Solomon Islands Consultancy

Solomon Islands Standardised Tests of Achievement – (SISTA)

English and Mathematics

Year 4 and Year 6

Report 1- MAIN STUDY 2015

Final Draft

March 2016

This report was commissioned by the Department of Foreign Affairs and Trade (DFAT), Solomon Islands. The views expressed in the report are those of the authors and do not necessarily reflect the views of the Department or of any other organisation or person.

Contents

Table of Figures

Acronyms

AusAID	Australian Agency for International Development
ACER	Australian Council for Educational Research
CDU	MEHRD Curriculum Development Unit
DFAT	Department of Foreign Affairs and Trade
Conquest	ACER Item analysis software
IRT	Item Response Theory
ICC	Item Characteristic Curve
MEHRD	Ministry of Education and Human Resource Development
NAPLAN	National Assessment Program Literacy and Numeracy (Australia)
NESU	National Examinations and Years Unit
RUMM	Rasch Unidimensional Measurement Model (Andrich) – analysis software
SINU	Solomon Islands National University
SPBEA	Secretariat to the Pacific Board of Educational Assessment
SISTA	Solomon Islands Standardised Tests of Achievement
USP	University of the South Pacific

Contract Scope

Goals

To enable NESU/MEHRD to disseminate the results of the SISTA tests to stakeholders through item analysis on the Solomon Islands Standardised Test of Achievement (SISTA) at Year 4 and 6.

Outputs

The specialist will provide two main reports as well as reports to Education Authorities, Schools and individual students. The two main reports will be;

(a) a technical report for NEAD that includes descriptions of the processes followed in data analysis and reporting and the theoretical underpinnings of the analysis, a summary of the findings of the analysis and the implications for further analysis; and

(b) a report for the wider MEHRD staff that sets out the findings of the analysis in comparison to 2013 SISTA study findings and the implications for further investigations relating to curriculum content, sequencing of subject matter, teaching methods in literacy and numeracy and materials, and the learning environment (e.g. language of instruction).

Key Responsibilities

Under the supervision of the Director of the National Education Assessment Division, the Psychometrician will be responsible for assisting NEAD and MEHRD in:

i) data entry and analysis of student test papers from Year 4 and 6 SISTA (Literacy and Numeracy) test sample in the application of Rasch Modelling and other psychometric techniques.
ii) Facilitate training workshops in the use of applicable psychometric techniques in National Assessments
iii) Provide on the job training to NEAD staff during the assignment where necessary.
iv) Advice and assist in the management of data at NEAD
v) Facilitate review (existing) of item descriptors of existing Year 4 and 6 Assessment instruments (Literacy and Numeracy) through consultations with NEAD and Literacy and Numeracy panel members.
vi) Provide a technical report on the analysis of the findings and implications for assistance in providing feedback to focused intervention strategies.
vii) Provide a descriptive report to a wider MEHRD on the analysis and implications for further research into curriculum, teaching and teacher education, and the provision of learning environment.

INTRODUCTION

The SISTA program is a key monitoring tool of the Solomon Islands Ministry of Education and Human Resource Development and has the capacity to serve multiple functions to a wide range of educational stakeholders.

An imperative of the SISTA program is that it provides the Minister and his policy makers with valid summaries regarding the health of the system and reliable measures of how well students are achieving the intended curriculum of the Ministry. A significant improvement of this analysis of the Year 4 and Year 6 SISTA tests is the development of a single Standards Referenced Scale that enables measures of growth between Year 4 and Year 6 and estimates of improvement in achievement over time to be provided.

Although the results provide summative information of key policy makers to inform data driven interventions and strategies this element of the assessments is only a single use of the data.

The SISTA results contain a wealth of data about how well students have responded to items that are indicators of curriculum attainment, and the stakeholders who are most vitally interested in this level of information are principals, teachers, students and parents who can review the information and formulate pupil level strategies most appropriate to their particular circumstances.

For the first time these analyses of the SISTA data provide reports for participating schools, classroom teachers and students that can be used to inform the current learning levels and to develop learning strategies to improve individual student achievement.

BACKGROUND

The implementation of the 2015 SISTA assessment builds on the work conducted in 2013 and utilises the features of Item Response Theory (IRT) to make comparisons between the sample study of 2013 with the outcomes of the 2015 assessment. Key to this functionality is the maintenance of many items in their original form so that movements in their psychometric parameters can be observed, and a very similar sampling structure to the 2013 sample being implemented in 2015.

There has been minor modification SISTA instruments that enables a direct link between the 2013 test and results and those of the 2015 assessment to be observed and at school level with previous assessments. In the case of Writing there have been minor adjustments to the rubric that may have introduced some variation in the outcomes observed.

The face validity of the 2015 SISTA assessments has been maintained through a number of processes including;

a. Direct item level linking of items to curriculum outcomes;
b. Review by curriculum experts to ensure items are within the scope and sequence of the target population's learning experiences;
c. A field trial of the Year 4 and Year 6 instruments to review the psychometric and technical features of the individual items and the tests as a whole;
d. Engagement of members of NESU, SINU and CDU in reviewing items and modifying them as appropriate to make them technically and editorially robust.

These panels have endorsed the instruments as fair and valid test of the implemented curriculum in Years 4 and 6 and that the content and relative difficulty of the items provide a reasonable reflection of the achievement of the target outcomes for each Year level test.

EXECUTIVE SUMMARY

Key Findings

Key Finding 1

- The achieved sample was representative of the national demographic and provides a reliable model for the estimation of national and provincial results**.**

Key Finding 2

- The test constructs align well with the Standard 4 and Standard 6 curriculum outcomes of Year 4 and Year 6. The review processes to ensure items are appropriate and in accord with the scope and sequence documents provide evidence of the face validity of the SISTA 1 and SISTA 2 test instruments.

Key Finding 3

- The reliability statistic (Cronbach α) of each test is in the good to strong range with the exception of the English Reading strand of Standard (Year) 6, and the Language strands of both Standard (Year 4) and Standard (Year) 6.

Key Finding 4

The tests have scaled well and the embedded common items have functioned sufficiently consistently to enable comparisons between Year 4 and Year 6 performances to be estimated.

The use of Form X in 2013 and 2015 allowed for a comparison between the relative performances of students in each year for each Standard. In 2015 the items have functioned sufficiently consistently to enable comparisons between the outcomes of 2013 and 2015 to be reliably presented (see Appendices 3 through 6).

The Chapter 'Comparisons of Results 2013 and 2015' presents these outcomes.

The English Literacy scales have been developed using the sub-strands of Reading and Language which have performed unidimensionally and consistently at each Year level.

Writing has been analysed separately as it functions quite differently to the other English sub domains

The Writing results are relatively poor compared to those of Reading, Language and Mathematics

Key Finding 5

- The SISTA tests in Mathematics have been well targeted to the sample populations and have generated a good distribution of item difficulties that cater to a wide range of student abilities.
- There are some 'gaps' in the range of item difficulties in the SISTA Literacy tests which could be addressed with more items in each strand of each test.

Key Finding 6

- The performance of the items of each test, and of the common items designed to measure the growth between Year 4 and Year 6 have functioned adequately and enable SISTA Literacy and Mathematics scales to be maintained and Standards relative to curriculum outcomes to be described consistent with the outcomes of 2013.

Key Finding 7

- The summary results by Level are generally consistent with those produced by the 2013 SISTA assessments with some variation in outcomes. These variations are unexplained and may be sample related, although the construct of the sample is consistent with the 2013 design.
- The improvements in overall performances can be attributed to:

1. Better tests and improved alignment of the tests with the target population; and
2. In the case of English Literacy the disaggregation of the Writing scale from the other strands of English.

Table ES1 -Summary of percentages within Standards Levels by subject and year level

Year 4	Critical Level %	Below Expected level – emerging %	At Expected Level %	At or Above expected standard %
English Literacy	5.8	18.6	38.0	75.6
Reading	11.0	17.6	28.0	71.4
Language	3.7	18.4	40.1	77.9
Writing	70.0	14.8	7.6	15.2
Mathematics	12.0	27.4	36.6	61.7

Year 6	Critical Level %	Below Expected level – emerging %	At Expected Level %	At or Above expected standard %
English Literacy	0.9	7.1	30.5	61.5
Reading	4.0	14.6	23.7	58.7
Language	0.5	8.1	25.8	65.6
Writing	31.0	21.6	16.4	31.0
Mathematics	4.8	13.6	31.2	85.1

Table ES2 Rasch test statistics – English estimates of mean student ability

Year	Domain	N	Minimum Score	Maximum Score	Mean	Std. Deviation	Growth
Year 4	English	3322	155.7	584.2	408.3	52.2	
Year 6	English	3099	250.4	631.4	434.0	45.2	25.7
Year 4	Reading	3322	188.7	590.5	409.8	68.4	
Year 6	Reading	3099	212.7	679.3	432.6	59.9	22.8
Year 4	Language	3322	189.6	607.6	408.8	50.8	
Year 6	Language	3099	239.2	613.1	434.1	44.5	24.3
Year 4	Writing	3322	140.0	662.1	281.7	95.0	
Year 6	Writing	3099	140.0	662.1	369.2	93.2	87.5

Table ES3 Rasch test statistics – Mathematics estimates of mean student ability

Year	Domain	N	Minimum Score	Maximum Score	Mean	Std. Deviation	Growth
Year 4	Mathematics	3264	118.5	633.3	412.6	57.0	
Year 6	Mathematics	3160	184.8	721.8	500.2	63.3	87.6

Key Finding 8

- The Writing results of Year 4 are very poor and although there is significant improvement between Year 4 and Year 6 the results of Year 6 are still well below the expected level.
- In Writing the Year 6 sample was functioning, on average, at a level that could be reasonably expected Year 4 students. This outcome reflects the findings of 2013.

Key Finding 9

- The summary results by Level are generally consistent with those produced by the 2013 SISTA assessments with some variation in outcomes. These variations are unexplained and may be sample related, although the construct of the sample is consistent with the 2013 design.
- There is significant growth in performance between Year 4 and Year 6 in Mathematics with an improvement of about 100 SISTA points which is twice the expected rate.
- The results in the Literacy strands are variable with improvement observed in Year 4 but a diminished result in Year 6 compared to the 2013 outcomes.

Key Finding 10

- The difference between the mean performances of Boys and Girls in Literacy is marginal with girls slightly out-performing boys.
- In Writing Girls significantly out-perform boys at both Year 4 and Year 6.
- In Mathematics there is no significant difference between the performance of Boys and Girls as observed in the 2013 SISTA assessments.

Key Finding 11

- There are significant differences between the mean performances of the students in rural schools compared to those in urban schools especially in the Literacy strands with urban students out-performing the rural students.
- Although still significant, and in favour of the urban students, the difference is not as great in Mathematics

Key Finding 12

- In the English literacy and Writing domains students of non-government schools significantly out-perform the students of government schools at Year 4. These differences are not as apparent in Year 6.
- In Mathematics the difference in mean performance between non-government school students and government school students is not significant.

Key Finding 13

- Although the overall performance of the students from the Honiara sample schools in Reading is better than the means results of the other provinces at each Year level the growth observed between Year 4 and Year 6 in Honiara province is less than the mean growth observed in each of the other provinces between Year 4 and Year 6.

Key Finding 14

- As observed in the Reading strand the relative growth in the Language strand between Year 4 and Year 6 students is generally less in the Honiara province than each of the other provinces.

Key Finding 15

- There is significant improvement in Writing in each province between the mean performances of Year 4 and the Year 6 students. However the overall outcomes are disappointing as was the case in 2013.

Key Finding 16

- The improvement in the mean Mathematics performance of students between Year 4 and Year 6 is consistent across all provinces.

Key Finding 17

- There is considerable variation in the Growth observed between Year 4 in 2013 and the sample population at Year 6 in 2015 within and between provinces in the Literacy strands.

Key Finding 18

- With the exception of the Honiara province, the Growth observed between Year 4 in 2013 and the sample population at Year 6 in 2015 within and between provinces in the Literacy strands is consistently improved but with variation in the amounts.

Key Finding 19

- Year 4 students are developing skills in English Reading but have significant challenges in the skills associated with constructing and writing responses compared to those required in recognising a correct answer in a multiple choice item format.

Key Finding 20

- There are weaknesses in English Language acquisition at Year 4 level relative to the expected outcomes articulated in the curriculum.

Key Finding 21

- The weaknesses observed in 2013 in the stands of Fractions, Measurement and Money have had some improvement on average but still present problems for the majority of the population.

Key Finding 22

- The students of Year 6 display an increased capacity to read, comprehend and retrieve information in texts compared to Year 4 students. Although there is evidence of some improvement in Year 4 there appears to be no improvement in the Year 6 outcomes.

Key Finding 23

- At Year 6 items that require students to read and comprehend the information in texts and then to formulate and answer and write a constructed response are generally poorly completed.

Key Finding 24

- The types of weaknesses observed in Year 4 Language are also present in Year 6.

Key Finding 25

- The item statistics indicate that by Year 6 most students tend to have control over the basic functions of addition and subtraction and its application to money when expressed in the traditional text book algorism format.

- In each of the common items that relate to basic operations there is evidence of significant improvement by Year 6 compared to Year 4 in the mean performances of students.

Key Finding 26

- The weaknesses in Fractions observed in Year 4 are still challenges in Year 6 Mathematics. Word problems are challenging for Year 6 students.

The Appendices to this report provide detailed information about the manner in which each of the SISTA items have performed including the manner in which they have performed in each province. This information can inform province level initiatives to improve student learning outcomes.

Included within the outputs of this consultancy are individual school and individual class reports that report the manner in which students have performed in the assessments. This level of information can inform school specific initiatives to improve student learning outcomes.

RECOMMENDATIONS

In considering the outcomes of the 2013 and 2015 SISTA assessments it would appear that, on average, students are engaging relatively well in Mathematics and achieving acceptable levels of learning at both Year 4 and Year 6.

However in the Literacy strands, and particularly in Writing achievement and growth is not progressing at the same rate. There may be a number of reasons that could be posited to explain this, including that in many cases English may be a second, third or fourth language that students are learning. However English is the language of instruction beyond Year 3 and the language of commerce in the Solomon Islands, and therefore a priority in regards to student educational outcomes and attainment.

These recommendations are focused on a premise that for the 2016/2017 cycle, prior to the implementation of SISTA in 2017, that Literacy could be the focus of policy and interventions to improve outcomes in the English Literacy and Writing strands.

These recommendations support existing programs and interventions currently in process and fully supported by MEHRD, NISU and NEAD.

Recommendation 1

- Use of SISTA data at school level
    - *That workshops be scheduled with key school level personnel, principals and curriculum leaders, in the manner in which the school level data from the SISTA analysis can be used to inform the planning of school development programs and individual class level interventions.*

Recommendation 2

- 2016 – 2017 Target Literacy
    - *That over the next two years the priority for teaching and learning improvement for all the contributing stakeholders, SINU, MEHRD and NEAD should be in developing strategies and resources to support and improve Reading and Writing outcomes.*

Recommendation 3

- Development of school improvement plans for literacy
    - *That the development of writing skills be noted as a weakness at the national level and that strategies be developed by all contributors to students and teacher learning to improve student outcomes in the written form of English.*

Recommendation 4

- Realistic goals for 2017 SISTA targets

- *That at school, and provincial level principals and executive officers should set realistic goals that can be measured in the SISTA assessments of 2017.*

Recommendation 5

- Application of resources and strategies
    - *That samples of student works from the 2015 SISTA assessment be annotated and provided to schools as samples of various standards of student writing and the use of the SISTA writing rubric as a tool to assist teaching and learning.*
    - *That the resources of USP, SINU, MEHRD Curriculum Unit and NESU be used to prepare Reading resources with associated assessment items to provide resources to assist teachers in the teaching and assessment of student Reading skills.*
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    - *That the pedagogy of teaching of writing as a subject be prioritised in teacher training AND that the use of criterion referenced assessment of writing be supported in teaching programs*.
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Recommendation 6

- Develop Form Y for 2017 (linked to SISTA scale)
    - *That, in the event that the recommendation that SISTA Y forms are used for future national sample assessments, the test forms be revised to match the construct of the SISTA X forms, AND common items between the SISTA X and SISTA Y forms are included so that the Form Y results can be calibrated on the SISTA scale.*

Recommendation 7

- Introduction of Unique Student Identification numbers to SISTA data
    - *That students entering Year 4 be assigned a unique identification number that can be used to track student development through Year 6 and potentially Year 9 in future longitudinal studies.*

ASSESSMENT ADMINISTRATION

Sample Frame

The sample frame for the 2015 SISTA assessments was provided by MEHRD from the central database. NESU excluded less than 5% of schools that were in accessible and ACER excluded a further 2% of schools with populations less than 5 students as these were considered inefficient numbers of cases for logistical/result benefit purposes.

Selection

The sample frame was explicitly stratified by Province and a senate strategy of 20 schools per stratum applied. In the cases of Rennell & Bellona Province all schools were sampled due to the small number of schools in the province, and in Temotu Province every second school was chosen following sorting by student population size (MOS). The sample was drawn using a two stage probability proportional to size methodology in which the first stage was school and the second stage students within school.

To assist in logistical resources the same selection of schools was applied to Year 6 as had been systematically selected for Year 4.

Overall the achieved samples by student of Year 4 and Year 6 were 80.7% and 89.7% respectively with 3322 Year 4 students and 3099 Year 6 students participating in the sample program. Tables 1 and 2 summarise the participation by Province, school and geo-location.

Table 1 Achieved sample by Province, School count and Geo-location

Province	Urban	Semi - Urban	Rural	Grand Total
Central Islands	1	2	19	22
Choiseul	1		27	28
Guadalcanal	2	1	25	28
Honiara	23		2	25
Isabel	1		23	24
Makira & Ulawa			31	31
Malaita	1	3	28	32
Rennell & Bellona	1		8	9
Temotu	2		26	28
Western	1		33	34
Grand Total	**33**	**6**	**222**	**261**

Key Finding 1

The achieved sample was representative of the national demographic and provides a reliable model for the estimation of national and provincial results.

ADMINISTRATION/MARKING/DATA ENTRY

School Administration

Test materials were delivered in a timely manner and the assessments were administered in schools by classroom teachers on schedule. There were no reports of abnormalities in the implementation of the assessments in schools that participated in the program.

It is notable in the information of Appendix 1 and Appendix 2 that there was some variation in the achieved sample compared to the intended sample. This may be a function of the currency of the enrolment data. One aspect of the program that is not controlled is the school level participation of students. The variation in participation may reflect some school based selection of students that may bias the results if there are cases in which principals have 'selected' only more able students to participate in the assessments.

Marking and data entry

Marking was performed under the direction of NESU with all constructed response (CR) items being hand marked and the student responses being annotated with scored of zero or one (0/1) to facilitate the entry by the data operators. In the cases that had multiple possible scores (ranges up to 0 to 6) these values were recorded as individual responses to allow analysis of response patterns by students. This method supports Rasch modelling and may assist in identifying common errors or mis-conceptions in student learning. In cases where no response was observed the code "9" was recorded in the data stream.

Writing was marked by a team of specialised markers in the application of a marginally refined rubric compared to that utilised in November 2013. The marking was supervised by NESU officers following training of the markers in the application of the rubric.

TEST STRUCTURE

English – Reading, Language and Writing

The English tests at both Year 4 and Year 6 were grounded in the English syllabus documents with items matched to curriculum outcomes as appropriate to each Year level and taking account of the scope and sequence of the teaching program relative to the timing of the SISITA assessments in November 2015. Table 3 details the test constructs of the English papers for Year 4 and Year 6.

Table 2 – Test Constructs – English

Domain	Item types	Year 4		Year 6	
		Items	Points	Items	Points
Reading	Multiple Choice	9	9	8	8
	Constructed response	9	9	10	10
	READING SCALE		**18**		**18**
Language	Multiple Choice	12	12	6	6
	Constructed response	5	19	9	14
	LANGUAGE SCALE		**31**		**20**
TOTAL raw marks	**LITERACY SCALE**		**49**		**38**
Writing	Constructed response	8 criteria	30	8 criteria	30

Mathematics

The Mathematics tests at both Year 4 and Year 6 were mapped exactly to the Mathematics syllabus documents with items matched to specific outcomes and the overall test divided into sub-strands that match the syllabus definitions and sub-strand order.

The scope and sequence of the intended curriculum as defined in the syllabus was considered in the determination of which items were appropriate to be assessed in the SISTA assessments delivered in November 2015. Table 4 provides detail of the Mathematics test constructs by Year level.

Table 3 – Test Constructs – Mathematics

	Year 4		Year 6	
Strand	**Sub Strand**	**Items**	**Sub Strand**	**Items**
Number	Number	7	Number	13
	Addition	6		
	Subtraction	6		
	Multiplication	4		
	Division	5		
Fractions	Fractions	4	Fractions	22
Geometry	Shapes	11	Shapes and Space	4
	Angles	2		
	Location	3		
Measurement	Measurement	6	Measurement	1
	Graphs	3	Graphs	8
	Time	4	Time Zones	1
Money	Money	7	Money	8
Word Problems			Word Problems	13
TOTAL raw marks		**68**		**70**

Key Finding 2

The test constructs align well with the Standard 4 and Standard 6 curriculum outcomes of Year 4 and Year 6. The review processes to ensure items are appropriate and in accord with the scope and sequence documents provide evidence of the face validity of the SISTA 1 and SISTA 2 test instruments.

TRADITIONAL STATISTICS

The analyses showed that the English tests at both Year 4 and Year 6 were relatively well targeted to each of the Year 4 and Year 6 student populations. The English tests were separately analysed as and English Literacy test and a Writing assessment as research in other large scale monitoring programs (e.g. NAPLAN) shows that these domains function quite differently at both individual student and cohort levels. The English Literacy domain was then disaggregated to analyse Reading and language

independently to investigate similarities and/or differences in performance in each and any inter-relationships that exist between the two sub-domains.

Table 5 provides a summary of the traditional raw score statistic of the English tests and disaggregates the overall English Literacy tests into the sub-strands of Reading, Language and Writing.

The reliability coefficients (Cronbach's α**)** in the English Literacy tests are in the good to strong range however the Language strands and Standard 6 Reading are in the moderate range.

Table 4 – Traditional Test Statistics – English

Year	Domain	N	Reliability (Cronbach) α	Minimum Score	Maximum Score	Mean	Std. Deviation
Standard 4	English	3322	0.87	0	47	23.2	9.7
Standard 6	English	3099	0.82	1	37	18.1	6.9
Standard 4	Reading	3322	0.84	0	18	10.4	4.3
Standard 6	Reading	3099	0.75	0	18	7.5	3.2
Standard 4	Language	3322	0.77	0	30	12.8	6.1
Standard 6	Language	3099	0.70	0	20	10.6	4.4
Standard 4	Writing	3322	0.95	0	30	7.3	5.7
Standard 6	Writing	3099	0.95	0	30	13.7	6.5

Table 6 provides the traditional statistics for Mathematics for each of the Year 4 and Year 6 tests. Both tests display strong reliability statistics (>.90) and show that there is a wide range of scores achieved by students in each Year level.

Table 5 – Traditional Test Statistics – Mathematics

Year	Domain	N	Reliability (Cronbach) α	Minimum Score	Maximum Score	Mean	Std. Deviation
Standard 4	Mathematics	3322	0.93	0	67	37.0	11.8
Standard 6	Mathematics	3099	0.94	0	69	39.3	13.7

Key Finding 3

The reliability statistic (Cronbach α) of each test is in the good to strong range with the exception of the English Reading strand of Standard (Year) 6, and the Language strands of both Standard (Year 4) and Standard (Year) 6.

ITEM RESPONSE THEORY (RASCH) ANALYSIS AND SCALE MAINTENANCE

Scale Maintenance

A major aim of the implementation and analysis of the SISTA program in 2015 was to make valid comparisons to the outcomes observed in the 2013 implementation of SISTA. In 2013 a stable measurement scale, against which student performances could be compared over time, and reliable comparisons of growth between and across years made, was developed (see SISTA report 2013).

In 2013 the responses from all participating students in the SISTA tests have been used to provide the baseline data and create the SISTA measurement scales for each domain.

These scales have been developed using methodologies that are used in a large number of countries and internationally acknowledged programs like PISA, TIMSS, PIRLS and NAPLAN. Three scales have been produces: one for English Literacy (Reading and Language), one for Writing and one for Mathematics. The Literacy scale has been disaggregated into Reading and Language.

Each scale extends over both Year 4 and Year 6 – there is only one measurement scale for each subject and students are compared to that scale for the subject independent of which Year level they are currently completing. This method acknowledges that in any class there is often a wide range of ability with some students struggling well below the expected Year level, many operating in the expected ranges and some students functioning well above the current Year level expectations. Research indicates that in lower secondary schools it is not uncommon for a class to have students covering five years of student achieved learning/ability.

The methodologies used in the analysis and scale development include the application of Item Response Theory using Rasch (1960) measurement techniques and the implementation of common items (Equating) in Year 4 and Year 6 tests to estimate the amount of growth shown by the improved performance of Year 6 in the items.

All tests were analysed using the Item Response Theory (IRT) software Conquest. In order to give meaning to the scales the Rasch indices have been converted to scaled scores.

The linear equation used to construct the numerical scaled scores is:

Scaled Score = Rasch Logit value*50 + 400 (Literacy and Mathematics)

Scaled Score = Rasch Logit value*25 + 400 (Writing)

The application of this equation results in the items of Year 4 having a mean location of 400 scaled score points and a standard deviation of 50 scaled score points (25 scaled score points in Writing).

Given the well targeted tests in Literacy and Numeracy at Year 4 the results for the measurement of the students' abilities on the same scale is provided in Tables 7 and Table 8 below.

The application of the common item methodology (items that are present in both Year 4 and Year 6 tests to measure the amount of growth observed in the data (see appendix)) have enabled estimates of mean the performance of Year 6 on the common scale to be prepared. These are presented in Table 7 and table 8.

Table 6 – Rasch test statistics – English estimates of mean student ability

Year	Domain	N	Minimum Score	Maximum Score	Mean	Std. Deviation	Growth
Year 4	English	3322	155.7	584.2	408.3	52.2	
Year 6	English	3099	250.4	631.4	434.0	45.2	25.7
Year 4	Reading	3322	188.7	590.5	409.8	68.4	
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Table 7 – Rasch test statistics – Mathematics estimates of mean student ability

Year	Domain	N	Minimum Score	Maximum Score	Mean	Std. Deviation	Growth
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Given that the standard deviation is defined as 50 scaled score points the growth observed between Year 4 and Year 6 in the Literacy strands is relatively consistent at about one standard deviation. Experience in other programs of this type (Australian state based programs and NAPLAN) would suggest this is about the expected range of growth observed between two adjacent target cohorts (eg Year 3 to Year 5 OR Year 4 to Year 6).

The growth observed in Mathematics and Writing is about one and a half the expected range being around 87 scaled score points respectively.

This would suggest that in Mathematics there is significant improvement in the base skills being taught in Year 4 Mathematics and this is a positive indicator in regards to student understanding of core Mathematics skills upon which to build higher level understandings.

The more than expected increase in the mean scores in Writing between Year 4 and Year 6 may simply reflect the very low base in Year 4 mean results.

It is observed in Table 6 that the mean of Year 4 students (281.7) is both well below the expected result of about 400 as shown in the other Literacy strands. Although there is evidence of significant improvement in Writing between Year 4 and Year 6, the mean scaled score of the Year 6 sample is 369.2 which is around the expected value of a Year 4 student cohort. In considering the observed growth it should be considered in the light to the general under-achievement in this strand of English learning.

The observed growth between Year 4 and Year 6 in the Literacy strands is consistently about one half of a standard deviation. This is considerably less than expected and about half the growth witnessed in 2013. This is a function of the Year 4 students showing an improved result in 2015 compared to 2013; and the Year 6 students performing at a marginally lower level than in 2013.

Key Finding 4

The tests have scaled well and the embedded common items have functioned sufficiently consistently to enable comparisons between Year 4 and Year 6 performances to be estimated.

The use of Form X in 2013 and 2015 allowed for a comparison between the relative performances of students in each year for each Standard. In 2015 the items have functioned sufficiently consistently to enable comparisons between the outcomes of 2013 and 2015 to be reliably presented (see Appendices 3 through 6).

The Chapter 'Comparisons of Results 2013 and 2015' presents these outcomes.

The English Literacy scales have been developed using the sub-strands of Reading and Language which have performed unidimensionally and consistently at each Year level.

Writing has been analysed separately as it functions quite differently to the other English sub domains

The Writing results are relatively poor compared to those of Reading, Language and Mathematics

Key Finding 5

The SISTA tests in Mathematics have been well targeted to the sample populations and have generated a good distribution of item difficulties that cater to a wide range of student abilities.

There are some 'gaps' in the range of item difficulties in the SISTA Literacy tests which could be addressed with more items in each strand of each test.

Key Finding 6

The performance of the items of each test, and of the common items designed to measure the growth between Year 4 and Year 6 have functioned adequately and enable SISTA Literacy and Mathematics scales to be maintained and Standards relative to curriculum outcomes to be described consistent with the outcomes of 2013.

English Tests – Rasch Analyses

Appendices 3 and 4 provide summaries of the Rasch statistics provided by these analyses.

Figures 1 and 2 are the item-person maps that show the relative targeting of the items relative to the sample populations for each year level.

Figure 1 shows a good distribution of items across the full range of difficulties and a relatively normal distribution of student abilities. There is good alignment between the items assessing Year 4 literacy skills with the range of abilities demonstrated by the sample.

Figure 1 English Year 4 2015 – item person map

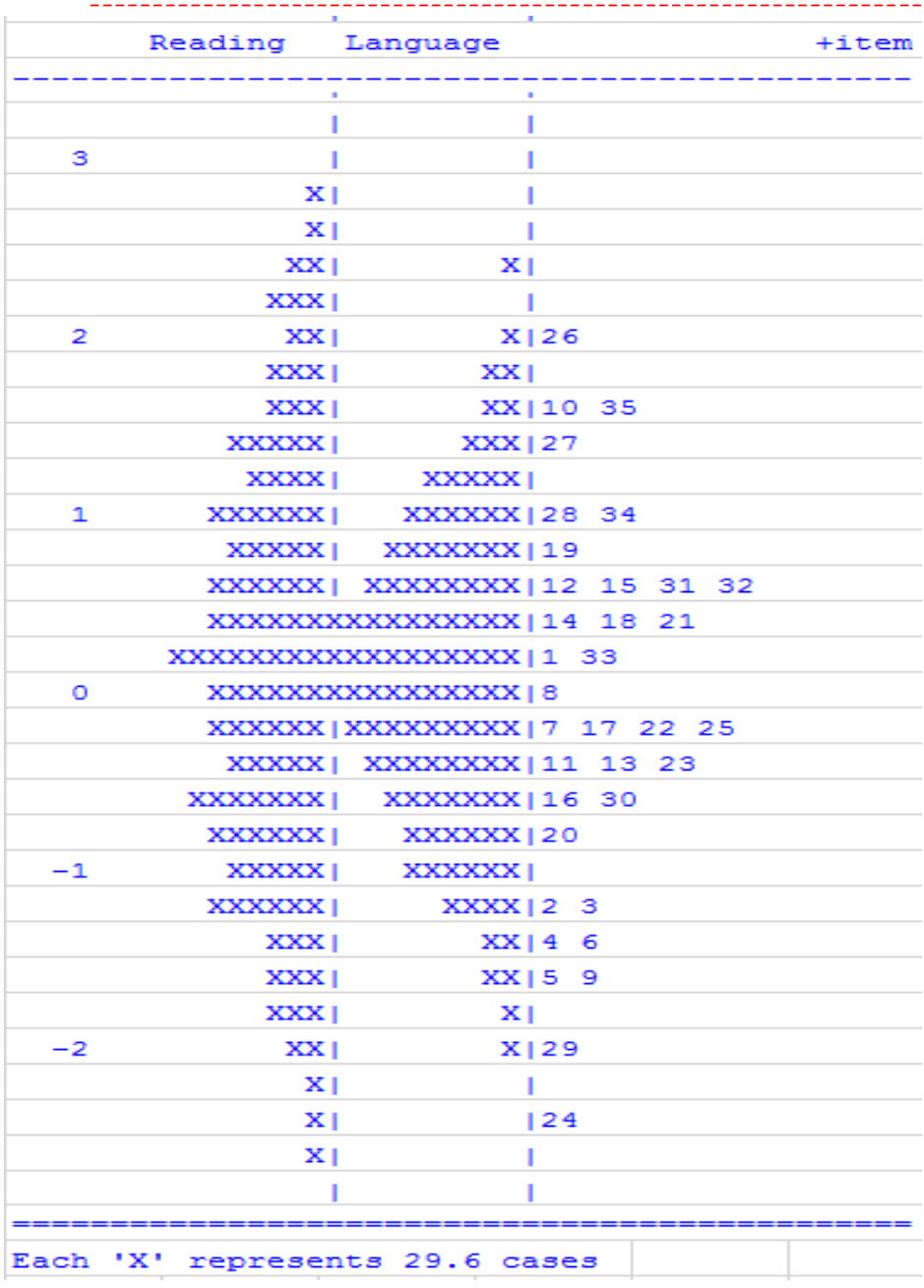
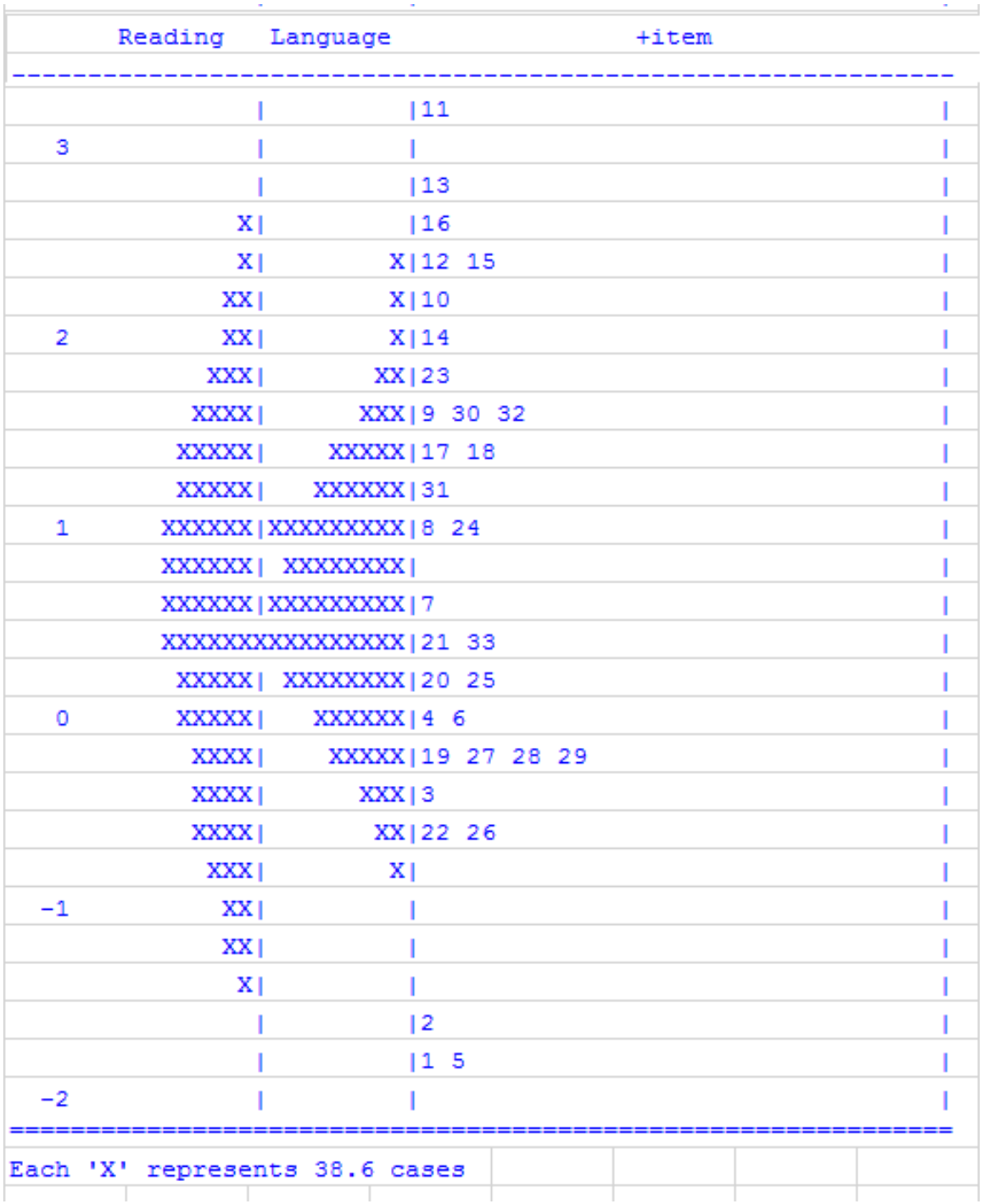


Figure 2 English Year 6 2015 – item person map



Figures1 and Figure 2 show the item-person maps for Year 4 English and Year 6 English respectively. Although the distributions of items at each Year have reasonable ranges, in the case of Year 6, the tests are a little biased to the more difficult end of the range and consequently the test overall is a little too hard for the target population. This can be seen graphically by the relative position of the distribution of student abilities compared to the number of items that tend to be above the mode of student ability distributions at each Year level.

Figure 3 SISTA Writing 2015 – item person map

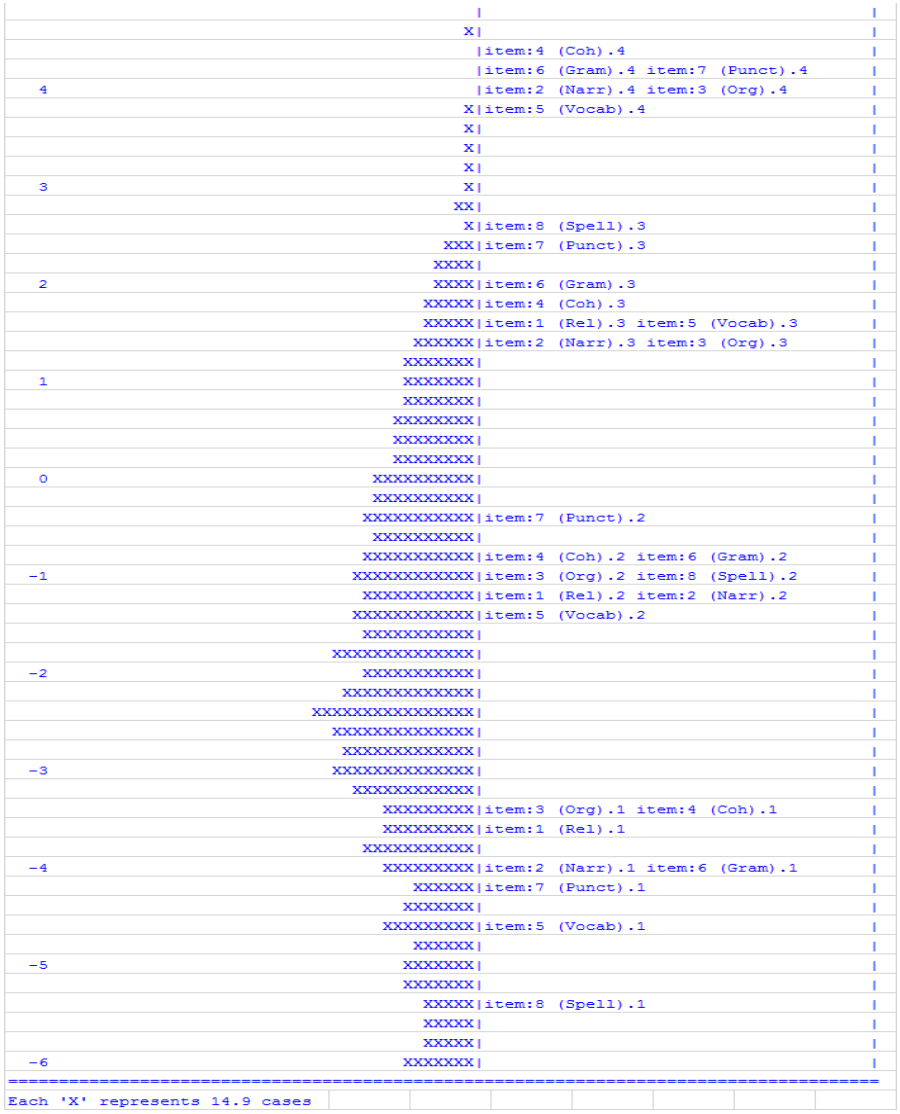


Figure 3 shows the distribution of scores for each category for each of the criteria assessed in the Writing assessment.

To interpret the codes, the easiest item is a score of one (1) for Spelling (Spell.1) which is located at about -5.5 logits on the Rasch scale. It can be seen that a score of two (2) in Spelling (Spell.2) is more difficult to achieve with a location at about -1 on the scale, with the most difficult score to achieve being a mark of four (4) in the Cohesion criterion (Coh.4) at about 4.5.

Mathematics Tests – Rasch analyses

Figure 4 shows the distribution of item difficulties and the distribution of student abilities for Year 4 mathematics on the SISTA scale. Generally the test is well targeted to the sample population with a wide range of item difficulties covering the full range of student abilities.

The student distribution is relatively normal and centred very close to zero, as was the intention of the test construct developed with the NESU panels.

Figure 4 Mathematics Year 4 – item person map

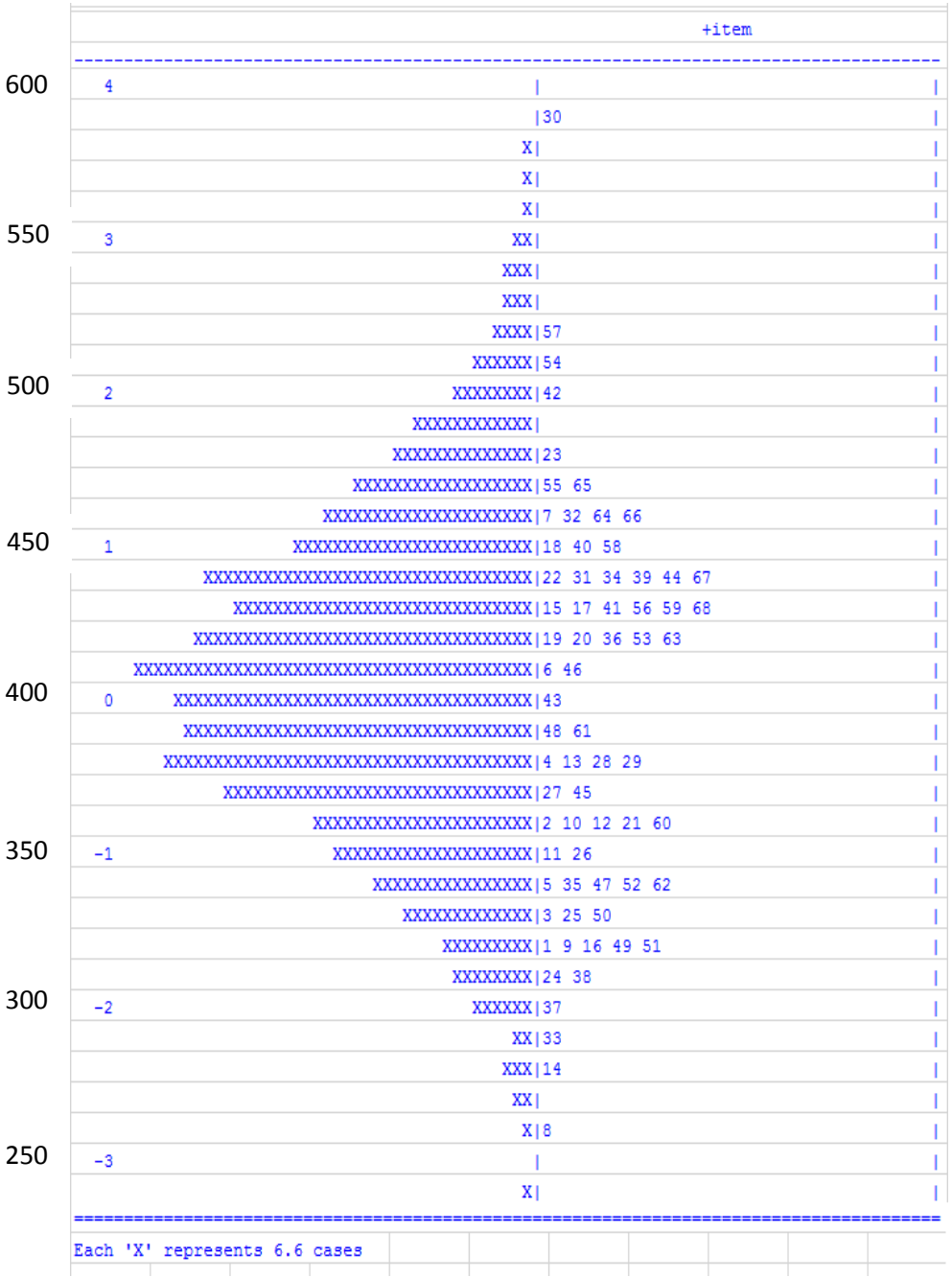


Figure 5 Mathematics Year 6 – item person map

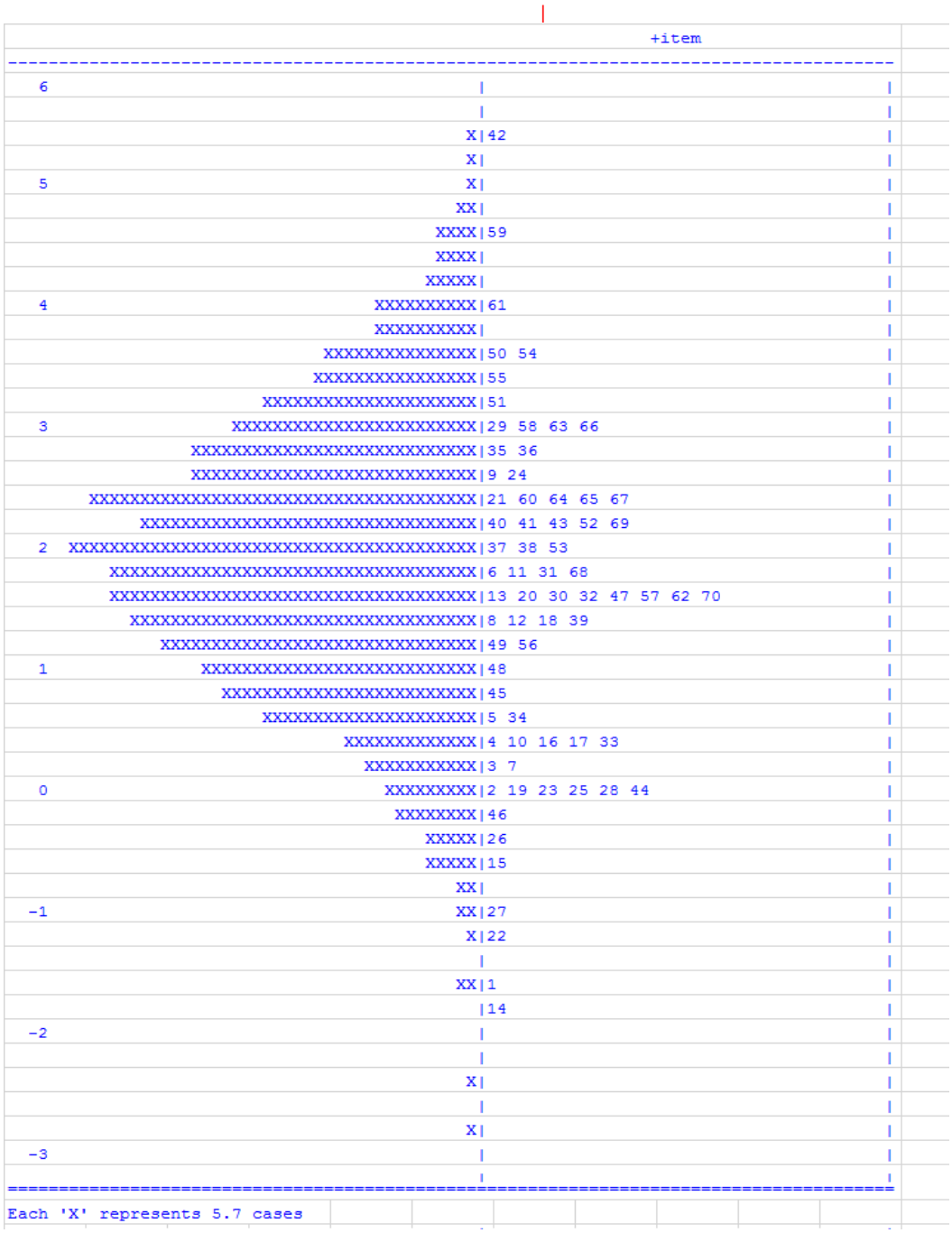


Figure 5 shows the item and person ability distributions for Year 6 Mathematics on the SISTA scale.

The distribution of items covers a wide range of difficulties with the distribution of student abilities relatively normal. The modal of the abilities distribution situated at about 2 logits about 100 scaled score points) on the scale which demonstrates the relative improvement of Year 6 students over the Year 4 result. The test is relatively well targeted to the sample population of the SISTA 2 tests.

STANDARDS REFERENCED FRAMEWORK

Literacy

For the purpose of this report Literacy has been defined as the combination of Reading and Language.

Research in multiple programs, including NAPLAN, has shown that there are significant differences in the performance of students in Reading and Language compared to Writing. Hence in these programs Writing has been analysed and reported as a separate scale to Literacy – the aggregation of Reading and Language.

The tables below provide information regarding the performance of each Year on each domain.

One of the main outcomes of the 2013 SISTA program was to develop a single measurement scale (like a metre rule) against which to compare student performance and progress. In 2015 the performance of the Year 4 and Year 6 samples have been measured against this SISTA scale so that relative performances are comparable and the differences in performance between 2013 and 2015 reliably represented.

At Year 4 the Expected Level of achievement is defined as Level 3.

Students at Level 2 are emerging, or developing, toward the expected level, Students at Level 1 or Level 0 are at the critical level. At Year 4 Students at Level 4 demonstrate mastery of the Year 4 outcomes and those at Level 5 indicate that they are performing above the expect level for Year 4.

At Year 6 we expect to see educational improvement in student performance compared to Year 4
At Year 6 the Expected Level of achievement is defined as Level 4 on the SISTA scale.

At Year 6 students at Level 3 are emerging, or developing, toward the expected level of Year 6 (because Level 3 is the expected achievement of Year 4 students on the common scale), whilst students at Level 2, or 1 or Level 0 are at the critical level. At Year 6 Students at Level 5 demonstrate mastery of the Year 6 outcomes and those at Level 6 indicate that they are performing above the expect level for Year 6.

Figure 5 below provides information about the 7 levels identified for Year 4 (L0 to L6) and shows that range of scaled scores achieved by students that have been included in a particular Level. The table also provides a description of the skills that are typically demonstrated by students at each level and an estimate of the percentage of students who are performing an each level. The area heavily shaded, bolded region of the table, is the Expected Level of achievement for the Year level, whilst the lighter shading identifies the students who are developing toward the expected level.

In English Literacy at Year 4, Table 8 shows that 5.8% of the sample population are at the critical levels of 0 or 1, 18.6% are at level 2, Emerging, with skills developing toward the expected level for Year 4, 38% are at the expected level of Year 4 and 75.6% of student are either AT or ABOVE the expected level of achievement expected for Year 4 students. This compares favourably with the 2013 result in which 66.4% of the sample were achieving at or above the expected level.

At Year 6, table 8 shows that 0.9% of students are performing in the critical regions (L0, L1 or L2) for students in English literacy. Because we have a single common scale, Year 6 students who are displaying L2 skills are performing below the expected level for Year 4 which is an unacceptable outcome for a Year 6 student.

Table 8 also shows that 7.1% of Year 6 students are developing toward the Year 6 expected standard and that 30.5% of students are AT the expected level, with 61.5% of students AT or ABOVE the expected level for Year 6 in English Literacy.

Table 8 below summarises the proportions of students in various the levels of achievement described below.

Table 8 – Summary of percentages within Standards Levels by subject and year level

Year 4	Critical Level %	Below Expected level – emerging %	At Expected Level %	At or Above expected standard %
English Literacy	5.8	18.6	38.0	75.6
Reading	11.0	17.6	28.0	71.4
Language	3.7	18.4	40.1	77.9
Writing	70.0	14.8	7.6	15.2
Mathematics	12.0	27.4	36.6	61.7

Year 6	Critical Level %	Below Expected level – emerging %	At Expected Level %	At or Above expected standard %
English Literacy	0.9	7.1	30.5	61.5
Reading	4.0	14.6	23.7	58.7
Language	0.5	8.1	25.8	65.6
Writing	31.0	21.6	16.4	31.0
Mathematics	4.8	13.6	31.2	85.1

Key Finding 7

The summary results by Level are generally consistent with those produced by the 2013 SISTA assessments with some variation in outcomes. These variations are unexplained and may be sample related, although the construct of the sample is consistent with the 2013 design.

The improvements in overall performances can be attributed to:

1. **Better tests and improved alignment of the tests with the target population; and**
2. **In the case of English Literacy the disaggregation of the Writing scale from the other strands of English.**

Figure 6 SISTA 1 Literacy 2015 Year 4

Level	Score Range	2013 Percent	2015 Percent	Standards Descriptors
6	574 TO 525	2.3	1.2	Students at this level are able to interpret information in texts and construct a written response to indicate their comprehension of meaning. They demonstrate developing skills in inferring meaning in texts and being able to construct a written response.
5	524 TO 475	9.1	8.9	Students at this level are able to interpret information in texts and construct a written response to indicate their comprehension of meaning. They display mastery of cloze passages and control over comparative forms of words with irregular forms (good, better, best).
4	474 TO 425	22.0	27.5	Students at this level are able to find multiple pieces of information in a text and construct a simple written response. They are able to identify synonyms of less common words. Typically they have developing skills in completing cloze passages and the identification of the correct structure of simple sentences. They have the capacity to construct a simple sentence using a small number of defined words.
3	**424 TO 375**	**33.0**	38.0	**Students in this level are able to retrieve information from texts and construct a simple one or two word response and order the events described in a text. They are able to identify synonyms for common words and interpret simple information from texts. They demonstrate control over tense in sentences, the correct use of articles and pronouns. They have some control over comparative forms of words (tall, taller, tallest) and have emerging skills in the selection of the correct words in a cloze passage.**
2	374 TO 325	26.0	18.6	Students in this level are able to retrieve literal information from texts and interpret simple relationships between characters in the text. They level can identify the spelling of some more complex, uncommon words and show developing mastery of the punctuation of sentences. They have also indicated developing control of appropriate pronouns.
1	324 TO 275	6.3	5.4	Students at this level are able to find literal information in a text by word matching. They have not yet mastered any skills in interpreting information in texts. They can identify a common personal pronoun and identify the correct spelling of common words.
0	Up to 274	1.3	.5	Insufficient information to define skills achieved
Total		100.0	100.0	

Figure 7 SISTA 1 Reading 2015 Year 4

Level	Score Range	2013 Percent	2015 Percent	Standards Descriptors
6	574 TO 525	4.6	6.8	Students at this level are able to interpret information in texts and construct a written response to indicate their comprehension of meaning. They demonstrate developing skills in inferring meaning in texts and being able to construct a written response.
5	524 TO 475	11.6	14.6	Students at this level are able to interpret information in texts and construct a written response to indicate their comprehension of meaning.
4	474 TO 425	17.5	22.0	Students at this level are able to find multiple pieces of information in a text and construct a simple written response. They are able to identify synonyms of less common words.
3	424 TO 375	30.0	28.0	Students in this level are able to retrieve information from texts and construct a simple one or two word response and order the events described in a text. They are able to identify synonyms for common words and interpret simple information from texts.
2	374 TO 325	21.4	17.6	Students in this level are able to retrieve literal information from texts and interpret simple relationships between characters in the text.
1	324 TO 275	13.1	9.7	Students at this level are able to find literal information in a text by word matching. They have not yet mastered any skills in interpreting information in texts.
0	Up to 274	1.8	1.3	Insufficient information to define skills achieved.
Total		100.0	100.0	

At Year 4 in the English Literacy scale, 75.6% of students are functioning AT or ABOVE the expected standard of a Year 4 student compared to 66.4% of students in 2013.

At Year 4 in the English Reading scale, 71.4% of students are functioning AT or ABOVE the expected standard of a Year 4 student compared to 63.7% of students in 2013.

At Year 4 in the English Language scale, 77.8% of students are functioning AT or ABOVE the expected standard of a Year 4 student compared to 64.6% of students in 2013.

Figure 8 SISTA 1 Language 2015 Year 4

Level	Score Range	2013 Percent	2015 Percent	Standards Descriptors
6	574 TO 525	2.3	1.5	
5	524 TO 475	7.1	8.3	Students at this level display mastery of cloze passages and control over comparative forms of words with irregular forms (good, better, best).
4	474 TO 425	22.9	27.9	Students at this level have developing skills in completing cloze passages and the identification of the correct structure of simple sentences. They have the capacity to construct a simple sentence using a small number of defined words.
3	**424 TO 375**	**32.3**	**40.1**	**Students at this level demonstrate control over tense in sentences, the correct use of articles and pronouns. They have some control over comparative forms of words (tall, taller, tallest) and have emerging skills in the selection of the correct words in a cloze passage.**
2	374 TO 325	25.9	18.4	Students at this level can identify the spelling of some more complex, uncommon words and show developing mastery of the punctuation of sentences. They have also indicated developing control of appropriate pronouns.
1	324 TO 275	8.1	2.8	Students at this level can identify a common personal pronoun and identify the correct spelling of common words.
0	Up to 274	1.3	.9	Insufficient information to define skills achieved.
Total	2842	100.0	100.0	

Figure 9 SISTA 1 Literacy 2015 Year 6

Level	Score Range	2013 Percent	2015 Percent	Standards Descriptors
6	574 TO 525	7.7	3.5	Students at this level are able to interpret information in texts and construct a written response to indicate their comprehension of meaning. They demonstrate developing skills in inferring meaning in texts and being able to construct a written response.
5	524 TO 475	20.2	12.7	Students at this level are able to display emerging ability to interpret information in texts and construct a written response to indicate their comprehension of meaning. They level display mastery of cloze passages and control over comparative forms of words with irregular forms (good, better, best). They also demonstrate an understanding of correct sentence structure.
4	**474 TO 425**	**34.5**	45.3	**Students at this level are able to find multiple pieces of information in a text and construct a simple written response. They are able to identify synonyms of less common words. In Language they have developing skills in completing cloze passages and the identification of the correct structure of simple sentences. They are demonstrating the correct use of adjectives and adverbs to provide richer descriptions of things and events.**
3	424 TO 375	28.4	30.5	Students in this level are able to retrieve information from texts and construct a simple one or two word response and order the events described in a text. They are able to identify synonyms for common words and interpret simple information from texts. Hey demonstrate control over tense in sentences, the correct use of articles and pronouns. They have some control over comparative forms of words (tall, taller, tallest) and have emerging skills in the selection of the correct words in a cloze passage.
2	374 TO 325	8.3	7.1	Students in this level are able to retrieve literal information from texts and interpret simple relationships between characters in the text. Typically they can identify the spelling of some more complex, uncommon words and show developing mastery of the punctuation of sentences. They have also indicated developing control of appropriate pronouns.
1	324 TO 275	.9	.8	Students at this level are able to find literal information in a text by word matching. They have not yet mastered any skills in interpreting information in texts but they can identify a common personal pronoun and identify the correct spelling of common words
0	Up to 274	.1	.0	Insufficient information to define skills achieved
Total		100.0	100.0	

Figure 10 SISTA 2 Reading 2015 Year 6

Level	Score Range	2013 Percent	2015 Percent	Standards Descriptors
6	574 TO 525	9.5	7.5	Students at this level are able to interpret information in texts and construct a written response to indicate their comprehension of meaning. They demonstrate developing skills in inferring meaning in texts and being able to construct a written response.
5	524 TO 475	31.0	18.4	Students at this level are able to display emerging ability to interpret information in texts and construct a written response to indicate their comprehension of meaning.
4	**474 TO 425**	**24.9**	**31.9**	**Students at this level are able to find multiple pieces of information in a text and construct a simple written response. They are able to identify synonyms of less common words.**
3	**424 TO 375**	23.8	23.7	Students in this level are able to retrieve information from texts and construct a simple one or two word response and order the events described in a text. They are able to identify synonyms for common words and interpret simple information from texts.
2	374 TO 325	8.8	14.6	Students in this level are able to retrieve literal information from texts and interpret simple relationships between characters in the text.
1	324 TO 275	1.5	3.7	Students at this level are able to find literal information in a text by word matching. They have not yet mastered any skills in interpreting information in texts.
0	Up to 274	.5	.3	Insufficient information to define skills achieved.
Total		100.0	100.0	

At Year 6 in the English Literacy scale, 61.5% of students are functioning AT or ABOVE the expected standard of a Year 6 student compared to 62.4% of students in 2013.

At Year 6 in the English Reading scale, 57.8% of students are functioning AT or ABOVE the expected standard of a Year 6 student compared to 65.4% of students in 2013.

At Year 6 in the English Language scale, 65.6% of students are functioning AT or ABOVE the expected standard of a Year 6 student compared to 62.2% of students in 2013.

Figure 11 SISTA 2 Language 2013 Year 6

Level	Score Range	2013 Percent	2015 Percent	Standards Descriptors
6	Above 525	7.8	3.0	Students at this level display mastery of cloze passages and control over comparative forms of words with irregular forms (good, better, best). They also demonstrate an understanding of correct sentence structure.
5	524 TO 475	17.5	6.8	
4	474 TO 425	36.9	55.8	Students at this level have developing skills in completing cloze passages and the identification of the correct structure of simple sentences. They are demonstrating the correct use of adjectives and adverbs to provide richer descriptions of things and events.
3	**424 TO 375**	28.4	25.8	Students at this level demonstrate control over tense in sentences, the correct use of articles and pronouns. They have some control over comparative forms of words (tall, taller, tallest) and have emerging skills in the selection of the correct words in a cloze passage.
2	374 TO 325	8.7	8.1	Students at this level can identify the spelling of some more complex, uncommon words and show developing mastery of the punctuation of sentences. They have also indicated developing control of appropriate pronouns.
1	324 TO 275	.5	.5	Students at this level can identify a common personal pronoun and identify the correct spelling of common words.
0	Up to 274	.2	.0	Insufficient information to define skills achieved.
Total	2949	100.0	100.0	

Writing

Figure 12 Writing Standards by Year 4 2013 and 2015

Level	2013 Percent	2015 Percent	Standard Statement
7	1.8	0.1	Orientation, series of events, and evaluation throughout, ending statement of the text. Builds personality of characters and sense of places. Links between paragraphs and links made back to the beginning. Use of varied and accurate description of things and actions, use of post-modifiers (my friend who lives nearby). Mix of compound and some complex sentences; tense mostly consistent.
6	2.1	0.4	Uses prompt thoroughly within the text. Attempts an orientation and series of events. Characters and places are included with some detail for both. Use of order words plus pronouns used correctly and other referring words. More complex ways of describing things and actions, 2 – 3 word noun groups (big, scary place; long, narrow boat), some attempt to vary vocabulary: use of synonyms. Mix of compound and some complex sentences; tense mostly consistent.
5	6.0	2.3	Covers most of the prompt. Attempts an orientation and series of events. Some attempts to describe or introduce people and places. Use of order words plus pronouns used correctly and other referring words. Simple noun groups, only 1 or 2 words (big place, long boat), only use of very common words (big, little), little evaluative vocabulary. Mix of compound and some complex sentences; tense mostly consistent.
4	9.9	4.8	Covers most of the prompt. Attempts an orientation and series of events. Some attempts to describe or introduce people and places. Use of order words plus pronouns used correctly and other referring words. Short script with few words or repetition of particular words. Mostly simple, with some compound sentences, may be some problems with tense choices.
3	**12.5**	**7.6**	**Uses some of the prompt. Contains a series of events, no orientation OR orientation only. Some attempts to describe or introduce people and places. Ideas listed with some use of order (then, also). Short script with few words or repetition of particular words. Mostly simple, with some compound sentences, may be some problems with tense choices.**
2	28.1	14.8	Uses some of the prompt. Contains a series of events, no orientation OR orientation only. Includes some characters, without details, same for places. Ideas listed with some use of order (then, also). Short script with few words or repetition of particular words. Very short script with few sentences, one action per sentence, many gaps in sentences.
1	16.9	21.3	Uses some of the prompt. No use of a structure for ideas, perhaps isolated words or ideas, or incorrect structure. Includes some characters, without details, same for places. Ideas listed with some use of order (then, also). Use of pictures only. Very short script with few sentences, one action per sentence, many gaps in sentences.
0	22.7	48.8	Does not use the prompt. No use of a structure for ideas, perhaps isolated words or ideas, or incorrect structure. No other characters mentioned apart from narrator, no places given. Ideas listed only. Use of pictures only. No use of sentences, words, phrases or pictures only.
Total	100.0	100.0	

At Year 4 in Writing, only 15.2% of students are functioning AT or ABOVE the expected standard of a Year 4 student. This compares unfavourably with the Year 4 result in Writing in 2013 when 32.3% of students were functioning AT or ABOVE the expected standard of a Year 4 student.

This result may have been influenced by the modification of the marking rubric implemented in 2015.

Figure 13 Writing Standards by Year 6 2013 and 2015

Level	2013 Percent	2015 Percent	Standard Statement
7	12.6	0.5	Orientation, series of events, and evaluation throughout, ending statement of the text. Builds personality of characters and sense of places. Links between paragraphs and links made back to the beginning. Use of varied and accurate description of things and actions, use of post-modifiers (my friend who lives nearby). Mix of compound and some complex sentences; tense mostly consistent.
6	10.9	2.6	Uses prompt thoroughly within the text. Attempts an orientation and series of events. Characters and places are included with some detail for both. Use of order words plus pronouns used correctly and other referring words. More complex ways of describing things and actions, 2 – 3 word noun groups (big, scary place; long, narrow boat), some attempt to vary vocabulary: use of synonyms. Mix of compound and some complex sentences; tense mostly consistent.
5	13.4	9.7	Covers most of the prompt. Attempts an orientation and series of events. Some attempts to describe or introduce people and places. Use of order words plus pronouns used correctly and other referring words. Simple noun groups, only 1 or 2 words (big place, long boat), only use of very common words (big, little), little evaluative vocabulary. Mix of compound and some complex sentences; tense mostly consistent.
4	**22.2**	**18.2**	**Covers most of the prompt. Attempts an orientation and series of events. Some attempts to describe or introduce people and places. Use of order words plus pronouns used correctly and other referring words. Short script with few words or repetition of particular words. Mostly simple, with some compound sentences, may be some problems with tense choices.**
3	14.7	16.4	Uses some of the prompt. Contains a series of events, no orientation OR orientation only. Some attempts to describe or introduce people and places. Ideas listed with some use of order (then, also). Short script with few words or repetition of particular words. Mostly simple, with some compound sentences, may be some problems with tense choices.
2	19.1	21.6	Uses some of the prompt. Contains a series of events, no orientation OR orientation only. Includes some characters, without details, same for places. Ideas listed with some use of order (then, also). Short script with few words or repetition of particular words. Very short script with few sentences, one action per sentence, many gaps in sentences.
1	3.5	17.0	Uses some of the prompt. No use of a structure for ideas, perhaps isolated words or ideas, or incorrect structure. Includes some characters, without details, same for places. Ideas listed with some use of order (then, also). Use of pictures only. Very short script with few sentences, one action per sentence, many gaps in sentences.
0	3.6	13.9	Does not use the prompt. No use of a structure for ideas, perhaps isolated words or ideas, or incorrect structure. No other characters mentioned apart from narrator, no places given. Ideas listed only. Use of pictures only. No use of sentences, words, phrases or pictures only.
Total	100.0	100.0	

At Year 6 in Writing, only 31.0% of students are functioning AT or ABOVE the expected standard of a Year 6 student compared to 61.1% of students are functioning AT or ABOVE the expected standard of a Year 6 student in 2013.

This result may have been influenced by the modification of the marking rubric implemented in 2015.

Key Finding 8

The Writing results of Year 4 are very poor and although there is significant improvement between Year 4 and Year 6 the results of Year 6 are still well below the expected level.

On average the Year 6 sample was functioning in Writing at a level that could be reasonably expected of Year 4 students. This outcome reflects the findings of 2013.

Figure 14 Mathematics Standard **4 2015**

Level	Score Range	Percent in 2013	Percent in 2015	Standard Statement
6	574 TO 525	1.0	3.2	Students at this level display understanding of fractions and their respective order when expressed as numbers or in units of length, mass or money.
5	524 TO 475	3.9	10.2	Students at this level are demonstrating control over operations involving money, and emerging understanding of the relative order of fractions. They display a developing understanding of area and perimeter in the measurement strand.
4	**474 TO 425**	22.2	26.9	Students at this level show an understanding of reading time on an analogue clock face, and a developing understanding of operations involving money and the units of measurement. They display control over the identification of common 2D shapes and 3D objects and the properties of those figures. They have mastered addition and subtraction involving trading.
3	**424 TO 375**	**39.6**	36.0	**Students at this level are demonstrating emerging skills in multiplication and developing skills in addition and subtraction involving trading. They are able to find information in a timetable and solve a simple word problem involving addition and/or subtraction. They are able to identify points on a grid using the correct conventions of co-ordinates.**
2	374 TO 325	23.8	17.7	Students at this level are able to complete a tally table and construct vertical and horizontal bar charts. They have developing mastery of place value in whole numbers and are able to order whole numbers from high to low. They can identify common 2D shapes by name. They display competence in Addition and Subtraction algorisms.
1	324 TO 275	7.8	5.0	Students at this level can perform simple addition and subtraction without trading. They can identify common regular 2D shapes and complete very simple tally charts.
0	Up to 274	1.7	1.0	Students at this level demonstrate low mathematical skills involving simple addition and subtraction.
Total		100.0	100.0	

In 2015, at Standard 4 in Mathematics, 76.3% of students are functioning AT or ABOVE the expected standard of a Year 4 student compared to 66.7% in 2013.

Key Finding 9

The summary results by Level are generally consistent with those produced by the 2013 SISTA assessments with some variation in outcomes. These variations are unexplained and may be sample related, although the construct of the sample is consistent with the 2013 design.

There is significant growth in performance between Year 4 and Year 6 in Mathematics with an improvement of about 100 SISTA points which is twice the expected rate.

The results in the Literacy strands are variable with improvement observed in Year 4 but a diminished result in Year 6 compared to the 2013 outcomes.

Figure 15 Mathematics Standard 6 2015

Level	Score Range	Percent in 2013	Percent in 2015	Standards Descriptors
7	Above 600	6.2	11.4	Students at this level are displaying developing skills in interpreting information in word problems using a range of operations and use of units, fractions and ratios. They have developing skills in the calculations and implementation of percentages.
6	574 TO 525	18.2	24.2	Students at this level display understanding of fractions and their respective order when expressed as numbers or in units of length, mass or money. They are developing skills in calculating simple percentages using information from a word problem.
5	524 TO 475	35.8	30.9	Students at this level are demonstrating control over operations involving money, and emerging understanding of the relative order of fractions. They display a developing understanding of area and perimeter in the measurement strand. They display an understanding of the properties of 2D shapes and 3D objects and are able to round values to the nearest 10th. They display emerging control over operations involving fractions in various forms, decimal, common fractions and percentages and converting between various forms.
4	**474 TO 425**	**26.5**	24.0	**Students at this level show an understanding of operations involving money and the units of measurement. They display control over the identification of common 2D shapes and 3D objects and the properties of those figures. They have mastered addition and subtraction involving trading and are showing emerging skills in simple operations involving fractions.**
3	424 TO 375	10.1	6.6	Students at this level are demonstrating emerging skills in multiplication and developing skills in addition and subtraction involving trading. They are able to find information in a timetable and solve a simple word problem involving addition and/or subtraction.
2	374 TO 325	2.5	2.3	Students at this level display developing skills in simple mathematical operations and skills including addition, subtraction and reading information from graphs. They have some control over operations involving money.
1	324 TO 275	.6	.3	Students at this level can perform simple addition and subtraction without trading. They can identify common regular 2D shapes and complete very simple tally charts.
0	Up to 274	.1	.3	Students at this level demonstrate low mathematical skills involving simple addition and subtraction.
Total		100.0	100.0	

In 2015, at Standard 6 in Mathematics, 90.5% of students are functioning AT or ABOVE the expected standard of a Year 6 student compared to 86.6% in 2013.

SUMMARY PERFORMANCE and MEASURES of GROWTH

Tables 9 and 10 show the relative performance of Boys and Girls in the overall English scale and each of the subscales of Reading and Language.

At Year 4 the girls marginally out-perform the boys in each scale but by Year 6 the gap between them has decreased. Because of the size of the samples the differences are statistically significant. However when the relative size of the differences at Year 4 are considered, it is about .2 of a standard deviation which is a significant effect size, but by Year 6 the difference is only about .1 of a standard deviation which is less significant. This results shows a marginal improvement in the results of boys compared to girls compared to the 2013 outcomes.

Table 9 – Year 4 Literacy Descriptive Statistics by Gender

Gender	Strand	N	Minimum	Maximum	Mean	Std. Deviation
Boys	Scaled Score English	1678	155.7	584.2	**402.4**	52.4
	Scaled Score Reading	1678	188.7	590.5	**401.9**	68.9
	Scaled Score Language	1678	189.6	567.9	**404.2**	50.3
Girls	Scaled Score English	1639	213.7	584.2	**414.5**	51.0
	Scaled Score Reading	1639	188.7	590.5	**418.1**	66.8
	Scaled Score Language	1639	189.6	607.6	**413.8**	50.7

Table 10 – Year 6 Literacy Descriptive Statistics by Gender

Gender	Strand	N	Minimum	Maximum	Mean	Std. Deviation
Boys	Scaled Score English	1525	280.4	631.4	**430.5**	45.0
	Scaled Score Reading	1525	212.7	679.3	**428.2**	59.5
	Scaled Score Language	1525	239.2	613.1	**431.1**	45.0
Girls	Scaled Score English	1574	250.4	601.9	**437.3**	45.1
	Scaled Score Reading	1574	212.7	618.5	**436.8**	60.0
	Scaled Score Language	1574	298.5	613.1	**437.0**	43.7

Table 11 shows the comparisons of performances by the sample in Writing by each Year level and by gender.

The table shows that girls significantly out-perform boys at both Year levels and that there is a large improvement in performance between the Year 6 cohort and the Year 4 students.

Table 11 – Year 4 and Year 6 Writing Statistics by Gender

Year	Gender	Writing	N	Minimum	Maximum	Mean	Std. Deviation
Year 4	Boys	Writing Scaled Score	1678	224.3	509.6	308.3	60.2
	Girls	Writing Scaled Score	1639	224.3	568.3	327.5	63.4
Year 6	Boys	Writing Scaled Score	1525	224.3	537.8	364.1	62.5
	Girls	Writing Scaled Score	1574	224.3	568.3	386.2	58.3

Table 12 below provides a summary of the Mathematics results by Year level and gender.

The table shows that there is no significant difference between Boys and Girls at either Year level although the mean score of the Boys is marginally higher than that of the Girls at Year 6. The growth between the Year 4 performance and the Year 6 performance of each Year is shown in the difference column (**Δ).** It shows relatively consistent increases between the genders.

Table 12 – Year 4 and Year 6 Mathematics Statistics by Gender

Mathematics		Year 4			Year 6			
Gender	Mathematics	N	Mean	Std. Deviation	N	Mean	Std. Deviation	Δ
Boys	Scaled Score	1619	**411.4**	57.2	1563	**501.2**	65.1	89.8
Girls	Scaled Score	1644	**413.7**	56.8	1596	**499.3**	61.5	85.6

Key Finding 10

The difference between the mean performances of Boys and Girls in Literacy is marginal with girls slightly out-performing boys.

In Writing Girls significantly out-perform boys at both Year 4 and Year 6.

In Mathematics there is no significant difference between the performance of Boys and Girls as observed in the 2013 SISTA assessments.

The Tables 13 through 15 show the relative performances of the samples by location.
The sample was disaggregated into three main groups, Rural, Semi-Urban and Urban. Unfortunately the achieved response sample for the Semi-Rural and Semi-Urban are very small and these results have been aggregated but should be considered with caution.

Table 13 shows that Urban students out-perform the Rural students by almost a about .6 of a standard deviation (30 scaled score points) at each Year level in each of the overall English literacy scales and each sub-scale.

Table 13– Year 4 and Year 6 English Statistics by Location

English Literacy summary		Standard 4			Standard 6			
Location	Domain	N	Mean	Std. Deviation	N	Mean	Std. Deviation	Δ
Rural	Literacy	2399	**398.54**	49.09	2155	425.74	40.52	27.2
	Reading	2399	**398.39**	65.25	2155	424.35	57.04	26.0
	Language	2399	**399.78**	48.57	2155	426.13	39.54	26.3
Semi-Urban	Literacy	92	**412.22**	36.87	137	440.09	32.66	27.9
	Reading	92	**426.84**	47.55	137	431.02	55.20	4.2
	Language	92	**404.84**	38.49	137	441.79	28.23	36.9
Urban	Literacy	831	**435.89**	52.30	807	454.88	51.50	19.0
	Reading	831	**440.76**	69.38	807	454.79	62.46	14.0
	Language	831	**435.33**	49.06	807	454.05	52.03	18.7

Writing has been score using a rubric that concentrates on the components of writing using rating of student development in eight criteria; Relevance, Narrative Features, text Organisation, Cohesion, Vocabulary, Grammar, Punctuation and Spelling.

As noted earlier in the report the overall mean performance in Writing is relatively poor relative to the performances of students in Reading, Language and Mathematics. Table 14 shows the relative results of the sample by location. This result reflects the outcomes of 2013.

It is noted that the mean result of the urban students is significantly better than each of the other groups and in particular the rural cohort. At Year 4 the difference between Urban and Rural is 69 scaled score points and at Year 6 the difference is almost 37 scaled score points.

Table 14 – Year 4 and Year 6 Writing Statistics by Location

Writing summary		Year 4			Year 6			
Location	Domain	N	Mean	Std. Deviation	N	Mean	Std. Deviation	Δ
Rural	Writing Scaled Score	2399	**263.5**	87.9	2155	**358.5**	92.1	95.0
Semi-Urban	Writing Scaled Score	92	**295.3**	81.1	137	**385.1**	71.1	89.8
Urban	Writing Scaled Score	831	**332.8**	97.3	807	**395.0**	94.3	62.1

Table 15 shows the Mathematics result by location.

Table 15 – Year 4 and Year 6 Mathematics Statistics by Location

Mathematics summary		Year 4			Year 6			
Location	Domain	N	Mean	Std. Deviation	N	Mean	Std. Deviation	Δ
Rural	Mathematics	2390	**410.0**	55.9	2172	**494.2**	61.6	84.2
Semi-Urban	Mathematics	92	**422.7**	47.0	137	**525.3**	54.0	102.6
Urban	Mathematics	782	**419.2**	60.7	851	**511.7**	66.4	92.5

Key Finding 11

There are significant differences between the mean performances of the students in rural schools compared to those in urban schools especially in the Literacy strands with urban students out-performing the rural students.

Although still significant, and in favour of the urban students, the difference is not as great in Mathematics.

Tables 16 through 18 provide summaries of the performance of students by governing authority. The term 'Government' is used to relate to the provincially administered schools and "Non-Govt" refer to the schools administered by church authorities or other bodies.

Some care should be taken in the interpretation of these data due to the differences in the sample sizes.

In Reading it is noticeable that the students of non-government schools have significantly out-performed the student in the government schools at Year 4. However the improvement in the mean result between Year 4 and Year 6 is better in government school students than those in the non-government schools and consequently the difference in mean performance is neglibible in Year 6.

Table 16– Year 4 and Year 6 English Statistics by Authority

English Literacy summary		Year 4			Year 6			
Authority	Domain	N	Mean	Std. Deviation	N	Mean	Std. Deviation	Δ
Government	Reading	2586	404.4	65.4	2347	431.2	58.2	26.7
	Language	2586	405.5	51.1	2347	431.8	41.6	26.4
Non Govt	Reading	736	428.5	75.3	752	437.0	64.6	8.4
	Language	736	420.6	48.1	752	441.2	51.8	20.5

Table 17– Year 4 and Year 6 Writing Statistics by Authority

English Literacy summary		Year 4			Year 6			
Authority	Domain	N	Mean	Std. Deviation	N	Mean	Std. Deviation	Δ
Government	Writing	2586	312.2	60.1	2347	373.6	57.5	61.4
Non Govt	Writing	736	337.1	67.3	752	380.8	72.2	43.7

Table 18– Year 4 and Year 6 Mathematics Statistics by Authority

English Literacy summary		Year 4			Year 6			
Authority	Domain	N	Mean	Std. Deviation	N	Mean	Std. Deviation	Δ
Government	Mathematics	2525	412.8	57.2	2438	502.2	61.3	89.4
Non Govt	Mathematics	739	411.6	56.5	722	493.6	69.2	81.9

Key Finding 12

In the English literacy and Writing domains students of non-government schools significantly out-perform the students of government schools at Year 4. These differences are not as apparent in Year 6.

In Mathematics the difference in mean performance between non-government school students and government school students is not significant.

Table 19 – Year 4 Summary mean scaled scored by subject and province

Mean Scaled Score	Literacy and Writing					Mathematics	
	N	Literacy	Reading	Lang	Writing	N	Maths
Central Islands	229	399.6	399.3	401.1	253.1	224	417.8
Choiseul	292	388.7	392.0	388.1	236.0	275	401.1
Guadalcanal	300	404.2	405.2	404.7	263.9	334	405.2
Honiara	624	427.7	434.2	426.8	344.7	597	408.0
Isabel	385	409.3	408.4	411.3	287.2	383	432.0
Makira & Ulawa	324	393.1	384.0	398.4	265.7	311	408.9
Malaita	346	411.8	411.9	412.2	295.4	354	414.3
Rennell & Bellona	45	381.4	402.1	367.4	217.4	47	387.9
Temotu	348	421.4	423.9	420.4	245.4	316	424.0
Western	429	400.5	403.4	401.4	281.2	423	407.2

Table 20 – Year 6 Summary mean scaled scored by subject and province

Mean Scaled Score	Literacy and Writing					Mathematics	
Province	N	Literacy	Reading	Lang	Writing	N	Maths
Central Islands	246	433.3	423.1	436.5	366.2	242	512.5
Choiseul	237	417.0	411.7	419.6	361.3	254	487.5
Guadalcanal	303	430.6	431.5	429.6	347.5	273	497.3
Honiara	686	457.8	458.7	456.6	406.9	694	510.5
Isabel	360	433.5	436.1	430.6	378.5	375	520.9
Makira & Ulawa	284	432.1	428.6	434.1	374.7	293	487.2
Malaita	335	431.1	433.9	429.7	356.5	377	507.1
Rennell & Bellona	34	435.1	441.7	430.1	376.1	34	483.9
Temotu	239	420.7	418.8	421.8	347.6	249	489.0
Western	375	417.0	411.5	419.5	335.9	369	475.3

Table 21 - Year 4 Literacy Summary of Standards Levels by Province

Province	Critical %	Emerging %	At %	At or Above %
Central Islands	10.4	33.5	33.2	56.0
Choiseul	9.5	28.8	36.9	61.7
Guadalcanal	3.9	25.7	43.0	70.4
Honiara	1.1	5.5	17.9	93.4
Isabel	7.1	31.1	35.8	61.8
Makira & Ulawa	9.6	26.5	35.5	63.9
Malaita	9.3	22.9	34.9	67.8
Rennell & Bellona	8.8	41.2	29.4	50.0
Temotu	6.5	32.9	36.8	60.6
Western	10.2	30.9	30.3	58.9

Table 22 - Year 6 Literacy Summary of Standards Levels by Province

Province	Critical %	Emerging %	At %	At or Above %
Central Islands	17.0	29.7	31.3	53.3
Choiseul	9.2	36.2	36.8	54.6
Guadalcanal	8.5	30.3	38.2	61.2
Honiara	2.9	10.0	29.4	87.1
Isabel	6.4	33.7	41.6	59.9
Makira & Ulawa	11.0	28.8	29.5	60.2
Malaita	8.9	27.6	35.4	63.5
Rennell & Bellona	0.0	32.4	48.6	67.6
Temotu	9.4	30.4	33.1	60.2
Western	13.5	33.5	32.6	53.0

Table 23 - Year 4 Writing Summary of Standards Levels by Province

Province	Critical %	Emerging %	At %	At tor Above %
Central Islands	83.2	13.7	2.5	3.0
Choiseul	80.3	13.2	4.7	6.4
Guadalcanal	89.1	4.3	5.7	6.5
Honiara	42.9	11.1	18.2	46.1
Isabel	67.2	12.2	15.9	20.6
Makira & Ulawa	70.9	12.8	11.8	16.3
Malaita	82.0	10.6	6.3	7.4
Rennell & Bellona	88.2	2.9	8.8	8.8
Temotu	58.0	10.4	22.9	31.6
Western	79.0	7.2	9.3	13.8

Table 24 - Year 6 Writing Summary of Standards Levels by Province

Province	Critical %	Emerging %	At %	At or Above %
Central Islands	77.2	13.5	5.4	9.3
Choiseul	72.0	21.7	5.3	6.3
Guadalcanal	56.4	23.2	7.1	20.4
Honiara	11.0	10.0	14.8	78.9
Isabel	40.4	32.2	10.0	27.4
Makira & Ulawa	44.7	32.6	15.2	22.7
Malaita	43.5	21.2	12.8	35.4
Rennell & Bellona	86.5	13.5	0.0	0.0
Temotu	27.6	12.7	11.0	59.7
Western	54.4	29.0	9.9	16.6

Table 25 - Year 4 Mathematics Summary of Standards Levels by Province

Province	Critical %	Emerging %	At %	At or Above %
Central Islands	7.1	32.1	33.5	60.7
Choiseul	15.3	30.9	36.4	53.8
Guadalcanal	15.3	27.8	35.3	56.9
Honiara	11.6	29.0	39.2	59.5
Isabel	6.3	23.0	33.4	70.8
Makira & Ulawa	10.3	30.9	37.6	58.8
Malaita	10.5	24.6	46.0	65.0
Rennell & Bellona	12.8	44.7	36.2	42.6
Temotu	12.0	25.0	32.0	63.0
Western	17.5	23.4	33.6	59.1

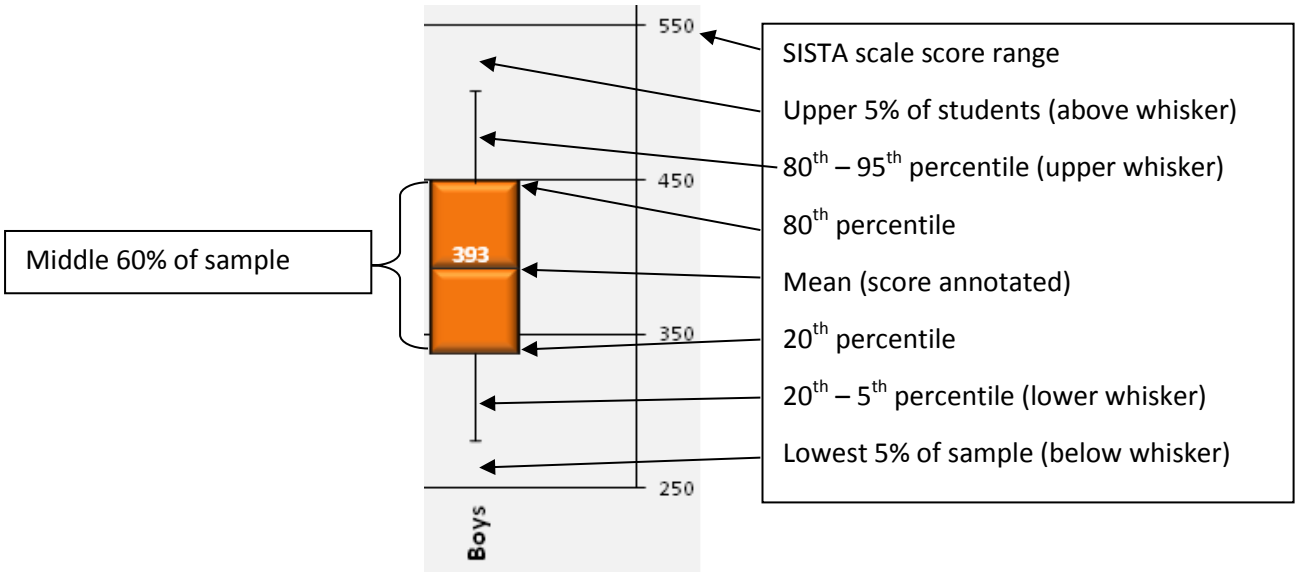
Table 26- Year 6 Mathematics Summary of Standards Levels by Province

Province	Critical %	Emerging %	At %	At or Above %
Central Islands	3.3	10.3	26.4	86.4
Choiseul	6.3	17.7	30.7	76.0
Guadalcanal	7.0	11.0	34.4	82.1
Honiara	4.3	11.5	26.2	84.1
Isabel	2.4	5.3	29.9	92.3
Makira & Ulawa	6.1	18.8	35.2	75.1
Malaita	3.7	11.9	28.6	84.4
Rennell & Bellona	2.9	14.7	47.1	82.4
Temotu	4.8	17.7	35.7	77.5
Western	7.3	21.7	37.9	71.0

COMPARISONS OF RESULTS BY GENDER, AUTHORITY, AND PROVINCE

In the following section the results of each subject have been presented in a "Box and Whisker" graphical format to show the relative distributions of the performances as well as the summative mean results.

The representation of the graphs is explained below.

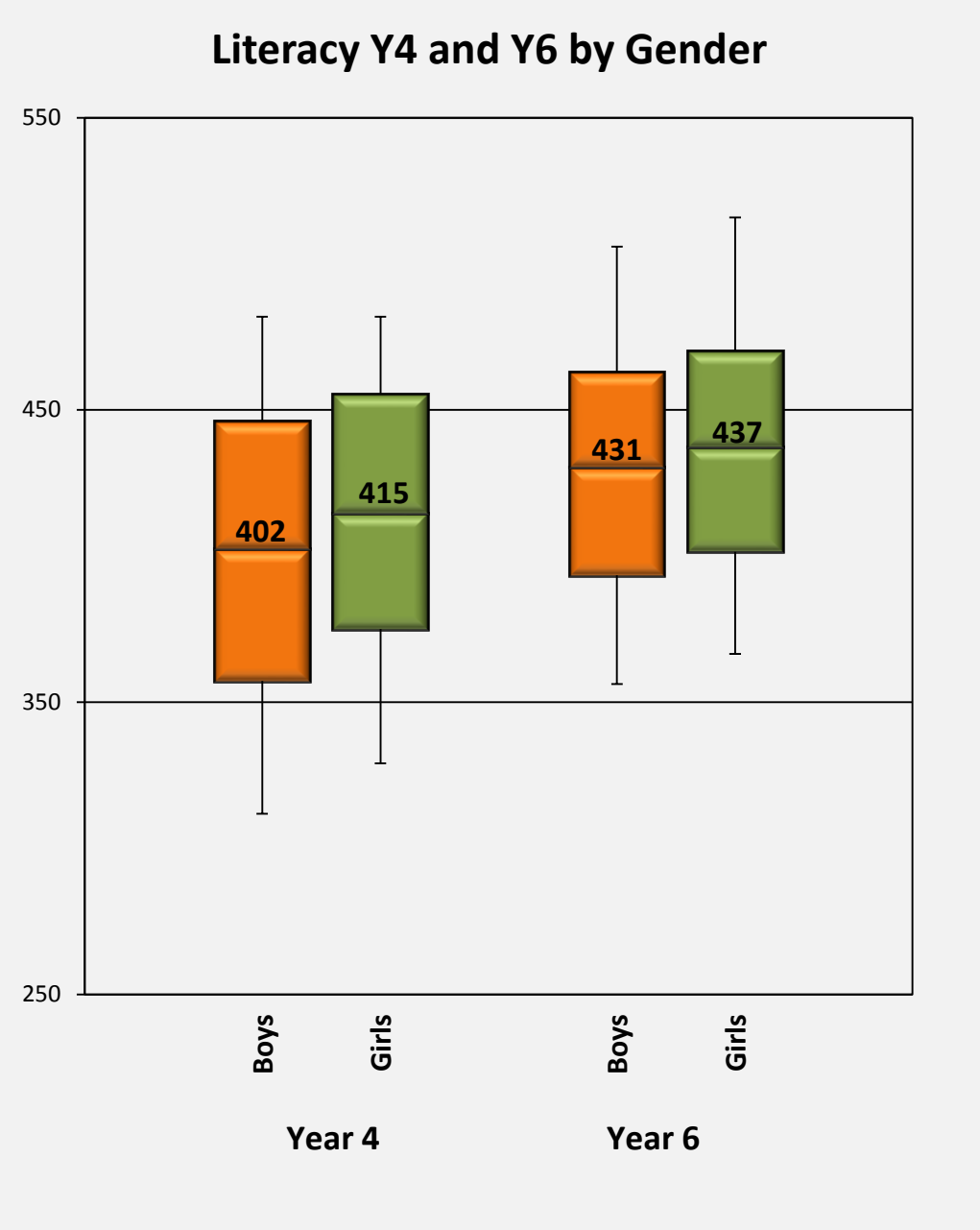


Given that the sample sizes of the tests for Year 4 and Year 6 each approach 3000 students, statistical tests for significance will always show 'significant" differences between groups with relatively small differences in the observed means.

The issue is whether the difference is educationally different in terms of educational outcomes.

The comments relating to each of the box and whisker reports below, attempt to identify 'education outcomes' type of difference.

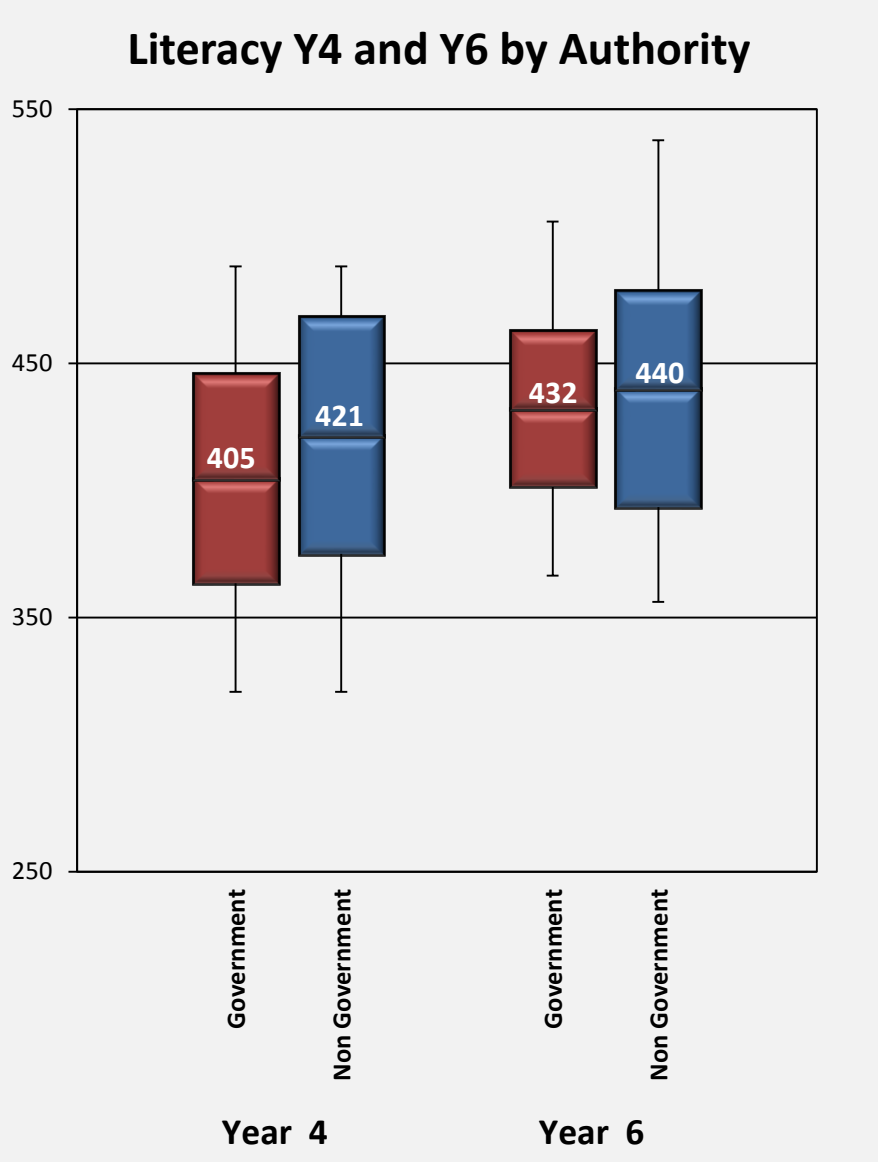
Figure 16 SISTA Literacy Scaled Score distributions by Year level and Gender 2015



At Year 4 the mean performance of the girls is marginally better than that of the sample of boys with the difference of 13 scaled score points representing an effect size of about 0.25 of a standard deviation.

By Year 6 this difference has reduced by a factor of a half, although the girls still tend to out-perform the boys. This situation is unchanged compared to the outcomes of 2013.

Figure 17 SISTA Literacy Scaled Score distributions by Year level and Authority 2015



There is a notable difference between the mean performance of the students of the government (provincial) school and the non-government (church authority) students at Year 4 with the difference of 27 scaled score points (about 0.5 of a standard deviation).

By Year 6 this difference has been reduced to just 8 points. This is far less of a significant difference with the size of the gap reduced.

Figure 18 SISTA Reading Scaled Score distributions by Gender 2015

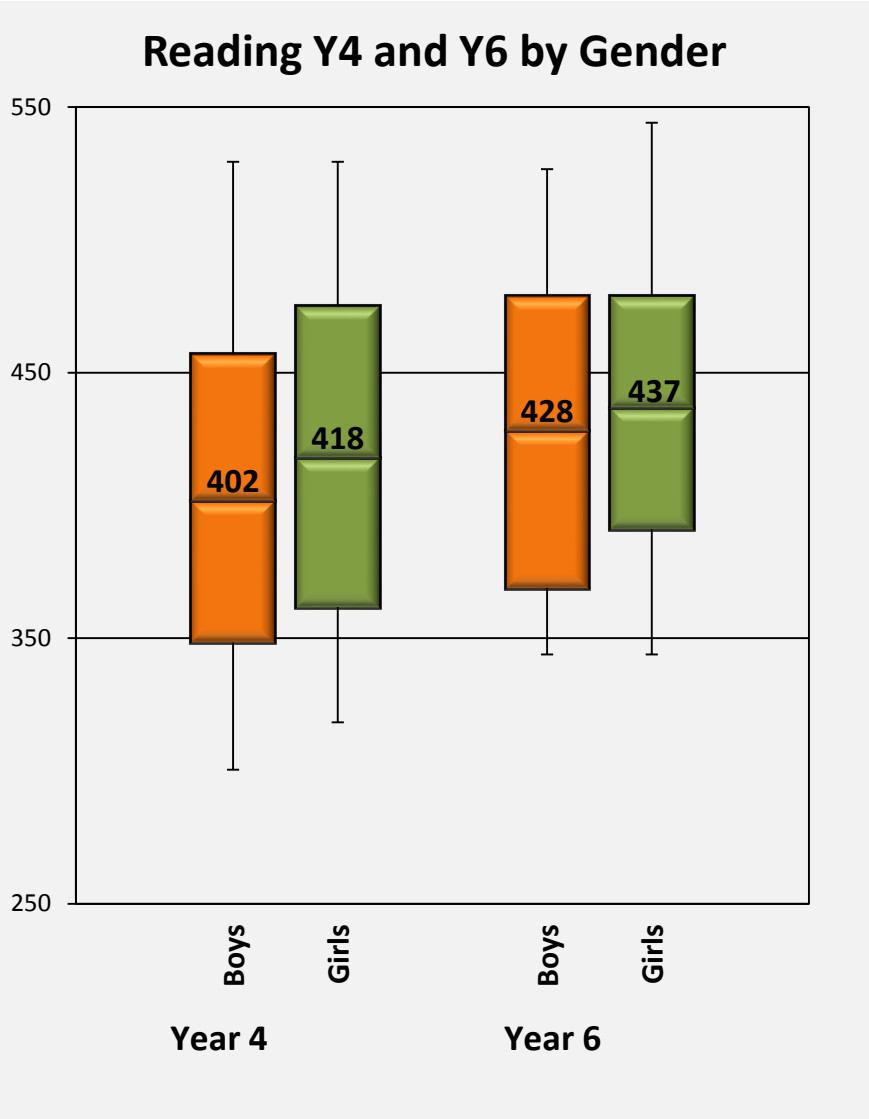
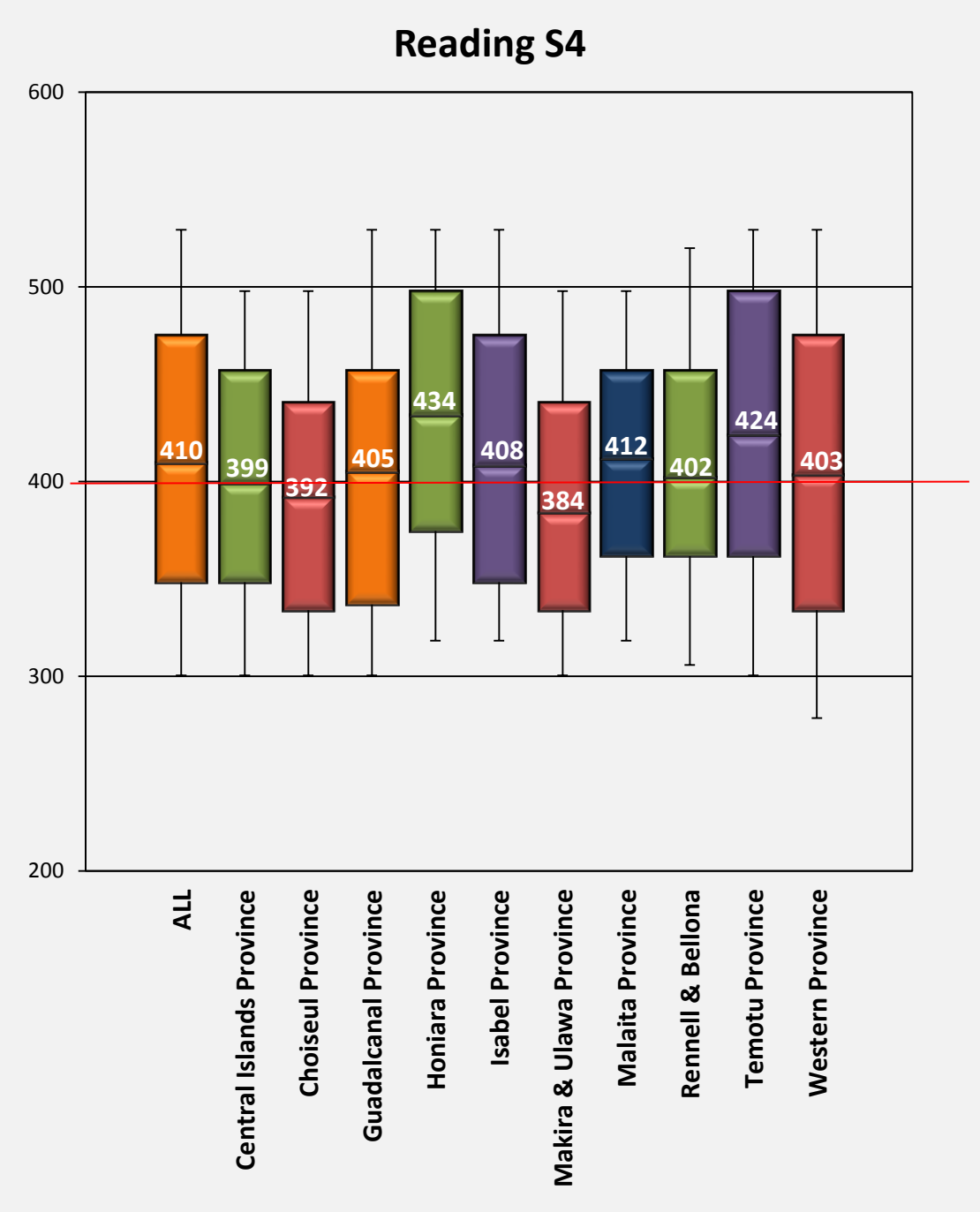


Figure 18 shows a distribution of results very similar to that observed in the overall Literacy distributions displayed in Figure 16 at Year 4 level. It is noticeable that the growth in the girls mean score at Year 6 is 19 scaled score points compared to the boys mean improvement of 26 points.

Experience in projects of this type indicates that improvement of about one standard deviation (50 scaled score points in this case) is about normal between Year 4 and Year 6. The observed growth is in less than the range expected with growth of about half a standard deviation observed. This is significantly less than the outcomes shown in 2013.

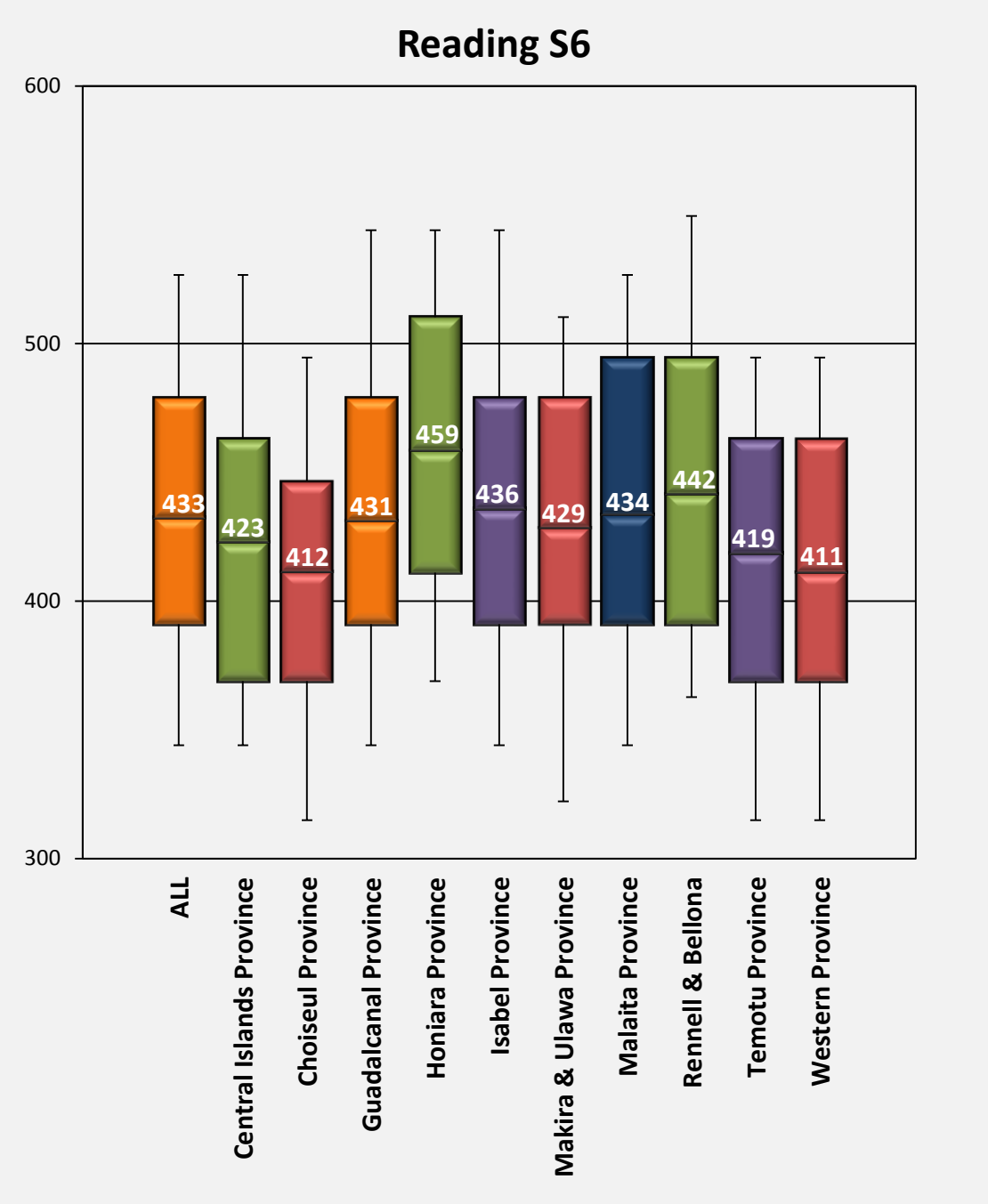
Figure 19 SISTA 1 Reading Scaled Score distributions by Province 2015



Figures 19 and 20 below provide an overview of the sample results in Reading at Year 4 and Year 6 by province. It is notable that at Year 4 the mean performance of the students of the Honiara province is over 24 scaled score points above the average of the sample (410 in 2015). On the whole the other provinces are relatively similar in overall performances.

At Year 6 the students of Honiara maintain the above the average of the sample but now by 27 points.

Figure 20 SISTA 2 Reading Scaled Score distributions by Province 2015



Key Finding 13

Although the overall performance of the students from the Honiara sample schools in Reading is better than the means results of the other provinces at each Year level the growth observed between Year 4 and Year 6 in Honiara province is less than the mean growth observed in each of the other provinces between Year 4 and Year 6.

Figure 21 SISTA Language Scaled Score distributions by Gender 2015

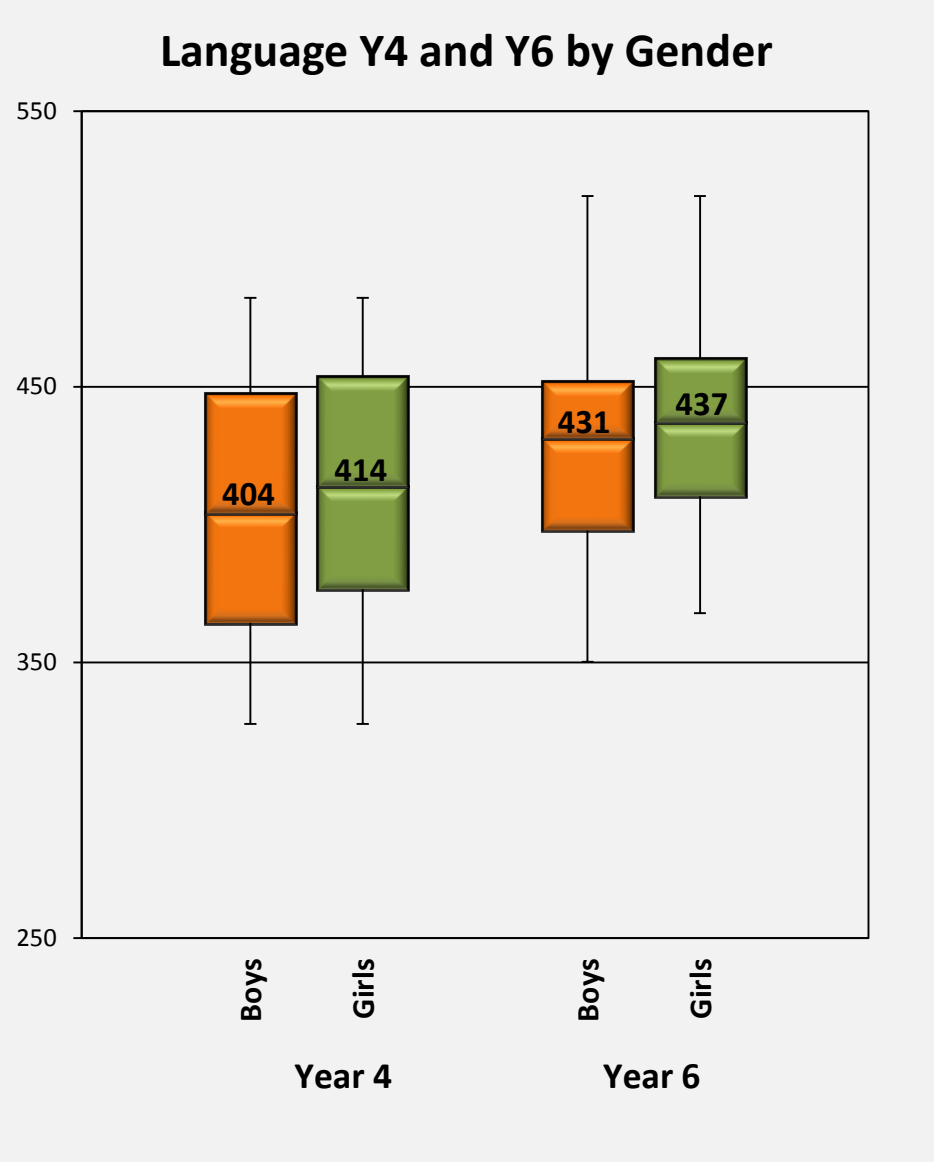
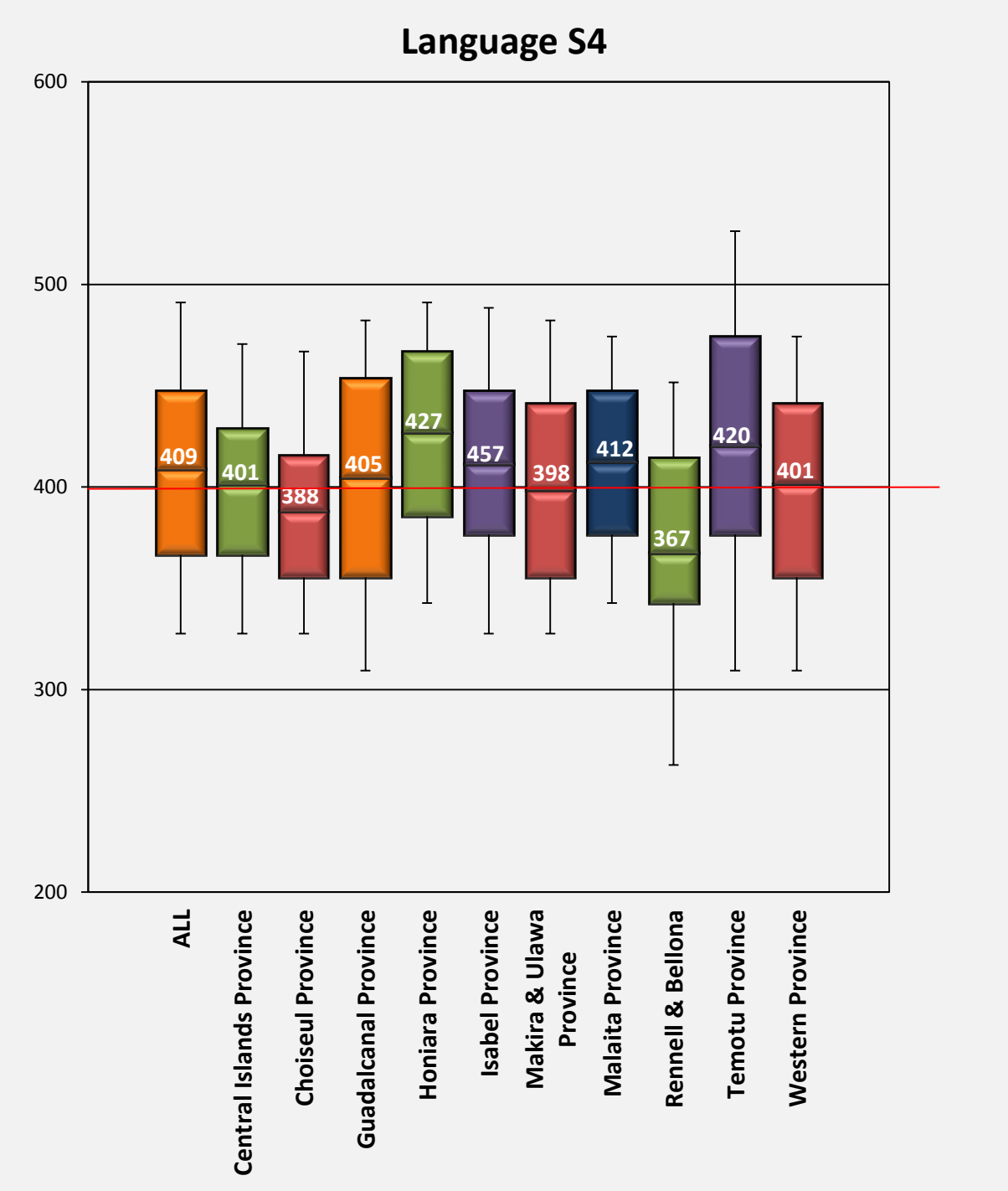


Figure 21 shows the performance of boys and girls in the Language sub strand of the English Literacy tests. When the mean results of this sub strand are compared against the Reading results it can be seen that the scores are very similar at Year 4 level but are marginally depressed at Year 6 level.

This may be an indicator that the language skills, involving in particular grammar and vocabulary, are not evolving as quickly as the Reading skills.

Figure 22 SISTA 1 Language Scaled Score distributions by Province 2015

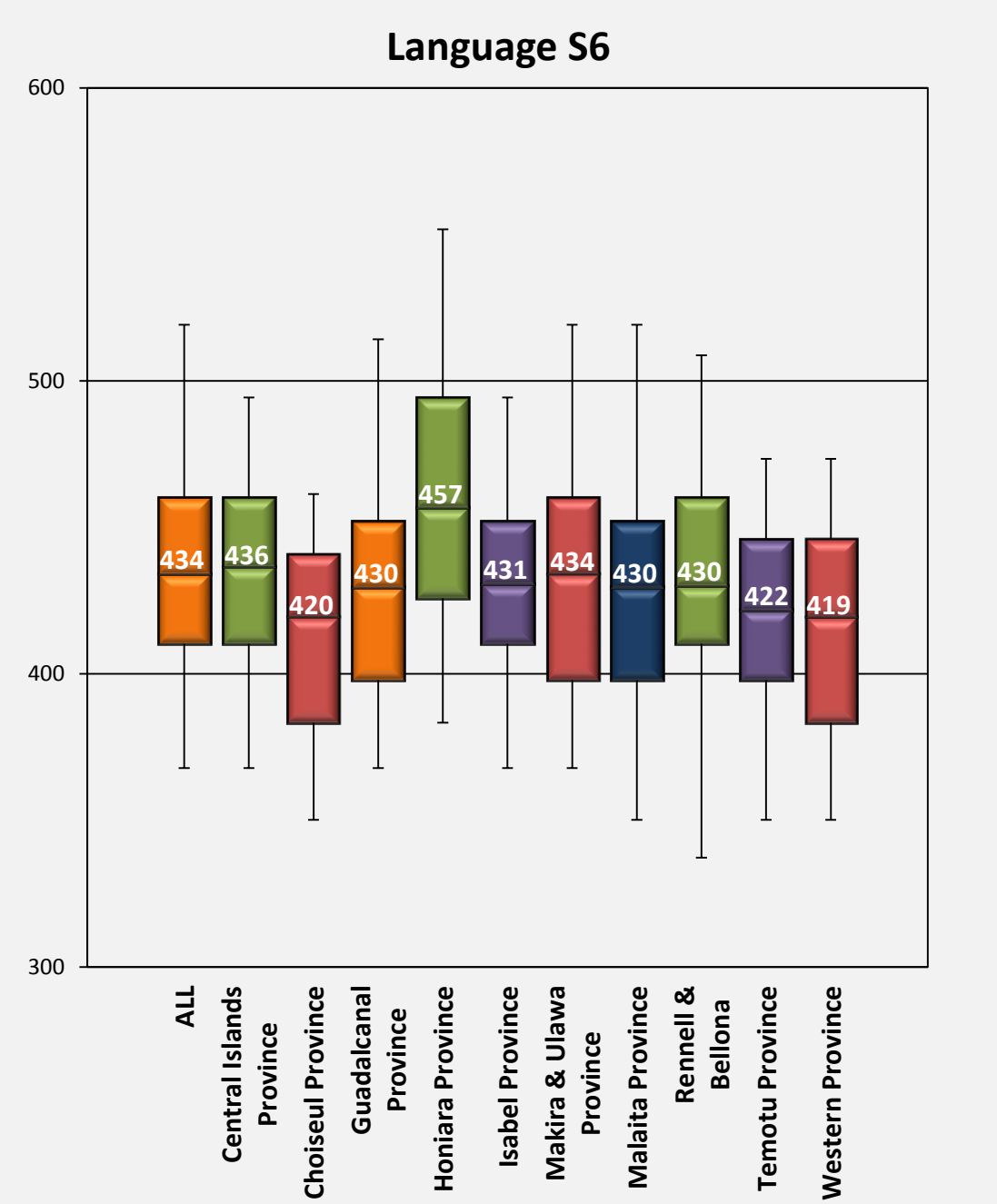


Figures 22 and 23 display the Language strand results by province and Year level.

At Year 4 level the students in the Honiara province are 20 scale score points above the mean of the whole sample. This is significantly different to the 2013 difference which was 60 scaled score points. By Year 6 the advantage in the mean performance of the Honiara students, although still considerably above the other provinces, has reduced to just 23 scaled score points above the overall mean. Most Provinces are performing close to the mean which is 434 at Year 6.

The results observed in the Language strand are similar to the results observed in Reading.

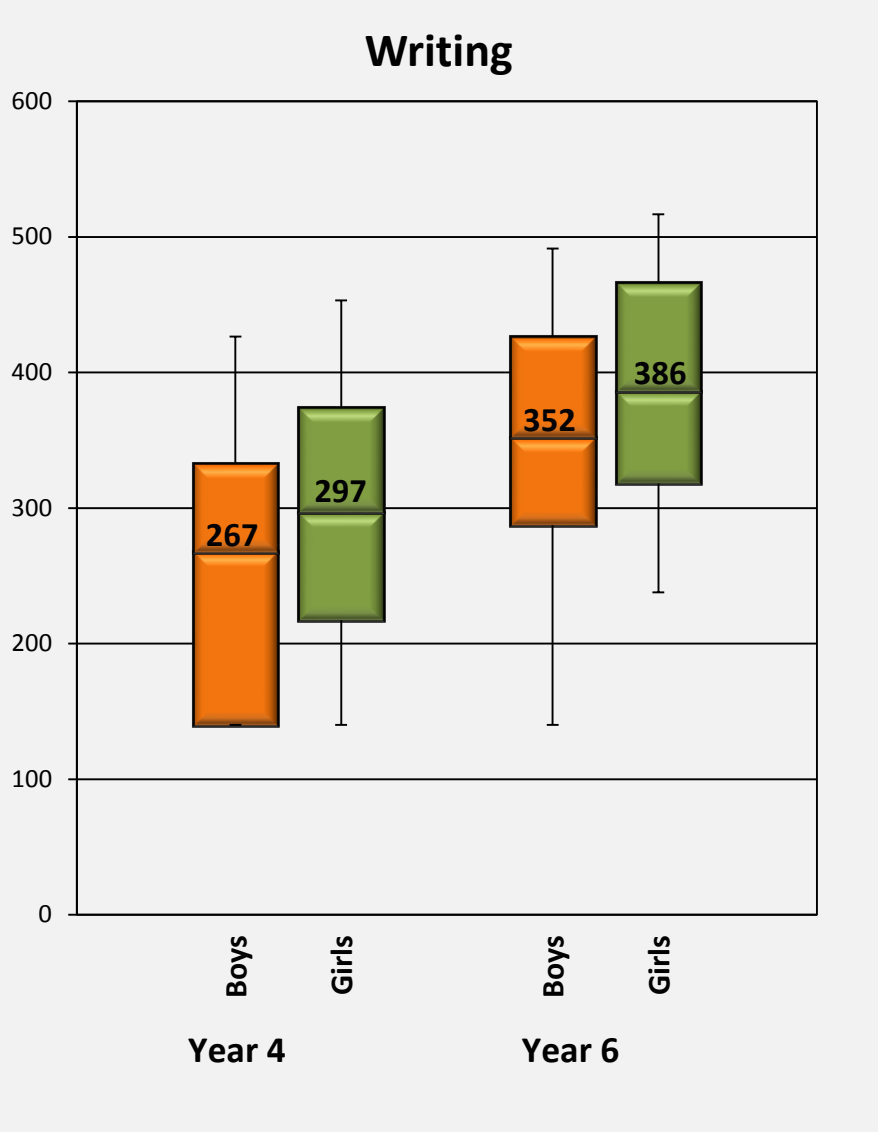
Figure 23 SISTA 2 Language Scaled Score distributions by Province 2015



Key Finding 14

As observed in the Reading strand the relative growth in the Language strand between Year 4 and Year 6 students is generally less in the Honiara province than each of the other provinces.

Figure 24 SISTA Writing Scaled Score distributions by Gender 2015



At both Year 4 and Year 6 the results in Writing are weak. Girls significantly out-perform boys but the mean result of the Year 6 girls is about the range that is normally expected of Year 4 students (viz Reading and Language).

As observed earlier Writing is an area that requires significant development in pedagogy and student learning and the weakness in Writing has a considerable impact in the assessment of Reading in its current format.

There has been no improvement in the domain since 2013.

Figure 25 SISTA Writing Scaled Score distributions by Authority 2015

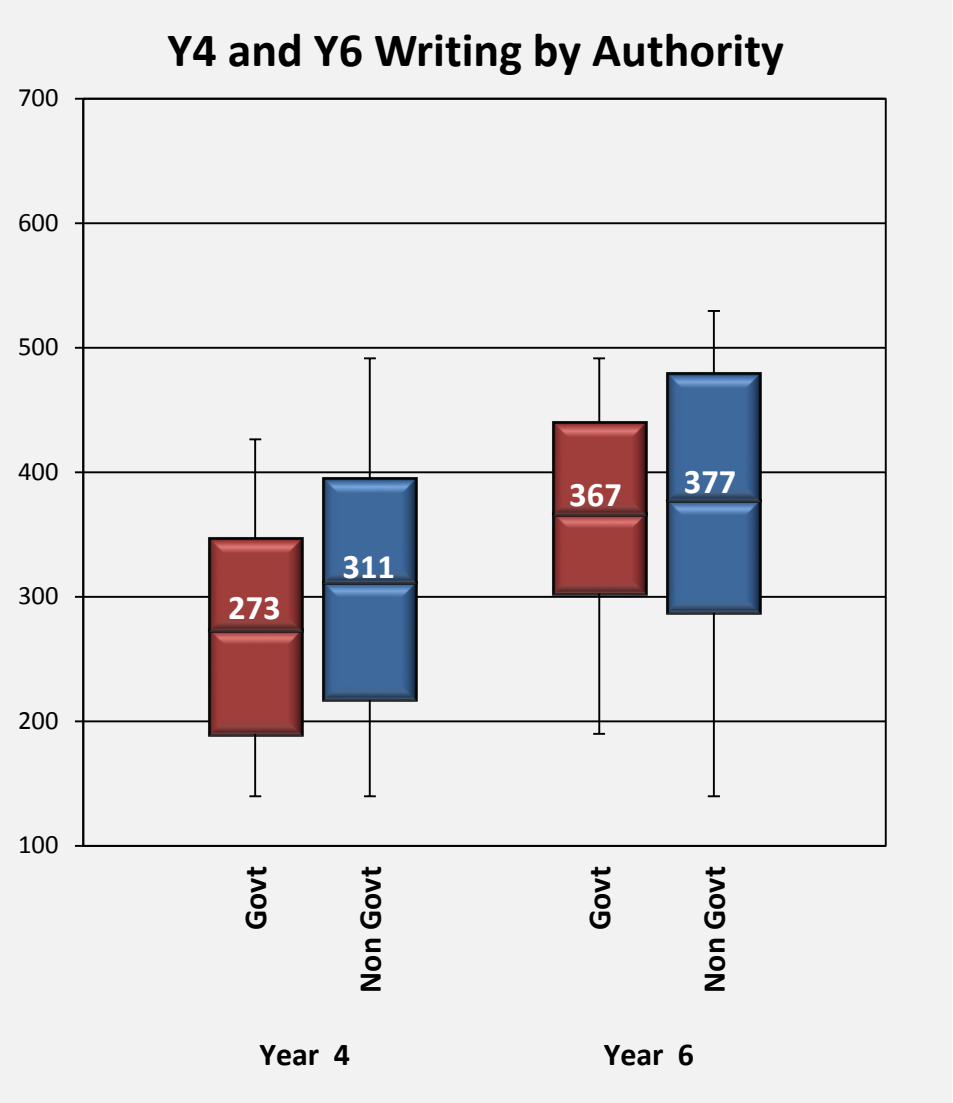
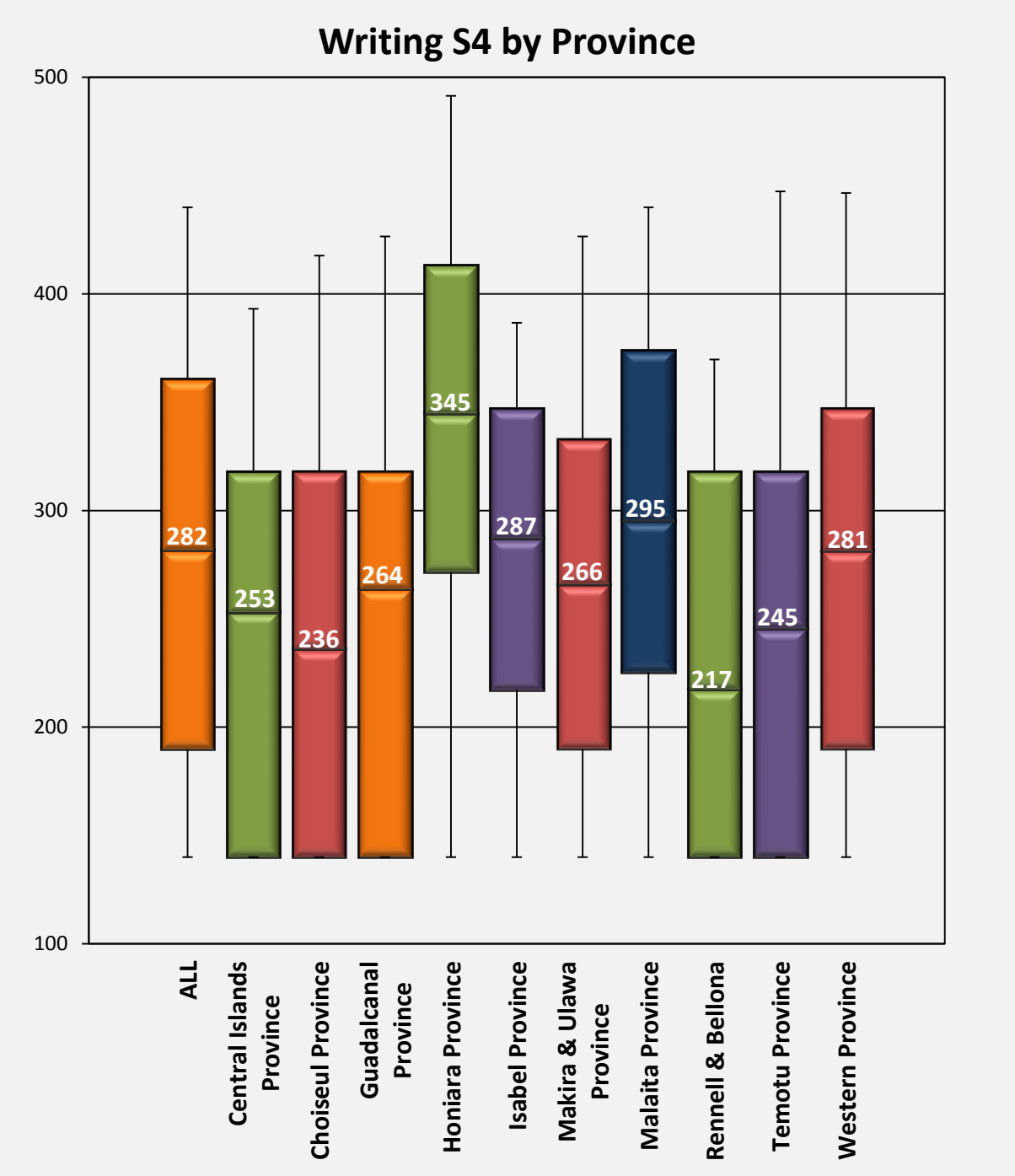


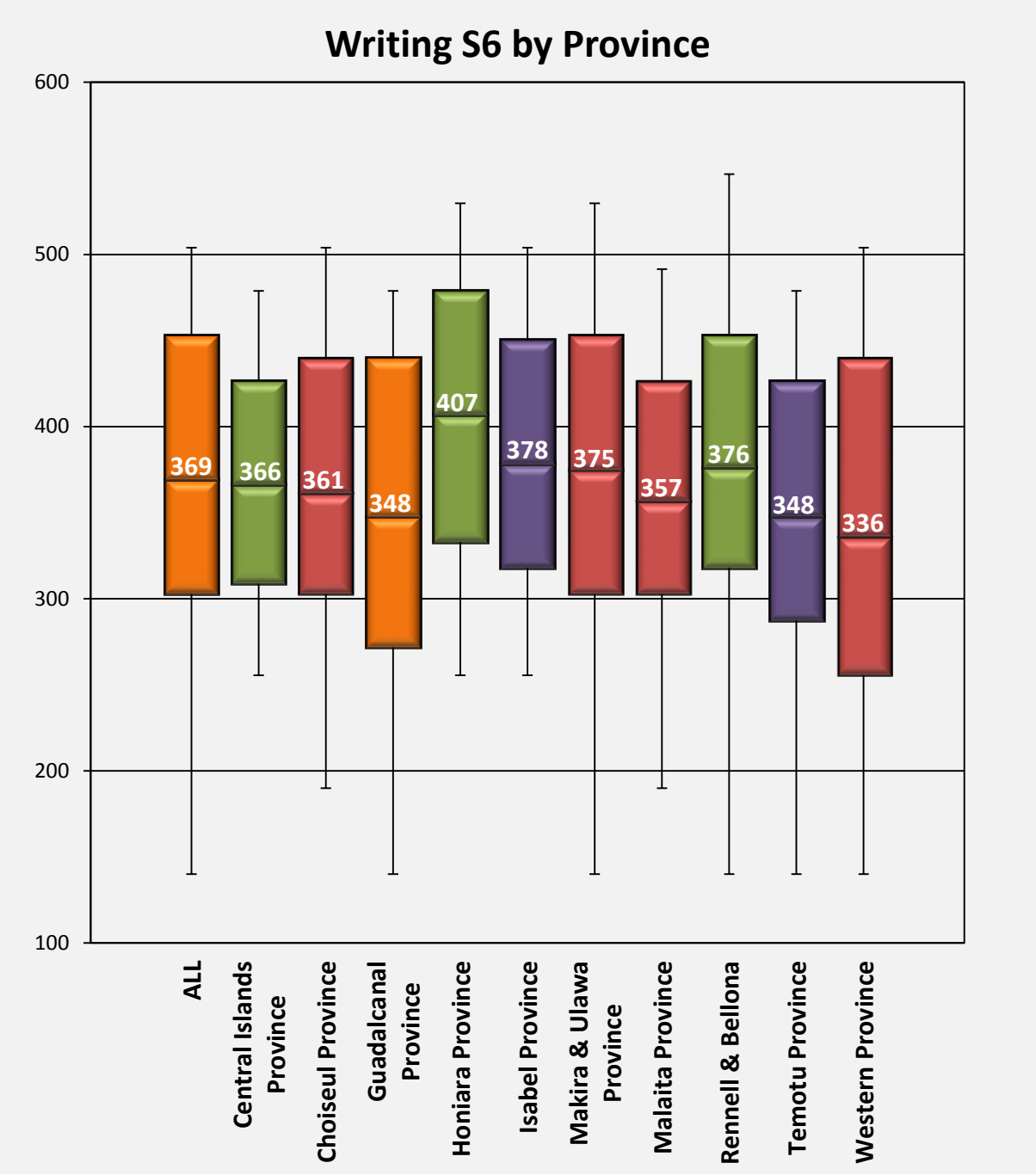
Figure 25 shows that although the overall outcomes are weak, and overall the non-Government sector has better results, there is a significantly larger improvement between Year 4 and Year 6 in the Government sector compared to the non-Government sector.

Figure 26 SISTA 1 Writing Scaled Score distributions by Province 2015



The lack of 'whisker' in the bottom distributions of several provinces at Year 4 level reflects the fact that there are up to 20% of students in the province who scored zero for the Writing assessment.

Figure 27 SISTA 2 Writing Scaled Score distributions by Province 2015



Key Finding 15

- **There is significant improvement in Writing in each province between the mean performances of Year 4 and the Year 6 students. However the overall outcomes are disappointing as was the case in 2013.**

Figure 28 SISTA Mathematics Scaled Score distributions by Gender 2015

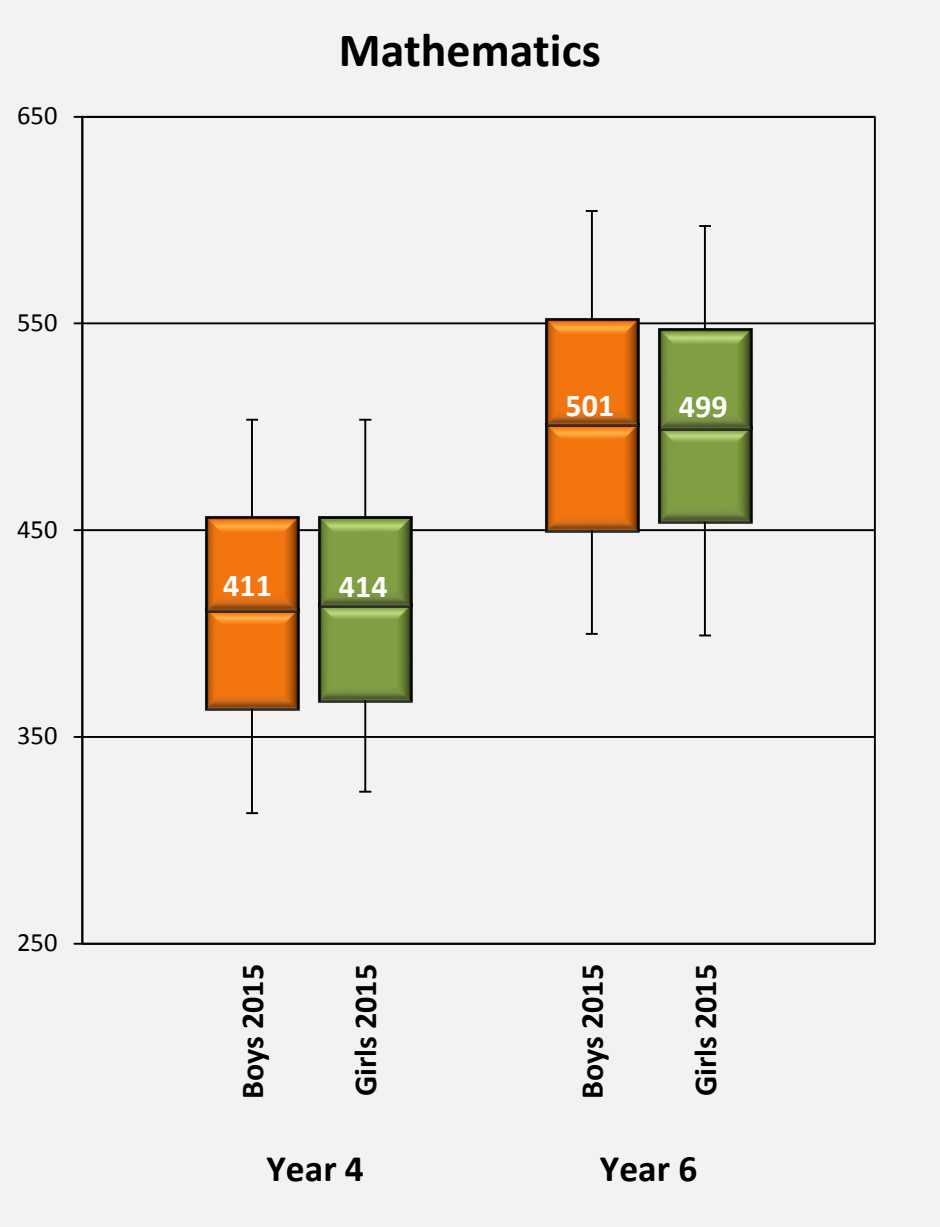


Figure 28 shows a marginal but noticeable improvement in the mean performances of the 2015 sample compared to 2013. In 2013 the mean for mathematics was set to 400 and the results shown above for Year 4 are about 20% of a standard deviation above the baseline.

At Year 6 the mean of 500 is two standard deviations above the Year4 result. This is about twice the expected result.

Figure 29 SISTA 1 Mathematics Scaled Score distributions by Province 2015

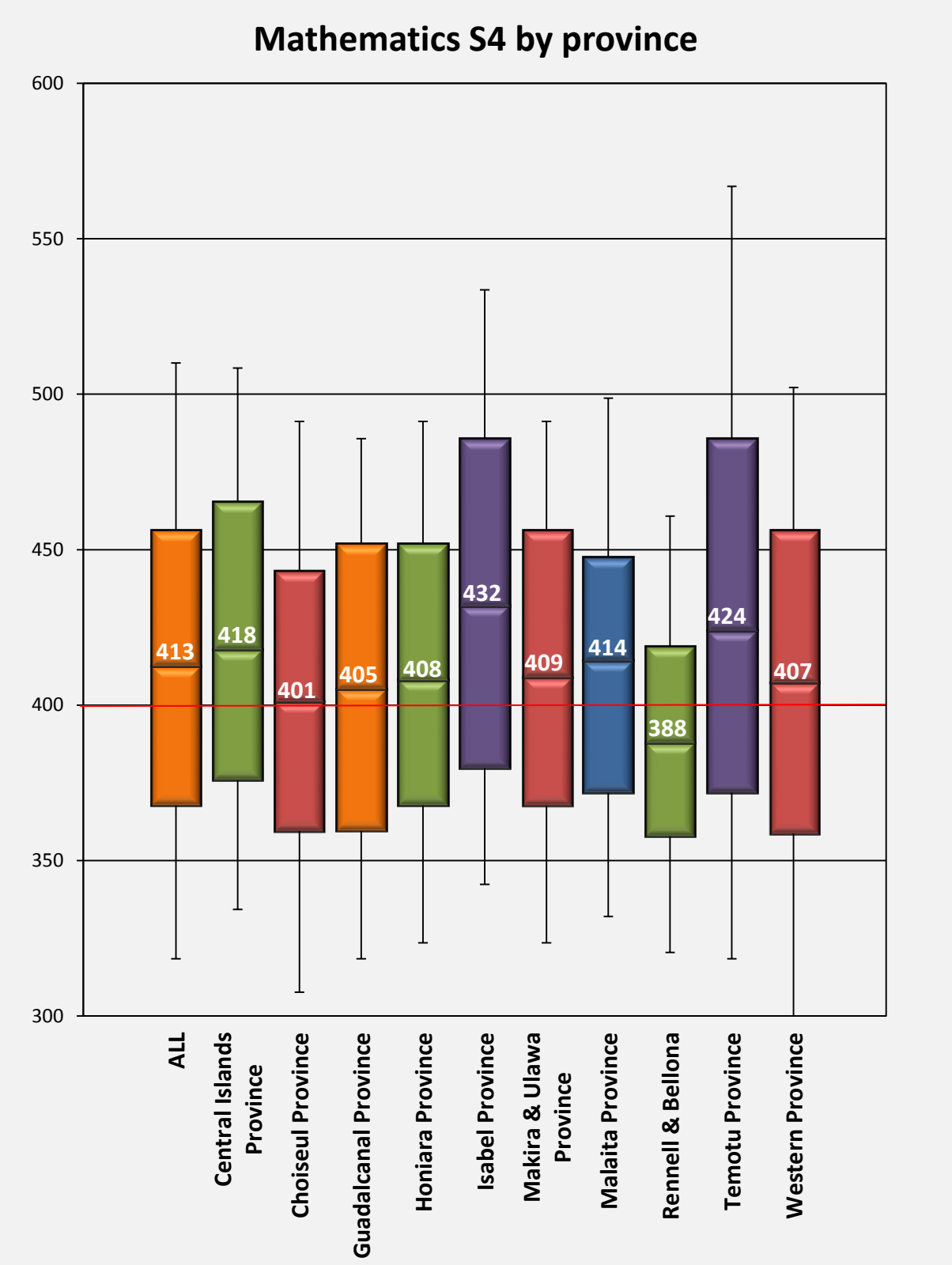
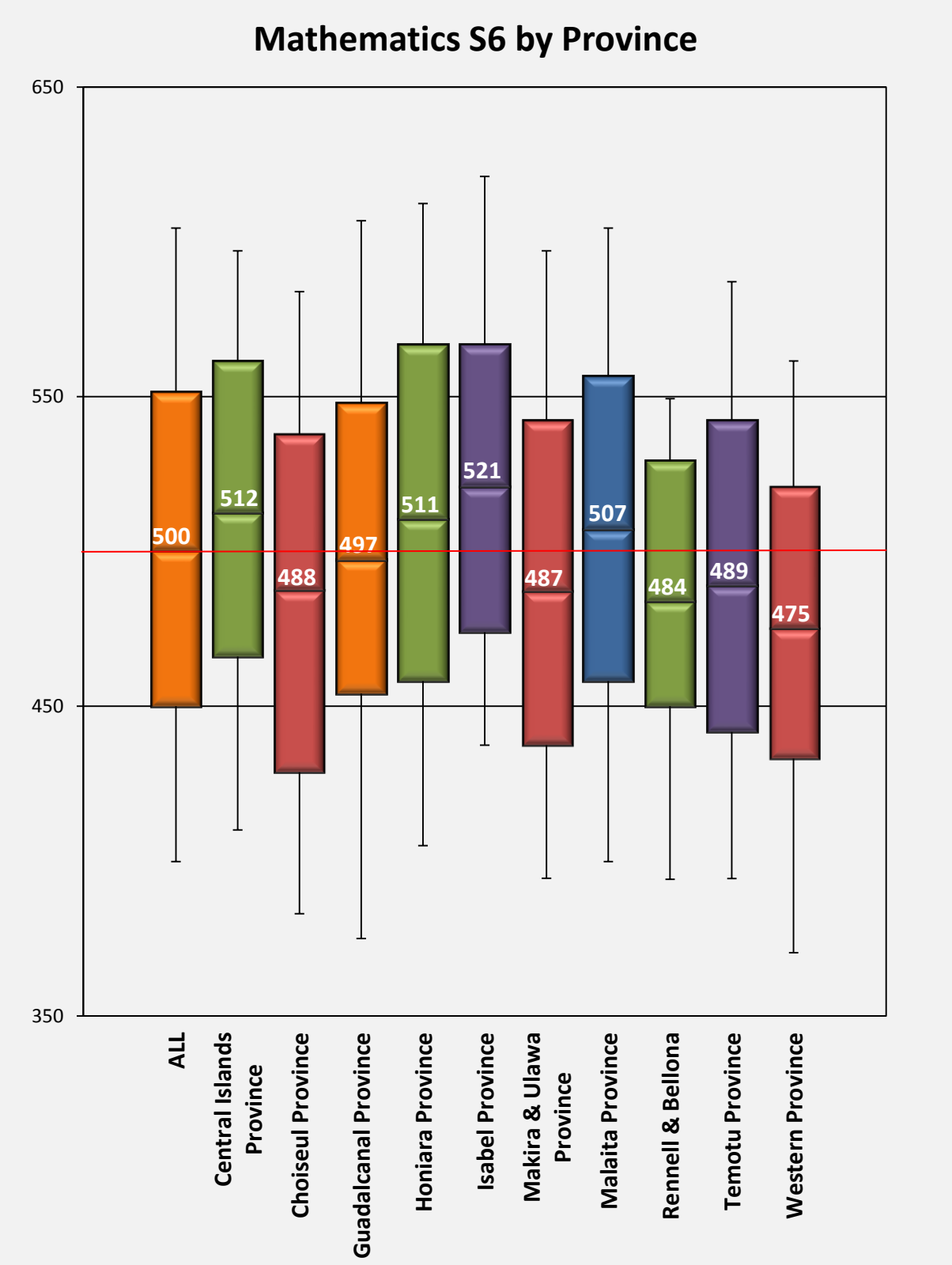
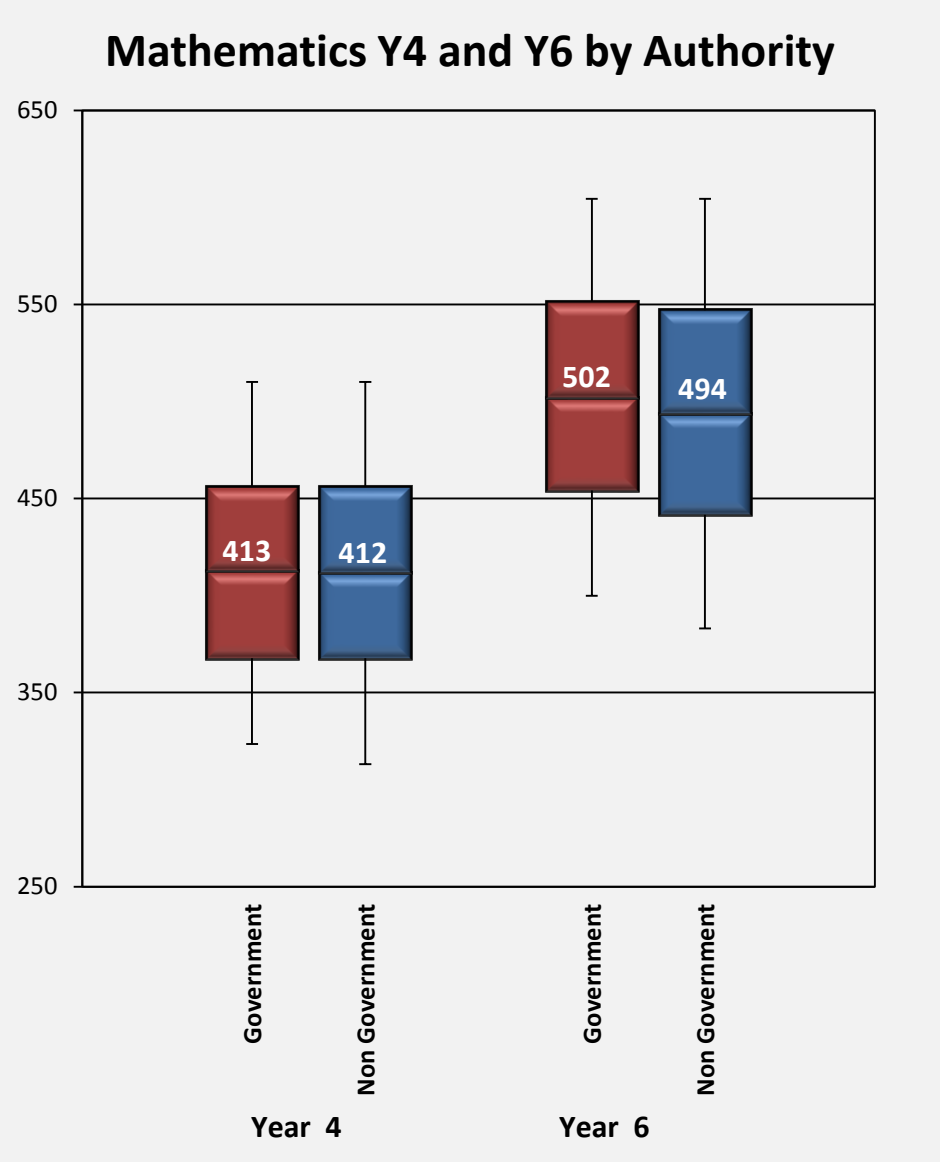


Figure 30 SISTA 2 Mathematics Scaled Score distributions by Province 2015



Figures 29 and 30 show that student of the Isabel province have achieved the highest mean score in mathematics at both Year 4 and Year 6.

Figure 31 SISTA 2 Mathematics Scaled Score distributions by Authority 2015



Whereas there is no notable difference in the performance of students in schools administered by the province (Government schools) and those by church authorities (non-Government) in the Literacy tests Figure 31 shows that this is not the case in Mathematics. This mirrors the 2013 outcomes.

Key Finding 16

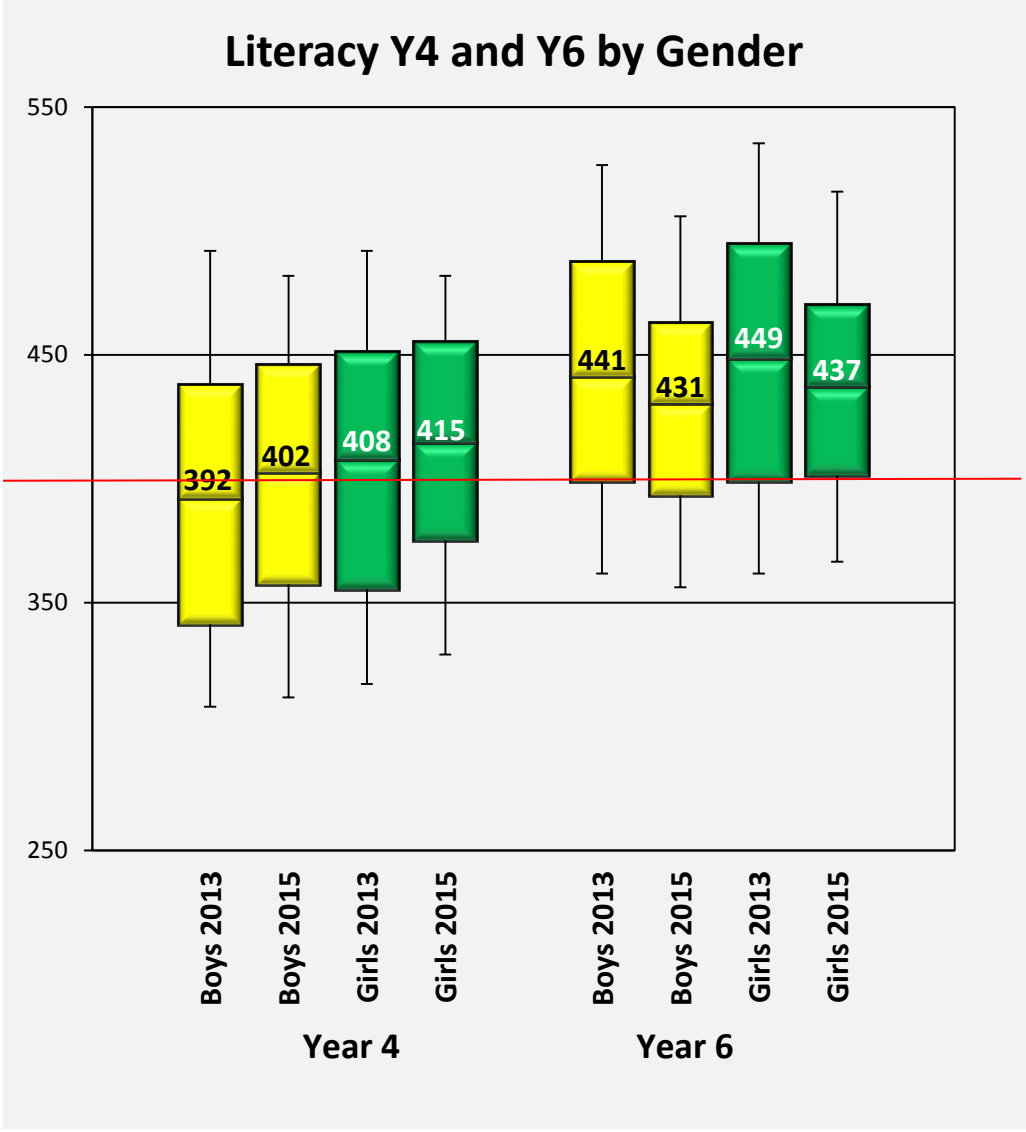
The improvement in the mean Mathematics performance of students between Year 4 and Year 6 is consistent across all provinces.

COMPARISONS OF RESULTS 2013 AND 2015

At feature of using Modern Test Theory, an d in particular Item Response Theory and Rasch measurement scales, is the capacity to have an instrument that is stable over time that individual measures can be compared against.

The Figures and Tables below provide estimates of changes in the mean performances of groups over time in the SISTA scale.

Figure 32 SISTA Literacy Scaled Score distributions by Year level and Gender 2013 and 2015



The Figure 32 shows that there has been improvement in both the boys result and girls result in 2015 compared to 2013 at Year 4 level, but a marginal decline in the performances of boys and girls at Year 6. This is reflected in other Tables and Figures throughout the report.

Table 27 – Comparison of Mean Scaled Score Literacy 2013 and 2015 by gender

Literacy: Estimated Means Comparison By Subject				
Summary	Boys		Girls	
	2013	2015	2013	2015
Year 4	392	402	408	415
Year 6	441	431	449	437

Table 28– Comparison of Mean Scaled Score Literacy 2013 and 2015 by province

Literacy: Estimated Means Comparison By Province						
Province	Year 4			Year 6		
	2013	2015	Δ	2013	2015	Δ
Central Islands	384	400	16	432	433	1
Choiseul	386	389	3	432	417	-15
Guadalcanal	398	404	6	442	431	-11
Honiara	460	428	-32	485	458	-27
Isabel	390	409	19	439	433	-6
Makira & Ulawa	390	393	3	444	432	-12
Malaita	399	412	13	444	431	-13
Rennell & Bellona	381	381	0	445	435	-10
Temotu	**388**	**421**	**33**	443	421	-22
Western	389	401	12	433	417	-16
ALL	**400**	**408**	**8**	**445**	**434**	-11

Table 27 shows the mean improvement in both the boys result and girls result in 2015 compared to 2013 at each Year level, whilst Table 28 shows the dis-aggregated mean performances by province.

The figures highlighted in RED show a net reduction in the mean results in excess of half a standard deviation, whilst those highlighted in BLUE show and improvement of half a standard deviation or more since 2013 for each province.

Figure 33 SISTA Reading Scaled Score distributions by Year level and Gender 2013 and 2015

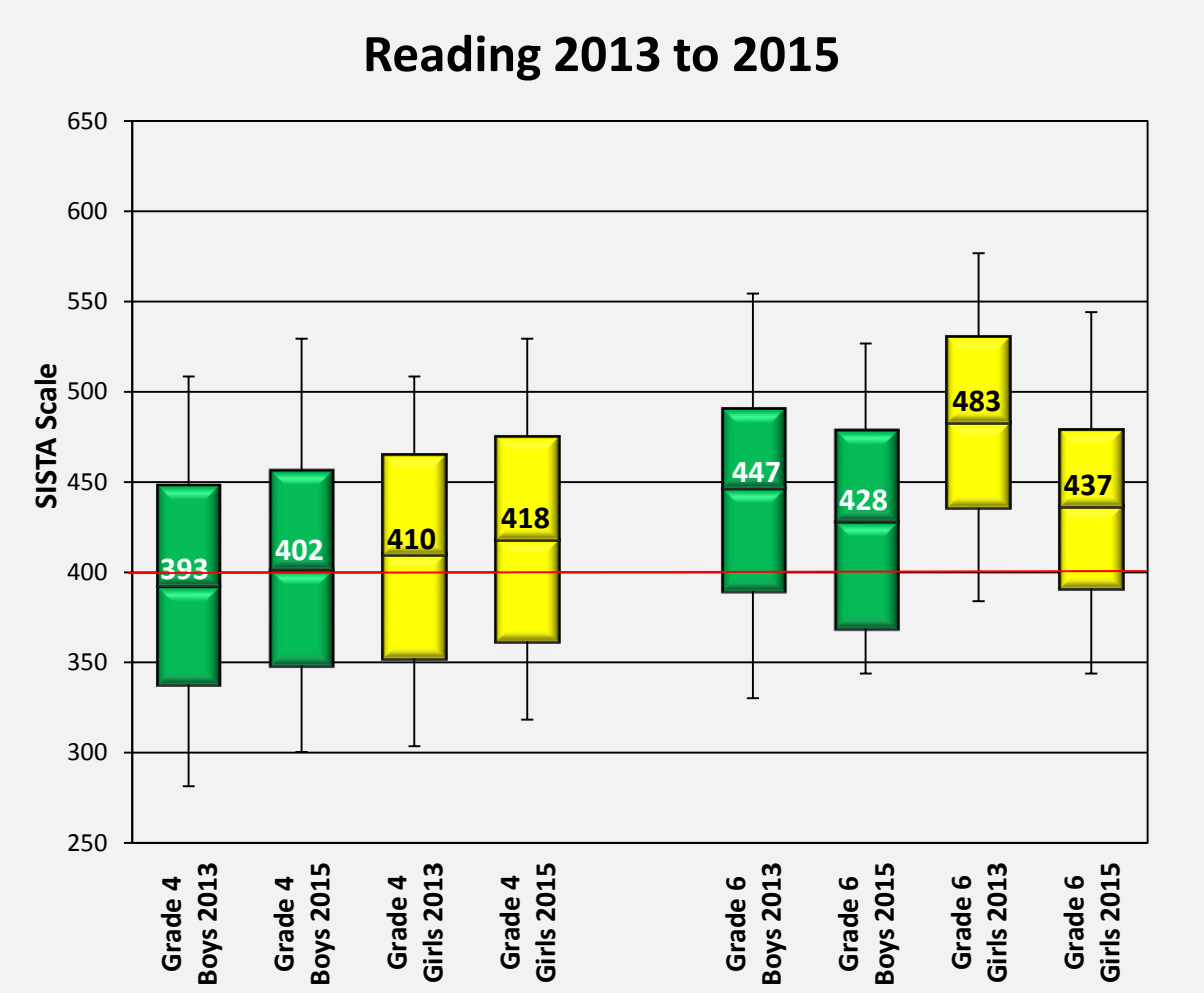


Figure 33 shows the same pattern as Literacy above with improvement at Year 4 and deterioration at Year 6.

Table 29 – Comparison of Mean Scaled Score Reading 2013 and 2015 by gender

Reading: Estimated Means Comparison By Subject				
Summary	Boys		Girls	
	2013	2015	2013	2015
Year 4	393	402	410	418
Year 6	447	428	483	437

Table 30 – Comparison of Mean Scaled Score Reading 2013 and 2015 by province

Reading: Estimated Means Comparison By Province						
Province	Year 4			Year 6		
	2013	2015	Δ	2013	2015	Δ
Central Islands	383	399	16	447	423	-24
Choiseul	387	392	5	436	412	-24
Guadalcanal	406	405	-1	438	431	-7
Honiara	464	434	-30	488	459	-29
Isabel	**388**	**408**	**20**	445	436	-9
Makira & Ulawa	390	384	-6	453	429	-24
Malaita	403	412	9	449	434	-15
Rennell & Bellona	**376**	**402**	**26**	465	442	-23
Temotu	**383**	**424**	**41**	451	419	-32
Western	395	403	8	434	411	-23
ALL	**401**	**410**	**9**	**450**	**433**	**-17**

Table 30 displays considerable variation in the performance of the provinces.

At Year 4 three provinces (Isabel, Rennell & Bellona and Temotu) have shown significant improvement between 2013 and 2015 but these have been offset to a degree by the decline in the Honiara mean result.

At Year 6 there is a consistent pattern of a decline in the outcomes achieved compared to 2013.

Figure 34 SISTA Language Scaled Score distributions by Year level and Gender 2013 and 2015

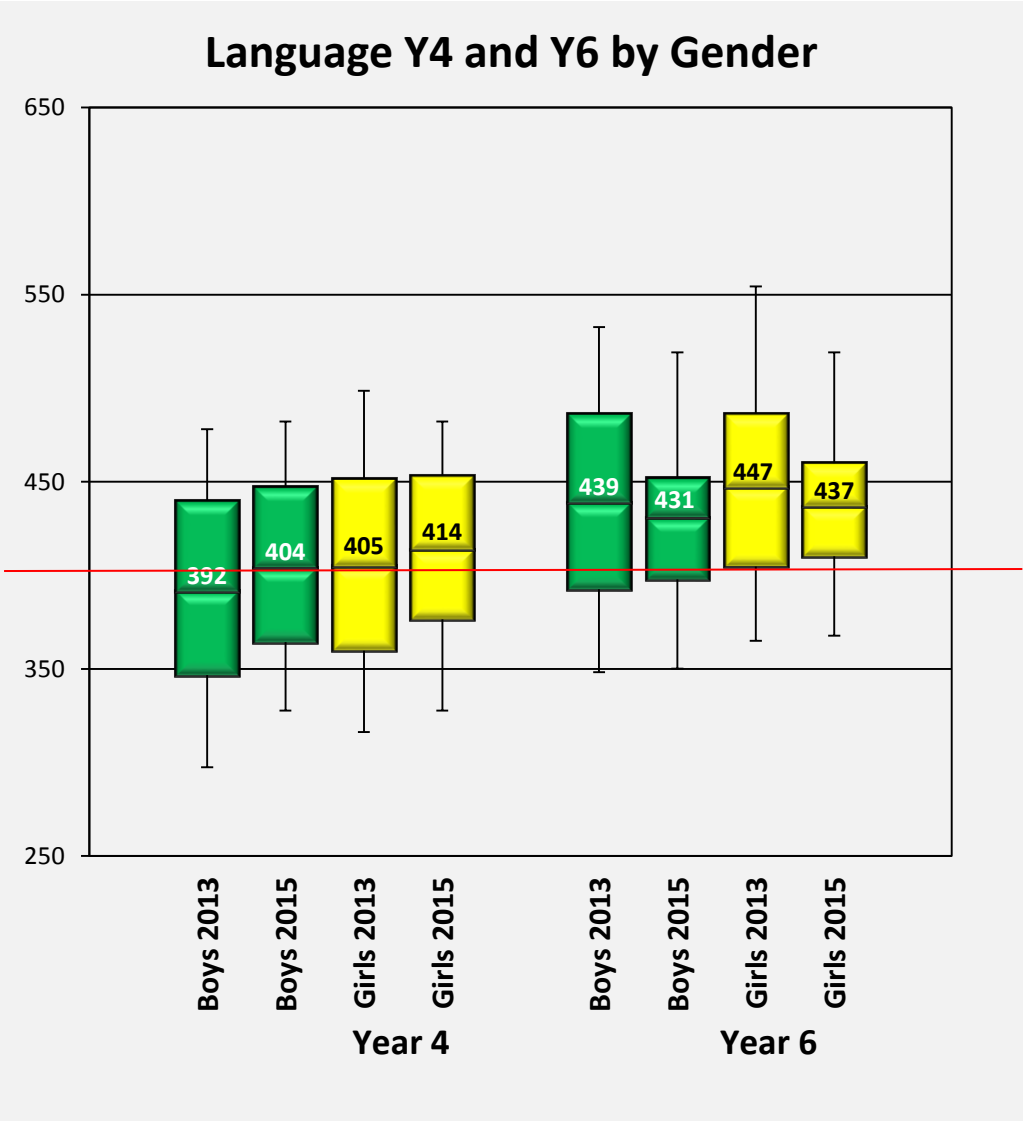


Figure 34 shows the same pattern as Reading above with improvement at Year 4 and deterioration at Year 6.

Table 31 – Comparison of Mean Scaled Score Language 2013 and 2015 by gender

Language: Estimated Means Comparison By Subject				
Summary	Boys		Girls	
	2013	2015	2013	2015
Year 4	392	404	405	414
Year 6	439	431	447	437

Table 32 – Comparison of Mean Scaled Score Language 2013 and 2015 by province

Language: Estimated Means Comparison By Province						
Province	Year 4			Year 6		
	2013	2015	Δ	2013	2015	Δ
Central Islands	385	401	16	422	436	14
Choiseul	386	388	2	431	420	-11
Guadalcanal	391	405	14	445	430	-15
Honiara	457	427	-30	485	457	-28
Isabel	392	411	19	435	431	-4
Makira & Ulawa	391	398	7	437	434	-3
Malaita	395	412	17	442	430	-12
Rennell & Bellona	384	367	-17	433	430	-3
Temotu	**393**	**420**	**27**	439	422	-17
Western	383	401	18	434	419	-15
ALL	**398**	**409**	11	**443**	**434**	-9

Key Finding 17

There is considerable variation in the Growth observed between Year 4 in 2013 and the sample population at Year 6 in 2015 within and between provinces in the Literacy strands.

Figure 35 SISTA Mathematics Scaled Score distributions by Gender 2013 and 2015

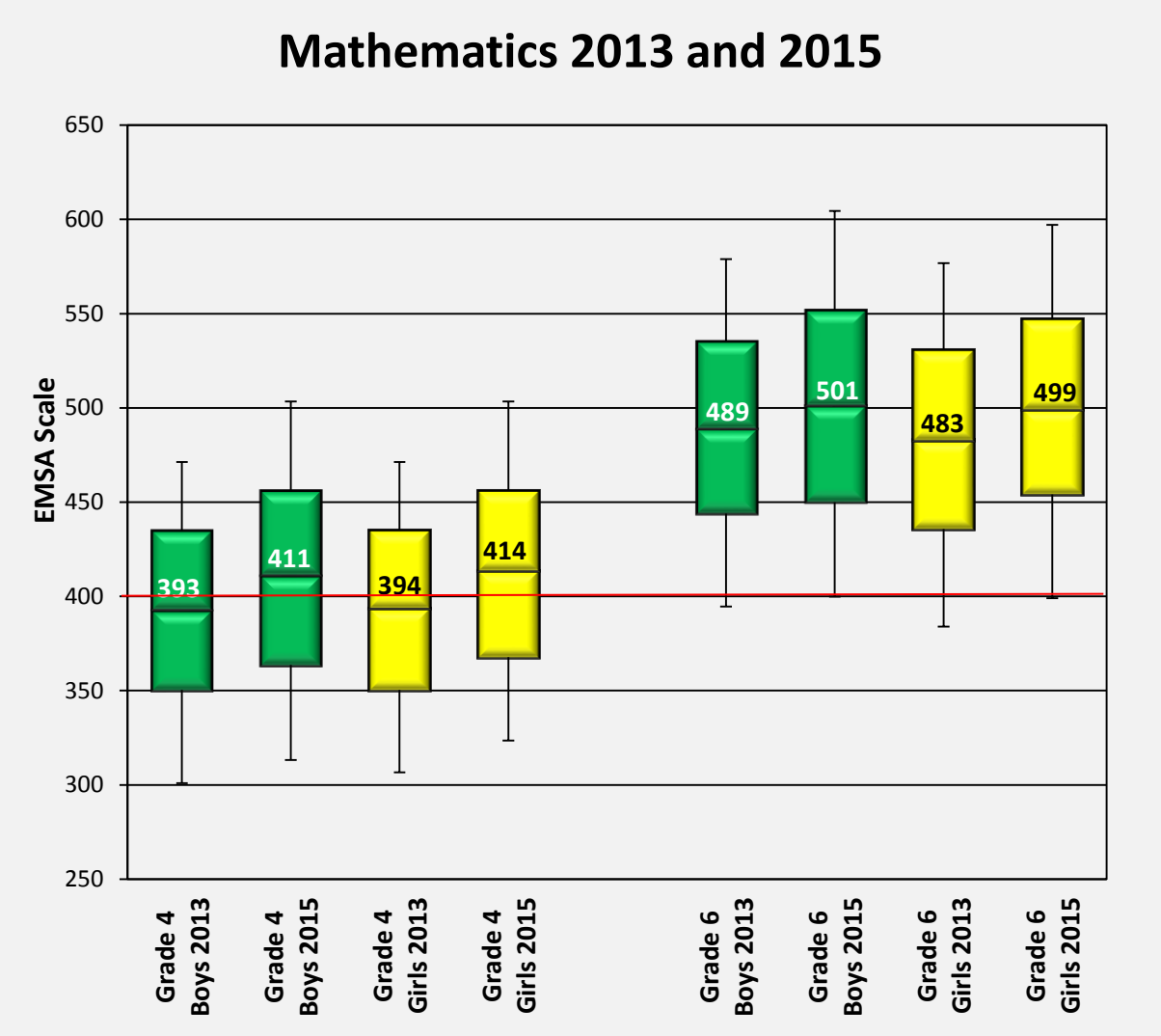


Figure 35 shows consistent improvement at both Year levels and by both genders in Mathematics compared to 2013. This is reflected in the proportions of students achieving the expected outcomes as indicated in other Tables and Figures in the report.

Table 33 – Comparison of Mean Scaled Score Mathematics 2013 and 2015 by gender

Mathematics: Estimated Means Comparison By Subject				
Summary	Boys		Girls	
	2013	2015	2013	2015
Year 4	393	411	394	414
Year 6	489	501	483	499

Table 34 – Comparison of Mean Scaled Score Mathematics 2013 and 2015 by province

Mathematics: Estimated Means Comparison By Province						
Province	**Year 4**			**Year 6**		
	2013	**2015**	Δ	2013	2015	Δ
Central Islands	**380**	**418**	**38**	**463**	**512**	**49**
Choiseul	384	401	17	488	488	0
Guadalcanal	390	405	15	484	497	13
Honiara	413	408	-5	513	511	-2
Isabel	**407**	**432**	**25**	**498**	**521**	**23**
Makira & Ulawa	**386**	**409**	**23**	484	487	3
Malaita	399	414	15	488	507	19
Rennell & Bellona	378	388	10	476	484	8
Temotu	**393**	**424**	**31**	491	489	-2
Western	**385**	**407**	**22**	465	475	10
ALL	**393**	**413**	**20**	**486**	**500**	**14**

Table 34 highlights the scale of the improvements observed in a number of provinces at both year levels.

Key Finding 18

With the exception of the Honiara province, the Growth observed between Year 4 in 2013 and the sample population at Year 6 in 2015 within and between provinces in the Literacy strands is consistently improved but with variation in the amounts.

STRENGTHS and WEAKNESSES

The sections below provide examples of the types of items that significant proportions of the sample were able to succeed with (Strengths) and those that were found to be too difficult for the majority of students (Weaknesses)

As a general rule of thumb items which had a facility (Percentage correct) rate of 80% or greater were included as indicators of strength, and those in which less than 30% of students were successful were defined as areas of weakness. The commonalities of the types of skills observed in each category is demonstrated in the sample of selected items below. Since Form X has been used in both implementations the 2013 percent correct has been annotated to each item as a reference point.

Year 4 SISTA 1 Literacy

Strengths

In the Language component of the SISTA 1 test two items were answered correctly by more than 80% of students. As much as this is a high response rate it still means that more than 10% of students do not have control of the simplest of personal pronouns or the spelling of a very common word – "water".

There were no items in the Reading sections of the paper in which more than 80% of students were able to correctly respond to the items. However overall at Year there was a tendency for slightly higher proportions of students to answer many questions correctly which is reflected in the overall improvement in Year 4 results.

Q20 – 2015 89% correct (2013 88% correct)

B. Language Study

Choose the best word for each sentence in Questions 15 to 22.

20. This is _____ book.

- ❍ I
- ❍ Me
- ❍ my
- ❍ mine

Q25 – 2015 86% correct (2013 82% correct)

B. Language Study

Tick the word which is spelt correctly.

25. People need to drink a lot of _____.

- ❍ watter
- ❍ Wartar
- ❍ Worter
- ❍ Water

Weaknesses in Reading

The following three Reading items required students to find information in a passage of about 150 words, retrieve in the appropriate idea, and construct a response that could be expressed in the written form.

Although this is the dominant methodology and skill taught in classrooms it is observed that more than 2/3 of the students are unable to retrieve the information and formulate the answer.

Q10 – 2016 21% correct (2013 13% correct)

A. Reading Comprehension

Read the story ***Maria plans an adventure***.

10. Why did Maria go back to see Seno?

_____

Q12 – 2015 39% correct (2013 33% correct)

A. Reading Comprehension

Read the story ***Maria plans an adventure***.

12. What warning did Seno give Maria about the airport?

_____

Q14i – 2015 39% correct (2013 31% correct)

A. Reading Comprehension

Read the story again then find the underlined words that have the same meaning as the following:

i) at once _____

Appendix 3 shows that it, on average, about 70% of Year 4 students can read a simple passage, comprehend its meaning and find the appropriate answer in a multiple choice format. The significant decline in the success rate is observed when students are asked to construct and write an answer.

The two stage cognitive and creative skill combination is beyond most students at Year 4. This outcome was observed in 2013 and has changed little in the ensuing two years.

Key Finding 19

Year 4 students are developing skills in English Reading but have significant challenges in constructing and writing responses compared to recognising a correct answer in a multiple choice item format.

Weaknesses in English Language Year 4

Items were prepared to assess student's understanding of Language in a variety of forms. The items below provide examples of elements of grammar in which less than 1/3 of Year 4 students have demonstrated control over the skills articulated in the syllabus.

Q22 – 2015 17% correct (2013 14% correct)

B. Language Study

Choose the best word for each sentence in Questions 15 to 22.

22. I found a _____ hiding place than he did.

- ❍ good
- ❍ gooder
- ❍ best
- ❍ better

Q23 – 2015 26% correct (2013 22% correct)

B. Language Study

Tick the correct sentence.

23.

- ❍ Sam having a boat.
- ❍ Sam is had a boat.
- ❍ Sam has a boat.
- ❍ Sam have a boat.

Q24 – 2015 31% correct (2013 32% correct)

B. Language Study

Tick the correct sentence.

24.

- ❍ They going to the shops.
- ❍ They go to the shops.
- ❍ They goes to the shops.
- ❍ They are go to the shops.

In the cloze shown below students were asked to select appropriate six words that completed the passage and provided a cogent meaning to the passage as a whole.

The two words that students found most challenging was the use of "so" as an adjective and differentiating between "of" and "off" when describing exiting from the bus (item 28vi) which was the final item in the close exercise.

Key Finding 20

There are weaknesses in English language acquisition at Year 4 level relative to the expected outcomes articulated in the curriculum.

Year 4 SISTA 1 Mathematics

Strengths in Year 4 Mathematics

The same criterion was applied when determining the "strengths" of students in attaining curriculum outcomes in, or up to the Standard 4 curriculum. Appendix 5 provides information regarding the response patterns of all students on each item.

Q06a – 2015 92% correct (2013 92% correct)

Addition

6. Add the following;

a) 6 3 2

+ 2 5 7

_____

_____

Q09a – 2015 90% correct (2013 89% correct)

Subtraction

9. Subtract the following;

a). 8 7 6

– 7 1 2

_____

_____

These items display control over addition and subtraction without trading.

Q09c – 2015 82% correct (2013 82% correct)

Subtraction

9. Subtract the following;

c). 6 4 5 3

– 3 4 1

_____

_____

Q13 – 2015 83% correct (2013 83% correct)

Division

13. If $63 \div 7 = 9$, then $7 \times$ ☐ = 63.

Q21a – 85% correct (2013 81% correct)

Shapes

21. Complete the table below.

Shape	Number of Sides			
 Rectangle	____			

Weaknesses observed in Year 4 Mathematics

There are a number of common areas in which less than 1/3 of students can consistently indicate understanding of the concepts and skills articulated in the syllabus. The areas that are of concern include elements of the Measurement sub-strand, Fractions and Money.

Samples of items in which there are high proportions of incorrect responses are provided below.

Q12d – 2015 25% correct (2013 25% correct)

Multiplication

12.d). 2 9 3
× 4

_____

_____

Q17 – 2015 4% correct (2013 4% correct)

Fractions

17. Re-write the fractions below from lowest to highest;

$\frac{3}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{3}$

_____ _____ _____ _____

Q18 – 2015 37% correct (2013 31% correct)

Fractions

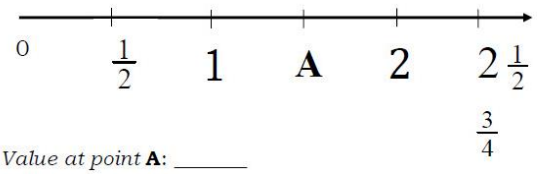
18. Calculate;

$\frac{1}{5}$ of 45. _____

Q19 – 2015 29% correct (2013 16% correct)

Fractions

19. What is the value of the fraction at the point **A** on the following number line ;



Value at point **A**: _____

Q20b – 2015 36% correct (2013 25% correct)

Shapes

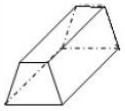
20. Name the following 2-D and 3-D shapes;

b). 

_____

Q22b – 2015 18% correct (2013 15% correct)

22. Complete the table below.

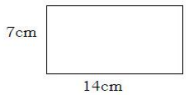
Shape			
		Number of Edges	
 Prism		_____	

Q30 – 2015 16% correct (2013 12% correct)

Measurement

30. Find the area of the following shapes.
Using the formula below:

A = L x W.



_____

Q31 – 2015 27% correct (2013 14% correct)

Measurement

31. A piece of land is in the shape of a square.
The length of each side is 20 m. A fence is built all around the piece of land.

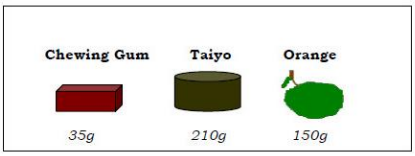
How long is the fence around the piece of land?

_____

Q32a – 43% correct (2013 23% correct)

Measurement

32. Use the diagram to answer questions a) and b).



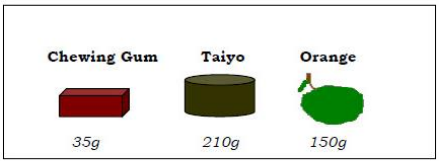
a). Add the weights of the following;

Chewing Gum and **Orange**. _____

Q32b – 2015 13% correct (2013 5% correct)

Measurement

32. Use the diagram to answer questions a) and b).



b). Find the difference in the weights of the following;

Taiyo and **Chewing Gum.** _____

Q36a – 2015 29% correct (2013 22% correct)

Money

36. Subtract the following amounts;

a). $23.40
– $ 1.70
_____

_____

Q36b – 2015 28% correct (2013 20% correct)

Money

36. Subtract the following amounts;

b). $35.40
– $11.90
_____

_____

Q37 – 2015 30% correct (2013 24% correct)

Money

37. Robert had $20. He bought $7.80 worth of ice-lollies.
What was his change?

- ❍ $2.80
- ❍ $12.20
- ❍ $13.20
- ❍ $27.80

Q38 – 2015 30% correct (2013 20% correct)

Money

38. Tom has $25.
Sam has $45.

What is the difference? _____

Of particular concern here is the evidence in the Money sub-strand that indicates that less than 1/3 of the sample have control over functions that would be considered to be normal day to day operations in society.

It is noticeable that in the Mathematics subject there is a trend towards higher proportions of students correctly answering the items, and in particular those above highlighted in green show a considerable improvement over the 2013 result.

Key Finding 21

The weaknesses observed in 2013 in the stands of Fractions, Measurement and Money have had some improvement on average but still present problems for the majority of the population.

Year 6 SISTA 2 Literacy

Strengths in Reading Year 6

In order to discriminate between students ability to read, comprehend and retrieve information in texts, compared to their ability to read, comprehend, retrieve and create a written response to questions relating to texts, the Year 6 test had a number of items that were in a multiple choice format AND in common with the Year 4 tests.

At Year 6 level almost 90% of students demonstrated that they have the ability to complete the read and retrieve task successfully as indicated in the items below. It is also noted that these proportions are significant improvements on the success rates achieved by Year 4 students on the same items.

Q01 – 2015 90% correct in Year 6 compared to 79% in Year 4 (2013 90% correct in Year 6 compared to 74% in Year 4)

For questions 1 to 5 tick the correct answer.

1. What is the name of this story?

- ❍ *The Baby Elephant*
- ❍ *I Like Nelson*
- ❍ *Standing Up*
- ❍ *Elephants are Strong*

Q02 - 88% correct in Year 6 compared to 77% in Year 4 (2013 88% correct in Year 6 compared to 73% in Year 4)

For questions 1 to 5 tick the correct answer.

2. What did the mother elephant use to help Nelson stand up?

- ❍ her trunk
- ❍ her tail
- ❍ her voice
- ❍ her legs

Q04 - 61% correct in Year 6 compared to 61% in Year 4 (2013 88% correct in Year 6 compared to 76% in Year 4)

For questions 1 to 5 tick the correct answer.

4. What made Nelson feel stronger?

- ❍ finding a new friend
- ❍ taking his first steps
- ❍ drinking his mother's milk
- ❍ using his trunk

Key Finding 22

The students of Year 6 display an increased capacity to read, comprehend and retrieve information in texts compared to Year 4 students. Although there is evidence of some improvement in Year 4 there appears to be no improvement in the Year 6 outcomes.

Weakness in the Reading strand Year 6

By comparison items which required that students read a narrative passage, extract information, meaning and/or inferences from the story and create a written response show a very different level of skill attainment compared to just reading and selecting a correct answer in a multiple choice format.

The items below, and in particular the annotations of the facility rates for each item demonstrate this weakness in the student's attainment of the curriculum expectations of Year 6 students.

Q07 – 2015 48% correct (2013 23% correct)

Read the story in the box, and then answer the questions 6 – 14.

7. Why was Laka so surprised when he looked into the first mirror?

- ❍ he did not recognise himself
- ❍ he thought there was something wrong with the mirror
- ❍ he no longer looked like his father
- ❍ he looked very miserable

Item Q07 has been included in this part of the report to show that an item that was poorly attempted in 2013 has displayed a significant improvement in 2015. The relative percent correct for each items (2013 and 2015) is presented in Appendix 3.

3Q09 – 2015 29% correct (2013 29% correct)

Answer the questions 9 to 13 in complete sentences.

9. What made Laka miserable?

_____

Q10 – 2015 19% correct (2013 23% correct)

Answer the questions 9 to 13 in complete sentences.

10. How did Laka and his servant find the mirror of truth?

_____

Q11 – 2015 9% correct (2013 9% correct)

Answer the questions 9 to 13 in complete sentences.

11. Why did Laka pick up the mirror with 'shaking hands'?

_____

Q12 – 2015 16% correct (2013 17% correct)

Answer the questions 9 to 13 in complete sentences.

12. Why was Laka's reflection different in the mirror of truth?

_____

Q13 – 2015 11% correct (2013 13% correct)

Answer the questions 9 to 13 in complete sentences.

13. What lesson did Laka learn in this story?

_____

Q14i – 2015 17% correct (2013 19% correct)

Read the passage again and write the meanings of the following underlined words from the passage.

14. i) miserable _____

Q14ii – 2015 17% correct (2013 9% correct)

Read the passage again and write the meanings of the following underlined words from the passage.

14. ii) determined _____

Q14iii – 2015 14% correct (2013 11% correct)

Read the passage again and write the meanings of the following underlined words from the passage.

14. iii) sympathised _____

Q14iv – 2015 31% correct (2013 29% correct)

Read the passage again and write the meanings of the following underlined words from the passage.

14. iv) glittering _____

Q14v – 2015 32% correct (2103 29% correct)

Read the passage again and write the meanings of the following underlined words from the passage.

14. v) responsibilities _____

The facility rates expressed in the Reading items above reflect the observations made in the Year 4 assessments.

Although the common classroom practice is this form of constructed response there is a significant difference between students ability to read, retrieve and comprehend information in texts compared to their general ability to formulate a response (as opposed to identifying a correct response in a multiple choice format) and write that response in a cogent set of words.

This is particularly obvious in the "write the meaning" type items in which some of the words have quite challenging synonyms and constructing a suitable piece of text is a quite difficult task.

Key Finding 23

At Year 6 items that require students to read and comprehend the information in texts and then to formulate and answer and write a constructed response are generally poorly completed.

Weakness in the Language strand

Q19 – 2015 24% correct (2013 21% correct)

Select the correct word from the brackets. Write your answer in the blank space provided.

19. Linda sang a _____ song than the last one. (good, better, best)

Q26 – 2015 27% correct in Year 6 compared to 17% at Year 4 (2013 26% correct in Year 6 compared to 14% at Year 4)

Choose the best word for each sentence in Questions 23 to 28.

26. I found a _____ hiding place than he did.

- ❍ good
- ❍ gooder
- ❍ best
- ❍ better

Q27 – 2015 34% correct in Year 6 compared to 26% in Year 4 (2013 31% correct in Year 6 compared to 22% in Year 4)

Tick the correct sentence.

27.

- ❍ Sam having a boat.
- ❍ Sam is had a boat.
- ❍ Sam has a boat.
- ❍ Sam have a boat.

Q28 – 2015 28% correct compared to 31% in Year 4 (2013 29% correct compared to 32% in Year 4)

Tick the correct sentence.

28.

- ❍ They going to the shops.
- ❍ They go to the shops.
- ❍ They goes to the shops.
- ❍ They are go to the shops.

Key Finding 24

The types of weaknesses observed in Year 4 Language are present in Year 6.

Q01a – 2015 94% compared with 70% in Year 4 (2013 94% compared with 69% in Year 4)

NUMBERS

1. Add the following;

a). 7 3 5 2
+ 3 4 6 5
_____

Q01b – 2015 83% correct (2013 81% correct)

NUMBERS

1. Add the following;

b). 697 318
+ 16 193
_____

Q04a - 79% compared with 59% at Year 4 (2013 81% compared with 56% at Year 4)

NUMBERS

4. Divide the following;

a). $8\overline{)96}$

_____

Q05a – 2015 77% correct (2013 80% correct)

NUMBERS

5. Calculate the following;

a). 6 714 + 3 273 – 7 871 = _____

2015 Q08a - 95% compared with 75% in Year 4 (2013 93% compared with 68% in Year 4)

Money

8. Calculate the following;

a). $2.60
+ $1.30
_____

2015 Q08b - 87% compared to 47% in Year 4 (2013 84% compared to 42% in Year 4)

Money

8. Calculate the following;

b). $75.90
+ $ 3.50
_____

Key Finding 25

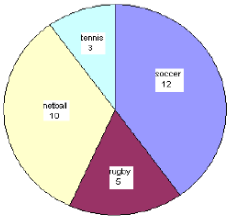
The item statistics above indicate that by Year 6 most students tend to have control over the basic functions of addition and subtraction and its application to money when expressed in the traditional text book algorism format.

In each of the common items that relate to basic operations there is evidence of significant improvement by Year 6 compared to Year 4 in the mean performances.

Q11a – 2015 93% (2013 92%)

Graphs

11. The pie chart shows the favourite sport chosen by 30 standard six students in a school.

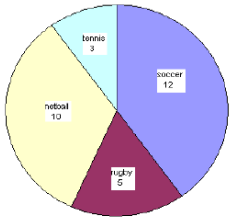


(a). How many students chose rugby? _____

Q11b – 2015 82% (2013 80%)

Graphs

11. The pie chart shows the favourite sport chosen by 30 standard six students in a school.



(b). Which was the most popular sport? _____

Q12a – 2015 83% compared with 82% in Year 4 (2013 87% compared with 80% in Year 4)

12. The tally chart shows the favourite subject of 19 students in a class.

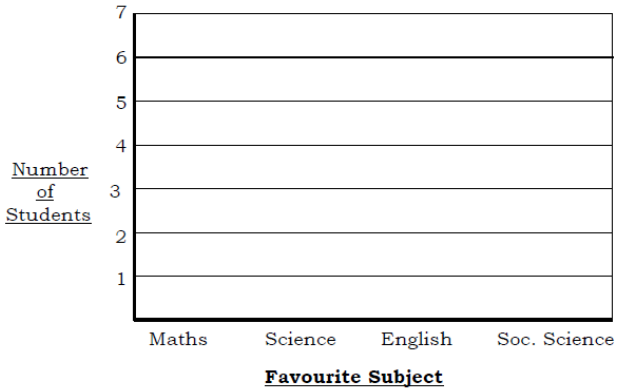
a) Complete the tally table

Subject	Tally	Number
Maths	𝍸	5
Science	𝍸	____
English	𝍸 ‖	____
Soc Science	‖	____

Q12b – 2015 86% compared with 79% in Year 4 (2013 81% compared with 68% in Year 4)

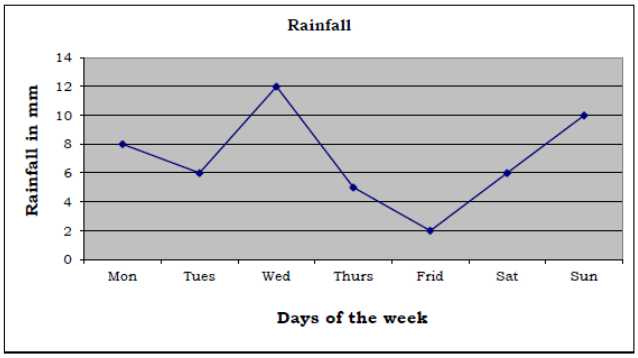
12. Complete the number column in the tally table above and draw a vertical bar graph of the information.

b)



Q13a – 2015 91% correct (2013 90% correct)

13. The graph shows the rainfall in Honiara for a week.



(a). Which day had the most rain? _____

On average, at Year 6 level students appear to have a reasonable grasp of the types of graphs that are commonly represented in the press and other media. Items 11a and 11b (above) indicate that most students are able to extract the information in graphs and read the key to give meaning to the values.

Weaknesses in Year 6 Mathematics

At Year 6 the weaknesses in Mathematics are grouped around three basic topics:

Long Division – involving numbers or fractions (including money);
Fractions; and
Word problems – covering a number of different sub-strands

Q04c – 2015 37% correct (2013 29% correct)

NUMBERS

4. Divide the following;

c). $24\overline{)4\,824}$

_____

Q10b – 2015 41% correct (2013 26% correct)

Money

10. Divide the following;

(b). $23\overline{)\$1\,288}$

_____

FRACTIONS

Q17c – 2015 33% correct (2013 25% correct)

17. Calculate the following;

c). $\frac{3}{4} + \frac{1}{5} =$ _____ .

Q21 – 2015 5% correct (2013 8% correct)

Decimals

21. In the number **1·563**, write the value of the digit in the;

tenth place. _____

Q24a – 2015 85% correct (2013 84% correct)

Decimals

24. Subtract the following;

a). 1.5 – 0.4 = _____

Q26a – 2015 22% correct (2013 24% correct)

Decimals

26. Divide the following;

a). 8.6 ÷ 4 = _____

Q26b – 2015 28% correct (2013 30% correct)

Decimals

26. Divide the following;

b). 6.3 ÷ 7 = _____

Q31b – 2015 10% correct (2013 8% correct)

WORD PROBLEMS

Percentages

31. Calculate;

b). 30 as a percentage of 250. _____

Q32 – 2015 39% correct (2013 27% correct)

WORD PROBLEMS

32. A bag had a total of 230 mangoes. If 20% of the mangoes were bad, how many mangoes were bad?

_____

Q33 – 2015 15% correct (2013 10% % correct)

WORD PROBLEMS

33. In a survey of 250 people, 150 said they watched TBN each week.

What percentage of those surveyed watched TBN each week?

_____

Q35 – 2015 29% correct (2013 7% correct)

Ratios

35. A school has 15 teachers and 300 students. Write the number of students per teacher in the simplest ratio.

_____

Q36c – 2015 29% correct (2013 28% correct)

Ratios

36. Change these measurements as shown;

c). 234 ml (to *l*) _____

Key Finding 26

The weaknesses in Fractions observed in Year 4 are still challenges in Year 6 Mathematics. Word problems are challenging for Year 6 students.

RECOMMENDATIONS

In considering the outcomes of the 2013 and 2015 SISTA assessments it would appear that, on average, students are engaging relatively well in Mathematics and achieving acceptable levels of learning at both Year 4 and Year 6.

However in the Literacy strands, and particularly in Writing achievement and growth is not progressing at the same rate. There may be a number of reasons that could be posited to explain this, including that in many cases English may be a second, third or fourth language that students are learning. However English is the language of instruction beyond Year 3 and the language of commerce in the Solomon Islands, and therefore a priority in regards to student educational outcomes and attainment.

These recommendations are focused on a premise that for the 2016/2017 cycle, prior to the implementation of SISTA in 2017, that Literacy could be the focus of policy and interventions to improve outcomes in the English Literacy and Writing strands.

These recommendations support existing programs and interventions currently in process and fully supported by MEHRD, NISU and NEAD.

Recommendation 1

- Use of SISTA data at school level
    - *That workshops be scheduled with key school level personnel, principals and curriculum leaders, in the manner in which the school level data from the SISTA analysis can be used to inform the planning of school development programs and individual class level interventions.*

Recommendation 2

- 2016 – 2017 Target Literacy
    - *That over the next two years the priority for teaching and learning improvement for all the contributing stakeholders, SINU, MEHRD and NEAD should be in developing strategies and resources to support and improve Reading and Writing outcomes.*

Recommendation 3

- Development of school improvement plans for literacy
    - *That the development of writing skills be noted as a weakness at the national level and that strategies be developed by all contributors to students and teacher learning to improve student outcomes in the written form of English.*

Recommendation 4

- Realistic goals for 2017 SISTA targets

- *That at school, and provincial level principals and executive officers should set realistic goals that can be measured in the SISTA assessments of 2017.*

Recommendation 5

- Application of resources and strategies
    - *That samples of student works from the 2015 SISTA assessment be annotated and provided to schools as samples of various standards of student writing and the use of the SISTA writing rubric as a tool to assist teaching and learning.*
    - *That the resources of USP, SINU, MEHRD Curriculum Unit and NESU be used to prepare Reading resources with associated assessment items to provide resources to assist teachers in the teaching and assessment of student Reading skills.*
-
    - *That the pedagogy of teaching of writing as a subject be prioritised in teacher training AND that the use of criterion referenced assessment of writing be supported in teaching programs*.
-

Recommendation 6

- Develop Form Y for 2017 (linked to SISTA scale)
    - *That, in the event that the recommendation that SISTA Y forms are used for future national sample assessments, the test forms be revised to match the construct of the SISTA X forms, AND common items between the SISTA X and SISTA Y forms are included so that the Form Y results can be calibrated on the SISTA scale.*

Recommendation 7

- Introduction of Unique Student Identification numbers to SISTA data
    - *That students entering Year 4 be assigned a unique identification number that can be used to track student development through Year 6 and potentially Year 9 in future longitudinal studies.*

IMPLICATIONS FOR POLICY AND FUTURE STUDIES

The development of a Standards Referenced Scale for the SISTA assessments that spans both Year 4 and Year 6 is an initiative that allows more reliable estimates of relative performance and estimates of growth over time to be measured. This scale is grounded in the results of the "implemented" curriculum – what has been observed in student responses to skills learned in classrooms.

The proportions of students achieving each level have been developed using a rationale that is embedded in the scale and the items that contribute to the development of the scale.

In terms of the descriptions of achievement and acceptable standards of achievement (Level 3 in Year 4 and Level 4 in Year 6) it would be a valuable exercise for an expert group to convene and review how well the implemented curriculum, as assessed and reported in the SISTA assessments, and the descriptions of acceptable achievement align with the "Intended Curriculum" defined by the ministry documentation.

Provided there is reasonable alignment in these standards with the curriculum expectations then the results should be endorsed as base line statistics for future studies and comparisons.

To evaluate the impact of the types of interventions that may be precipitated by the 2015 SISTA and other programs it is suggested that SISTA should be implemented in 2017 as a follow up study to validate these results and measure change in the intervening period.

APPENDICES

APPENDIX 1 – Achieved Sample - Year 4

Province	School Name	Enrolment	School Location	Sample (N)	Achieved (N)	Participation
Central Islands	Bokolonga Primary	10	Rural	10	13	130.0%
Central Islands	Dota Chs	26	Rural	26	17	65.4%
Central Islands	Fly Harbour Primary	29	Rural	29	13	44.8%
Central Islands	Ghole Primary	15	Rural	15	11	73.3%
Central Islands	Hae Primary	35	Rural	20	15	75.0%
Central Islands	Halavo Chs	16	Rural	16	9	56.3%
Central Islands	Haroro Primary	28	Rural	28	16	57.1%
Central Islands	Henry Koga Memorial School	12	Rural	12	9	75.0%
Central Islands	Leitongo Primary	21	Rural	21	13	61.9%
Central Islands	Macmahon Chs	37	Urban	20	6	30.0%
Central Islands	Marvin Memorial Primary	20	Semi-Rural	20	12	60.0%
Central Islands	Nagotano Primary	13	Rural	13	11	84.6%
Central Islands	New Vunuha Primary	13	Rural	13	6	46.2%
Central Islands	Paibeta Chs	30	Rural	30	22	73.3%
Central Islands	Paposi Primary	20	Rural	20	17	85.0%
Central Islands	Pokilo Chs	18	Rural	18	10	55.6%
Central Islands	Salesapa Primary	25	Rural	25	0	0.0%
Central Islands	Silas Primary	30	Rural	30	16	53.3%
Central Islands	Soso Primary	9	Rural	9	6	66.7%
Central Islands	Voloa Primary School	13	Rural	13	10	76.9%
Central Islands	Yandina Chs	69	Semi- Urban	23	14	60.9%
Choiseul	Boeboe Primary	8	Rural	8	0	0.0%
Choiseul	Chivoko Primary	13	Rural	13	12	92.3%
Choiseul	Jengunu Primary	7	Rural	7	3	42.9%
Choiseul	Koloe Primary	12	Rural	12	15	125.0%
Choiseul	Lengatura Primary	14	Rural	14	0	0.0%
Choiseul	Lukuvaru Primary	15	Rural	15	12	80.0%
Choiseul	Nikumaroro Primary	18	Rural	18	12	66.7%
Choiseul	Nukiki Primary	27	Rural	27	18	66.7%
Choiseul	Ogho Chs	17	Rural	17	10	58.8%
Choiseul	Panarui Primary	17	Rural	17	19	111.8%
Choiseul	Papara Chs	14	Rural	14	6	42.9%
Choiseul	Polo Primary	19	Rural	19	0	0.0%
Choiseul	Ruruvai Primary	20	Rural	20	0	0.0%
Choiseul	Sasamunga Chs	39	Rural	20	0	0.0%
Choiseul	Searme Primary	18	Rural	18	11	61.1%
Choiseul	Soranamola Chs	22	Rural	22	11	50.0%
Choiseul	St Joseph Moli Chs	34	Rural	20	19	95.0%
Choiseul	Susuka Primary	18	Rural	18	16	88.9%
Choiseul	Taro Primary	35	Urban	20	18	90.0%
Choiseul	Voruvoru Primary	12	Rural	12	23	191.7%
Choiseul	Voza Chs	24	Rural	24	13	54.2%
Choiseul	Zaru Primary	16	Rural	16	0	0.0%

Province	School Name	Enrolment	School Location	Sample (N)	Achieved (N)	Participation
Guadalcanal	Betivatu Chs	26	Rural	26	14	53.8%
Guadalcanal	Chocho Primary	41	Rural	20	14	70.0%
Guadalcanal	Ghombua Primary	32	Rural	20	15	75.0%
Guadalcanal	Gilo Primary	24	Rural	24	16	66.7%
Guadalcanal	Kaekae Primary	8	Rural	8	6	75.0%
Guadalcanal	Kolobaubau Primary	28	Rural	28	16	57.1%
Guadalcanal	Koloula/ Basiana Primary	30	Rural	30	20	66.7%
Guadalcanal	Makina Primary	18	Rural	18	7	38.9%
Guadalcanal	Malagheti Primary	10	Rural	10	15	150.0%
Guadalcanal	Marubo Primary	20	Rural	20	7	35.0%
Guadalcanal	Matanunughu Primary	17	Rural	17	0	0.0%
Guadalcanal	Mbalasuna Primary	26	Rural	26	10	38.5%
Guadalcanal	Nguvia Chs	70	Semi- Urban	25	20	80.0%
Guadalcanal	Nughulathi Primary	12	Rural	12	6	50.0%
Guadalcanal	Obo Obo Primary	15	Rural	15	14	93.3%
Guadalcanal	Palm Drive Primary	20	Urban	20	23	115.0%
Guadalcanal	Ravu Primary	14	Rural	14	0	0.0%
Guadalcanal	Salamarao Primary	19	Rural	19	0	0.0%
Guadalcanal	St Francis Vaturanga Primary	57	Rural	20	22	110.0%
Guadalcanal	Tenakoga Chs	36	Rural	20	18	90.0%
Guadalcanal	Tumurora Primary	21	Rural	21	9	42.9%
Honiara	Burns Creek Chs	67	Urban	20	42	210.0%
Honiara	Chung Wah Primary	33	Urban	17	16	94.1%
Honiara	Emmaus Christian School	45	Urban	22	17	77.3%
Honiara	Florence Young Chs	71	Urban	20	38	190.0%
Honiara	Global Harvest Christian Academy Primary	36	Urban	20	26	130.0%
Honiara	Ilia Primary	60	Urban	20	12	60.0%
Honiara	Koloale Chs	78	Urban	20	45	225.0%
Honiara	Kukum Sda Primary	91	Urban	20	35	175.0%
Honiara	Mbokonavera Chs	129	Urban	20	44	220.0%
Honiara	Mbuavale Chs	74	Urban	20	32	160.0%
Honiara	Mercy Primary School	59	Urban	20	47	235.0%
Honiara	Mount Horeb Chs	40	Urban	20	10	50.0%
Honiara	Norman Palmer Chs	69	Rural	20	18	90.0%
Honiara	Panatina Chs	55	Urban	20	25	125.0%
Honiara	Perch Chs	43	Urban	20	19	95.0%
Honiara	Sharma Christian Academy	44	Urban	20	18	90.0%
Honiara	Sittc Primary	22	Urban	22	0	0.0%
Honiara	Tamlan Primary	109	Urban	20	30	150.0%
Honiara	Vura Chs	64	Urban	20	32	160.0%
Honiara	Zion Christian Academy Chs	33	Rural	20	10	50.0%

Province	School Name	Enrolment	School Location	Sample (N)	Achieved (N)	Participation
Isabel	Baolo Primary	22	Rural	22	10	45.5%
Isabel	Deva Primary	16	Rural	16	13	81.3%
Isabel	Furona Primary	21	Rural	21	10	47.6%
Isabel	Garanga Primary School	14	Rural	14	15	107.1%
Isabel	Goveo Primary	26	Rural	26	0	0.0%
Isabel	Hirobuka Primary	23	Rural	23	24	104.3%
Isabel	Jejevo Primary	61	Urban	20	30	150.0%
Isabel	Kalenga Chs	29	Rural	29	22	75.9%
Isabel	Kamaosi Primary	20	Rural	20	15	75.0%
Isabel	Kesao Primary	27	Rural	27	48	177.8%
Isabel	Kilokaka Primary	19	Rural	19	13	68.4%
Isabel	Kmaga Kovala Primary	33	Rural	20	21	105.0%
Isabel	Koleta Primary	15	Rural	15	0	0.0%
Isabel	Lilura Primary	18	Rural	18	14	77.8%
Isabel	Muana Chs	58	Rural	20	30	150.0%
Isabel	Samasodu Primary	11	Rural	11	0	0.0%
Isabel	Tamahi Primary	29	Rural	29	19	65.5%
Makira & Ulawa	Anata Primary	13	Rural	13	0	0.0%
Makira & Ulawa	Apaoro Primary	16	Rural	16	13	81.3%
Makira & Ulawa	Apurahe Primary	10	Rural	10	20	200.0%
Makira & Ulawa	Aroaha Primary	19	Rural	19	13	68.4%
Makira & Ulawa	Asimanioha Primary	14	Rural	14	11	78.6%
Makira & Ulawa	Fm Campbell Chs	57	Rural	27	39	144.4%
Makira & Ulawa	Hagaura Primary	21	Rural	21	12	57.1%
Makira & Ulawa	Kaonasugu Primary	18	Rural	18	16	88.9%
Makira & Ulawa	Makia Primary	12	Rural	12	0	0.0%
Makira & Ulawa	Mami Primary	23	Rural	23	10	43.5%
Makira & Ulawa	Maniqagosi Primary	14	Rural	14	7	50.0%
Makira & Ulawa	Na'Ana Primary	19	Rural	19	16	84.2%
Makira & Ulawa	Naharahau Primary	34	Rural	20	9	45.0%
Makira & Ulawa	Ramah Chs	24	Rural	24	0	0.0%
Makira & Ulawa	Suholo Primary	13	Rural	13	0	0.0%
Makira & Ulawa	Su'Umoli Chs	12	Rural	12	10	83.3%
Makira & Ulawa	Tawaraha Chs	6	Rural	6	8	133.3%
Makira & Ulawa	Tetere Primary	31	Rural	20	33	165.0%
Makira & Ulawa	Ubuna Primary	18	Rural	18	8	44.4%
Makira & Ulawa	Waihaga Primary School	11	Rural	11	14	127.3%
Makira & Ulawa	Waimapuru Primary School	27	Rural	27	12	44.4%
Makira & Ulawa	Waimasi Chs	21	Rural	21	11	52.4%
Makira & Ulawa	Warohinou Primary	16	Rural	16	20	125.0%

Province	School Name	Enrolment	School Location	Sample (N)	Achieved (N)	Participation
Malaita	Adaua Primary	21	Rural	21	12	57.1%
Malaita	Aikuku Primary	14	Rural	14	9	64.3%
Malaita	Arabala Chs	47	Rural	21	37	176.2%
Malaita	Arnon Atomea Chs	42	Semi-Urban	21	27	128.6%
Malaita	Atori Primary	18	Rural	18	19	105.6%
Malaita	Auki Chs	84	Urban	21	30	142.9%
Malaita	Buma Primary	67	Rural	22	28	127.3%
Malaita	Dorio Primary	41	Rural	21	13	61.9%
Malaita	Fo'Ondo Primary	22	Rural	22	15	68.2%
Malaita	Gwaiau Primary	12	Rural	12	8	66.7%
Malaita	Gwounabusu Chs	24	Rural	24	11	45.8%
Malaita	Hunanawa Chs	17	Rural	17	6	35.3%
Malaita	Justus Ganifiri Chs	27	Rural	27	0	0.0%
Malaita	Lamae Extension	8	Rural	8	0	0.0%
Malaita	Maroupaina Chs	28	Rural	28	12	42.9%
Malaita	Muki Primary	15	Rural	15	11	73.3%
Malaita	Rameai Primary	11	Rural	11	0	0.0%
Malaita	Takaito Chs	32	Rural	20	9	45.0%
Malaita	Taramata Primary	20	Rural	20	9	45.0%
Malaita	Uhu Chs	29	Rural	29	10	34.5%
Malaita	Waneagu Chs	35	Rural	20	14	70.0%
Rennell & Bellona	Angaiho Chs	9	Rural	9	0	0.0%
Rennell & Bellona	Henua Chs	7	Urban	7	6	85.7%
Rennell & Bellona	Mataiho Primary	11	Rural	11	11	100.0%
Rennell & Bellona	Moah Primary	10	Rural	10	4	40.0%
Rennell & Bellona	New Place/ Tupuaki Primary	17	Rural	17	14	82.4%
Rennell & Bellona	Siva Primary	9	Rural	9	1	11.1%
Rennell & Bellona	Vanua Chs	10	Rural	10	11	110.0%
Temotu	Balipa'A Chs	29	Urban	29	43	148.3%
Temotu	Black Rock Akaboi Extension	13	Rural	13	6	46.2%
Temotu	Carlisle Bay Primary	22	Rural	22	6	27.3%
Temotu	Fano Primary	12	Rural	12	11	91.7%
Temotu	Fenualoa Chs	30	Rural	30	0	0.0%
Temotu	Kati Primary	17	Rural	17	19	111.8%
Temotu	Maina Memorial Chs	34	Rural	34	27	79.4%
Temotu	Mamineo Chs	23	Rural	23	9	39.1%
Temotu	Marone Primary	16	Rural	16	0	0.0%
Temotu	Meli Primary	15	Rural	15	4	26.7%
Temotu	Monene Chs	12	Rural	12	16	133.3%
Temotu	Nangu Chs	20	Rural	20	13	65.0%
Temotu	Nipimanu Primary	14	Rural	14	9	64.3%
Temotu	Tetalo Chs	15	Rural	15	8	53.3%
Temotu	Tuo Primary	21	Rural	21	1	4.8%
Temotu	Venga Primary	17	Rural	17	15	88.2%
Temotu	Vevena Primary	9	Rural	9	10	111.1%

Province	School Name	Enrolment	School Location	Sample (N)	Achieved (N)	Participation
Western	Babanga Primary	10	Rural	10	0	0.0%
Western	Banga Primary	8	Rural	8	8	100.0%
Western	Bareho Primary	16	Rural	16	13	81.3%
Western	Biche Primary	7	Rural	7	3	42.9%
Western	Chuchulu Primary	7	Rural	7	7	100.0%
Western	Dunde Chs	63	Rural	21	22	104.8%
Western	Gizo Chs	90	Urban	20	53	265.0%
Western	Kalaro Primary	19	Rural	19	10	52.6%
Western	Karokesa Primary	17	Rural	17	0	0.0%
Western	Kokeqolo Chs	32	Rural	20	0	0.0%
Western	Lokuru Primary	13	Rural	13	26	200.0%
Western	Madali Primary	16	Rural	16	9	56.3%
Western	Maravari Primary	36	Rural	20	29	145.0%
Western	Mase Primary	14	Rural	14	8	57.1%
Western	Michi Primary	12	Rural	12	10	83.3%
Western	Paradise Primary	27	Rural	27	19	70.4%
Western	Patuboliboli Primary	18	Rural	18	13	72.2%
Western	Patukae Chs	22	Rural	22	22	100.0%
Western	Patutiva Chs	15	Rural	15	23	153.3%
Western	Pirumeri Primary	6	Rural	6	0	0.0%
Western	Ramata Primary	10	Rural	10	8	80.0%
Western	Rarakisi Primary	11	Rural	11	0	0.0%
Western	Sibila Chs	21	Rural	21	39	185.7%
Western	Suava Primary	27	Rural	27	12	44.4%
Western	Vare Tutty Primary	24	Rural	24	25	104.2%
				3545	2681	75.6%

APPENDIX 2– Achieved Sample - Year 6

Province	School Name	Enrolment	School Location	Sample (N)	Achieved	Participation
Central Islands	Dota Chs	23	Rural	23	13	56.5%
Central Islands	Fly Harbour Primary	15	Rural	15	19	126.7%
Central Islands	Hae Primary	17	Rural	17	20	117.6%
Central Islands	Halavo Chs	14	Rural	14	9	64.3%
Central Islands	Haroro Primary	9	Rural	9	6	66.7%
Central Islands	Henry Koga Memorial School	11	Rural	11	10	90.9%
Central Islands	Leitongo Primary	11	Rural	11	7	63.6%
Central Islands	Macmahon Chs	30	Urban	30	15	50.0%
Central Islands	Marvin Memorial Primary	12	Semi-Rural	12	8	66.7%
Central Islands	Nagotano Primary	7	Rural	7	15	214.3%
Central Islands	New Vunuha Primary	9	Rural	9	8	88.9%
Central Islands	Paibeta Chs	22	Rural	22	14	63.6%
Central Islands	Paposi Primary	9	Rural	9	11	122.2%
Central Islands	Pokilo Chs	10	Rural	10	8	80.0%
Central Islands	Ravusodukosi Primary	8	Rural	8	0	0.0%
Central Islands	Salesapa Primary	15	Rural	15	0	0.0%
Central Islands	Silas Primary	14	Rural	14	7	50.0%
Central Islands	Soso Primary	8	Rural	8	6	75.0%
Central Islands	Voloa Primary School	17	Rural	17	10	58.8%
Central Islands	Yandina Chs	44	Semi- Urban	22	36	163.6%
Choiseul	Chivoko Primary	7	Rural	7	8	114.3%
Choiseul	Jengunu Primary	10	Rural	10	3	30.0%
Choiseul	Koloe Primary	13	Rural	13	9	69.2%
Choiseul	Lukuvaru Primary	17	Rural	17	8	47.1%
Choiseul	Nikumaroro Primary	7	Rural	7	5	71.4%
Choiseul	Nukiki Primary	15	Rural	15	19	126.7%
Choiseul	Ogho Chs	13	Rural	13	12	92.3%
Choiseul	Panarui Primary	11	Rural	11	12	109.1%
Choiseul	Papara Chs	13	Rural	13	19	146.2%
Choiseul	Pirakamae Chs	17	Rural	17	11	64.7%
Choiseul	Polo Primary	19	Rural	19	0	0.0%
Choiseul	Ruruvai Primary	11	Rural	11	0	0.0%
Choiseul	Salakana Primary	13	Rural	13	0	0.0%
Choiseul	Sasamunga Chs	25	Rural	25	0	0.0%
Choiseul	Searme Primary	9	Rural	9	0	0.0%
Choiseul	Soranamola Chs	9	Rural	9	17	188.9%
Choiseul	St Joseph Moli Chs	30	Rural	30	28	93.3%
Choiseul	Susuka Primary	11	Rural	11	14	127.3%
Choiseul	Taro Primary	29	Urban	29	17	58.6%
Choiseul	Voza Chs	14	Rural	14	10	71.4%
Choiseul	Wagina Chs	23	Rural	23	29	126.1%

Province	School Name	Enrolment	School Location	Sample (N)	Achieved	Participation
Guadalcanal	Betivatu Chs	34	Rural	20	12	60.0%
Guadalcanal	Chocho Primary	19	Rural	19	6	31.6%
Guadalcanal	Ghombua Primary	18	Rural	18	13	72.2%
Guadalcanal	Gilo Primary	20	Rural	20	7	35.0%
Guadalcanal	Kaekae Primary	12	Rural	12	7	58.3%
Guadalcanal	Kolobaubau Primary	21	Rural	21	19	90.5%
Guadalcanal	Koloula/ Basiana Primary	25	Rural	25	23	92.0%
Guadalcanal	Lunga Chs	81	Urban	20	26	130.0%
Guadalcanal	Makina Primary	8	Rural	8	9	112.5%
Guadalcanal	Malagheti Primary	15	Rural	15	5	33.3%
Guadalcanal	Marubo Primary	14	Rural	14	11	78.6%
Guadalcanal	Matanunughu Primary	8	Rural	8	0	0.0%
Guadalcanal	Mbalasuna Primary	14	Rural	14	14	100.0%
Guadalcanal	Nguvia Chs	46	Semi- Urban	23	26	113.0%
Guadalcanal	Obo Obo Primary	8	Rural	8	16	200.0%
Guadalcanal	Palm Drive Primary	14	Urban	14	13	92.9%
Guadalcanal	Ravu Primary	12	Rural	12	0	0.0%
Guadalcanal	St Francis Vaturanga Primary	31	Rural	31	16	51.6%
Guadalcanal	Tanakuku Primary	34	Rural	20	17	85.0%
Guadalcanal	Tenakoga Chs	32	Rural	32	24	75.0%
Guadalcanal	Tumurora Primary	9	Rural	9	11	122.2%
Guadalcanal	Vatualae Primary	20	Rural	20	15	75.0%
Honiara	Bishop Epalle Chs	87	Urban	22	55	250.0%
Honiara	Burns Creek Chs	64	Urban	22	29	131.8%
Honiara	Coronation Chs	83	Urban	23	37	160.9%
Honiara	Florence Young Chs	76	Urban	25	28	112.0%
Honiara	Global Harvest Christian Academy Primary	15	Urban	15	20	133.3%
Honiara	Ilia Primary	31	Urban	31	27	87.1%
Honiara	Koloale Chs	70	Urban	23	39	169.6%
Honiara	Kukum Sda Primary	79	Urban	23	50	217.4%
Honiara	Mbokonavera Chs	79	Urban	20	18	90.0%
Honiara	Mbuavale Chs	67	Urban	23	48	208.7%
Honiara	Mount Horeb Chs	20	Urban	20	0	0.0%
Honiara	Naha Chs	74	Urban	20	25	125.0%
Honiara	Norman Palmer Chs	62	Rural	21	35	166.7%
Honiara	Panatina Chs	38	Urban	20	46	230.0%
Honiara	Sharma Christian Academy	25	Urban	25	15	60.0%
Honiara	Sittc Primary	26	Urban	26	0	0.0%
Honiara	Tamlan Primary	112	Urban	24	33	137.5%
Honiara	Vura Chs	56	Urban	28	21	75.0%
Honiara	White River Chs	39	Urban	20	26	130.0%
Honiara	Zion Christian Academy Chs	10	Rural	10	9	90.0%

Province	School Name	Enrolment	School Location	Sample (N)	Achieved	Participation
Isabel	Deva Primary	14	Rural	14	12	85.7%
Isabel	Furona Primary	16	Rural	16	9	56.3%
Isabel	Goveo Primary	12	Rural	12	15	125.0%
Isabel	Guguha Chs	25	Rural	25	30	120.0%
Isabel	Hirobuka Primary	14	Rural	14	17	121.4%
Isabel	Jejevo Primary	57	Urban	28	21	75.0%
Isabel	Kalenga Chs	20	Rural	20	24	120.0%
Isabel	Kamaosi Primary	13	Rural	13	13	100.0%
Isabel	Kesao Primary	27	Rural	27	29	107.4%
Isabel	Kilokaka Primary	14	Rural	14	13	92.9%
Isabel	Kmaga Kovala Primary	16	Rural	16	26	162.5%
Isabel	Koleta Primary	8	Rural	8	10	125.0%
Isabel	Lepi Primary	25	Rural	25	16	64.0%
Isabel	Lilura Primary	17	Rural	17	10	58.8%
Isabel	Magotu Primary	20	Rural	20	11	55.0%
Isabel	Muana Chs	46	Rural	23	42	182.6%
Isabel	Samasodu Primary	17	Rural	17	0	0.0%
Isabel	Tamahi Primary	18	Rural	18	23	127.8%
Isabel	Tigubako Primary	19	Rural	19	13	68.4%
Isabel	Visena Chs	20	Rural	20	21	105.0%
Makira & Ulawa	Fm Campbell Chs	50	Rural	25	31	124.0%
Makira & Ulawa	Hagaura Primary	16	Rural	16	11	68.8%
Makira & Ulawa	Hauta Primary	10	Rural	7	9	128.6%
Makira & Ulawa	Kaonasugu Primary	18	Rural	18	7	38.9%
Makira & Ulawa	Makia Primary	10	Rural	10	0	0.0%
Makira & Ulawa	Makorukoru Primary	16	Rural	15	0	0.0%
Makira & Ulawa	Mami Primary	18	Rural	18	8	44.4%
Makira & Ulawa	Maniqagosi Primary	7	Rural	7	9	128.6%
Makira & Ulawa	Na'Ana Primary	7	Rural	7	17	242.9%
Makira & Ulawa	Naharahau Primary	24	Rural	24	12	50.0%
Makira & Ulawa	Parego Primary	11	Rural	8	16	200.0%
Makira & Ulawa	Ramah Chs	26	Rural	26	0	0.0%
Makira & Ulawa	Suholo Primary	18	Rural	18	0	0.0%
Makira & Ulawa	Su'Umoli Chs	20	Rural	20	7	35.0%
Makira & Ulawa	Tawaraha Chs	11	Rural	11	18	163.6%
Makira & Ulawa	Tetere Primary	22	Rural	22	28	127.3%
Makira & Ulawa	Toroiwango Primary	17	Rural	18	10	55.6%
Makira & Ulawa	Ubuna Primary	13	Rural	13	9	69.2%
Makira & Ulawa	Waimapuru Primary School	24	Rural	24	13	54.2%
Makira & Ulawa	Waimasi Chs	14	Rural	14	12	85.7%

Province	School Name	Enrolment	School Location	Sample (N)	Achieved	Participation
Malaita	Alota'A Chs	23	Semi-rural	23	48	208.7%
Malaita	Arnon Atomea Chs	30	Semi-Urban	30	19	63.3%
Malaita	Atori Primary	16	Rural	16	9	56.3%
Malaita	Auki Chs	59	Urban	30	34	113.3%
Malaita	Baunakunu Primary	20	Rural	20	2	10.0%
Malaita	Buma Primary	45	Rural	22	21	95.5%
Malaita	Dorio Primary	23	Rural	23	13	56.5%
Malaita	Fo'Ondo Primary	10	Rural	10	9	90.0%
Malaita	Gwaiau Primary	9	Rural	9	5	55.6%
Malaita	Gwounabusu Chs	24	Rural	24	10	41.7%
Malaita	Justus Ganifiri Chs	20	Rural	20	0	0.0%
Malaita	Lamae Extension	9	Rural	9	7	77.8%
Malaita	Maroupaina Chs	32	Rural	17	15	88.2%
Malaita	Nunubilau Primary	13	Rural	13	18	138.5%
Malaita	One'One Primary	10	Rural	10	0	0.0%
Malaita	Rameai Primary	11	Rural	11	7	63.6%
Malaita	Rokera Primary	12	Rural	12	0	0.0%
Malaita	Takaito Chs	16	Rural	16	16	100.0%
Malaita	Taramata Primary	12	Rural	12	7	58.3%
Malaita	Tawaro Chs	20	Rural	20	6	30.0%
Malaita	Uhu Chs	14	Rural	14	20	142.9%
Malaita	Waneagu Chs	37	Rural	37	18	48.6%
Rennell & Bellona	Henua Chs	8	Urban	8	4	50.0%
Rennell & Bellona	Mataiho Primary	17	Rural	17	4	23.5%
Rennell & Bellona	Mugibai Primary	6	Rural	6	0	0.0%
Rennell & Bellona	New Place/ Tupuaki Primary	17	Rural	17	6	35.3%
Rennell & Bellona	Siva Primary	9	Rural	9	8	88.9%
Rennell & Bellona	Vanua Chs	10	Rural	10	7	70.0%
Temotu	Balipa'A Chs	38	Urban	20	19	95.0%
Temotu	Black Rock Akaboi Extension	10	Rural	10	6	60.0%
Temotu	Carlisle Bay Primary	8	Rural	8	6	75.0%
Temotu	Fenualoa Chs	20	Rural	20	0	0.0%
Temotu	Kati Primary	14	Rural	14	22	157.1%
Temotu	Maina Memorial Chs	20	Rural	20	22	110.0%
Temotu	Mamineo Chs	22	Rural	22	9	40.9%
Temotu	Marone Primary	8	Rural	8	11	137.5%
Temotu	Meli Primary	9	Rural	9	0	0.0%
Temotu	Monene Chs	13	Rural	13	14	107.7%
Temotu	Nangu Chs	21	Rural	21	13	61.9%
Temotu	Nipimanu Primary	8	Rural	8	0	0.0%
Temotu	Tetalo Chs	11	Rural	11	11	100.0%
Temotu	Tuo Primary	19	Rural	19	0	0.0%

Province	School Name	Enrolment	School Location	Sample (N)	Achieved	Participation
Temotu	Venga Primary	10	Rural	10	10	100.0%
Temotu	Vevena Primary	9	Rural	9	0	0.0%
Western	Banga Primary	8	Rural	8	21	262.5%
Western	Bareho Primary	16	Rural	16	17	106.3%
Western	Chuchulu Primary	9	Rural	9	6	66.7%
Western	Dunde Chs	34	Rural	34	20	58.8%
Western	Falamae Primary	18	Rural	18	14	77.8%
Western	Gaomai Primary	9	Rural	9	8	88.9%
Western	Ghatere Primary	9	Rural	9	3	33.3%
Western	Gizo Chs	82	Urban	21	38	181.0%
Western	Hovoro Primary	6	Rural	6	7	116.7%
Western	Kalaro Primary	10	Rural	10	14	140.0%
Western	Karokesa Primary	6	Rural	6	9	150.0%
Western	Kokeqolo Chs	46	Rural	23	0	0.0%
Western	Lengana Chs	19	Rural	19	26	136.8%
Western	Lokuru Primary	19	Rural	19	19	100.0%
Western	Madali Primary	24	Rural	24	14	58.3%
Western	Maravari Primary	19	Rural	19	28	147.4%
Western	Mase Primary	10	Rural	10	6	60.0%
Western	Michi Primary	6	Rural	6	7	116.7%
Western	Noro Chs	86	Rural	22	0	0.0%
Western	Paradise Primary	35	Rural	35	8	22.9%
Western	Patuboliboli Primary	18	Rural	18	15	83.3%
Western	Patukae Chs	15	Rural	15	15	100.0%
Western	Patutiva Chs	18	Rural	18	19	105.6%
Western	Ramata Primary	9	Rural	9	6	66.7%
Western	Rarakisi Primary	7	Rural	7	0	0.0%
Western	Sibila Chs	17	Rural	17	16	94.1%
				3239		

APPENDIX 3: Year 4 SISTA 1 Literacy

item	Type	Strand	Descriptor	Omit	Links	2013 % correct	2015 % correct
Q01	MC	Reading	Order events in text	0.1%		44%	46%
Q02	MC	Reading	Retrieve literal information from text	0.3%		73%	74%
Q03	MC	Reading	Identify relationships from text	0.2%		71%	74%
Q04	MC	Reading	Retrieve literal information from text	0.2%		77%	78%
Q05	MC	Reading	Retrieve literal information from text	0.2%	S6Q01	74%	79%
Q06	MC	Reading	Retrieve literal information from text	0.3%	S6Q02	73%	77%
Q07	MC	Reading	Interpret meaning of words in text	0.5%	S6Q03	50%	56%
Q08	MC	Reading	Identify relationships from text	0.4%	S6Q04	76%	81%
Q09	MC	Reading	Interpret information in text	0.4%	S6Q05	41%	51%
Q10	CR	Reading	Interpret information and construct answer	3.3%		13%	21%
Q11	CR	Reading	Retrieve literal information and construct answer	3.4%		53%	58%
Q12	CR	Reading	Retrieve literal information and construct answer	7.4%		33%	39%
Q13a	CR	Reading	Retrieve literal information from text	3.8%		55%	61%
Q13b	CR	Reading	Retrieve additional information from text	5.4%		36%	41%
Q14i	MC	Reading	Identify synonym	3.8%		31%	39%
Q14ii	MC	Reading	Identify common synonym	3.6%		59%	64%
Q14iii	MC	Reading	Identify common synonym	4.1%		48%	55%
Q14iv	MC	Reading	Identify synonym	4.1%		38%	44%
Q15	MC	Language	Identify correct personal pronoun	0.3%		41%	37%
Q16	MC	Language	Identify pronoun	0.3%		62%	66%
Q17	MC	Language	Identify correct comparative form	0.6%	S6Q23	44%	44%
Q18	MC	Language	Identify correct tense of verb	0.5%	S6Q24	51%	56%
Q19	MC	Language	Identify correct article	0.5%		57%	59%
Q20	MC	Language	Identify personal pronoun	0.3%		88%	89%
Q21	MC	Language	Identify correct tense of verb	0.5%	S6Q25	52%	55%
Q22	MC	Language	Identify correct comparative form - irregular spelling	0.4%	S6Q26	14%	17%
Q23	MC	Language	Select correct sentence structure	0.7%	S6Q27	22%	26%
Q24	MC	Language	Select correct sentence structure	0.7%	S6Q28	32%	31%
Q25	MC	Language	Identify correct spelling of common word	0.4%		82%	86%
Q26	MC	Language	Identify correct spelling of complex word	0.5%		61%	65%
Q27	CR	Language	Construct sentence using given words	4.9%		39%	39%
Q28i	CR	Language	Correct selection of word for cloze	1.0%	S6Q29i	24%	37%
Q28ii	CR	Language	Correct selection of word for cloze	1.0%	S6Q29ii	39%	47%
Q28iii	CR	Language	Correct selection of word for cloze	1.2%	S6Q29iii	43%	30%
Q28iv	CR	Language	Correct selection of word for cloze	1.5%	S6Q29iv	31%	28%
Q28v	CR	Language	Correct selection of word for cloze	1.4%	S6Q29v	39%	46%

APPENDIX 4: Year 6 SISTA2 Literacy

item	Type	Strand	Descriptor	Omit	Links	2013 % correct	2015 % correct
Q01	MC	Reading	Retrieve literal information from text	0.0%	S4Q05	90%	90%
Q02	MC	Reading	Retrieve literal information from text	0.1%	S4Q06	88%	89%
Q03	MC	Reading	Interpret meaning of words in text	0.2%	S4Q07	69%	69%
Q04	MC	Reading	Identify relationships from text	0.0%	S4Q08	88%	61%
Q05	MC	Reading	Interpret information in text	0.2%	S4Q09	58%	89%
Q06	MC	Reading	Interpret information in text	0.3%		64%	61%
Q07	MC	Reading	Draw inference from information in text	0.4%		23%	48%
Q08	MC	Reading	Interpret information in text	0.3%		37%	39%
Q09	CR	Reading	Retrieve information in text and construct response	2.0%		29%	29%
Q10	CR	Reading	Draw inference from information in text and construct response	2.3%		23%	19%
Q11	CR	Reading	Interpret information in text and construct response	2.3%		9%	9%
Q12	CR	Reading	Interpret information in text and construct response	4.6%		17%	16%
Q13	CR	Reading	Infer meaning from text and construct response	7.2%		13%	11%
Q14i	CR	Reading	Construct meaning of word in text/context	6.1%		19%	22%
Q14ii	CR	Reading	Construct meaning of word in text/context	7.1%		9%	17%
Q14iii	CR	Reading	Construct meaning of word in text/context	8.9%		11%	14%
Q14iv	CR	Reading	Construct meaning of word in text/context	8.0%		29%	31%
Q14v	CR	Reading	Construct meaning of word in text/context	7.0%		29%	32%
Q15	CR	Language	Select correct personal pronoun	0.1%		64%	65%
Q16	CR	Language	Select correct pronoun	0.6%		54%	59%
Q17	CR	Language	Select correct adverb	0.8%		55%	55%
Q18	CR	Language	Select correct adverb	0.5%		73%	74%
Q19	CR	Language	Select correct comparative	0.3%		21%	24%
Q20	CR	Language	Select correct adjective	0.5%		39%	41%
Q21	CR	Language	Select correct verb in context	0.6%		59%	57%
Q22	CR	Language	Select correct verb in context	0.3%		72%	73%
Q23	MC	Language	Identify correct comparative form	0.1%	S4Q17	67%	68%
Q24	MC	Language	Identify correct tense of verb	0.0%	S4Q18	67%	69%
Q25	MC	Language	Identify correct tense of verb	0.1%	S4Q21	64%	69%
Q26	MC	Language	Identify correct comparative form	0.1%	S4Q22	26%	27%
Q27	MC	Language	Select correct sentence structure	0.1%	S4Q23	31%	34%
Q28	MC	Language	Select correct sentence structure	0.3%	S4Q24	29%	28%

APPENDIX 5: Year 4 SISTA 1 Numeracy

item	Type	Strand	Descriptor	Omit	Links	2013 % correct	2015 % correct
Q01	CR	Number	Express number in words	1.7%		70.8	80%
Q02	CR	Number	Converts number in words to figures	1.7%		66.4	70%
Q03a	MC	Number	Identify place value	1.4%		72.9	78%
Q03b	CR	Number	Identify and write place vale	3.5%		54.8	61%
Q04	CR	Number	Order numbers small to large	1.1%		69.6	74%
Q05a	CR	Number	Round to nearest 10	3.5%		42.8	49%
Q05b	CR	Number	Round to nearest 1000	3.8%		26.3	32%
Q06a	CR	Addition	Addition 3 x 3 without trading	0.1%		91.9	92%
Q06b	CR	Addition	Addition 4 x 3 without trading	0.1%		76.5	80%
Q06c	CR	Addition	Addition 4 x 3 with trading	0.1%		62.7	68%
Q06d	CR	Addition	Addition 4 x 4 with trading	0.1%	S6Q1a	68.5	70%
Q07	CR	Addition	Addition - word problem with trading	1.6%		62.1	68%
Q08	CR	Addition	Addition - word problem with trading	2.5%		56.7	61%
Q09a	CR	Subtraction	Subtraction 3 x 3 includes zero	0.1%		88.6	90%
Q09b	CR	Subtraction	Subtraction 3 x 3 without trading	0.3%		35.8	39%
Q09c	CR	Subtraction	Subtraction 4 x 3 without trading	0.2%		81.8	82%
Q09d	CR	Subtraction	Subtraction 4 x 4 with trading	0.2%	S6Q2a	35.5	40%
Q10	CR	Subtraction	Subtraction - word problem with zero	2.1%		28.7	33%
Q11	CR	Subtraction	Subtraction - word problem with trading	2.6%		43.2	46%
Q12a	MC	Multiplication	Multiplication 2 digit by 1 digit	1.0%		41.9	45%
Q12b	CR	Multiplication	Multiplication 2 digit by 1 digit	0.9%		68.8	70%
Q12c	CR	Multiplication	Multiplication 2 digit by 1 digit	1.0%		37.5	39%
Q12d	CR	Multiplication	Multiplication 3 digit by 1 digit	1.0%	S6Q3a	25.0	25%
Q13	CR	Division	Division- number fact	0.7%		82.5	83%
Q14	CR	Division	Division- number fact	0.7%		74.6	77%
Q15a	CR	Division	Division- number fact	1.8%		69.2	70%
Q15b	CR	Division	Division- number fact	2.4%		62.6	64%
Q15c	CR	Division	Division- number fact	2.5%	S6Q4a	56.3	59%
Q16	CR	Fractions	Identify fraction of whole	1.3%		45.9	59%
Q17	CR	Fractions	Order Fractions low to high	1.5%		3.5	4%
Q18	CR	Fractions	Calculate fraction of value	7.0%	S6Q17d	30.6	37%
Q19	CR	Fractions	Put fraction on number line	3.0%		16.0	29%
Q20a	CR	Shapes	Identify regular 2D shape	1.0%		81.7	87%
Q20b	CR	Shapes	Identify common 3D object	2.1%		24.5	36%
Q20c	CR	Shapes	Identify regular 2D shape	2.2%		65.9	75%
Q20d	CR	Shapes	Identify common 3D object	3.8%		33.7	45%
Q21a	CR	Shapes	Identify number of sides in regular 2D shape	1.7%		81.1	85%
Q21b	CR	Shapes	Identify number of corners in regular 2D shape	1.8%		79.1	84%
Q21c	CR	Shapes	Identify lines of symmetry in regular 2D shape	2.4%		32.2	38%
Q21d	CR	Shapes	Identify parallel lines in regular 2D shape	2.9%		30.1	35%
Q22a	CR	Shapes	Identify number of faces in 3D object	2.5%		33.8	41%

Q22b	CR	Shapes	Identify number of edges in 3D object	2.7%		14.7	18%
Q22c	CR	Shapes	Identify number of corners in 3D object	2.7%		47.9	53%
Q23	CR	Angles	Identify relative angle size	1.3%		38.7	38%
Q24	CR	Angles	Draw angle of relative size	9.8%		64.2	66%
Q25	MC	Location	Identify coordinates of point in grid	3.5%		44.9	48%
Q26a	CR	Location	Identify Point from coordinates	2.3%		69.5	74%
Q26b	CR	Location	Write coordinates of identified point	2.3%		48.8	56%
Q27a	CR	Graphs	Complete tally table	2.6%	S6Q12a	80.2	82%
Q27b	CR	Graphs	Draw vertical bar chart	2.3%	S6Q12b	67.9	79%
Q28	CR	Graphs	Draw horizontal bar chart	2.0%		62.5	80%
Q29a	CR	Measurement	Calculate perimeter sides given	2.2%		55.9	76%
Q29b	CR	Measurement	Calculate perimeter sides deduced	2.2%		28.5	44%
Q30	CR	Measurement	Calculate area	2.6%		11.5	16%
Q31	CR	Measurement	Word problem - calculate perimeter	11.9%		14.3	27%
Q32a	CR	Measurement	Add weights in grams	3.5%		22.6	43%
Q32b	CR	Measurement	Subtract weights in grams	4.4%		5.2	13%
Q33a	MC	Time	Recognise time on analogue clock	2.3%		27.4	32%
Q33b	CR	Time	Recognise time on analogue clock	3.5%		27.7	42%
Q34a	CR	Time	Find time in a table	4.1%		55.9	68%
Q34b	CR	Time	Find time in a table	7.5%		44.4	59%
Q35a	MC	Money	Addition of money without carry	1.8%	S6Q08a	68.0	75%
Q35b	CR	Money	Addition of money with trading	2.0%	S6Q08b	41.8	47%
Q36a	CR	Money	Subtraction of money with trading	2.1%	S6Q09a	22.1	29%
Q36b	CR	Money	Subtraction of money with trading	2.3%	S6Q09b	19.7	28%
Q37	CR	Money	Calculate change	3.6%		24.4	30%
Q38	CR	Money	Find difference in money	5.3%		20.0	37%
Q39	CR	Money	Find sum of shopping list - money	6.0%		31.4	43%

APPENDIX Table 6 : Year 6 SISTA 2 Numeracy

item	Type	Strand	Descriptor	Omit	Links	2013 % correct	2015 % correct
Q01a	CR	Number	Addition 4 x 4 with trading	0.0%	S4Q06d	94%	94%
Q01b	CR	Number	Addition 6 x 5 with trading	0.1%	S4Q09d	81%	83%
Q02a	CR	Number	Subtraction 4 x 4 with trading	0.1%	S4Q12d	78%	79%
Q02b	CR	Number	Subtraction 6 x 5 with trading	0.4%	S4Q15c	73%	76%
Q03a	CR	Number	Multiplication 3 digit by 1 digit	0.1%		76%	74%
Q03b	CR	Number	Multiplication 4 digit by 2 digit	0.7%		51%	53%
Q04a	CR	Number	Division- number fact	1.6%		81%	79%
Q04b	CR	Number	Division - 3 divide by 2	3.7%		60%	60%
Q04c	CR	Number	Division - 4 divide by 2	5.0%		29%	37%
Q05a	CR	Number	Word problem mixed operations	0.6%		80%	77%
Q05b	CR	Number	Order of operations	1.0%		45%	53%
Q06	CR	Number	Word problem division	3.8%		59%	59%
Q07	CR	Number	Word problem mixed operations	4.3%		55%	55%
Q08a	CR	Money	Addition of money without carry	0.0%	S4Q35a	93%	95%
Q08b	CR	Money	Addition of money with trading	0.2%	S4Q35b	84%	87%
Q08c	CR	Money	Subtraction of money with trading	0.3%	S4Q36a	74%	78%
Q08d	CR	Money	Subtraction of money with trading	0.3%	S4Q36b	71%	76%
Q09a	CR	Money	Multiplication involving money	0.4%		51%	61%
Q09b	CR	Money	Multiplication involving money	0.5%		75%	81%
Q10a	CR	Money	Division involving money	4.2%		36%	55%
Q10b	CR	Money	Division involving money	9.2%		26%	41%
Q11a	CR	Graphs	Identify value in graph	0.9%		92%	93%
Q11b	CR	Graphs	Calculate largest number in graph	1.1%		80%	82%
Q11c	CR	Graphs	Calculate difference from information in graph	1.6%		41%	38%
Q12a	CR	Graphs	Complete tally table	2.2%	S4Q27a	87%	83%
Q12b	CR	Graphs	Draw vertical bar chart	1.5%	S4Q27b	81%	86%
Q13a	CR	Graphs	Identify greatest value from information in graph	0.7%		90%	91%
Q13b	CR	Graphs	Identify value from information in graph	1.1%		79%	81%
Q13c	CR	Graphs	Calculate average from information in graph	2.2%		34%	30%
Q14	CR	Fractions	Write fraction in sequence	0.6%		62%	57%
Q15	CR	Fractions	Calculate equivalent fraction	1.3%		51%	51%
Q16a	CR	Fractions	Reduce improper fraction	4.2%		56%	56%
Q17a	CR	Fractions	Subtract fraction with common denominator	0.6%		77%	76%
Q17b	CR	Fractions	Add fraction with common denominator	0.6%		73%	75%
Q17c	CR	Fractions	Add fraction with non-common denominator	1.9%		25%	33%
Q17d	CR	Fractions	Calculate fraction of value	6.4%	S4Q18	38%	39%
Q18a	CR	Fractions	Convert proper fraction to percentage	2.8%		48%	48%
Q18b	CR	Fractions	Convert decimal to percentage	1.9%		46%	47%
Q19a	CR	Fractions	Covert percentage to decimal	2.0%		54%	59%
Q19b	CR	Fractions	Convert proper fraction to decimal	2.6%		41%	43%

Q20	CR	Fractions	Convert decimal to proper fraction	3.4%		50%	46%
Q21	CR	Fractions	Identify place value in mixed number	3.2%		8%	5%
Q22	CR	Fractions	Round to nearest tenth	2.4%		38%	45%
Q23a	CR	Fractions	Add fractions with trading	0.1%		80%	82%
Q23b	CR	Fractions	Add fractions with trading	0.2%		69%	70%
Q24a	CR	Fractions	Subtract fractions with trading	0.4%		84%	85%
Q24b	CR	Fractions	Subtract fractions without trading	0.5%		55%	57%
Q25a	CR	Fractions	Multiply fraction by whole number	0.6%		68%	67%
Q25b	CR	Fractions	Multiply fraction by whole number	0.8%		60%	62%
Q26a	CR	Fractions	Divide fraction by whole number	2.6%		24%	22%
Q26b	CR	Fractions	Divide fraction by whole number	3.4%		30%	28%
Q27	CR	Measurement	Calculate volume of regular 3D object	1.4%		46%	46%
Q28	CR	Time Zones	Identify time using zone chart	4.3%		41%	47%
Q29a	CR	Shapes and Space	Angle properties of common 2D shape	5.5%		34%	21%
Q29b	CR	Shapes and Space	Side properties of regular 2D shape	9.7%		38%	25%
Q30a	CR	Shapes and Space	Calculate angle size in common 2D shape	1.8%		48%	63%
Q30b	CR	Shapes and Space	Calculate angle size in common 2D shape	2.7%		52%	58%
Q31a	CR	Word Problems	Word problem - calculate percentage of value	7.0%		28%	31%
Q31b	CR	Word Problems	Word problem - calculate percentage	6.7%		8%	10%
Q32	CR	Word Problems	Word problem - calculate percentage	6.5%		27%	39%
Q33	CR	Word Problems	Word problem - calculate percentage of value	6.9%		10%	15%
Q34	CR	Word Problems	Word problem - ratio	4.3%		45%	55%
Q35	CR	Word Problems	Word problem - ratio	5.9%		7%	29%
Q36a	CR	Word Problems	Convert units of measurement	4.8%		44%	40%
Q36b	CR	Word Problems	Convert units of measurement	4.9%		43%	42%
Q36c	CR	Word Problems	Convert units of measurement	5.6%		28%	29%
Q37	CR	Word Problems	Rates involving distance and time	6.8%		36%	39%
Q38	CR	Word Problems	Word problem - calculation of cost	6.3%		37%	51%
Q39	CR	Word Problems	Word problem - division	7.0%		45%	45%
Q40	CR	Word Problems	Word problem - difference	5.8%		52%	56%

APPENDIX Table 7 READING Growth by school 2013 and 2015

Primary School	N 2013	Mean 2013	SE mean	N 2015	Mean 2015	SE mean	GROWTH	High	Low
Adaua Primary	22	462.3	10.6	9	425.2	20.5	-37.0		TRUE
Aikuku Primary	7	325.0	8.5	6	430.9	14.0	105.9	TRUE	
APAORO PRIMARY	8	380.6	17.0	11	445.3	16.5	64.7	TRUE	
APURAHE Primary	7	375.6	17.7	10	398.3	26.1	22.7	TRUE	
Arabala CHS	21	432.1	11.5	36	426.4	7.8	-5.7		
Arnon Atomea CHS	21	434.9	11.6	19	440.3	13.5	5.5		
Aroaha Primary	13	325.0	12.6	12	396.8	18.1	71.8	TRUE	
ASIMANIOHA Primary	13	355.9	16.0	12	372.2	9.5	16.3		
ATORI Primary	12	365.4	11.3	8	443.9	16.4	78.5	TRUE	
Auki CHS	22	437.2	15.9	11	386.6	10.3	-50.5		TRUE
BALIPA'A CHS	21	350.2	11.9	19	383.4	13.5	33.2	TRUE	
Banga Primary	10	439.8	16.8	21	403.3	9.8	-36.5		TRUE
BAOLO Primary	19	366.1	18.7	18	428.5	11.6	62.4	TRUE	
Bareho Primary	14	411.2	17.6	17	428.9	7.3	17.7		
Betivatu CHS	24	392.6	10.1	12	375.6	10.3	-17.0		TRUE
Black Rock Akaboi Extension	7	361.3	20.8	6	424.2	38.6	62.9	TRUE	
Bokolonga Primary	10	431.3	13.0	14	409.0	8.6	-22.3		TRUE
Burns Creek CHS	20	509.6	16.1	29	449.3	8.4	-60.3		TRUE
Chivoko Primary	13	354.1	11.8	8	446.9	14.9	92.8	TRUE	
Chuchulu Primary	6	393.2	20.2	6	453.3	18.8	60.1	TRUE	
Chung Wah Primary	17	537.9	9.3	16	499.7	5.0	-38.2		TRUE
Deva Primary	15	389.2	17.1	12	442.9	14.6	53.8	TRUE	
Dorio Primary	22	381.8	13.4	13	489.4	12.6	107.6	TRUE	
Dota CHS	26	350.0	7.5	13	388.1	10.2	38.2	TRUE	
Dunde CHS	36	412.8	9.9	20	404.8	9.2	-8.0		
Emmaus Christian School	23	455.2	17.3	20	476.1	9.8	20.9		
Fano Primary	10	346.4	28.8	11	493.3	13.5	146.9	TRUE	
Florence Young CHS	21	516.5	11.9	28	513.4	10.4	-3.1		
Fly Harbour Primary	11	419.0	13.9	19	447.3	9.7	28.3		
FM Campbell CHS	29	462.3	10.5	31	463.8	7.4	1.5		
Fo'ondo Primary	12	372.9	16.0	9	366.2	25.3	-6.6		
FURONA Primary	21	369.9	13.2	9	420.2	9.2	50.2	TRUE	
Garanga Primary School	12	396.7	15.7	17	430.1	7.2	33.4		
Ghole Primary	10	457.0	10.6	10	390.3	11.7	-66.7		TRUE
GHOMBUA Primary	20	395.0	7.8	13	488.3	9.7	93.4	TRUE	
GILO Primary	16	423.6	14.3	7	385.6	19.7	-38.0		TRUE
Gizo CHS	20	503.1	12.3	38	446.7	9.3	-56.4		TRUE
Global Harvest Christian Academy Primary	22	463.3	8.2	20	432.1	7.3	-31.2		TRUE
Goveo Primary	13	383.3	11.2	14	404.4	9.5	21.2		
Gwaiau Primary	7	476.2	15.7	5	491.5	9.2	15.3		
Gwounabusu CHS	19	358.6	12.0	10	427.4	11.2	68.8	TRUE	

Primary School	N 2013	Mean 2013	SE mean	N 2015	Mean 2015	SE mean	GROWTH	High	Low
Hae Primary	22	351.3	14.4	20	411.3	10.8	60.0	TRUE	
HAGAURA Primary	18	369.2	11.0	11	426.3	10.1	57.0	TRUE	
Halavo CHS	13	343.4	13.7	9	415.4	16.1	72.1	TRUE	
Haroro Primary	13	339.9	10.8	6	417.6	16.9	77.7	TRUE	
Henry Koga Memorial School	7	355.5	10.4	10	472.7	14.8	117.2	TRUE	
Henua CHS	5	398.3	12.4	4	432.8	32.5	34.5	TRUE	
HIROBUKA Primary	18	426.7	10.3	17	456.0	10.5	29.3		
Hunanawa CHS	14	423.4	12.2	11	452.1	18.3	28.7	TRUE	
Ilia Primary	22	413.2	8.8	26	469.5	8.8	56.3	TRUE	
Jejevo Primary	19	381.1	16.7	21	414.6	12.9	33.5	TRUE	
Jengunu Primary	5	359.6	13.1	3	388.7	22.4	29.1	TRUE	
Kaekae Primary	6	403.8	19.1	7	433.9	16.9	30.1	TRUE	
KALENGA CHS	24	387.4	9.0	24	459.4	6.3	72.1	TRUE	
KAMAOSI Primary	16	359.9	15.1	13	422.4	14.1	62.5	TRUE	
KAONASUGU Primary	8	386.6	13.8	7	438.0	12.0	51.4	TRUE	
Karokesa Primary	13	413.1	14.4	9	443.3	11.8	30.2	TRUE	
KESAO Primary	22	429.6	8.4	29	534.1	9.6	104.5	TRUE	
Kmaga Kovala Primary	20	425.7	8.9	26	452.2	8.0	26.5		
KOLETA Primary	15	374.7	13.5	10	470.5	8.9	95.7	TRUE	
Koloale CHS	20	464.0	15.2	39	423.3	9.1	-40.7		TRUE
Koloe Primary	12	439.8	14.8	9	434.2	16.4	-5.5		
Koloula/ Basiana Primary	19	421.3	8.8	23	416.6	11.6	-4.7		
Kukum sda Primary	20	493.4	13.5	50	499.5	5.6	6.1		
Lamae Extension	7	376.8	19.5	7	440.8	10.6	64.0	TRUE	
Leitongo Primary	11	333.2	3.7	7	352.9	23.7	19.7	TRUE	
LILURA Primary	15	360.8	9.6	10	436.0	19.9	75.3	TRUE	
Lokuru Primary	14	312.1	6.3	18	343.9	13.5	31.8	TRUE	
Lukuvaru Primary	12	344.1	10.9	8	415.9	12.5	71.8	TRUE	
Macmahon CHS	11	365.9	14.3	15	443.3	17.0	77.4	TRUE	
Madali Primary	7	378.8	12.9	14	383.9	9.2	5.0		
Maina Memorial CHS	26	374.0	6.8	22	410.9	8.0	36.9	TRUE	
Makina Primary	10	375.3	22.0	9	491.5	17.9	116.2	TRUE	
MALAGHETI Primary	9	487.2	16.5	5	432.5	23.6	-54.8		TRUE
MAMI Primary	19	393.1	7.7	8	371.5	22.6	-21.5		
Mamineo CHS	18	405.3	15.1	9	418.9	13.1	13.6		
MANIQAGOSI Primary	10	326.3	16.8	9	427.1	12.8	100.8	TRUE	
Maravari Primary	22	402.3	9.6	28	399.5	9.0	-2.7		
MARONE Primary	13	364.9	4.8	11	407.7	12.8	42.8	TRUE	
Maroupaina CHS	24	403.9	12.7	15	446.1	9.5	42.2	TRUE	
Marubo Primary	8	379.2	13.5	11	419.8	12.7	40.6	TRUE	
Marvin Memorial Primary	16	407.7	9.0	8	419.0	18.5	11.4		
Mase Primary	13	354.9	16.4	6	392.3	28.3	37.5	TRUE	
Mataiho Primary	9	400.9	13.9	4	465.9	53.6	65.0	TRUE	

Primary School	N 2013	Mean 2013	SE mean	N 2015	Mean 2015	SE mean	GROWTH	High	Low
Mbalasuna Primary	17	390.9	11.5	13	415.9	14.9	25.0	TRUE	
Mbokonavera CHS	22	466.6	13.2	18	440.6	12.5	-25.9		TRUE
Mbuavale CHS	21	442.2	13.9	48	483.6	9.5	41.4	TRUE	
Mercy Primary School	20	419.8	11.2	51	382.6	6.9	-37.2		TRUE
Moah Primary	6	393.3	25.6	5	433.8	19.7	40.4	TRUE	
Monene CHS	11	466.7	15.9	14	431.1	14.7	-35.6		TRUE
MUANA CHS	22	366.3	15.4	42	405.7	8.3	39.3	TRUE	
Muki Primary	15	455.4	16.7	8	485.8	21.3	30.4	TRUE	
Nagotano Primary	12	477.6	14.4	15	478.5	14.6	0.9		
NANGU CHS	21	370.1	9.9	13	384.9	14.9	14.9		
New Vunuha Primary	9	361.0	14.2	8	367.9	7.7	6.8		
NGUVIA CHS	25	424.0	11.4	26	428.8	8.2	4.8		
Norman Palmer CHS	22	522.7	8.0	34	437.2	7.7	-85.5		TRUE
Nughulathi Primary	4	406.7	15.0	4	429.0	34.9	22.3	TRUE	
Nukiki Primary	27	440.5	11.6	19	373.5	10.6	-67.0		TRUE
Obo Obo Primary	7	451.5	26.6	16	408.6	14.5	-42.9		TRUE
Ogho CHS	16	378.4	13.3	12	427.1	17.0	48.8	TRUE	
Paibeta CHS	64	366.3	7.8	14	417.6	10.5	51.3	TRUE	
Panarui Primary	14	416.1	17.5	12	454.1	16.1	38.1	TRUE	
Panatina CHS	20	471.5	12.7	46	454.8	8.1	-16.7		TRUE
Papara CHS	14	378.2	16.6	19	414.6	11.1	36.4	TRUE	
Paposi Primary	14	374.0	15.7	11	526.0	14.7	151.9	TRUE	
Paradise Primary	28	334.4	7.6	8	372.2	17.5	37.8	TRUE	
Patuboliboli Primary	17	482.3	11.8	15	431.4	10.7	-50.9		TRUE
Patukae CHS	19	354.5	10.2	15	405.7	9.7	51.3	TRUE	
Patutiva CHS	15	347.5	18.1	19	369.8	10.8	22.3		
Perch CHS	20	472.0	11.3	7	436.1	9.2	-35.9		TRUE
Pirumeri Primary	5	395.5	9.8	11	432.2	10.6	36.7	TRUE	
Pokilo CHS	11	381.0	11.2	8	438.9	17.9	57.9	TRUE	
Rameai Primary	14	405.0	15.2	6	383.9	24.9	-21.1		
Sharma Christian Academy	21	413.4	12.1	15	455.7	11.6	42.3	TRUE	
Sibila CHS	24	400.6	9.0	16	454.6	4.6	53.9	TRUE	
Silas Primary	15	335.0	12.7	7	405.3	15.3	70.3	TRUE	
Siva Primary	5	310.1	8.0	8	480.2	12.9	170.2	TRUE	
Soso Primary	6	299.8	12.5	6	371.5	26.7	71.7	TRUE	
St Francis Vaturanga Primary	20	400.4	10.7	16	416.4	9.9	15.9		
St Joseph Moli CHS	20	394.5	10.6	28	415.8	7.9	21.3		
Su'umoli CHS	11	400.3	25.9	7	424.2	3.4	24.0		
Suava Primary	23	365.2	11.5	12	415.8	17.4	50.5	TRUE	
Susuka Primary	18	347.3	12.6	14	405.0	13.0	57.7	TRUE	
Takaito CHS	18	363.6	14.1	16	468.7	14.1	105.2	TRUE	
TAMAHI Primary	17	421.8	13.6	23	434.7	11.7	12.9		
Tamlan Primary	21	469.3	10.8	33	478.4	8.4	9.1		
Taramata Primary	13	334.1	10.9	7	464.0	28.6	130.0	TRUE	

Primary School	N 2013	Mean 2013	SE mean	N 2015	Mean 2015	SE mean	GROWTH	High	Low
Taro Primary	20	423.5	11.7	17	426.8	7.3	3.4		
TAWARAHA CHS	9	436.8	20.1	18	465.1	14.0	28.2	TRUE	
TENAKOGA CHS	21	410.1	14.5	24	429.6	9.7	19.5		
Tetalo CHS	16	393.5	17.8	10	454.1	9.6	60.5	TRUE	
TETERE Primary	22	333.1	8.3	28	402.4	11.5	69.4	TRUE	
Tumurora Primary	15	326.7	6.2	11	402.2	9.0	75.5	TRUE	
Tuo Primary	19	381.0	16.1	16	373.8	10.0	-7.2		
Ubuna Primary	15	408.7	11.5	9	453.2	9.9	44.5	TRUE	
Uhu CHS	21	389.4	19.5	20	392.3	13.7	2.9		
Vanua CHS	8	363.4	11.4	7	397.4	13.7	34.0	TRUE	
VENGA Primary	13	430.9	14.3	10	424.1	18.2	-6.8		
Voloa Primary School	24	385.0	8.0	10	368.5	10.9	-16.5		TRUE
Voruvoru Primary	5	418.1	15.1	7	408.9	13.2	-9.2		
Voza CHS	23	420.0	9.2	10	427.5	14.3	7.4		
Vura CHS	20	453.1	13.9	21	451.3	16.1	-1.8		
WAIHAGA PRIMARY SCHOOL	10	384.6	14.4	7	452.8	21.0	68.2	TRUE	
Waimapuru Primary school	16	456.4	11.1	13	431.7	14.7	-24.6		TRUE
WAIMASI CHS	15	415.9	21.0	12	435.5	12.3	19.7		
Waneagu CHS	20	368.6	8.7	17	423.8	13.1	55.2	TRUE	
Warohinou Primary	12	390.8	7.8	14	381.3	8.3	-9.5		
Yandina CHS	46	449.8	8.8	36	422.7	9.8	-27.0		TRUE
Zaru Primary	4	321.8	29.0	4	379.3	11.8	57.5	TRUE	
Zion Christian Academy CHS	14	452.6	20.3	9	474.9	10.5	22.3		

APPENDIX Table 8 LANGUAGE Growth by school 2013 and 2015

Primary School	N 2013	Mean 2013	SE mean	N 2015	Mean 2015	SE mean	GROWTH	High	Low
Adaua Primary	22	431.1	8.3	9	426.4	11.5	-4.7		
Aikuku Primary	7	357.4	6.0	6	518.3	12.7	160.9	TRUE	
Anata Primary	13	438.4	9.7	48	436.6	4.0	-1.9		TRUE
APAORO PRIMARY	8	449.8	7.9	11	395.2	7.8	-54.6		TRUE
APURAHE Primary	7	373.9	10.9	10	439.8	11.5	65.9	TRUE	
Arabala CHS	21	413.0	6.8	36	424.7	3.6	11.8		
Arnon Atomea CHS	21	383.5	13.8	19	443.3	8.2	59.8	TRUE	
Aroaha Primary	13	327.7	12.7	12	429.7	10.8	102.0	TRUE	
ASIMANIOHA Primary	13	365.8	15.2	12	404.0	12.2	38.2	TRUE	
ATORI Primary	12	400.6	5.6	8	439.0	15.6	38.5	TRUE	
Auki CHS	22	438.9	9.1	11	419.7	7.0	-19.2		TRUE
BALIPA'A CHS	21	365.4	9.0	19	404.6	6.7	39.1		
Banga Primary	10	432.3	12.6	21	423.9	10.4	-8.4		TRUE
BAOLO Primary	19	393.7	16.5	18	432.9	5.1	39.2		
Bareho Primary	14	414.2	9.8	17	444.7	5.2	30.5		
Betivatu CHS	24	385.1	7.2	12	392.1	8.1	7.0		
Black Rock Akaboi Extension	7	392.6	22.4	6	421.8	7.8	29.2		
Bokolonga Primary	10	415.9	12.0	14	422.9	8.9	7.0		
Burns Creek CHS	20	480.1	8.2	29	461.6	5.5	-18.5		TRUE
Chivoko Primary	13	372.6	10.0	8	430.7	4.2	58.1	TRUE	
Chuchulu Primary	6	339.3	24.6	6	429.6	10.4	90.3	TRUE	
Chung Wah Primary	17	556.1	13.9	16	526.4	8.8	-29.7		TRUE
Deva Primary	15	402.9	11.0	12	434.9	12.9	32.0	TRUE	
Dorio Primary	22	406.2	10.8	13	427.6	5.2	21.3		
Dota CHS	26	343.9	11.0	13	412.4	10.3	68.5	TRUE	
Dunde CHS	36	403.3	6.3	20	418.4	6.8	15.1		
Emmaus Christian School	23	455.2	10.3	20	470.4	12.9	15.2		
Fano Primary	10	339.5	17.4	14	422.7	8.7	83.2	TRUE	
FENUALOA CHS	24	397.0	8.4	11	456.5	13.1	59.5	TRUE	
Florence Young CHS	21	494.8	11.8	28	501.3	12.7	6.5		
Fly Harbour Primary	11	403.6	12.9	19	428.9	7.1	25.4		
FM Campbell CHS	29	437.9	6.2	31	493.4	8.1	55.5	TRUE	
Fo'ondo Primary	12	392.6	10.9	9	380.9	9.7	-11.7		TRUE
FURONA Primary	21	386.8	8.5	9	413.8	10.6	27.0		
Garanga Primary School	12	377.7	16.7	17	429.5	7.0	51.8	TRUE	
Ghole Primary	10	409.5	6.1	10	472.7	6.2	63.2	TRUE	
GHOMBUA Primary	20	377.6	7.2	13	428.5	3.7	50.9	TRUE	
GILO Primary	16	372.6	8.2	7	401.4	9.7	28.8		
Gizo CHS	20	456.1	8.6	38	432.2	6.6	-23.8		TRUE

Primary School	N 2013	Mean 2013	SE mean	N 2015	Mean 2015	SE mean	GROWTH	High	Low
Global Harvest Christian Academy Primary	22	467.3	6.1	20	454.5	6.8	-12.9		TRUE
Goveo Primary	13	370.6	15.0	14	420.1	6.8	49.6	TRUE	
Gwaiau Primary	6	471.2	12.1	5	451.8	3.8	-19.5		TRUE
Gwounabusu CHS	19	397.6	8.0	10	398.1	12.9	0.6		
Hae Primary	22	379.2	10.3	20	434.2	5.4	55.0	TRUE	
HAGAURA Primary	18	372.5	8.7	11	429.8	6.1	57.4	TRUE	
Halavo CHS	13	355.3	14.2	9	422.5	10.4	67.2	TRUE	
Haroro Primary	13	313.4	20.3	6	439.3	1.0	125.9	TRUE	
Henry Koga Memorial School	7	377.5	11.6	10	449.2	6.7	71.7	TRUE	
Henua CHS	5	414.0	21.2	4	395.2	32.8	-18.8		
HIROBUKA Primary	18	343.2	13.9	17	438.5	4.2	95.3	TRUE	
Hunanawa CHS	14	404.5	15.7	11	423.9	17.8	19.3	TRUE	
Ilia Primary	22	410.4	7.8	26	468.9	8.7	58.5	TRUE	
Jejevo Primary	19	379.7	6.2	21	428.4	11.3	48.7	TRUE	
Jengunu Primary	5	372.1	17.8	3	439.5	17.1	67.4	TRUE	
Kaekae Primary	6	364.0	13.4	7	448.5	6.8	84.5	TRUE	
KALENGA CHS	24	404.0	7.2	24	447.4	5.9	43.4	TRUE	
KAMAOSI Primary	16	363.1	15.9	13	427.4	5.5	64.3	TRUE	
KAONASUGU Primary	8	403.3	10.9	7	437.9	12.2	34.6	TRUE	
Karokesa Primary	13	388.7	11.7	9	426.1	6.7	37.4		
KESAO Primary	22	492.0	9.1	29	472.5	8.4	-19.4		TRUE
Kmaga Kovala Primary	20	423.3	8.1	26	415.5	5.0	-7.8		TRUE
KOLETA Primary	15	363.4	10.9	10	450.0	6.8	86.6	TRUE	
Koloale CHS	20	453.7	11.9	39	426.7	5.9	-27.0		TRUE
Koloe Primary	12	393.8	16.4	9	419.4	10.2	25.6		
Koloula/ Basiana Primary	19	397.4	10.1	23	421.7	7.0	24.4		
Kukum sda Primary	20	495.9	9.6	50	481.3	6.2	-14.6		TRUE
Lamae Extension	7	388.9	15.9	7	445.4	6.9	56.5	TRUE	
Leitongo Primary	11	321.1	10.4	7	364.9	11.3	43.8	TRUE	
LILURA Primary	15	370.1	8.6	10	431.1	14.9	61.0	TRUE	
Lokuru Primary	14	373.5	10.9	18	395.3	9.1	21.8		
Lukuvaru Primary	12	340.5	14.9	8	416.2	9.7	75.8	TRUE	
Macmahon CHS	11	383.8	13.7	15	480.9	13.6	97.1	TRUE	
Madali Primary	7	310.8	14.5	14	394.1	11.7	83.3	TRUE	
Maina Memorial CHS	26	405.2	7.3	22	425.2	6.2	20.0		
Makia Primary	2	370.9	24.2	9	442.4	5.8	71.5	TRUE	
MALAGHETI Primary	9	456.3	13.0	5	393.1	17.2	-63.2		TRUE
MAMI Primary	19	383.2	8.3	8	396.0	11.0	12.8		
Mamineo CHS	18	416.8	9.3	9	433.0	7.4	16.2		
MANIQAGOSI Primary	10	359.3	9.0	9	406.1	6.6	46.8	TRUE	
Maravari Primary	22	400.9	7.8	28	401.7	5.3	0.8		TRUE
MARONE Primary	13	364.4	12.2	11	430.8	20.2	66.5	TRUE	

Primary School	N 2013	Mean 2013	SE mean	N 2015	Mean 2015	SE mean	GROWTH	High	Low
Maroupaina CHS	24	373.4	11.6	15	429.4	7.6	56.0	TRUE	
Marubo Primary	8	349.2	14.4	11	433.9	4.9	84.7	TRUE	
Marvin Memorial Primary	16	381.6	6.2	8	417.0	14.3	35.4	TRUE	
Mase Primary	13	366.8	13.5	6	402.0	11.5	35.3	TRUE	
Mataiho Primary	9	390.5	19.6	4	442.4	14.7	51.9	TRUE	
Mbalasuna Primary	17	409.2	9.5	13	414.7	10.3	5.6		
Mbokonavera CHS	22	457.4	9.0	18	429.0	10.1	-28.4		TRUE
Mbuavale CHS	21	436.9	9.2	48	457.6	5.1	20.8		
Mercy Primary School	20	400.9	6.4	51	398.9	5.0	-2.0		TRUE
Moah Primary	6	377.6	23.9	5	394.6	15.8	17.0		
Monene CHS	11	434.5	17.5	14	448.9	9.3	14.4		
MUANA CHS	22	386.8	9.3	42	408.4	6.2	21.6		
Muki Primary	15	411.7	18.3	8	419.4	6.6	7.8		
Nagotano Primary	12	530.2	11.6	15	450.5	4.6	-79.7		TRUE
NAHARAHAU Primary	22	391.8	7.9	12	431.1	15.3	39.3	TRUE	
NANGU CHS	21	402.3	5.6	13	387.7	11.4	-14.6		TRUE
New Vunuha Primary	9	397.0	11.3	8	432.0	4.9	35.1		
NGUVIA CHS	25	418.4	9.2	26	440.0	4.2	21.6		
Norman Palmer CHS	22	467.8	9.8	34	433.7	5.1	-34.1		TRUE
Nughulathi Primary	4	391.2	19.2	4	418.5	7.3	27.4		
Nukiki Primary	27	372.9	7.7	19	397.9	7.9	25.0		
Obo Obo Primary	7	388.3	15.8	16	430.7	6.2	42.4	TRUE	
Ogho CHS	16	402.9	9.2	12	433.9	10.1	31.0		
Paibeta CHS	64	394.2	4.4	14	431.5	6.5	37.3		
Panarui Primary	14	424.0	12.4	12	453.0	8.9	29.0		
Panatina CHS	20	466.8	8.8	46	436.0	6.3	-30.8		TRUE
Papara CHS	14	394.0	12.5	19	419.4	5.2	25.3		
Paposi Primary	14	381.2	10.5	11	450.8	5.1	69.6	TRUE	
Paradise Primary	28	333.5	8.5	8	392.6	8.4	59.1	TRUE	
Patuboliboli Primary	17	455.8	8.2	15	455.6	8.7	-0.3		
Patukae CHS	19	376.3	6.6	15	415.9	5.2	39.6		
Patutiva CHS	15	353.1	14.3	19	388.1	9.8	35.0	TRUE	
Perch CHS	20	471.1	9.1	7	461.7	9.7	-9.4		TRUE
Pirumeri Primary	5	371.6	9.0	11	440.8	4.1	69.2	TRUE	
Pokilo CHS	11	359.8	9.7	8	438.7	15.4	79.0	TRUE	
Rameai Primary	14	385.1	14.2	6	403.5	12.4	18.4		
Sharma Christian Academy	21	434.2	5.3	15	467.9	11.5	33.8	TRUE	
Sibila CHS	24	333.6	9.4	16	444.7	2.6	111.1	TRUE	
Silas Primary	15	347.5	9.4	7	425.0	7.7	77.6	TRUE	
Siva Primary	5	356.8	31.8	8	466.4	14.8	109.5	TRUE	
Soso Primary	6	327.2	11.6	6	406.8	6.9	79.6	TRUE	
St Francis Vaturanga Primary	20	380.5	15.8	16	412.7	7.2	32.2		
St Joseph Moli CHS	20	390.3	8.9	28	404.8	5.8	14.4		

Primary School	N 2013	Mean 2013	SE mean	N 2015	Mean 2015	SE mean	GROWTH	High	Low
Su'umoli CHS	11	384.6	10.6	7	435.0	8.1	50.4	TRUE	
Suava Primary	23	347.5	9.7	12	418.7	11.8	71.2	TRUE	
Susuka Primary	18	339.4	16.3	14	399.1	11.7	59.7	TRUE	
Takaito CHS	18	329.4	16.7	16	489.9	19.5	160.5	TRUE	
TAMAHI Primary	17	396.8	9.2	23	419.1	5.5	22.3		
Tamlan Primary	21	465.0	8.0	33	473.6	8.1	8.5		
Taramata Primary	13	371.2	10.3	7	461.9	10.6	90.7	TRUE	
Taro Primary	20	428.6	8.9	17	450.2	7.1	21.7		
TAWARAHA CHS	9	438.2	18.3	18	446.0	10.8	7.8		
TENAKOGA CHS	21	398.3	7.9	24	430.7	4.6	32.3		
Tetalo CHS	16	409.4	12.5	10	455.0	11.1	45.6	TRUE	
TETERE Primary	22	358.3	11.1	28	412.6	5.9	54.3	TRUE	
Tumurora Primary	15	350.4	9.1	11	421.7	10.6	71.2	TRUE	
Tuo Primary	19	382.9	10.8	16	372.4	9.4	-10.5		TRUE
Ubuna Primary	15	401.6	16.5	9	431.2	4.9	29.6		
Uhu CHS	21	375.6	13.6	20	418.7	7.9	43.1	TRUE	
Vanua CHS	8	378.1	10.8	7	405.8	12.6	27.7		
VENGA Primary	13	415.1	19.2	10	413.6	9.8	-1.6		
Voloa Primary School	24	372.0	8.4	10	398.7	8.8	26.8		
Voruvoru Primary	5	399.9	24.0	7	437.1	10.1	37.2	TRUE	
Voza CHS	23	423.6	6.4	10	413.4	8.2	-10.2		TRUE
Vura CHS	20	444.0	11.0	21	458.5	12.9	14.6		
WAIHAGA PRIMARY SCHOOL	10	359.4	14.0	7	450.8	14.3	91.4	TRUE	
Waimapuru Primary school	16	420.7	10.2	13	429.4	8.1	8.7		
WAIMASI CHS	15	394.0	10.8	12	437.1	9.5	43.1	TRUE	
Waneagu CHS	20	381.4	10.8	17	411.1	10.7	29.7		
Warohinou Primary	12	367.6	7.7	14	426.5	11.4	58.9	TRUE	
Yandina CHS	46	423.6	5.3	36	454.7	3.4	31.1		
Zaru Primary	4	388.2	21.5	4	388.8	16.2	0.6		
Zion Christian Academy CHS	14	447.6	17.9	9	485.0	14.0	37.4	TRUE	

APPENDIX Table 9 MATHEMATICS Growth by school 2013 and 2015

Primary School	N 2013	Mean 2013	SE mean	N 2015	Mean 2015	SE mean	GROWTH	High	Low
Adaua Primary	22	444.3	9.6	9	519.8	13.0	75		
Aikuku Primary	7	363.1	13.2	6	552.3	6.2	189	TRUE	
APAORO PRIMARY	9	397.1	10.5	11	457.0	10.4	60		TRUE
APURAHE Primary	7	352.9	10.3	10	486.9	22.5	134	TRUE	
Arabala CHS	20	402.8	6.9	37	524.1	9.1	121	TRUE	
Arnon Atomea CHS	21	403.3	9.0	19	584.9	7.5	182	TRUE	
Aroaha Primary	13	339.2	12.6	12	440.9	18.5	102	TRUE	
ASIMANIOHA Primary	13	356.1	11.7	12	431.3	18.3	75		
ATORI Primary	12	373.4	8.9	9	513.0	14.7	140	TRUE	
Auki CHS	22	411.8	8.4	34	464.1	10.5	52		TRUE
BALIPAA CHS	21	404.4	8.4	19	431.5	14.1	27		TRUE
Banga Primary	10	444.8	4.6	21	453.3	10.2	9		TRUE
BAOLO Primary	19	422.9	9.8	18	536.0	15.0	113	TRUE	
Bareho Primary	14	404.1	9.9	17	498.2	9.1	94		
Betivatu CHS	24	369.2	8.8	12	424.2	23.2	55		
Biche Primary	7	428.9	16.5	7	504.1	18.2	75		
Buma Primary	24	408.7	10.3	21	548.4	8.1	140	TRUE	
Burns Creek CHS	20	415.5	8.9	29	528.7	10.9	113		
Chivoko Primary	13	402.3	11.1	8	504.8	16.8	102	TRUE	
Chocho Primary	8	414.8	11.9	6	454.9	12.6	40		TRUE
Chuchulu Primary	6	368.5	18.7	6	501.9	22.2	133	TRUE	
Chung Wah Primary	17	546.4	7.9	16	605.8	17.8	59		
Deva Primary	16	451.7	11.8	12	492.8	13.9	41		TRUE
Dorio Primary	21	401.5	6.4	8	492.6	16.7	91		
Dota CHS	13	360.5	13.8	13	516.1	14.6	156	TRUE	
Dunde CHS	26	357.8	8.5	20	449.3	10.2	92		
Emmaus Christian School	23	405.3	9.9	23	521.8	14.0	117	TRUE	
Fano Primary	10	400.9	16.6	11	443.8	12.8	43		TRUE
Florence Young CHS	20	427.9	7.1	28	535.0	13.6	107		
Fly Harbour Primary	12	394.2	15.3	19	574.0	14.4	180	TRUE	
FM Campbell CHS	29	405.7	5.2	31	495.6	7.9	90		
Foondo Primary	13	406.3	9.8	9	454.0	17.4	48		
FURONA Primary	21	368.8	8.6	9	504.5	21.2	136	TRUE	
Garanga Primary School	12	414.1	18.4	15	557.6	13.1	144	TRUE	
Ghole Primary	10	427.1	10.3	10	528.2	10.0	101		
GILO Primary	16	384.5	9.2	7	381.6	20.8	-3		TRUE
Gizo CHS	20	424.5	8.4	38	512.4	8.8	88		
Global Harvest Christian Academy Primary	22	436.6	7.5	20	509.5	11.6	73		
Goveo Primary	13	391.4	14.5	15	496.2	6.4	105		
Gwaiau Primary	7	451.6	24.6	5	559.8	17.5	108	TRUE	
Gwounabusu CHS	18	368.9	12.9	10	487.4	8.3	118		
Hae Primary	22	374.6	11.0	19	476.9	10.8	102		
HAGAURA Primary	17	372.7	13.3	11	521.2	14.5	149	TRUE	

Primary School	N 2013	Mean 2013	SE mean	N 2015	Mean 2015	SE mean	GROWTH	High	Low
Halavo CHS	13	358.7	13.2	9	505.2	25.5	147	TRUE	
Haroro Primary	13	333.0	12.9	6	537.4	13.0	204	TRUE	
Henry Koga Memorial School	7	398.6	14.6	8	499.4	11.3	101		
Henua CHS	5	381.5	6.7	4	463.7	18.2	82		
HIROBUKA Primary	18	427.6	12.6	17	525.3	14.2	98		
Hunanawa CHS	13	467.0	14.3	11	517.7	25.6	51		
Ilia Primary	22	372.1	7.7	27	522.9	12.8	151	TRUE	
Jengunu Primary	5	342.1	17.9	3	516.6	17.6	175	TRUE	
Kaekae Primary	6	398.1	17.9	7	508.2	15.8	110	TRUE	
KALENGA CHS	24	405.6	9.0	24	556.5	8.8	151	TRUE	
KAMAOSI Primary	16	386.0	11.8	13	520.1	15.2	134	TRUE	
KAONASUGU Primary	8	441.4	9.5	7	478.6	15.8	37		TRUE
Karokesa Primary	13	403.5	12.5	9	474.9	12.8	71		
Kati Primary	16	392.0	10.4	22	509.5	11.7	118	TRUE	
KESAO Primary	23	421.8	9.3	28	554.3	9.6	133	TRUE	
KILOKAKA Primary	17	361.3	12.5	13	497.6	15.1	136	TRUE	
Kmaga Kovala Primary	20	503.6	11.3	26	496.2	7.4	-7		TRUE
KOLETA Primary	16	390.0	6.8	10	540.4	10.9	150	TRUE	
Koloale CHS	20	437.4	9.5	38	486.8	6.9	49		TRUE
Koloe Primary	12	387.3	13.0	9	512.9	24.4	126	TRUE	
Koloula/ Basiana Primary	19	458.2	9.0	23	483.1	8.3	25		TRUE
Kukum sda Primary	20	431.3	5.0	50	525.7	5.7	94		
Leitongo Primary	11	334.2	13.3	7	470.1	23.8	136	TRUE	
Lengatura Primary	11	350.8	9.5	26	491.6	12.7	141	TRUE	
LILURA Primary	15	415.4	5.1	10	530.0	8.6	115		
Lokuru Primary	14	304.9	9.1	19	434.4	16.7	129	TRUE	
Lukuvaru Primary	12	369.6	13.8	8	464.8	15.2	95		
Macmahon CHS	11	358.1	13.0	15	517.6	11.8	159	TRUE	
Madali Primary	7	316.3	12.5	14	458.4	11.9	142	TRUE	
Maina Memorial CHS	26	369.7	7.9	22	490.8	10.0	121	TRUE	
Makina Primary	10	392.9	12.2	9	502.4	15.8	109	TRUE	
MALAGHETI Primary	9	429.0	11.0	5	490.2	21.7	61		
MAMI Primary	21	359.7	9.2	8	444.1	27.9	84	TRUE	
Mamineo CHS	18	383.4	10.3	9	485.7	15.4	102		
Maravari Primary	22	385.8	6.5	28	447.7	8.9	62		TRUE
MARONE Primary	13	375.1	9.9	11	506.4	14.2	131	TRUE	
Maroupaina CHS	24	375.2	7.8	15	527.2	12.1	152	TRUE	
Marubo Primary	8	372.5	14.2	11	503.5	15.0	131	TRUE	
Marvin Memorial Primary	16	389.5	11.5	8	504.1	16.9	115	TRUE	
Mase Primary	13	389.7	9.5	6	472.0	18.4	82		
Mataiho Primary	9	410.9	9.1	4	462.9	33.8	52		
Mbalasuna Primary	16	375.7	10.6	14	534.4	10.6	159	TRUE	
Mbokonavera CHS	22	412.2	8.0	18	511.0	11.0	99		
Mbuavale CHS	21	399.8	9.7	48	487.9	7.3	88		

Primary School	N 2013	Mean 2013	SE mean	N 2015	Mean 2015	SE mean	GROWTH	High	Low
Mercy Primary School	20	376.6	6.9	52	440.6	6.3	64		TRUE
Moah Primary	6	389.6	10.1	5	476.2	2.0	87		
Monene CHS	11	437.7	11.5	7	511.2	21.0	74		
MUANA CHS	22	358.2	8.1	42	473.3	9.3	115		
Muki Primary	15	424.9	18.5	8	489.6	11.4	65		
NA'ANA Primary	15	416.2	5.5	17	438.5	16.4	22		TRUE
Nagotano Primary	12	460.4	10.4	15	570.7	8.7	110		
NAHARAHAU Primary	22	384.7	6.4	12	507.6	14.3	123	TRUE	
New Vunuha Primary	9	359.5	23.1	8	468.9	10.0	109		
NGUVIA CHS	25	389.0	6.8	26	544.1	12.1	155	TRUE	
Nikumaroro Primary	13	301.0	9.1	5	454.2	11.6	153	TRUE	
Norman Palmer CHS	22	409.6	7.0	35	460.2	12.1	51		TRUE
Nughulathi Primary	4	395.1	3.6	4	497.6	14.6	103		
Nukiki Primary	18	393.3	8.8	19	412.3	12.4	19		TRUE
Obo Obo Primary	7	368.8	21.7	16	487.8	9.3	119	TRUE	
Ogho CHS	16	403.0	9.2	12	490.2	10.7	87		
Paibeta CHS	32	363.7	7.2	14	497.8	15.5	134	TRUE	
Palm Drive Primary	22	453.2	8.5	13	615.2	17.4	162	TRUE	
Panarui Primary	13	415.8	11.6	12	539.1	13.0	123	TRUE	
Panatina CHS	20	410.8	6.1	46	519.3	9.6	108		
Papara CHS	14	386.3	11.7	19	490.9	12.5	105		
Paposi Primary	15	389.7	12.2	11	575.6	5.5	186	TRUE	
Paradise Primary	28	393.8	9.2	8	434.0	33.4	40		
Patuboliboli Primary	13	435.5	4.8	15	532.3	9.9	97		
Patukae CHS	19	348.9	7.9	15	461.8	13.4	113	TRUE	
Patutiva CHS	15	323.7	11.2	19	448.4	11.9	125	TRUE	
Perch CHS	20	386.5	7.0	11	525.2	11.4	139	TRUE	
Pokilo CHS	11	407.8	12.6	7	517.5	17.2	110	TRUE	
Rameai Primary	13	384.9	10.6	7	484.2	20.8	99	TRUE	
Sharma Christian Academy	21	398.4	7.4	15	501.2	16.9	103	TRUE	
Sibila CHS	21	408.9	9.8	16	489.4	10.3	81		
Silas Primary	26	366.0	9.7	7	504.4	16.8	138	TRUE	
Siva Primary	5	326.9	7.3	8	515.5	10.9	189	TRUE	
Soranamola CHS	18	401.5	7.7	17	519.4	11.1	118	TRUE	
Soso Primary	6	360.7	18.1	6	463.7	19.7	103	TRUE	
St Joseph Moli CHS	20	404.4	8.0	28	496.0	13.4	92		
Su'umoli CHS	11	375.5	17.4	7	505.6	17.9	130	TRUE	
Suava Primary	23	357.5	9.9	14	442.8	18.1	85		
Susuka Primary	18	339.1	13.7	14	495.5	10.0	156	TRUE	
Takaito CHS	20	353.1	11.3	16	561.2	15.7	208	TRUE	
TAMAHI Primary	17	398.8	11.0	23	513.1	14.0	114	TRUE	
Tamlan Primary	21	437.7	6.3	32	566.0	6.9	128	TRUE	
Taramata Primary	13	395.5	10.7	7	515.6	7.9	120	TRUE	
Taro Primary	20	394.0	5.9	17	540.7	12.6	147	TRUE	
TAWARAHA CHS	8	434.1	12.9	18	506.7	14.3	73		

Primary School	N 2013	Mean 2013	SE mean	N 2015	Mean 2015	SE mean	GROWTH	High	Low
TENAKOGA CHS	21	388.4	8.0	24	497.9	12.2	109		
Tetalo CHS	16	398.4	12.3	11	526.2	22.7	128	TRUE	
TETERE Primary	21	374.9	7.0	28	471.2	11.3	96		
Tumurora Primary	15	383.6	10.6	11	506.3	13.2	123	TRUE	
Tuo Primary	19	389.4	9.0	17	440.8	13.1	51		TRUE
Ubuna Primary	14	404.7	11.8	9	546.2	14.1	142	TRUE	
Uhu CHS	20	385.9	12.2	20	502.6	11.6	117	TRUE	
Vanua CHS	8	361.6	14.2	7	442.8	14.0	81		
Vare Tutty Primary	25	437.4	6.2	26	483.9	8.0	46		TRUE
VENGA Primary	13	389.7	14.4	10	515.8	16.6	126	TRUE	
Voloa Primary School	12	363.3	8.7	10	449.9	13.4	87		
Voruvoru Primary	5	397.4	17.9	7	534.1	18.3	137	TRUE	
Voza CHS	24	406.1	7.7	10	480.7	16.0	75		
Vura CHS	20	397.9	8.6	21	493.9	15.1	96		
WAIHAGA PRIMARY SCHOOL	10	332.2	10.5	7	521.8	19.9	190	TRUE	
Waimapuru Primary school	16	390.4	9.1	13	520.1	17.3	130	TRUE	
WAIMASI CHS	15	397.8	11.9	12	547.7	20.8	150	TRUE	
				4	532.7	17.3	533	TRUE	
Waneagu CHS	20	413.1	12.0	18	480.0	12.4	67		
Warohinou Primary	12	425.0	9.1	15	442.4	7.1	17		TRUE
Yandina CHS	46	411.5	6.1	36	513.3	7.4	102		
Zaru Primary	4	337.1	11.8	4	443.6	40.3	107	TRUE	
Zion Christian Academy CHS	14	376.8	15.6	9	567.4	8.8	191	TRUE	
							109		

APPENDIX Table 10 English S4 Item facility by Province

item	Type	Strand	Descriptor	Facility ALL	Central Islands Province	Choiseul Province	Guadalcanal Province	Honiara Province	Isabel Province	Makira & Ulawa Province	Malaita Province	Rennell & Bellona	Temotu Province	Western Province
Q01	MC	Reading	Order events in text	**46%**	42%	36%	42%	51%	50%	34%	48%	36%	61%	43%
Q02	MC	Reading	Retrieve literal information from text	**74%**	74%	75%	65%	82%	77%	67%	73%	67%	78%	69%
Q03	MC	Reading	Identify relationships from text	**74%**	67%	72%	69%	78%	76%	68%	75%	84%	80%	70%
Q04	MC	Reading	Retrieve literal information from text	**78%**	79%	73%	73%	89%	71%	73%	83%	73%	80%	75%
Q05	MC	Reading	Retrieve literal information from text	**79%**	72%	74%	80%	89%	80%	70%	82%	64%	79%	77%
Q06	MC	Reading	Retrieve literal information from text	**77%**	72%	69%	74%	87%	75%	66%	82%	82%	82%	75%
Q07	MC	Reading	Interpret meaning of words in text	**56%**	51%	48%	58%	67%	56%	48%	54%	60%	59%	52%
Q08	MC	Reading	Identify relationships from text	**81%**	42%	44%	51%	62%	58%	40%	46%	62%	60%	45%
Q09	MC	Reading	Interpret information in text	**51%**	77%	82%	79%	86%	82%	72%	86%	76%	81%	80%
Q10	CR	Reading	Interpret information and construct answer	**21%**	11%	18%	17%	31%	25%	13%	18%	13%	23%	17%
Q11	CR	Reading	Retrieve literal information and construct answer	**58%**	52%	50%	59%	72%	58%	43%	62%	38%	63%	54%
Q12	CR	Reading	Retrieve literal information and construct answer	**39%**	36%	37%	35%	49%	36%	23%	41%	33%	41%	39%
Q13a	CR	Reading	Retrieve literal information from text	**61%**	62%	52%	59%	68%	62%	50%	64%	60%	62%	61%
Q13b	CR	Reading	Retrieve additional information from text	**41%**	42%	31%	39%	47%	39%	35%	43%	38%	48%	41%
Q14i	MC	Reading	Identify synonym	**39%**	40%	30%	40%	44%	39%	27%	39%	58%	43%	38%
Q14ii	MC	Reading	Identify common synonym	**64%**	64%	58%	64%	68%	60%	58%	68%	62%	68%	62%
Q14iii	MC	Reading	Identify common synonym	**55%**	54%	43%	58%	67%	51%	43%	55%	47%	61%	53%
Q14iv	MC	Reading	Identify synonym	**44%**	42%	35%	45%	50%	36%	37%	43%	38%	54%	46%
Q15	MC	Language	Identify correct personal pronoun	**37%**	41%	48%	40%	56%	21%	35%	33%	24%	24%	29%
Q16	MC	Language	Identify pronoun	**66%**	68%	54%	64%	78%	61%	57%	64%	53%	72%	66%
Q17	MC	Language	Identify correct comparative form	**44%**	41%	31%	41%	54%	46%	40%	41%	27%	52%	40%

item	Type	Strand	Descriptor	Facility ALL	Central Islands Province	Choiseul Province	Guadalcanal Province	Honiara Province	Isabel Province	Makira & Ulawa Province	Malaita Province	Rennell & Bellona	Temotu Province	Western Province
Q18	MC	Language	Identify correct tense of verb	**56%**	52%	49%	55%	72%	58%	49%	54%	31%	54%	51%
Q19	MC	Language	Identify correct article	**59%**	52%	46%	62%	68%	54%	53%	66%	56%	65%	57%
Q20	MC	Language	Identify personal pronoun	**89%**	86%	89%	88%	94%	91%	84%	91%	84%	89%	85%
Q21	MC	Language	Identify correct tense of verb	**55%**	39%	47%	48%	72%	55%	45%	65%	33%	60%	47%
Q22	MC	Language	Identify correct comparative form	**17%**	20%	13%	16%	19%	15%	11%	14%	13%	28%	16%
Q23	MC	Language	Select correct sentence structure	**26%**	24%	19%	23%	35%	35%	19%	24%	4%	23%	21%
Q24	MC	Language	Select correct sentence structure	**31%**	33%	34%	24%	25%	35%	26%	30%	18%	41%	33%
Q25	MC	Language	Identify correct spelling of common word	**86%**	82%	80%	82%	95%	89%	82%	92%	60%	87%	78%
Q26	MC	Language	Identify correct spelling of complex word	**65%**	62%	59%	63%	75%	69%	55%	59%	51%	72%	58%
Q27	CR	Language	Construct sentence using given words	**39%**	72%	54%	71%	81%	86%	69%	105%	27%	93%	72%
Q28	CR	Language	Correct selection of word for cloze		2.1	1.3	1.9	3.1	2.2	1.7	2.3	1.6	2.5	2.1
Q29i	CR	Language	Correct selection of word for cloze		0.8	0.7	1.1	1.0	1.0	1.0	1.0	0.6	1.1	0.9
Q29ii	CR	Language	Correct selection of word for cloze		0.9	0.7	1.3	1.3	1.3	1.3	1.3	0.7	1.4	1.2
Q29iii	CR	Language	Correctly complete punctuation in sentence		1.1	1.1	1.4	1.5	1.5	1.4	1.4	0.5	1.6	1.3

APPENDIX Table 11 English S6 Item facility by Province

item	Type	Strand	Descriptor	Facility ALL	Central Islands Province	Choiseul Province	Guadalcanal Province	Honiara Province	Isabel Province	Makira & Ulawa Province	Malaita Province	Rennell & Bellona	Temotu Province	Western Province
Q01	MC	Reading	Retrieve literal information from text	**90%**	90%	88%	86%	95%	93%	89%	90%	94%	88%	85%
Q02	MC	Reading	Retrieve literal information from text	**89%**	89%	86%	87%	94%	91%	83%	90%	94%	87%	84%
Q03	MC	Reading	Interpret meaning of words in text	**69%**	70%	62%	71%	81%	60%	60%	70%	76%	64%	65%
Q04	MC	Reading	Identify relationships from text	**61%**	53%	46%	63%	72%	62%	65%	61%	56%	54%	53%
Q05	MC	Reading	Interpret information in text	**89%**	86%	88%	88%	90%	88%	89%	89%	91%	89%	87%
Q06	MC	Reading	Interpret information in text	**61%**	58%	51%	51%	74%	62%	61%	60%	62%	62%	57%
Q07	MC	Reading	Draw inference from information in text	**48%**	40%	46%	50%	50%	42%	51%	54%	47%	54%	46%
Q08	MC	Reading	Interpret information in text	**39%**	34%	32%	39%	43%	39%	42%	39%	41%	41%	34%
Q09	CR	Reading	Retrieve information in text and construct response	**29%**	23%	27%	23%	41%	30%	28%	29%	26%	24%	18%
Q10	CR	Reading	Draw inference from information in text and construct response	**19%**	16%	11%	22%	28%	14%	19%	18%	18%	18%	13%
Q11	CR	Reading	Interpret information in text and construct response	**9%**	4%	9%	12%	12%	10%	5%	7%	9%	5%	9%
Q12	CR	Reading	Interpret information in text and construct response	**16%**	11%	6%	15%	30%	14%	16%	15%	9%	10%	11%
Q13	CR	Reading	Infer meaning from text and construct response	**11%**	7%	6%	11%	20%	9%	13%	10%	18%	8%	5%
Q14i	CR	Reading	Construct meaning of word in text/context	**22%**	21%	15%	20%	25%	34%	18%	32%	21%	7%	13%
Q14ii	CR	Reading	Construct meaning of word in text/context	**17%**	24%	8%	14%	25%	24%	14%	16%	15%	7%	8%
Q14iii	CR	Reading	Construct meaning of word in text/context	**14%**	15%	11%	22%	12%	23%	13%	21%	38%	6%	4%
Q14iv	CR	Reading	Construct meaning of word in text/context	**31%**	26%	16%	29%	50%	35%	30%	24%	41%	20%	21%
Q14v	CR	Reading	Construct meaning of word in text/context	**32%**	26%	17%	32%	48%	33%	33%	31%	32%	25%	21%
Q15	CR	Language	Select correct personal pronoun	**65%**	73%	75%	61%	73%	58%	72%	58%	71%	48%	58%
item	**Type**	**Strand**	**Descriptor**	**Facility ALL**	**Central Islands**	**Choiseul Province**	**Guadalcanal**	**Honiara Province**	**Isabel Province**	**Makira & Ulawa**	**Malaita Province**	**Rennell & Bellona**	**Temotu Province**	**Western Province**

					Province		Province			Province				
Q16	CR	Language	Select correct pronoun	**59%**	58%	53%	50%	71%	56%	67%	57%	41%	59%	51%
Q17	CR	Language	Select correct adverb	**55%**	54%	50%	52%	68%	54%	58%	48%	56%	44%	53%
Q18	CR	Language	Select correct adverb	**74%**	79%	60%	68%	85%	77%	75%	72%	79%	67%	68%
Q19	CR	Language	Select correct comparative	**24%**	31%	23%	24%	30%	22%	27%	19%	21%	19%	17%
Q20	CR	Language	Select correct adjective	**41%**	43%	31%	47%	50%	39%	39%	36%	47%	31%	39%
Q21	CR	Language	Select correct verb in context	**57%**	56%	46%	57%	70%	55%	56%	44%	53%	52%	55%
Q22	CR	Language	Select correct verb in context	**73%**	76%	68%	71%	84%	76%	66%	68%	82%	67%	62%
Q23	MC	Language	Identify correct comparative form	**68%**	70%	67%	72%	80%	66%	68%	60%	56%	60%	57%
Q24	MC	Language	Identify correct tense of verb	**69%**	72%	63%	64%	80%	68%	65%	64%	71%	67%	65%
Q25	MC	Language	Identify correct tense of verb	**69%**	69%	65%	64%	80%	67%	70%	68%	71%	73%	56%
Q26	MC	Language	Identify correct comparative form	**27%**	22%	22%	21%	37%	33%	26%	22%	32%	24%	21%
Q27	MC	Language	Select correct sentence structure	**34%**	31%	24%	30%	53%	30%	37%	33%	35%	24%	22%
Q28	MC	Language	Select correct sentence structure	**28%**	26%	33%	26%	31%	26%	27%	28%	12%	30%	28%
Q29i	CR	Language	Correct selection of word for cloze		3.5	2.3	3.0	4.0	3.0	3.1	3.3	3.2	2.8	2.7

APPENDIX Table 12 Mathematics S4 Item facility by Province

item	Type	Strand	Descriptor	Facility ALL	Central Islands Province	Choiseul Province	Guadalcanal Province	Honiara Province	Isabel Province	Makira & Ulawa Province	Malaita Province	Rennell & Bellona	Temotu Province	Western Province
Q01	CR	Number	Express number in words	**80%**	76%	79%	69%	84%	85%	82%	80%	66%	84%	77%
Q02	CR	Number	Converts number in words to figures	**70%**	70%	73%	57%	73%	74%	66%	68%	53%	75%	70%
Q03a	MC	Number	Identify place value	**78%**	78%	74%	70%	80%	83%	77%	74%	60%	81%	81%
Q03b	CR	Number	Identify and write place value	**61%**	61%	62%	57%	61%	69%	58%	57%	49%	67%	58%
Q04	CR	Number	Order numbers small to large	**74%**	65%	83%	66%	76%	74%	73%	79%	51%	78%	72%
Q05a	CR	Number	Round to nearest 10	**49%**	49%	41%	47%	50%	61%	40%	40%	85%	57%	48%
Q05b	CR	Number	Round to nearest 1000	**32%**	33%	25%	29%	28%	44%	28%	28%	53%	41%	27%
Q06a	CR	Addition	Addition 3 x 3 without trading	**92%**	92%	92%	92%	90%	91%	94%	94%	83%	94%	92%
Q06b	CR	Addition	Addition 4 x 3 without trading	**80%**	84%	72%	82%	79%	82%	79%	81%	77%	82%	79%
Q06c	CR	Addition	Addition 4 x 3 with trading	**68%**	69%	68%	66%	63%	82%	71%	53%	49%	76%	66%
Q06d	CR	Addition	Addition 4 x 4 with trading	**70%**	68%	69%	67%	70%	81%	72%	66%	51%	79%	63%
Q07	CR	Addition	Addition - word problem with trading	**68%**	66%	63%	63%	69%	77%	68%	65%	34%	72%	68%
Q08	CR	Addition	Addition - word problem with trading	**61%**	63%	53%	60%	64%	67%	56%	60%	30%	66%	58%
Q09a	CR	Subtraction	Subtraction 3 x 3 includes zero	**90%**	90%	90%	88%	89%	91%	91%	89%	83%	94%	88%
Q09b	CR	Subtraction	Subtraction 3 x 3 without trading	**39%**	35%	39%	33%	36%	55%	36%	35%	11%	43%	45%
Q09c	CR	Subtraction	Subtraction 4 x 3 without trading	**82%**	84%	76%	81%	81%	88%	84%	76%	70%	86%	84%
Q09d	CR	Subtraction	Subtraction 4 x 4 with trading	**40%**	40%	43%	35%	33%	55%	36%	32%	17%	45%	45%
Q10	CR	Subtraction	Subtraction - word problem with zero	**33%**	29%	31%	29%	29%	47%	33%	27%	15%	40%	31%
Q11	CR	Subtraction	Subtraction - word problem with trading	**46%**	44%	39%	42%	51%	54%	42%	41%	19%	47%	49%
Q12a	MC	Multiplication	Multiplication 2 digit by 1 digit	**45%**	51%	40%	40%	49%	47%	47%	42%	43%	46%	44%
Q12b	CR	Multiplication	Multiplication 2 digit by 1 digit	**70%**	77%	64%	69%	69%	75%	76%	67%	74%	68%	64%
Q12c	CR	Multiplication	Multiplication 2 digit by 1 digit	**39%**	45%	36%	38%	37%	52%	43%	32%	17%	38%	34%
Q12d	CR	Multiplication	Multiplication 3 digit by 1 digit	**25%**	31%	16%	22%	24%	36%	29%	23%	17%	28%	19%
Q13	CR	Division	Division- number fact	**83%**	88%	80%	79%	85%	83%	83%	87%	85%	79%	81%
Q14	CR	Division	Division- number fact	**77%**	83%	77%	73%	76%	78%	76%	84%	85%	74%	71%
Q15a	CR	Division	Division- number fact	**70%**	79%	66%	65%	67%	78%	68%	77%	79%	65%	69%
item	**Type**	**Strand**	**Descriptor**	**Facility ALL**	**Central Islands**	**Choiseul Province**	**Guadalcanal**	**Honiara Province**	**Isabel Province**	**Makira & Ulawa**	**Malaita Province**	**Rennell & Bellona**	**Temotu Province**	**Western Province**

					Province		Province			Province				
Q15b	CR	Division	Division- number fact	**64%**	73%	58%	57%	62%	75%	53%	71%	74%	58%	64%
Q15c	CR	Division	Division- number fact	**59%**	67%	51%	52%	58%	69%	51%	74%	74%	51%	57%
Q16	CR	Fractions	Identify fraction of whole	**59%**	69%	48%	62%	59%	64%	56%	61%	68%	55%	57%
Q17	CR	Fractions	Oder Fractions low to high	**4%**	5%	4%	9%	2%	4%	2%	6%	2%	2%	4%
Q18	CR	Fractions	Calculate fraction of value	**37%**	38%	29%	43%	33%	42%	24%	49%	43%	44%	35%
Q19	CR	Fractions	Put fraction on number line	**29%**	29%	21%	36%	26%	27%	26%	31%	30%	36%	26%
Q20a	CR	Shapes	Identify regular 2D shape	**87%**	92%	87%	88%	84%	88%	89%	90%	79%	87%	86%
Q20b	CR	Shapes	Identify common 3D object	**36%**	22%	37%	38%	28%	46%	32%	43%	11%	41%	43%
Q20c	CR	Shapes	Identify regular 2D shape	**75%**	76%	70%	73%	76%	75%	70%	79%	66%	73%	78%
Q20d	CR	Shapes	Identify common 3D object	**45%**	42%	36%	46%	45%	54%	40%	56%	26%	40%	46%
Q21a	CR	Shapes	Identify number of sides in regular 2D shape	**85%**	83%	83%	88%	85%	85%	85%	91%	83%	81%	83%
Q21b	CR	Shapes	Identify number of corners in regular 2D shape	**84%**	82%	84%	82%	84%	84%	86%	87%	94%	86%	81%
Q21c	CR	Shapes	Identify lines of symmetry in regular 2D shape	**38%**	47%	33%	41%	25%	43%	30%	39%	38%	56%	38%
Q21d	CR	Shapes	Identify parallel lines in regular 2D shape	**35%**	43%	33%	42%	25%	35%	29%	34%	38%	46%	37%
Q22a	CR	Shapes	Identify number of faces in 3D object	**41%**	47%	38%	39%	28%	48%	41%	42%	26%	55%	40%
Q22b	CR	Shapes	Identify number of edges in 3D object	**18%**	27%	11%	16%	14%	29%	18%	24%	6%	18%	13%
Q22c	CR	Shapes	Identify number of corners in 3D object	**53%**	53%	44%	48%	51%	60%	52%	59%	66%	58%	49%
Q23	CR	Angles	Identify relative angle size	**38%**	38%	38%	39%	34%	43%	49%	40%	21%	33%	33%
Q24	CR	Angles	Draw angle of relative size	**66%**	62%	57%	61%	67%	69%	71%	73%	57%	73%	61%
Q25	MC	Location	Identify coordinates of point in grid	**48%**	52%	49%	50%	49%	51%	44%	50%	30%	51%	43%
Q26a	CR	Location	Identify Point from coordinates	**74%**	76%	69%	73%	73%	74%	76%	73%	77%	76%	72%
Q26b	CR	Location	Write coordinates of identified point	**56%**	65%	54%	55%	53%	57%	54%	54%	32%	63%	57%
Q27a	CR	Graphs	Complete tally table	**82%**	81%	86%	75%	81%	86%	82%	81%	64%	80%	84%
Q27b	CR	Graphs	Draw vertical bar chart	**79%**	78%	82%	74%	81%	82%	76%	79%	64%	77%	81%
Q28	CR	Graphs	Draw horizontal bar chart	**80%**	81%	75%	81%	80%	80%	80%	85%	79%	77%	78%
Q29a	CR	Measurement	Calculate perimeter sides given	**76%**	76%	79%	78%	76%	80%	79%	75%	66%	76%	74%
Q29b	CR	Measurement	Calculate perimeter sides deduced	**44%**	50%	40%	47%	33%	55%	44%	42%	26%	48%	45%
item	**Type**	**Strand**	**Descriptor**	**Facility ALL**	**Central Islands Province**	**Choiseul Province**	**Guadalcanal Province**	**Honiara Province**	**Isabel Province**	**Makira & Ulawa Province**	**Malaita Province**	**Rennell & Bellona**	**Temotu Province**	**Western Province**

Q30	CR	Measurement	Calculate area	**16%**	19%	18%	17%	11%	19%	14%	21%	6%	20%	15%
Q31	CR	Measurement	Word problem - calculate perimeter	**27%**	28%	17%	27%	19%	34%	24%	32%	38%	34%	29%
Q32a	CR	Measurement	Add weights in grams	**43%**	46%	36%	38%	47%	51%	34%	40%	28%	46%	42%
Q32b	CR	Measurement	Subtract weights in grams	**13%**	12%	12%	7%	11%	28%	11%	9%	2%	22%	13%
Q33a	MC	Time	Recognise time on analogue clock	**32%**	38%	26%	25%	28%	46%	37%	36%	9%	35%	23%
Q33b	CR	Time	Recognise time on analogue clock	**42%**	51%	32%	40%	39%	49%	48%	38%	43%	48%	39%
Q34a	CR	Time	Find time in a table	**68%**	69%	51%	68%	73%	73%	66%	68%	53%	67%	67%
Q34b	CR	Time	Find time in a table	**59%**	61%	42%	54%	64%	63%	60%	65%	45%	59%	55%
Q35a	MC	Money	Addition of money without carry	**75%**	76%	80%	66%	81%	78%	74%	81%	66%	76%	64%
Q35b	CR	Money	Addition of money with trading	**47%**	47%	48%	37%	51%	56%	45%	42%	19%	48%	45%
Q36a	CR	Money	Subtraction of money with trading	**29%**	28%	27%	23%	26%	38%	32%	28%	15%	31%	29%
Q36b	CR	Money	Subtraction of money with trading	**28%**	26%	23%	22%	25%	39%	32%	25%	15%	33%	26%
Q37	CR	Money	Calculate change	**30%**	34%	24%	32%	29%	38%	25%	31%	26%	33%	29%
Q38	CR	Money	Find difference in money	**37%**	46%	26%	36%	31%	44%	37%	39%	49%	44%	36%
Q39	CR	Money	Find sum of shopping list - money	**43%**	43%	33%	38%	45%	50%	36%	47%	17%	48%	42%

APPENDIX Table 13 Mathematics S6 Item facility by Province

item	Type	Strand	Descriptor	Facility ALL	Central Islands Province	Choiseul Province	Guadalcanal Province	Honiara Province	Isabel Province	Makira & Ulawa Province	Malaita Province	Rennell & Bellona	Temotu Province	Western Province
Q01a	CR	Number	Addition 4 x 4 with trading	**94%**	97%	95%	92%	93%	96%	94%	95%	91%	96%	91%
Q01b	CR	Number	Addition 6 x 5 with trading	**83%**	84%	84%	80%	85%	89%	78%	80%	74%	84%	80%
Q02a	CR	Number	Subtraction 4 x 4 with trading	**79%**	79%	83%	77%	81%	82%	74%	78%	68%	82%	75%
Q02b	CR	Number	Subtraction 6 x 5 with trading	**76%**	81%	76%	71%	80%	77%	75%	74%	82%	75%	75%
Q03a	CR	Number	Multiplication 3 digit by 1 digit	**74%**	72%	71%	72%	77%	83%	78%	74%	76%	64%	69%
Q03b	CR	Number	Multiplication 4 digit by 2 digit	**53%**	59%	48%	53%	57%	60%	50%	55%	32%	46%	41%
Q04a	CR	Number	Division- number fact	**79%**	81%	81%	77%	83%	86%	72%	84%	94%	72%	70%
Q04b	CR	Number	Division - 3 digit divide by 2 digit	**60%**	61%	58%	56%	68%	68%	51%	64%	32%	55%	46%
Q04c	CR	Number	Division - 4 digit divide by 2 digit	**37%**	37%	33%	31%	45%	47%	29%	37%	9%	25%	34%
Q05a	CR	Number	Word problem mixed operations	**77%**	82%	80%	86%	77%	79%	73%	77%	68%	75%	72%
Q05b	CR	Number	Order of operations	**53%**	57%	52%	48%	58%	63%	46%	56%	41%	44%	41%
Q06	CR	Number	Word problem division	**59%**	62%	53%	59%	69%	60%	53%	59%	50%	58%	46%
Q07	CR	Number	Word problem mixed operations	**55%**	56%	48%	56%	64%	56%	51%	60%	29%	56%	43%
Q08a	CR	Money	Addition of money without carry	**95%**	95%	96%	93%	95%	96%	97%	92%	91%	97%	94%
Q08b	CR	Money	Addition of money with trading	**87%**	86%	86%	84%	89%	88%	87%	87%	88%	88%	85%
Q08c	CR	Money	Subtraction of money with trading	**78%**	81%	78%	76%	77%	83%	78%	77%	76%	81%	72%
Q08d	CR	Money	Subtraction of money with trading	**76%**	78%	75%	76%	77%	80%	78%	75%	82%	76%	68%
Q09a	CR	Money	Multiplication involving money	**61%**	63%	53%	60%	65%	69%	52%	64%	50%	63%	53%
Q09b	CR	Money	Multiplication involving money	**81%**	83%	79%	81%	83%	86%	85%	80%	79%	83%	72%
Q10a	CR	Money	Division involving money	**55%**	57%	55%	55%	59%	63%	52%	59%	53%	43%	48%
Q10b	CR	Money	Division involving money	**41%**	51%	45%	38%	45%	44%	35%	46%	32%	33%	29%
Q11a	CR	Graphs	Identify value in graph	**93%**	93%	92%	91%	95%	94%	90%	93%	97%	92%	92%
Q11b	CR	Graphs	Calculate largest number in graph	**82%**	82%	74%	74%	89%	86%	79%	80%	79%	85%	77%
Q11c	CR	Graphs	Calculate difference from information in graph	**38%**	50%	26%	39%	43%	49%	36%	41%	32%	37%	21%
Q12a	CR	Graphs	Complete tally table	**83%**	84%	85%	81%	84%	86%	88%	83%	82%	79%	73%
Q12b	CR	Graphs	Draw vertical bar chart	**86%**	92%	86%	88%	87%	91%	85%	89%	85%	83%	77%

item	Type	Strand	Descriptor	Facility ALL	Central Islands Province	Choiseul Province	Guadalcanal Province	Honiara Province	Isabel Province	Makira & Ulawa Province	Malaita Province	Rennell & Bellona	Temotu Province	Western Province
Q13a	CR	Graphs	Identify greatest value from information in graph	**91%**	93%	89%	85%	96%	94%	85%	94%	91%	92%	85%
Q13b	CR	Graphs	Identify value from information in graph	**81%**	82%	79%	76%	86%	87%	71%	85%	82%	79%	73%
Q13c	CR	Graphs	Calculate average from information in graph	**30%**	35%	32%	26%	31%	50%	21%	26%	26%	20%	25%
Q14	CR	Fractions	Write fraction in sequence	**57%**	62%	53%	64%	57%	58%	52%	64%	56%	59%	48%
Q15	CR	Fractions	Calculate equivalent fraction	**51%**	50%	49%	43%	55%	62%	40%	50%	65%	49%	46%
Q16a	CR	Fractions	Reduce improper fraction	**56%**	57%	55%	58%	62%	64%	50%	58%	74%	50%	44%
Q17a	CR	Fractions	Subtract fraction with common denominator	**76%**	79%	74%	74%	79%	82%	70%	78%	82%	76%	64%
Q17b	CR	Fractions	Add fraction with common denominator	**75%**	83%	77%	73%	73%	81%	68%	78%	79%	74%	70%
Q17c	CR	Fractions	Add fraction with uncommon denominator	**33%**	33%	22%	28%	41%	44%	24%	39%	9%	27%	27%
Q17d	CR	Fractions	Calculate fraction of value	**39%**	52%	34%	35%	42%	50%	27%	45%	35%	33%	26%
Q18a	CR	Fractions	Convert proper fraction to percentage	**48%**	49%	50%	40%	48%	67%	44%	56%	18%	49%	35%
Q18b	CR	Fractions	Convert decimal to percentage	**47%**	50%	47%	51%	46%	64%	47%	40%	44%	43%	38%
Q19a	CR	Fractions	Covert percentage to decimal	**59%**	66%	60%	52%	61%	71%	57%	53%	56%	62%	47%
Q19b	CR	Fractions	Convert proper fraction to decimal	**43%**	50%	39%	36%	45%	57%	39%	42%	26%	40%	33%
Q20	CR	Fractions	Convert decimal to proper fraction	**46%**	51%	49%	40%	43%	60%	36%	56%	38%	36%	44%
Q21	CR	Fractions	Identify place value in mixed number	**5%**	3%	7%	7%	4%	10%	4%	5%	3%	4%	2%
Q22	CR	Fractions	Round to nearest tenth	**45%**	46%	40%	42%	50%	55%	41%	49%	35%	41%	35%
Q23a	CR	Fractions	Add fractions with trading	**82%**	83%	78%	81%	85%	88%	75%	80%	82%	84%	77%
Q23b	CR	Fractions	Add fractions with trading	**70%**	69%	65%	73%	75%	75%	62%	68%	59%	70%	62%
Q24a	CR	Fractions	Subtract fractions with trading	**85%**	86%	85%	84%	86%	89%	80%	82%	74%	87%	85%
Q24b	CR	Fractions	Subtract fractions without trading	**57%**	52%	56%	57%	65%	57%	54%	57%	53%	51%	54%
Q25a	CR	Fractions	Multiply fraction by whole number	**67%**	70%	63%	69%	73%	75%	60%	64%	56%	64%	60%
Q25b	CR	Fractions	Multiply fraction by whole number	**62%**	56%	56%	62%	68%	69%	55%	67%	47%	55%	58%
Q26a	CR	Fractions	Divide fraction by whole number	**22%**	21%	18%	19%	24%	29%	22%	24%	18%	18%	15%
Q26b	CR	Fractions	Divide fraction by whole number	**28%**	26%	19%	25%	32%	39%	21%	35%	21%	18%	20%
Q27	CR	Measurement	Calculate volume of regular 3D object	**46%**	53%	46%	42%	53%	53%	43%	48%	21%	44%	28%
item	Type	Strand	Descriptor	Facility	Central	Choiseul	Guadalca	Honiara	Isabel	Makira &	Malaita	Rennell &	Temotu	Western

				ALL	Islands Province	Province	nal Province	Province	Province	Ulawa Province	Province	Bellona	Province	Province
Q28	CR	Time Zones	Identify time using zone chart	**47%**	43%	43%	49%	55%	50%	37%	56%	50%	46%	36%
Q29a	CR	Shapes and Space	Angle properties of common 2D shape	**21%**	28%	5%	18%	27%	13%	18%	28%	24%	18%	21%
Q29b	CR	Shapes and Space	Side properties of regular 2D shape	**25%**	24%	10%	33%	34%	19%	16%	34%	18%	23%	18%
Q30a	CR	Shapes and Space	Calculate angle size in common 2D shape	**63%**	73%	48%	64%	66%	68%	60%	65%	62%	56%	61%
Q30b	CR	Shapes and Space	Calculate angle size in common 2D shape	**58%**	62%	51%	62%	56%	59%	59%	66%	56%	63%	47%
Q31a	CR	Word Problems	Word problem - calculate percentage of value	**31%**	47%	17%	32%	32%	37%	32%	36%	26%	22%	22%
Q31b	CR	Word Problems	Word problem - calculate percentage	**10%**	11%	5%	16%	10%	9%	8%	16%	12%	4%	6%
Q32	CR	Word Problems	Word problem - calculate percentage	**39%**	52%	25%	34%	43%	54%	38%	42%	32%	29%	31%
Q33	CR	Word Problems	Word problem - calculate percentage of value	**15%**	32%	7%	17%	17%	18%	12%	19%	24%	8%	7%
Q34	CR	Word Problems	Word problem - ratio	**55%**	69%	52%	54%	60%	58%	52%	58%	68%	48%	43%
Q35	CR	Word Problems	Word problem - ratio	**29%**	44%	18%	31%	33%	36%	17%	33%	24%	23%	19%
Q36a	CR	Word Problems	Convert units of measurement	**40%**	42%	33%	49%	34%	50%	43%	47%	29%	35%	37%
Q36b	CR	Word Problems	Convert units of measurement	**42%**	49%	39%	41%	40%	54%	40%	46%	41%	38%	30%
Q36c	CR	Word Problems	Convert units of measurement	**29%**	34%	29%	24%	28%	45%	25%	31%	24%	22%	21%
Q37	CR	Word Problems	Rates involving distance and time	**39%**	50%	31%	47%	45%	43%	31%	43%	21%	33%	27%
Q38	CR	Word Problems	Word problem - calculation of cost	**51%**	58%	40%	55%	61%	56%	41%	53%	32%	45%	38%
Q39	CR	Word Problems	Word problem - division	**45%**	57%	37%	46%	49%	51%	40%	56%	47%	31%	33%
Q40	CR	Word Problems	Word problem - difference	**56%**	71%	46%	54%	56%	63%	55%	64%	59%	42%	45%