tala atu 'a e hingoa 'o e mata'itohi', pea ke talaange: **"Kātaki 'o talamai pē 'a e ongo 'o e mata'itohi"**. Ngāue'aki tu'o taha pē 'a e sētesi ko 'eni'.

Ko 'ene 'osi pē 'a e sekoni 'e 60, pea ke talaange leva ki ai, **"Fe'unga, mālō"**. Tohi'i 'a e mata'itohi na'e ngata ai' 'aki 'a e faka'ilonga (]).

Early stop rule: If you have marked as incorrect all of the answers on the first line with no self-corrections, say **"Thank you!"**, discontinue this exercise, check the box at the bottom, and go on to the next exercise.

Tu'utu'uni ki he fakangata vave ange 'o e savea':

- Kapau 'e 'ikai ke lava 'a e tokotaha ako' 'o 'omi ha tali tonu 'i he laine 'uluaki' pea ke talaange pē ki ai **"Mālō 'aupito"**, pea ke fakangata leva 'a e kongā ko 'eni'.
- Faka'ilonga'i 'a e ki'i puha 'i lalo 'i he lekooti' pea mo hoko atu ki he kongā hono hoko'.

Example: O v L

Fakatātā: O v L

1	2	3	4	5	6	7	8	9	10	
E	A	u	p	'i	L	e	o	a	n	(10)
k	'u	A	o	K	a	f	E	u	e	(20)
L	S	'e	i	a	p	h	u	a	K	(30)
o	F	e	O	I	H	A	o	u	a	(40)
'e	a	m	K	o	f	N	h	o	A	(50)
U	i	V	e	'a	E	k	S	E	ng	(60)
K	l	A	k	h	T	O	e	'u	i	(70)
F	E	'a	l	i	NG	a	'o	M	t	(80)
s	A	H	T	a	U	K	u	A	F	(90)
'e	s	i	E	k	e	a	i	A	e	(100)

Time on stopwatch at completion (number of SECONDS) :

Check this box if the exercise was discontinued because the child had no correct answers in the first line.

☐

Sekoni 'oku hā he uasí' he 'osi 'a e lau'

☐

Faka'ilonga'i 'a e puha ko 'ení kapau na'e 'ikai ha tali tonu 'i he 'uluaki laine'

☐

Good effort! Let's go on to next section.

Sai 'aupito ia. Ta hoko atu eni ki he kongā hono fā'.

Section 4. Familiar word reading

KONGA 4 : LAU 'O E NGAHI LEA MAHENI

Show the child the sheet of familiar words in the student stimuli booklet. Say,

FAKATĀTĀ 'O E ME'A KE FAKAHOKO 'I HE KONGA KO 'ENI 'O E SAVEA':

- *Fakahā ki he tokotaha ako' 'a e la'ipepa 'oku 'i ai 'a e ngaahi lea' pea ke lea 'o pehē:*

Here are some words. I would like you to read to me as many words as you can (do not spell the words, but read them). For example, this word is: "fale" (house)

Let's practise: please read this word [point to the word "tolu"]: **(three)**

If the child responds correctly say: **Good, this word is "tolu."**

If the child does not respond correctly, say: **This word is "tolu."**

Now try another one: please read this word [point to the word "alu"]: **(go)**

If the child responds correctly say: **Good, this word is "alu."**

If the child does not respond correctly, say: **This word is "alu."**

When I say "begin," read the words as quickly and carefully as you can. Read the words across the page, starting at the first row below the line. I will keep quiet and listen to you, unless you need help. Do you understand what you are to do? Ready? Begin.

- **Vakai mai ki he ngaahi lea ko 'eni'.** Te u kole atu kiate koe ke ke lau mai 'a e lahi taha 'o e lea te ke ala lau'. Hange ko 'eni', ko e fo'i lea ko ee (*tuhu ki he fo'i lea ko ia*) ko e "fale".
- **Sai, ta 'ahi'ahi ee. Katakī 'o lau mai 'a e fo'i lea ko 'eni'** [*tuhu ki he fo'i lea ko e "tolu"*].
- **Kapau 'e tonu 'a 'ene talī' pea ke talaange ki ai: Sai 'aupito, ko e fo'i lea ko 'eni' ko e "tolu"**.
- **Kapau 'e hala 'a 'ene talī' pea ke talaange ki ai: Sai. Ko e fo'i lea ko 'eni' ko e "tolu"**.
- **Ta toe 'ahi'ahi pē ha fo'i lea 'e taha: Kātaki 'o lau mai 'a e fo'i lea ko 'eni'** [*tuhu ki he fo'i lea ko e "alu"*].
- **Kapau 'e tonu 'a 'ene talī' pea ke talaange ki ai: Sai 'aupito, ko e fo'i lea ko 'eni' ko e "alu"**.
- **Kapau 'e hala 'a 'ene talī' pea ke talaange ki ai: Sai. Ko e fo'i lea ko 'eni' ko e "alu"**.
- **Ko 'eku talaatu pe, "Kamata", pea ke lau hokohoko mai leva 'a e ngaahi lea 'oku 'asi atu 'i he la'i pepa'.**
- **Kamata mei he ngaahi lea he laine 'uluaki' 'o hokohoko atu aipe ai. Lau tokanga pe mo vavevave.**
- **Te u fakalongolongo pē 'o fanongo atu ki ho'o lau'.**
- **Kapau 'e 'ikai te ke 'ilo'i 'a e fo'i lea', te u talaatu leva 'e au kiate koe pea ke hoko atu pē 'e koe ia ho'o lau'.**
- **Kuo mahino 'a e me'a 'oku totonu ke ke fai'? Sai? Kamata.**

Start the timer when the child reads the first word. Follow along with your pencil in the Student Response Form and clearly mark any incorrect words with a slash (/). Count self-corrections as correct. If you've already marked the self-corrected letter as incorrect, circle the letter and go on. **Stay quiet**, except when providing answers as follows: if the child hesitates for 3 seconds, provide the word, point to the next word and say **"Please go on."** Mark the word you provide to the child as incorrect.

- Lomi'i 'a e uasi' he kamata lau 'a e tokotaha ako'.
- Muimui pē mo ho'o peni' i he pepa tali 'a e fanau' pea ke kofi'i fakahihifi (/) 'a e ngaahi fo'i lea 'oku 'ikai ke tonu 'a 'ene lau'.
- Kapau 'e toe fakatonutonu pē 'e he tokotaha ako' ha'ane fo'i lea na'a' ne 'uluaki lau 'o hala (self-correct), pea ke lau ia 'oku tonu.
- Kapau na'a' ke 'osi kofi'i (/) 'e koe 'a e fo'i lea ko ia 'oku hala', pea ne toe fakatonutonu pe 'e ia, pea ke siakale'i pē 'a e fo'i lea ko ia' pea hoko atu leva.
- Fakalongolongo, 'o toki lea pē ke 'oange 'a e tali', 'o kapau 'e 'ova he sekoni 'e 3 'ene 'ikai ke lea mai'.
- Lau ange leva 'e koe 'a e fo'i lea ko ia' pea ke tuhu ki he fo'i lea hoko' mo ke lea ange, **"Kātaki 'o hoko atu"**. Kofi'i 'a e lea (/) 'oku 'ikai ke lava 'a e tokotaha ako' 'o lau mai', pea faka'ilonga'i 'oku hala.
- Ko 'ene 'osi pē 'a e sekoni 'e 60 pea ke talaange leva, **"Fe'unga, mālō"**. Faka'ilonga'i'aki 'a e lea faka'osi na'e lau mai 'e he tokotaha ako' 'aki 'a e faka'ilonga(J).

AFTER 60 SECONDS, SAY "stop." Mark the final word read with a bracket (J).

Early stop rule: If you have slashed/marked as incorrect all of the answers on the first line, say **"Thank you!"**, discontinue this exercise, check the box at the bottom, and go on to the next exercise.

Tu'utu'uni ki he fakangata vave ange 'o e savea':

- Kapau kuo ke kofi'i 'e koe hono kotoa 'o e ngaahi fo'i lea 'i he 'uluaki laine', pea ke talaange ki he tokotaha ako', **"Mālō 'aupito!"**.
- Faka'ilonga'i 'a e ki'i puha 'i lalo 'i he lekooti' pea mo hoko atu ki he kongā hono hoko'.

Example : fale tolu 'alu

Fakatātā: house three go

1	2	3	4	5	
ihu	huo	nofo	lele	foha	(5)
keli	pala	'ulu	temata	va'e	(10)
fale	heke	tahi	engeenga	nofo	(15)
loto	onioni	kili	piini	faile	(20)
'e he	ala	ngaolo	na'a	tamai	(25)
sio	tofua'a	'enau	'oatu	lole	(30)
tangata'eiki	'oku	veape	'ave	fanongo	(35)
me'a	'eva	paki'i	kulokula	na'e	(40)
hinehina	lelei	kui	he'ene	mo'ui	(45)
na'a' ku	tokoua	sisino	vāofi	'uakai	(50)

Time on stopwatch at completion (number of SECONDS) :

Check this box if the exercise was discontinued because the child had no correct answers in the first line.

Sekoni 'oku toe he uasi' he 'osi e lau'

Faka'ilonga'i 'a e puha ko 'eni' kapau na'e 'ikai ha tali tonu 'i he 'uluaki laine'

Good effort! Let's go on to next section.

Sai 'aupito ia. Ta hoko atu 'eni ki he kongā hono nima'.

Section 5. Invented word decoding

KONGA 5. LAU 'O E NGAHI LEA FA'U'

Show the child the sheet of invented words in the student stimuli booklet. Say,

FAKATĀTĀ 'O E ME'A KE FAKAHOKO 'I HE KONGA KO 'ENI 'O E SAVEA':

Fakahā ki he tokotaha ako' 'a e ngaahi lea kuo fa'u' 'a ē 'oku hā 'i he pepa 'a e fanau'.

Here are some made-up words. I would like you to read as many as you can.

Do not spell the words, but read them. For example, this made-up word is: "mela".

Let's practise: please read this word *[point to the next word: ngale]*.

[If the student says "ngale", say]: "Very good: "ngale"

[If the student does not say "ngale" correctly, say]: This made-up word is "ngale."

Now try another one: please read this word *[point to the next word: ve]*.

[If the student says "ve", say]: "Very good: "ve"

[If the student does not say "ve" correctly, say]: This made-up word is "ve."

When I say "begin," read the words as quickly and carefully as you can. Read the words across the page, starting at the first row below the line. I will keep quiet and listen to you, unless you need help. Do you understand what you are to do? Ready? Begin.

- Ko e ngaahi lea 'eni kuo toki fa'u. 'Oku ou fiema'u ke ke lau mai ange' 'a e lahi taha 'o e ngaahi lea te ke ala lau'. Fakatātā'aki 'eni, ko e fo'i lea ko ee ko e 'mela'.
- Ta 'ahí'ahi ee: Kātaki 'o lau mai 'a e fo'i lea ko 'eni' (tuhu ki he fo'i lea ko e – 'ngale')
- Kapau 'e tonu 'a 'ene talí' pea ke talaange ki ai: Sai 'aupito
- Kapau 'e hala 'a 'ene talí' pea ke talaange ki ai: Ko e fo'i lea fa'u ko 'eni' ko e 'ngale')
- Ta toe 'ahí'ahi ha fo'i lea 'e taha ee: Kātaki 'o lau mai ange' 'a e fo'i lea ko 'eni' (tuhu ki he fo'i lea ko e - 've')
- Kapau 'e tonu 'ene talí' pea ke talaange ki ai: Sai 'aupito.
- Kapau 'e 'hala 'ene talí' pea ke talaange ki ai: Ko e fo'i lea fa'u ko ení' ko e 've'.
- Ko 'eku pehē atu pē ke ke 'kamata' pea ke lau tokanga leva 'a e ngaahi lea' ke vavevave pē.
- Kamata lau 'a e ngaahi lea 'i he laine 'uluaki' 'o lau ai pē ke 'osi 'a e laine ko ia' pea ke toki hiki hifo ki he laine hono hoko'.
- Te u fakalongolongo pē au 'o fanongo, tukukehe kapau te ke fiema'u ha tokoni. 'Oku mahino? Teuteu....KAMATA.

Start the timer when the child reads the first word. Follow along with your pencil in the Student Response Form and clearly mark any incorrect words with a slash (/). Count self-corrections as correct. If you've already marked the self-corrected letter as incorrect, circle the letter and go on. **Stay quiet**, except when providing answers as follows: if the child hesitates for 3 seconds, provide the word, point to the next word and say **"Please go on."** Mark the word you provide to the child as incorrect.

- Lomi'i 'a e uasi' he kamata lau 'a e tokotaha ako'.
- Muimui pē mo ho'o peni' 'i he pepa tali 'a e fanau' 'o faka'ilonga'i lelei 'a e ngaahi fo'i lea ko ia 'oku pu'aki hala' 'aki ha (/).
- Kapau 'e foki 'o fakatonutonu 'ene lau' faka'ilonga'i ia 'oku tonu.
- Kapau na'a' ke 'osi faka'ilonga'i 'a e fo'i lea na'e pu'aki hala', pea ke siakale'i pē 'a e fo'i mata'itohi na'e hala' kae hoko atu pē.
- Fakalongolongo pē tukukehe 'a e taimi 'oku ke tokoni ai': kapau 'e longo 'a e tokotaha ako' 'o 'ova he sekoni 'e 3, talaange 'a e fo'i lea', tuhu ki he fo'i lea hono hoko' pea ke lea: **"Kātaki 'o hoko atu"**. Faka'ilonga'i 'a e lea 'oku ke 'oange' 'oku hala (/).
- Ka hili leva 'a e sekoni 'e 60 pea ke pehē ange leva: **"Fe'unga. Mālō"**.

AFTER 60 SECONDS, SAY "Stop." Mark the final word read with a bracket (]).

Early stop rule: If you have slashed/marked as incorrect all of the answers on the first line, say **"Thank you!"**, discontinue this exercise, check the box at the bottom, and go on to the next exercise.

Tu'utu'uni ki he fakangata vave ange 'o e savea':

- Kapau kuo ke maaka 'a e 'uluaki laine' 'oku hala kotoa, pea ke **fakamālō** ki ai pea fakangata ai pē 'i he taimi ko ia'.
- Faka'ilonga'i 'a e puha 'i lalo 'i he lekooti' pea mo hoko atu ki he konga hono hoko'.

Example : mela ngale ve

Fakatātā : mela ngale ve

1	2	3	4	5	
ifu	esa	'ua	aku	enu	(5)
'apa	kifa	ela	imu	solu	(10)
oa	ta'a	fa'ā	'ilu	'efe	(15)
eu	fe'e	la'a	epa	uka'a	(20)
eka	ele	ngē	le	'ue	(25)
sa	'ahe	ehu	'ofo	efo	(30)
epi	'ame	ko'o	sahi	huku	(35)
'angu	e'u	vahi	mi'i	'ami	(40)
i'e	eno	oau	teko	veki	(45)
ani	avo	keho	evi	uodae	(50)

Time on stopwatch at completion (number of SECONDS)

Check this box if the exercise was discontinued because the child had no correct answers in the first line.

☐

Sekoni 'oku hā he uasi' he 'osi 'a e lau'

☐

Faka'ilonga'i 'a e puha ko 'eni' kapau na'e 'ikai ha tali
tonu 'i he 'uluaki laine'

☐

Good effort! Let's go on to next section.

Sai 'aupito ia. Ta hoko atu 'eni ki he kongā hono ono'.

Section 6. Passage Reading and Comprehension

KONGA 6: VAKAI'I 'O E LAUKONGA' & MAHINO'

6a. Oral Passage Reading

Show the child the story in the student stimuli booklet. Say,

FAKATĀTĀ 'O E ME'A KE FAKAHOKO 'I HE KONGA KO 'ENI 'O E SAVEA':

6a. Laukonga

- Faka'ali'ali ki he tokotaha ako' 'a e talanoa 'i he'enau ki'i pepa'.

Here is a short story. I want you to read it aloud, quickly but carefully. When you have finished, I will ask you some questions about what you have read. Do you understand what you are to do? When I say "begin," read the story as best as you can. I will keep quiet & listen to you, unless you need help. Ready? Begin.

Ko e ki'i talanoa eni 'oku ou fiema'u ke ke hanga 'o lau mai. Te u hanga 'o 'eke atu e ngaahi fehu'i he 'osi ho'o lau e ki'i talanoa '. Ko 'eku pehē atu pe 'KAMATA' pea ke lau leva e ki'i talanoa' he vave taha te ke lava '.

Start the timer when the child reads the first word. Follow along with your pencil in the Student Response Form and clearly mark any incorrect words with a slash (/). Count self-corrections as correct. **Stay quiet**, unless the child hesitates for 3 seconds, in which case provide the word, point to the next word and say "**Please go on.**" Mark the word you provide to the child as incorrect.

At 60 seconds, say "Stop." Mark the final word read with a bracket (]).

- Kamata'i e uasi' 'i he taimi pē koe' 'oku lau ai 'e he tokotaha ako' 'a e 'uluaki fo'i lea'.
- Muimui pē mo ho'o peni vahevahe' 'i he pepa tali 'a e fanau' 'o faka'ilonga'i lelei 'a e ngaahi fo'i lea ko ia 'oku pu'aki hala 'aki ha (/).
- Kapau 'e foki 'o fakatonutonu 'ene lau', siakale'i 'a e lea kuo fakatonutonu' pea lau 'oku tonu.
- Fakalongolongo pē tukukehe 'a e taimi 'oku ke tokoni ai': kapau 'e longo 'a e tokotaha ako' 'o a'u ki he sekoni 'e 3, talaange 'a e fo'i lea', tuhu ki he fo'i lea hono hoko' pea ke lea: "**Kātaki 'o hoko atu**". Faka'ilonga'i 'a e lea 'oku ke 'oange' 'oku hala.
- Ka hili leva 'a e sekoni 'e 60 pea ke pehē ange leva: "**Fe'unga, mālō**". Faka'ilonga'i 'a e fo'i lea faka'osi na'a ne lau'aki 'a e (]).

Early stop rule: If the child gives no correct answers on the first line, say “**Thank you!**”, discontinue this exercise, check the box at the bottom of the page, and go on to the next exercise.

Tu’utu’uni ki he fakangata vave ange ‘o e savea’:

- Kapau ‘oku hala ‘a e tali ki he fehu’i fekau’aki mo e laine/sētesi ‘uluaki ‘o e talanoa’ pea ke pehē ange: “**Mālō ‘aupito**” pea ke ta’ofi ai pē ‘a e konga ko ia’.
- Faka’ilonga’i ‘a e puha ‘i lalo ‘i he lekooti’ pea mo hoko atu ki he konga hono hoko’.

I am Malakai. I live with my parents,	8
my grandparent and my little sister, Mina.	15
Our mother told us to go to the shop. On our way home, I challenged Mina to a race.	32
Mina fell over and hurt herself.	43
At home, our grandparent patched up Mina’s wound and we were happy (again)	53
Ko Malakai au. ‘Oku ou nofo mo ‘eku ongo mātu’a’	10
mo ‘eku kui’ mo hoku ki’i tuofefine ko Mina.	19
Na’e fekau he’ema fa’ee’ ke ma ō ki falekoloa.	37
‘I he’ema foki/, na’a’ ma alea ke ma taufetuli.	
Na’e tō ‘a Mina ‘o lavea.	43
Na’a’ ma a’u ki ‘api ‘o faito’o he’ema kui’ ‘a e lavea ‘o Mina’ pea ma	60
fiefia leva.	

Time on stopwatch at completion (number of SECONDS)

Sekoni ‘oku hā he uasi’ he ‘osi ‘a e lau’

Section 6b. Reading Comprehension

When 60 seconds are up or if the child finishes reading the passage in less than 60 seconds, **REMOVE the passage from in front of the child**, and ask the first question below.

Give the child at most 15 seconds to answer the question, mark the child's response, and move to the next question.

Read the questions for each line up to the bracket showing where the child stopped reading.

6e. Vakai'i 'o e mahino'

- Ka 'osi 'a e sekoni 'e 60 pē ka 'osi e talanoa' hono lau 'oku te'eki 'osi e sekoni 'e 60, pea ke **to'o 'a e talanoa' mei he tokotaha ako'** kā ke 'eke 'a e 'uluaki fehu'i'.
- 'Oange ha sekoni 'e 15 ke ne tali ai e fehu'i', faka'ilonga'i pē 'oku tonu, hala pe 'ikai ha tali pea ke hoko atu ki he fehu'i hono hoko'.
- **Lau pē 'a e ngaahi fehu'i 'oku a'u ki he kongā ko ia ne ngata ai 'ene lau'**.

Now I am going to ask you a few questions about the story you just read. Try to answer the questions as well as you can.

Te u 'eke atu e ngaahi fehu'i ko eni' fekau'aki mo e talanoa na'a ke lau '. Tali mai ki he lelei taha te ke lava'.

				Correct	Incorrect	No Response
				Tonu	'Ikai Tonu	'Ikai ha tali
Ko Malakai au. 'Oku ou nofo mo 'eku ongo mātu'a' mo 'eku kui' mo hoku ki'i tuofefine ko Mina. 19	1. How many people live in Malakai's home? 'Oku toko fiha 'a e kakai 'oku nofo he 'api 'o Malakai'?	Five; Mom, Dad, Grandparent, Mina & Malakai Toko 5: Tamai, fa'ee, kui, Mina, Malakai				
Na'e fekau he'ema fa'ee' ke ma ō ki falekoloa. 28	2. Where were Malakai and Mina asked to go? Ko fē 'a e feitu'u na'e fekau ke ō ki ai 'a Malakai mo Mina'?					
'I he'ema foki', na'a' ma alea ke ma taufetuli. Na'e tō 'a Mina 'o lavea. 43	3. What happened to Mina on their return home? Ko e hā 'a e me'a na'e hoko kia Mina he 'ena lele ki 'api'?	Mina fell and hurt herself. Na'e tō ia 'o lavea.				

	<p>4. Why did Mina hurt herself?</p> <p>Ko e hā 'a e 'uhinga na'e lavea ai 'a Mina?</p>				
<p>Na'a' ma a'u ki 'api 'o faito'o he'ema kui' 'a e lavea 'o Mina' pea' ma fiefia leva.</p> <p>60</p>	<p>5. Who fixed Mina's wounds?</p> <p>Kohai na'a ne faito'o 'a e lavea 'o Mina'?</p>	<p><i>Their grandparent</i></p> <p><i>Ko 'ena kui</i></p>			

Good effort! Let's go on to next section.

Sai 'aupito ia. Ta hoko atu 'eni ki he konga hono fitu'.

Section 7. Listening Comprehension

KONGA 7. VAKAI'I 'O E FANONGO' & MAHINO'

This is NOT a timed exercise and **THERE IS NO STUDENT SHEET**. Read the following passage aloud to the child **ONLY ONE TIME**, slowly (about 1 word per second). Then allow **15 seconds for each question**. Say,

FAKATĀTĀ 'O E ME'A KE FAKAHOKO 'I HE KONGA KO 'ENI 'O E SAVEA':

'Oku 'ikai ko ha konga 'eni 'oku taimi'i pea 'oku 'ikai ke 'i ai ha la'i pepa ki he konga' ni 'i he pepa 'a e fānau'. Te ke lau māmālie 'a e ki'i talanoa' ki he tokotaha ako' **TU'O TAHA PĒ**. Lau 'a e fo'i lea 'e taha he sekoni kotoa pē. Tukuange ha sekoni 'e 15 ke tali ai 'a e ngaahi fehu'i'.

I am going to read you a short story aloud **ONCE** and then ask you some questions. Please listen carefully and answer the questions as best as you can. Do you understand what you are to do?

- Te u lau atu e talanoa nounou ko eni' **tu'o taha pē** pea te u 'eke atu leva 'a e ngaahi fehu'i'.
- Kātaki 'o fanongo lelei mai, pea teuteu ke tali 'a e ngaahi fehu'i' ki he lelei taha te ke lava'.
- 'Oku mahino kiate koe 'a e me'a 'oku fiema'u ke ke fai'?

"Hey! Let's throw (stones/ sticks) at the neighbour's mangoes for they are ripe" shouted Peta to Siale. "No, they're going to get angry" was Siale's reply.

"Auē! Ta tolo e fu'u mango 'a e kaungā'api' he kuo momoho!" ko e kaila ia 'a Peta kia Siale'.

" 'Ikai, 'e 'ita mai e 'api' ia" ko e tali atu ia 'a Siale'.

Section 8. Dictation

KONGA 8 – TALA KAE TOHI

Turn this student response form to the last, lined page for writing, and place it in front of the student. Take the student stimulus sheet and turn to the last page, where you will find the same instructions as below. Say,

Fakaava ki he peesi faka'osi 'o e pepa tali 'a e fānau' pea folahi 'i mu'a he tokotaha ako'.

I am going to read you a short sentence. Please listen carefully. I will read the whole sentence once. Then I will read it in parts so you can write what you hear. I will then read it again so that you can check your work. Do you understand what you are to do?

Te u lau atu 'a e sētesi nounou ko eni'. Kātaki 'o fanongo lelei mai. Te u lau kakato atu e sētesi' TU'O TAHA pē. Ka 'osi ia' te u lau fakakongokonga atu koe'uhī ke ke lava 'o tohi. Ka hili ia' te u toe lau atu ka ke vakai'i faka'osi ho'o ngāue'. 'Oku mahino 'a e me'a 'oku fiema'u ke ke fai'?

The student will write the dictation sentence on the lined page of the response form. Read the following sentence aloud ONCE at about 1 word per second. Then give the child a pencil, and repeat a SECOND time, grouping the words "Come, let's go swimming because it's hot." Wait 10 seconds after each group, allowing the student to write. Then repeat the sentence a THIRD time while the child is writing. Give the child up to 15 seconds to complete writing after the third reading.

Come, let's go swimming because it's hot.

**Come,
let's go swimming
because it's hot.**

Ha'u ke tau ō 'o kaukau tahi he 'oku 'afu.

Ha'u (sēkoni 'e 10)

ke tau ō 'o kaukau tahi (sēkoni 'e 10)

he 'oku 'afu.

- 'E tohi 'a e tokotaha ako' 'i he'ene pepa tali'.
- Lau le'ō lahi TU'O TAHA pē (fo'i lea 'e taha he sekoni kotoa pē).
- 'Oange leva 'ene peni vahevahe pea ke lau leva hono tu'ō ua' kae fakakongokonga iiki ange kae tohi.
- Tatali 'i ha sekoni 'e 10 'i he vaha'a 'o e konga kotoa pē.
- Toe lau faka'osi leva e sētesī' kae kei tuku pē ke tohi e tamasi'i/ ta'ahine'.
- 'Oange ha sekoni 'e 15 ke fakakakato ai 'ene tohi'.
- Fakamālō ki ai he kau mai ki he sivi ko 'eni'.

'Uluaki Lau': Ha'u ke tau ō 'o kaukau tahi he 'oku 'afu. (fo'i lea 'e taha he sekoni)

Lau hono ua': Ha'u (tatali sekoni 10) ke tau ō 'o kaukau tahi (tatali sekoni 10) he 'oku 'afu.

Lau hono tolu': Ha'u ke tau ō 'o kaukau tahi he 'oku 'afu

Section 9. Pupil context interview

Konga 9: Ko e faka'eke'eke 'o e fānau ako'.

Thank you. Please answer this last part of the survey to the best you can.

Mālō 'Aupito. Ko e konga faka'osi eni 'o e savea' pea 'e fiema'u ke ke tali mai 'a e ngaahi fehu'i teu 'eke atu' ki he lelei taha te ke lava'.

Interview the child as if in an interview. Please circle the answer the child gives without giving them the choices shown in the Student Response Form. Remember to record only the answers the child gives you.

Faka'eke'eke 'a e fānau' 'o hangē pē 'i ha 'initaviu'. 'Oua 'e lau le'o lahi 'a e ngaahi fili 'oku 'oatu he foomu' ka ke tohi'i pe siakale'i 'a e tali 'oku ofi taha ki he tali 'oku 'oatu 'e he tamaiki'. Ko e tali pe 'e taha 'oku tonu ke ke lekooti'.

1	How old are you? (in number of years) <i>'Oku ke ta'u fiha?</i>	Year..... Do not know/ No response.....99 _____ Ta'u <i>'Ikai ke 'ilo/ 'ikai ha tali.....99</i>
2	In what month were you born? <i>Ko fē 'a e mahina na'e fa'ele'i ai koe?</i>	Month:..... Do not know/ No response.....99 _____ Māhina ko <i>'Ikai ke 'ilo/ 'ikai ha tali.....99</i>
3.1	Do you speak the same language at home as you speak at school? <i>Ko e lea tatau 'oku ke ngāue'aki 'i 'api' mo ia 'oku ke ngāue'aki he ako'?</i> Other questions to assist: What language do you speak at home? What language do you speak at school? <i>Ko e hā 'a e lea 'oku ke ngāue'aki 'i 'api'?</i> <i>Ko e hā 'a e lea 'oku ke ngāue'aki 'i 'apiako'?</i>	No.....0 Yes.....1 Do not know/ No response.....9 <i>'Ikai.....0</i> <i>'lo.....1</i> <i>'Ikai ke 'ilo/ 'ikai ha tali.....9</i>
3.2	[If "No" to Question 3.1], What language do you speak at home? [Multiple responses are allowed] <i>Kapau na'e "'ikai" ki 3.1 pea tali eni, ko e hā 'a e lea 'oku ngāue'aki 'i 'api'?</i> <i>('E malava pē ke lahi 'a e ngaahi tali hení.)</i>	English.....1 Other Language.....2 Do not know/ No response.....9 <i>Lea Faka-Pilitania.....1</i> <i>Lea Kehe.....2</i> <i>'Ikai ke 'ilo/ 'ikai ha tali.....9</i>

4	<p>Does anyone else read in your house or family?</p> <p><i>‘Oku ‘i ai ha toe taha kehe ‘oku laukonga ‘i homou ‘api’?</i></p>	<p>No.....0</p> <p>Yes.....1</p> <p>Do not know/ No response.....9</p> <p><i>‘Ikai.....0</i></p> <p><i>‘Io.....1</i></p> <p><i>‘Ikai ke ‘ilo/ ‘Ikai ha tali.....9</i></p>
5	<p>[If yes to Question 4] Who is that?</p> <p><i>[Multiple responses are allowed]</i></p> <p><i>Kapau na’e ‘IO ki he fika 4, kohai ‘a e tokotaha ko ia’?</i></p> <p><i>‘E malava pe ke lahi ‘a e ngaahi tali’.</i></p>	<p>Mother.....1</p> <p>Father.....2</p> <p>Sister.....3</p> <p>Brother.....3</p> <p>Any other person.....4</p> <p>Identify that person -----</p> <p>Do not know/ No response.....9</p> <p><i>Fa’ee’.....1</i></p> <p><i>Tamai.....2</i></p> <p><i>Tuofefine/tokoua/tehina.....3</i></p> <p><i>Tuonga’ane/tokoua/ tehina.....3</i></p> <p><i>Ha toe taha kehe (tala pau mai).....4</i></p> <p><i>‘Ikai ke ‘ilo/ ‘Ikai ha tali.....9</i></p>
6	<p>Did you go to a kindy before Class 1?</p> <p><i>Na’a’ ke ako ‘i ha kinitakāteni pea ke toki hū ki he Kalasi Taha’?</i></p>	<p>No.....0</p> <p>Yes.....1</p> <p>Do not know/ No response.....9</p> <p><i>‘Ikai.....0</i></p> <p><i>‘Io.....1</i></p> <p><i>‘Ikai ke ‘ilo/ ‘Ikai ha tali.....9</i></p>
7	<p>What grade are you in this year?</p> <p><i>‘Oku ke kalasi fiha he ta’u’ ni?</i></p>	<p>Class 1.....1</p> <p>Class 2.....2</p> <p>Class 3.....3</p> <p><i>Kalasi 1.....1</i></p> <p><i>Kalasi 2.....2</i></p> <p><i>Kalasi 3.....3</i></p>
8	<p>What grade were you in last year?</p> <p><i>Na’a’ ke kalasi fiha he ta’u kuo ‘osi’?</i></p>	<p>Did not attend school.....0</p> <p>Class 1.....1</p> <p>Class 2.....2</p> <p>Class 3.....3</p> <p>Kindy.....8</p> <p>Do not know/ No response.....9</p> <p><i>‘Ikai ke ako.....0</i></p> <p><i>Kalasi 1.....1</i></p> <p><i>Kalasi 2.....2</i></p> <p><i>Kalasi 3.....3</i></p> <p><i>Kinitakāteni.....8</i></p>

		<i>'ikai ke 'ilo/ 'ikai ha tali.....9</i>
9	Last year, were you absent from school for more than one week? <i>Na'a ke li'aki ako 'o lōloa ange he uike 'e taha' he ta'u kuo 'osi'?</i>	No.....0 Yes.....1 Do not know/ No response.....9 <i>'ikai.....0</i> <i>'lo.....1</i> <i>'ikai ke 'ilo/ 'ikai ha tali.....9</i>
10	Do you have the school reader? <i>'Oku 'i ai ha'o tohi laukonga mei he 'apiako'?</i>	No.....0 Yes.....1 Do not know/ No response.....9 <i>'ikai.....0</i> <i>'lo.....1</i> <i>'ikai ke 'ilo/ 'ikai ha tali.....9</i>
11	Apart from your school readers, are there other books, newspapers or other things to read at your house? <i>'Oku toe 'i ai mo ha ngaahi tohi kehe 'i homou 'api' tukukehe ange 'a e ngaahi naunau laukonga mei he ako', hangē koe nusipepa?</i>	No.....0 Yes.....1 Do not know/ No response.....9 <i>'ikai.....0</i> <i>'lo.....1</i> <i>'ikai ke 'ilo/ 'ikai ha tali.....9</i>
12	If yes to 11, what language(s) is used in these books? <i>Kapau 'e tali 'IO ki he fika 11, koe hā 'a e lea 'oku ngāue'aki he ngaahi tohi ko eni'?</i> <i>[E malava pe ke lahi 'a e ngaahi tali.]</i>	Tongan.....1 English.....2 Any other language.....3 (List)----- Do not know/ No response.....9 <i>Lea Faka-Tonga1</i> <i>Lea Faka-Pilitania.....2</i> <i>Ha lea kehe.....3</i> <i>(Tala pau mai)-----</i> <i>'ikai ke 'ilo/ 'ikai ha tali.....9</i>
13	Do you do homework studies after school? <i>'Oku ke fai ho'o ngāue mei 'api/ homueka' he tuku 'a e ako'?</i>	No.....0 Yes.....1 Do not know/ No response.....9 <i>'ikai.....0</i> <i>'lo.....1</i> <i>'ikai ke 'ilo/ 'ikai ha tali.....9</i>
14	[If "yes" to Question 13), Does anyone help you to do your homework? <i>Kapau na'e tali 'IO ki he fika 13, 'oku 'i ai ha taha 'e tokoni atu kiate koe ke fai ho'o ngāue mei 'api/ homueka'?</i>	No.....0 Yes.....1 Do not know/ No response.....9 <i>'ikai.....0</i> <i>'lo.....1</i> <i>'ikai ke 'ilo/ 'ikai ha tali.....9</i>

15	<p>[If yes to Question 14] Who is that? [Multiple responses are allowed]</p> <p>Kapau na'e 'IO ki he fika 14, kohai 'a e tokotaha ko ia'?</p> <p>'E malava pe ke lahi 'a e ngaahi talí.</p>	Mother.....1 Father.....2 Sister.....3 Brother.....3 Any other person.....4 Identify that person ----- Do not know/ No response.....9	Fa'ee/.....1 Tama/.....2 Tuofefine/tokoua/tehina.....3 Tuonga'ane/tokoua/ tehina.....3 Ha toe taha kehe (tala pau mai).....4 ----- 'Ikai ke 'ilo/ 'Ikai ha tali.....9	
	<p>At home, do you have the following?:</p> <p>'Oku 'i homou 'api' 'a e ngaahi me'a' ní?</p>	<p>Yes 'IO</p>	<p>No 'IKAI</p>	<p>No response 'IKAI HA TALI</p>
16	Radio/ letiō?	1	0	9
17	Telephone/ telefoni?	1	0	9
18	Mobile phone/ mōpaila?	1	0	9
19	Electricity/ ngaahi 'uhila?	1	0	9
20	TV/ televisone?	1	0	9
21	Sky TV (cable)/ TV Sky?	1	0	9
22	Refrigerator/ 'aisi?	1	0	9
23	Toilet inside the house/ falemālōlō 'i fale?	1	0	9
24	Vehicle/ me'alele?	1	0	9
25	Motor boat/ vaka fakamisini?	1	0	9
26	House/ fale nofo'anga?	Brick/ piliki1 Timber/ papa.....2 Corrugated iron/ kapa.....3 Paper board/ pepa 'aofi.....4 Tongan house/ fale-tonga.....5 Do not know/ No response.....9 'Ikai ke 'ilo/ 'Ikai ha tali.....9		
27	Preparation of food/ feime'atokoni?	Gas stove/ sitou kasa.....1 Kerosene stove/ sitou kalasini.....2 Open fire/ tafu 'i tu'a.....3 Do not know/ No Response.....9 'Ikai ke 'ilo/ 'Ikai ha tali.....9		
28	Access to water/ ma'u'anga vai?	In the compound/ house/ 'I loto 'api.....1 From the neighbour/ mei he kaunga'api....2		

	Community tank/ mei ha toe feitu'u kehe 'ikai koe kaunga'api).....3
	Do not know/ No Response.....9
	'Ikai ke 'ilo/ 'Ikai ha tali.....9
<p>OK we are done! You have done a good job. Thank you for participating in this survey.</p> <p><i>Sai, kuo lava ia. Fakamālō atu ho'o fie kau mai ki he ki'i savea'.</i></p>	

Time Finished: Taimi ne 'osi ai e savea':	____:____pongipongi:efiafi
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ANNEX 5 / TEGRATEACHER QUESTIONNAIRE (Bilingual Version)



Potungaue Ako, Kakai Fefine mo e Tala Fakafonua'.

Pepa Fehu'i 'a e Faiako'

Novema, 2009.

Ministry Of Education

Teacher Questionnaire

November 2009

• MEWAC is conducting a study to better understand how children learn to read. Your school was selected through a process of statistical sampling. We would like your help in this. But you do not have to take part if you do not want to.

- 'Oku fakahoko 'e he Potungaue Ako, Kakai Fefine mo e Tala Fakafonua' ha ako ke to e leleiange 'a e mahino fekau'aki mo e founa ako laukonga 'a e fanau'. Kuo fili ai ho'o 'apiako' ke kau ki he ako' ni pea 'oku 'i ai e faka'amu te ke tokoni mai ai. 'E 'ikai te ke kau ki he ako ni 'okapau 'e 'ikai te ke loto ki ai.

• Your name will not be recorded on this form, nor mentioned anywhere in the survey data. The results of this survey will be published in the form of collective tables. The information acquired through this instrument will be shared with the Ministry of Education with the hope of identifying areas where additional support may be needed.

- 'E 'ikai hiki ho hingoa' 'i he Foomu ko eni', pe 'i ha to e feitu'u kehe 'i he ngaahi fakamatala 'oe savea'. 'E fakahā pea mo fakatahataha' 'a e ola 'oe savea' ni 'i ha ngaahi tepile. Ko e ngaahi fakamatala kotoa 'e ma'u mei heni', 'e vahevahe atu ia mo e Potungaue Ako', mo e 'amanaki 'e lava ke 'ilo'i ai e ngaahi tafa'aki 'e fiema'u ai mo ha to e tokoni'.

• The name of your school and the grade level and class you teach will be recorded, but only so that we can correctly link school, class, and student data so as to analyse relationships between children's learning and the characteristics of the settings in which they learn. Your school's name will not be used in any report or presentation. The results of analysis will be used by the Ministry of Education to help identify additional support that may be needed.

- 'E hiki 'a e hingoa ho'o 'apiako', mo e kalasi 'oku ke faiako ai', koe'uhi pe ke fakafehokotaki totonu 'a e 'apiako', kalasi', mo e ngaahi fakamatala fekau'aki mo e fanau' koe'uhi ke malava 'o vakai'i e ngaahi fekau'aki 'i he ako 'a e fanau' pea mo e 'ulungaanga 'oe 'ataakai 'oku nau ako ai'.

• If you agree to help with this study, please read the consent statement below, check the "Yes" box, and answer the questions in this questionnaire as completely and accurately as you can, regarding your teaching preparation and activities. It should take you no more than 10 minutes. Return the completed form to the NCERD study team before the team leaves your school.

- Kapau 'oku ke loto ke ke tokoni ki he ako' ni, pea ke kataki 'o lau 'a e **Consent Statement**,

faka'ilonga'l 'a e puha "lo", pea tali 'a e ngaahi fehu'i 'i he Pepa Fehu'i' ni ke kakato pea mo tonu foki fekau'aki mo ho'o teuteu ki ho ngaahi fatongia fakafaiako' mo e ngaahi ngaue kotoa pe. 'E 'ikai to e laka hake he miniti 'e 10 nai ke tali e ngaahi fehu'i ni. Hili ho'o fakafonu kakato eni', pea ke fakafoki leva ia ki he Timi Ngaue Tanaki Fakamatala' kimu'a pea nau mavahe mei ho'o 'apiako'.

• If after reading this message you prefer not to participate, please return this form with no markings to the study team.

'I he hili ho'o lau eni', pea kapau 'e 'ikai te ke loto ke kau mai ki he savea ni, kataki 'o fakafoki e Foomu' ni ki he Timi Ngaue Tanaki Fakamatala', pea 'ikai ke ha ai ha tohi foki.

CONSENT STATEMENT:

I understand and agree to participate in this reading research study by filling out this questionnaire as completely and accurately as possible.

YES

☐

FAKAMATALA LOTO-KE- KAU:

'Oku mahino kotoa eni kiate au pea 'oku ou lotolelei keu kau ki he savea' ni, pea te u tali'a e Pepa Fehu'i' ni ke kakato mo tonu foki.

'IO

☐

Date:	
'AHO:	
Name of Region:	
Hingoa 'oe Vahe / Vahe Fonua:	
Name of School:	
Hingoa 'oe 'Apiako:	

Please answer all questions truthfully. Write each response in the space on the right across from each item. Where response options are given, clearly circle the number on the far right of the option that corresponds most closely to your response. For example, 3

Kataki 'o tali totonu e ngaahi fehu'i 'ni. Tohi ho'o tali 'i he laine 'oku ha 'i he tafa'aki to'omata'u'. 'I he ngaahi tali 'oku pau ke ke fili ai', seakale'i 'a e mata'ifika mei he to'omata'u 'a ē 'oku hoa mo ho'o tali'. Fakatātā 'aki eni, (3)

1.	Your gender: Fefine / Tangata:	Male / Female Tangata.....1 Fefine.....2		
2.	Your age at last birthday (years) Ko ho ta'umotu'a (ta'u)	_____ years _____ ta'u.		
3.	Grade level(s) you are teaching this year (Circle numbers for ALL grades that apply): Kalasi (pe ngaahi kalasi) 'oku ke faiako ai he ta'u' ni. (Siakale'i e mata'ifika (ngaahi) 'oe kalasi kotoa 'oku kau ai)	Grade 1.....1 Grade 2.....2 Grade 33 Grade 4.....4 Grade 55 Grade 66 Kalasi 1.....1 Kalasi 2.....2 Kalasi 3.....3 Kalasi 4.....4 Kalasi 5.....5 Kalasi 6.....6		
4.	Enrolment of your class (indicate numbers by gender for your class(es) Tokolahi ho'o Kalasi (tokofiha tangata / fefine)		Tangata (male)	Fefine (female)
		Kalasi 1		
		Kalasi 2		
		Kalasi 3		
		Kalasi 4		
		Kalasi 5		
		Kalasi 6		
		Katoa(Total)		
5.	Do you hold a Trained Teacher's Certificate? (Diploma in Teaching, Certificate of Teaching, Teaching Certificate Grade 1, 2 or 3) 'Oku 'i ai ha'o Tohi Fakamo'oni Fakafaiako? (Tipiloma Ako Fakafaiako pe Setifikeiti Fakafaiako pe Tohi Fakamo'oni Fakafaiako Kalasi 1/2/3)	No.....0 Yes.....1 'Ikai.....0 'Io.....1		

6.	<p><i>How many years have you been teaching overall?</i></p> <p><i>Ko e ta'u 'e fiha fakakatoa 'oe ngaahi ta'u kuo' ke ngaue fakafaiako ai?</i></p>	<p>_____ years</p> <p>_____ ta'u.</p>
7.	<p><i>How many years have you been teaching as a trained teacher?</i></p> <p><i>Ta'u 'e fiha kuo ke faiako ai ko e faiako kuo 'osi ako'i fakafaiako?</i></p>	<p>_____ years</p> <p>_____ ta'u.</p>
8.	<p><i>Does your school have a Library (not a learning corner in your classroom))</i></p> <p><i>'Oku 'iai ha Laipeli 'i ho 'apiako?</i></p> <p><i>(ikai 'uhinga eni ki he feitu'u fai'anga ako 'l ho lokiako')</i></p>	<p>No.....0</p> <p>Yes.....1</p> <p>Don't know9</p> <p>'Ikai.....0</p> <p>'lo1</p> <p>'Ikai ke u 'ilo.....9</p>
9.	<p><i>If yes to Question 8, how often does your class uses the library?</i></p> <p><i>Kapau 'oku 'lo ki he fehu'i 8, 'oku tu'o fiha e faka'aonga'i 'e he kalasi' 'a e laipeli?</i></p>	<p>Rarely.....1</p> <p>About half the time.....2</p> <p>Most but not all lessons.....3</p> <p>Every lesson.....4</p> <p>Tātātaha pe.....1</p> <p>Vaheua pe 'oe taimi2</p> <p>Taimi lahi kae 'ikai he kalasi kotoa3</p> <p>Kalasi kotoa pe.....4</p>
10.	<p><i>If yes to question 8, do you supervise your students as they use the library?</i></p> <p><i>Kapau 'oku "'lo" ki he fehu'l 10, 'oku tokanga'i nai e fanau' 'i he taimi 'oku nau ngaue'aki ai e laipeli?</i></p>	<p>No.....0</p> <p>Yes.....1</p> <p>'Ikai.....0</p> <p>'lo1</p>
11.	<p><i>Is your library class a part of the school program?</i></p> <p><i>'Oku kau 'a e taimi kalasi laipeli' 'a ho'o kalasi' ki</i></p>	<p>No.....0</p> <p>Yes.....1</p> <p>Don't know9</p> <p>'Ikai.....0</p>

	<i>he taimitēpile angamaheni pē 'a e 'apiako'?</i>	<i>'lo1</i> <i>'Ikai ke u 'ilo.....9</i>
12.	<i>Do you have a learning corner (at the school or in the classroom)?</i> <i>'Oku 'i ai ha feitu'u fai'angaako e fanau' ('i he 'apiako' pē 'i ho lokiako')</i>	<i>No.....0</i> <i>Yes.....1</i> <i>Don't know9</i> <i>Ikai0</i> <i>'lo1</i> <i>'Ikai ke u 'ilo.....9</i>
13.	<i>Does your school have a functioning Parent / Teacher Association?</i> <i>'Oku 'i ai ha Kautaha 'a e mātu'a mo e kau faiako (PTA) 'i he 'apiako'?</i>	<i>No.....0</i> <i>Yes.....1</i> <i>Don't know9</i> <i>'Ikai0</i> <i>'lo1</i> <i>'Ikai ke u 'ilo.....9</i>
14.	<i>Do you have class meetings with the parents of your students?</i> <i>'Oku ke fakahoko nai ha ngaahi fakataha pe talatalanoa mo e mātu'a 'a ho'o fanauako'?</i>	<i>No.....0</i> <i>Yes.....1</i> <i>Ikai.....0</i> <i>'lo1</i>
15.	<i>If yes to Question 14, about how often do you have class meetings with parents?</i> <i>Kapau 'oku " 'lo" ki he Fehu'i 14, 'oku tu'o fiha nai ho'o fakahoko e fakataha pe talatalanoa mo e matu'a 'a ho'o fanauako'?</i>	<i>About once per term or less.....1</i> <i>About twice per term.....2</i> <i>About thrice per term.....3</i> <i>About once a month or more4</i> <i>Tu'o taha he teemi pe to e si'l ange...1</i> <i>Tu'o ua he teemi.....2</i> <i>Tu'o tolu he teemi.....3</i> <i>Tu'o taha he mahina pe lahiange ai...4</i>
16.	<i>If yes to 14, give 1 or 2 suggestions for help from parents /PTA</i> <i>Kapau 'oki lo ki he Fehui 14, ko e hā ka fakalelei 'e 1 pe 2 te ke fokotu'u mai fekau'aki mo e tokoni mei he matu'a?</i>	<i>1.</i> <i>2.</i>

17.	<p>Do you use the recommended Tongan Reading Texts during reading lessons?</p> <p><i>'Oku ke ngāue'aki e ngaahi tohi laukonga faka-Tonga 'oku fokotu'u mai ke ngāue'aki lolotonga e Kalasi Laukonga '?</i></p>	<p>No.....0</p> <p>Yes.....1</p> <p><i>Ikai.....0</i></p> <p><i>'lo.....1</i></p>
18.	<p>If No to Question 17, what other Tongan reading materials do you use during reading classes?</p> <p><i>Kapau 'oku 'Ikai' ki he Fehu'l 17, ko e ha leva ha to e naunau laukonga faka-Tonga 'oku ke ngaue'aki lolotonga e kalasi laukonga?</i></p>	<p>.....</p> <p>.....</p> <p>.....</p>
19.	<p>If 'Yes' to Question 17, do you use those reading books during your reading classes?</p> <p><i>Kapau 'oku 'lo ki he Fehu'l 17, 'oku ke ngaue'aki e ngaahi tohi laukonga ko ia' lolotonga e kalasi laukonga?</i></p>	<p>No..... 0</p> <p>Yes1</p> <p><i>Ikai.....0</i></p> <p><i>'lo1</i></p>
20.	<p>If yes to Question 19, how often do you use the recommended Reading Texts during reading lessons?</p> <p><i>Kapau 'oku "lo" ki he Fehu'i 19, 'oku tu'o fiha nai ho'o ngaue'aki e ngaahi tohi laukonga faka-Tonga 'oku fokotu'u mai ke ngaue'aki 'i he Kalasi Laukonga'?</i></p>	<p>Rarely.....1</p> <p>About half the time.....2</p> <p>Most but not all lessons.....3</p> <p>Every lesson.....4</p> <p><i>Tātātaha pe.....1</i></p> <p><i>Vaheua pe 'oe taimi2</i></p> <p><i>Taimi lahi kae 'ikai he kalasi kotoa.....3</i></p> <p><i>Kalasi kotoa pe.....4</i></p>
21.	<p>If yes to Question 19, how useful do you find the recommended Reading Texts?</p> <p><i>Kapau "lo" ki he fehu'i 19, 'oku 'aonga nai e ngaahi tohi laukonga faka-Tonga 'oku fokotu'u mai ke ngaue'aki'?</i></p>	<p>Not very useful.....1</p> <p>Moderately useful.....2</p> <p>Very useful.....3</p> <p><i>'ikai ke fu'u 'aonga.....1</i></p> <p><i>'Aonga si'isi'l pe.....2</i></p> <p><i>'Aonga 'aupito.....3</i></p>

22	<p>Do you have a Teacher's Guide for the reading instruction curriculum?</p> <p><i>'Oku' ke ngaue'aki ha Tohi Fakahinohino 'a e Faiako' ki hono ako'i 'oe laukonga'?</i></p>	<p>No.....0</p> <p>Yes.....1</p> <p><i>'Ikai0</i></p> <p><i>'lo1</i></p>
23.	<p>If 'No' to question 22, what other Guide materials do you use for teaching reading? Please write on lines given.</p> <p><i>Kapau 'oku 'Ikai' ki he Fehu'l 22, ko e ha leva 'a e naunau Fakahinohino 'oku ke ma'u tokoni mei ai ki hono ako'l 'oe laukonga? (Kataki tohi mai)</i></p>	<p>.....</p> <p>.....</p> <p>.....</p>
24.	<p>If 'Yes' to question 22, how often do you use this Teachers' Guide?</p> <p><i>Kapau 'oku 'lo' ki he fehu'i 22, ko e ha e lahi ho'o faka'aonga'l e tohi' Fakahinohino ko ia'?</i></p>	<p>Rarely.....1</p> <p>About half the time.....2</p> <p>Most but not all lessons.....3</p> <p>Every lesson.....4</p> <p><i>Tātātaha pe1</i></p> <p><i>Vaheua pe 'oe taimi2</i></p> <p><i>Taimi lahi kae 'ikai he kalasi kotoa3</i></p> <p><i>Kalasi kotoa pe.....4</i></p>
25.	<p>If yes to Question 22, how useful do you find this guide?</p> <p><i>Kapau 'oku "lo" ki he Fehu'l 22, 'oku 'aonga nai 'a e tohi fakahinohino' ni?</i></p>	<p>Not very useful.....1</p> <p>Moderately useful.....2</p> <p>Very useful.....3</p> <p><i>'Ikai ke fu'u 'aonga.....1</i></p> <p><i>'Aonga si'isi'l pe.....2</i></p> <p><i>'Aonga 'aupito.....3</i></p>
26.	<p>If yes to Question 22, what one or two improvements to the guide would you recommend most strongly? (Describe):</p> <p><i>Kapau 'oku "lo" ki he Fehu'l 22, ko e ha ha fakalelei 'e taha pe ua te ke fokotu'u mai fekau'aki mo e Tohi Fakahinohino? (Fakamatala)</i></p>	<p>1.</p> <p>2.</p>

27.	<p>Have you attended any in-service training or professional development sessions such as workshops in the last year?</p> <p>Kuo' ke kau atu ki ha fa'ahinga ako fakalakalaka fakangaue 'o hange ko ia he ta'u kuo 'osi'?</p>	<p>No.....0</p> <p>Yes.....1</p> <p>'Ikai0</p> <p>'lo1</p>	
28.	<p>Have you received teacher training on how to teach reading within the last three years?</p> <p>Kuo ke kau 'I ha ako ki hono ako'l 'oe laukonga' 'I he ta'u 'e tolu kuohili'?</p>	<p>No.....0</p> <p>Yes.....1</p> <p>'Ikai0</p> <p>'lo1</p>	
29	<p>If yes to Question 28, indicate year(s) and for how many hours total (approx.)</p> <p>Kapau ko e "lo" ki he Fehu'l 28, ko e ha e lahi 'oe houa fakakatoa ki ai'?</p>	<p>Which Year(s):</p> <p>(Ngaahi) Ta'u fe?</p>	<p>Total Hours: _____</p> <p>Houa Fakakatoa: _____</p>
30.	<p>If yes to Question 28, what was the most useful aspect of these trainings? (Please describe)</p> <p>Kapau 'oku tali "lo" ki he fehu'l 28, ko e ha e ngaahi konga ne 'aonga lahi taha mei he ngaahi ako ko ia'? (Kataki fakamatala'i)</p>	<p>.....</p> <p>.....</p> <p>.....</p>	
31.	<p>How long would it take you to walk to school, approximately?</p> <p>Ko e ha e fakafuofua 'o e lahi e taimi 'o ho'o fononga ki 'apiako?</p>	<p>More than 60 minutes.....1</p> <p>46 to 60 minutes.....2</p> <p>31 to 45 minutes.....3</p> <p>16 to 30 minutes.....4</p> <p>15 minutes or less5</p> <p>Lahi hake he miniti 'e 60.....1</p> <p>46 ki he 60 miniti.....2</p> <p>31 ki he 45 miniti.....3</p> <p>16 ki he 30 miniti4</p> <p>15 pe si'isi'i ange.....5</p>	
<p>Following are different activities you might do with your students. Think about <u>the last 5 school days</u> and indicate how often each of the following activities took place, by circling the number on the right that corresponds to the closest frequency:</p>			

Hoko atu 'I heni', ko e ngaahi ngaue 'oku malava ke ke fai fakahoko mo ho'o fanauako'. Fakakaukau ki he 'aho ako 'e nima faka'osi', pea ke fakaha pe 'oku tu'o fiha hono fa'a fakahoko' 'aki hono seakale'l e mata'ifika 'I he to'omata'u' 'a ia 'oku hoa pe ofi taha ki ho'o tali'.

		Never 'Ikai Ngaue'aki	On 1 or 2 days He 'aho 'e 1 ki he 2	On 3 or 4 days He 'aho 'e 3 ki he 4	Daily 'Aho kotoa pe.
32.	<i>The whole class repeated sentences that you said first. 'Oku angimui e kalasi' faka-kātoa ki he ngaahi setesi 'oku ke lau atu'.</i>	0	1	2	3
33.	<i>Students copied down text from the chalkboard. 'Oku hiki 'e he fanau' 'a e tohi laukonga' mei he palakipoe'.</i>	0	1	2	3
34.	<i>Students retold a story that they had read. 'Oku to e talanoa'l 'e he fanau' ha talanoa na'a nau lau.</i>	0	1	2	3
35.	<i>Students sounded out invented words. 'Oku lea'aki 'e he fanau' ha ngaahi lea 'oku ikai ke nau maheni ai.</i>	0	1	2	3
36.	<i>Students learned meanings of new words. 'Oku ako e fanau' ki he 'uhinga 'oe ngaahi fo'i lea fo'ou'.</i>	0	1	2	3
37.	<i>Students read aloud to teacher or to other students. 'Oku laukonga le'olahi e fanau' ki he faiako' pe ki he fanau kehe'.</i>	0	1	2	3
38.	<i>Students were assigned reading to do on their own during school time. 'Oku vahe atu ki he fanau' 'a e laukonga ke fakakakato pe 'iate kinautolu lolotonga 'a e taimi ako'..</i>	0	1	2	3

Which of the following methods do you use to measure your students' reading progress? Indicate how often you use each method by circling the number on

Ko e fe he ngaahi founa ko eni' 'oku ke ngaue'aki ke vakai'l'aki 'a e fakalakalaka e fanau' 'l he laukonga'? Faka'ilonga'l pe 'oku tu'o fiha 'a e founa takitaha 'aki ha'o seakale'l 'a e mata'ifika he to'omata'u' 'a ia 'oku hoa pe ofi taha ki ho'o tali'.

<i>the right that corresponds to the closest frequency:</i>		<i>Never 'Ikai Ngaue'a ki</i>	<i>Once per term or less Tu'o taha he teemi pe si'l ange</i>	<i>Once or twice monthly Tu'o 1 pe 2 he mahina kotoa</i>	<i>Weekly or more often He uike kotoa pep e lahi hake ai.</i>
39.	<i>Written evaluations Sivi tohi he pepa.</i>	0	1	2	3
40.	<i>Oral evaluations Sivi fakamatala lea pe</i>	0	1	2	3
41.	<i>Review of portfolios and other projects Vakai'l 'oe Portfolios pea mo e ngaahi ako ki tu'a.</i>	0	1	2	3
42.	<i>Review of copy books Vakai'i 'oe pepa ngaue 'a e fanau'.</i>	0	1	2	3
43.	<i>Review of homework Vakai'l ' oe ngaahi ngāue 'oku fakahoko mei 'api' (Homework)</i>	0	1	2	3
44.	<i>Other methods (please describe): Ngaahi founa kehe (kataki fakamatala'i):</i>				

Based upon your experience and expertise on teaching, during what grade level should students FIRST be able to demonstrate each of the following reading skills? Circle number of option corresponding most closely to your response for each skill.

Ko fe 'a e Kalasi/ levolo 'oku totonu ke KAMATA ai 'a e malava 'e he fanau' ke fakahaa'l mai e ngaahi taukei 'oe laukonga ko eni'? Seakale'l 'e mata'ifika 'a ia 'oku hoa mo ho'o tali'.

		<i>Before Grade 1 Kimu'a he Kalasi 1</i>	<i>Grade 1 Kalasi 1</i>	<i>Grade 2 Kalasi 2</i>	<i>Grade 3 Kalasi 3</i>	<i>Not impor-tant Ikai ke mahu'inga</i>
45.	<i>Read aloud a short passage with few mistakes Lau le'olahi ha konga talanoa pea si'isi'i pe e hala'.</i>	7	1	2	3	8
46.	<i>Write name Tohi hingoa</i>	7	1	2	3	8
47.	<i>Understand stories they read Mahino e talanoa 'oku nau lau'.</i>	7	1	2	3	8
48.	<i>Recognize letters and say letter names 'llo'l e ngaahi mata'itohi' pea pu'aki e hingoa 'oe mata'itohi'.</i>	7	1	2	3	8
49.	<i>Sound out invented words Pu'aki e ngaahi lea 'oku 'ikai maheni ai.</i>	7	1	2	3	8
50.	<i>Understand stories they hear Mahino e talanoa 'oku nau fanongo ki ai'.</i>	7	1	2	3	8
51.	<i>Recite alphabet Lau ma'uloto e ngaahi mata'itohi 'oe laukonga faka-Tonga'.</i>	7	1	2	3	8

Thank you for your participation! You have been very helpful.

Fakamalo atu ki ho'o kau mail, pea na'a ke fu'u tokoni lahi 'aupito.