Naldives 2017 National Assessment of Learning Outcomes in Dhivehi, English and Mathematics

Grades 4 & 7





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Foreword by Minister of Education

Measuring student learning across a school system is progressively recognized as indispensable for monitoring the quality, as well as the success of the system. National Assessments foster greater accountability and assist in informing the effectiveness of educational policies being implemented to enhance student performance in the school system. The information from National Assessments is vital in formulating effective education policies and practices. The information is also utilized at individual school levels to improve the overall achievement of the students. Furthermore,



National Assessments provide valuable guidance for targeting technical assistance and training where required in the school system.

National Assessment of Learning Outcomes (NALO) comprises of assessments administered in the subjects English Language, Mathematics and Dhivehi Language for a representative sample from grades 4 and 7 across government schools. The assessment of a core set of skills every assessment cycle allows NALO to develop a comprehensive picture of students' educational development over time. Similarly, NALO 2017 included survey questionnaires for students and teachers which provided further information on the factors affecting student performance.

The National Assessment of Learning Outcomes 2017 is the last round of assessments in a 3-year cycle providing a baseline from which student performance in literacy and numeracy can be measured in a systematic manner leading to better educational policies and to the development of advanced cognitive skills in the nation's students. This is invaluable information for ensuring the full implementation of the government policy of "no child left behind" by providing safe and happy pathways for every child to succeed at school.

I express my sincere appreciation to the World Bank for financially supporting the current round of National Assessment of Learning Outcomes. The Schools that participated in the cycles of these assessments are also valued for their time and effort in making this process a success. Furthermore, I acknowledge the perseverance and dedication of the staff of Quality Assurance Department in conducting the NALO activities on schedule.

Dr. Aishath Shiham Minister of Education

Foreword by the Deputy Minister of Education

It is with a great sense of achievement that we launch the third publication of the National Assessment of Learning Outcomes (NALO) in Maldivian schools, for the cycle 2015-2017.

NALO 2017 completes a cycle of three National Assessments conducted to provide a benchmark for future National Assessment activities. Valuable information has been collected regarding the status of student learning and the factors that influence teaching



and learning in schools around the country. The assessment protocols have been tested and valuable information on improving these protocols has been collected. Furthermore areas for further study have been identified.

NALO 2017 assessed the learning outcomes of students in Dhivehi, English and Mathematics at Grades 4 and 7 across the country. A nation-wide sample of 3136 students and 284 teachers from Grade 4, and 2499 students and 267 teachers from Grade 7 were taken for this analysis. Some of the findings are highlighted below:

- The majority of students have achieved the minimum learning outcomes assessed in Dhivehi, English and Mathematics Grades 4 and 7 across the country.
- Over 85% of the students in the sample enjoyed the time in school and considered the classrooms to be well resourced and conducive to learning.
- Over 48% of students at Grade 4 used internet at home for study purpose this ratio increased significantly at Grade 7 to 65%.
- Girls out-performed boys in all subject areas.

Parallel studies to further explore these and other findings of NALO 2017 are in progress. The results of these studies will impact the design and implementation of the next cycle of National Assessments.

Let me make use of this opportunity to express our gratitude to the World Bank for financially

supporting NALO and to the various agencies in of the Ministry of Education for their logistical support. I salute the staff of the Quality Assurance Department for their commitment and hard work that resulted in the successful completion of the current cycle of NALO.

We at the Quality Assurance Department remain committed to improving the quality of school education in Maldives and ensuring that Maldivian students receive a world-class school education under the No Child Left Behind policy of the Government.

Dr. Abdul Muhsin Mohamed Deputy Minister of Education

1. Executive Summary

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This is the third publication of the National Assessment of Learning Outcomes (NALO) in Dhivehi, English and Mathematics for Grades 4 and 7 in Maldivian schools under the technical assistance from the World Bank. NALO 2017 was conducted in 103 schools nationwide (from 20 atolls and greater Male' region) in the first week of October 2017.

A total of 3136 students from Grade 4, 2499 students from Grade 7, 284 teachers from Grade 4 and 267 teachers from Grade 7 were selected for this assessment.

Quantitative methods of structured test papers, based on the learning outcomes covered in Dhivehi, English and Mathematics Syllabi, were designed along with a questionnaire for both students and teachers in Grades 4 and 7 in 2017.

While the students' test papers were focused on determining their achievements in learning outcomes, the questionnaire was formulated to determine the students' demographics and learning habits that may be related to their learning outcomes in Dhivehi, English and Mathematics in Grades 4 and 7. Meanwhile, the teachers' questionnaires focused on identifying teachers' demographics and classroom practices that may be related to student learning outcomes in the above subjects.

Assessment data was manually entered to Microsoft Excel, and SPSS software was used to clean and analyse the data.

The 2017 NALO focused on determining the cognitive learning outcomes of Dhivehi, English and Mathematics among students in Grades 4 and 7. The findings of this study were also compared with previous NALO studies conducted in 2015 English/Mathematics and 2016 Dhivehi in both Grades 4 and 7 to see the trends in student learning outcomes.

When the students' performance in Dhivehi, English and Mathematics in Grades 4 and 7 were

compared between 2017 NALO and NALO conducted in 2015 and 2016, the findings suggest that students' performance in Dhivehi language has dropped by 5.4 percent in Grade 4 while Grade 7 students' performance has improved by 9.24 percent. Similarly, students' performance in Mathematics has dropped by 0.46 percent in Grade 4 while Grade 7 students' performance has improved by 4.87 percent in 2017. In contrast, students' performance in English language has improved by 0.27 percent in Grade 4 while Grade 7 students' performance has dropped by 1.26 percent in 2017.

NALO 2015, 2016 and 2017, findings suggest that Maldivian girls outperformed boys in Dhivehi, English and Mathematics in both Grades 4 and 7 in primary schools across the Maldives. These findings coincide with a study that the researchers at the University of Missouri and the University of Glasgow in Glasgow, Scotland, conducted whereby they have found that girls outperformed boys in educational achievements in 70 percent of the countries they have studied (Gijsbert & Geary, 2015).

A multiple regression analysis was conducted on the students' total assessment marks and the responses from the questionnaires, to see if the correlations between them effect students' achievements in Dhivehi, English and Mathematics in Grades 4 and 7. The findings of Dhivehi Language suggested that Grades 4 and 7 students in outer island schools consistently outperformed students in urban areas such as Male'. Similarly, few schools in outer islands did better in English Grade 7, and Mathematics Grades 4 and 7 than the schools in the capital city, Male'. Hence, further research needs to be done to investigate other factors associated with students' performance.

NALO 2017 provides the education sector with valuable information on the performance of students at school, atoll and national level, and on the performance of individual students in Grades 4 and 7 in Maldivian schools. This study has important implications for the policy makers, Ministry of Education (MoE), schools, parents and community in formulating holistic policies and individual school evaluation and improvement plans.



2. Background

The Maldives is an archipelago of 1190 coral island states in the Indian Ocean, with a population of 400,000 spread across the 198 inhabited islands. Thirty seven percent of the population is under 19 years (Census, 2014). A total of 212 public schools have been established across the country to provide schooling to over 78,000 students (MoE, 2015). Provision of schooling to over one-third of the population, particularly for a growing adolescence and youth population is a national challenge for a small nation like Maldives.

Despite the unique geography, large shortage of skilled labour, high costs of delivery across the islands, and inherent vulnerabilities, due to the high value placed on investing in education, the Maldives has shown progress and incredible improvements in its education indicators including adult literacy rate of 98.4% and early childhood education being made compulsory and available for free of charge in all inhabited islands. As a result the net enrolment of early childhood education has made a remarkable progress from 51.2% in 2001 to 99.6% in 2017 (MoE, 2016). Maldives has achieved seven years of universal primary education and secondary enrolment level has been maintained close to the universal during the past decade or so.

Today, Maldives becomes the first nation in the South Asia to provide 12 years of compulsory education and 14 years of free schooling for all students. Around 88 per cent of students complete their secondary education by taking the General Certificate of Education, Ordinary Level (GCE O'Level) and Higher Secondary Certificate (HSC) examinations (MoE, 2016). Maldives also became the first nation in South Asia to gain the status of an 'MDG Plus' country by achieving 5 of the 8 Millennium Development Goals well ahead of the agreed timeline of 2015 (UNDP, 2015).

Continued investment and hard work of the many in the education system has led to an increase in students pass percentage in G.C.E. O'Level 5-subjects from 27% in 2009 to 77% in 2017 (MoE, 2018).

3. Introduction

The National Assessment conducted in 2008 for Grades 4 and 7 students in English and Mathematics show that students' achievements in both subjects were below the 40 percent marks required to get a pass grade in Maldivian schools. The average score for English and Mathematics among students of Grade 4 was just 32 and 39 percent respectively. At Grade 7 the average score for English was only 29 percent, and that for Mathematics was just 30 percent (World Bank, 2011).

Since 2008, after seven years, 2015 NALO in English/Mathematics and 2016 NALO in Dhivehi Language in Grades 4 and 7 presented the very first opportunity to examine trends in students' performance in Dhivehi, English and Mathematics in Maldivian primary schools.

As a result of the two NALO reports in 2015 and 2016, the need for another stock take in students learning outcomes in Dhivehi, English and Mathematics in Grades 4 and 7 was decided to be administered in 2017 to compare the progress of students' performances. In this report, the findings and analysis of the 2017 NALO in Dhivehi, English and Mathematics conducted by the Quality Assurance Department (QAD) will be presented.

The World Bank has provided technical assistance to the QAD through task orders under the Enhancing Education Development Project targeted for Maldives to enhance and strengthen the strategic dimensions of education access and quality.

This report consists of 4 main sections. While section 1 provides an overview of the Maldivian government's expenditure on education, section 2 outlines the purpose of conducting the 2017 NALO in Dhivehi, English and Mathematics in Grades 4 and 7 in Maldivian schools. The methodology used to administer the NALO 2017 is described in section 3. The students' performance and their attitudes towards learning Dhivehi, English and Mathematics in Grades 4 and 7 in the light of findings are presented in section 4. The findings of this study are presented graphically and in tabular format and cover gender, atoll and national contexts. Finally, the report concludes with several recommendations for researchers, educators and policy makers at the Ministry of Education.

4. Education Expenditure

Many people across the world believe that students perform better in well-funded schools. However, after decades of intensive research on causal relationships between government expenditure on education and students' performance in schools, there is no general consensus regarding the effectiveness of educational expenditures for student outcomes (Bibb & McNeal, 2012).

Some studies, however, on the effect of per-student expenditures on academic outcomes, have found either no relationship or a relationship that is either weak or inconsistent (Hanushek, 1996). Similarly, Cuesta, Glewwe and Krause (2015) found that the evidence is weak to conclude that increase in educational expenditure will have a positive impact on student achievement. However, researchers Hedges and Greenwald (1996) analyzed the same data used by Hanushek and concluded that increasing per-student expenditures has a significant positive impact on student achievement.

In Maldives, free school education including preschool is provided in all inhabited islands across the country for all students under the age of 18 years. School textbooks, stationery and other learning materials are provided by the government. School end examination fees for both GCE O'level and General Certificate of Education Advanced Level (GCE A'level) students in the country are also paid for by the Government.

Table 1 depicts the government's spending on education for the past decade, which accounted for 12.3 to 19.4 percent or approximately 5 to 6 percent of Maldives gross domestic product (GDP). It shows that the government's expenditure on education had a steady growth from 5.6 percent of the GDP in 2003 to 6.3 percent in 2011, which was above the average for all countries in South Asia.

Even though the researchers find it difficult to make a general conclusion due to lack of consistent evidence on whether education expenditures are related to academic achievement,

the pressures are building on governments across the world to increase their funding on education. As a result, the Target 8 of the World Education Agenda 2030 urges all countries progress towards allocating 4 - 6% of their GDP and 15 - 20% of their public expenditure on education.

Total government expenditure on education from 2001-2015

Year	Gov. Total Spending (in billion MVR)	Gov. Total Spending on Education (in billion MVR)	Gov. Spending on Education (%)	Nominal GDP (in billion MVR)	Nominal GDP
2001	3,066	516	16.8	10,824	4.8
2002	3,320	637	19.2	11,659	5.5
2003	3,727	724	19.4	13,356	5.4
2004	4,015	755	18.8	15,389	4.9
2005	6,025	850	14.1	14,334	5.9
2006	7,346	1,052	14.3	18,876	5.6
2007	8,725	1,314	15.1	22,349	5.9
2008	10,350	1,631	15.2	27,108	6.0
2009	11,129	1,935	16.6	27,729	7.0
2010	10,996	1,643	13.8	29,740	5.5
2011	12,664	1,797	13.2	35,768	5.0
2012	13,200	2,203	14.6	38,693	5.7
2013	13,666	2,002	13.1	42,952	4.7
2014	16,539	2,212	12.3	47,122	4.6
2015	21,441	2,981	13.9	52,787	5.6
2016	22,457	2,933	13.1	58,066	5.1

Table 1: Total government expenditure on education from 2001-2015

All 212 government schools prepare their annual budgets and send them to the MoE for approval. When allocating the final budget for schools MoE considers the remoteness of the school, distance from Male', and the size of the student population. Because of the high student teacher ratio (i.e. average 9:1) in Maldives due to the small nature of island communities, over 60 percent of the allocated school budget is spent on teachers' and other staff salary (MoE, 2017).

5. Purpose

The main objectives of a national assessment in education are to determine how well the students are learning in schools and whether there is evidence of particular strengths and weaknesses in students' learning outcomes among the subgroups in the population, and which factors are associated with students' achievement in general. To understand whether government standards are being met in the provision of resources as well as the achievements of students changes over time (Greaney and Kellaghan 2008), is another reason to conduct a national assessment.

Hence, the purpose of this study in particular is to determine the cognitive learning outcomes of Dhivehi, English and Mathematics among the students in Grades 4 and 7. Further, the findings of this study will be compared with the previous NALO studies conducted in 2015 English/ Mathematics and 2016 Dhivehi in both Grades 4 and 7 to see the trends in students learning outcomes. Similarly, the factors that are associated with students' achievements will also be discussed.

6. Methodology

As has been indicated in the previous section the purpose of this study was to determine how well the students are learning Dhivehi, English and Mathematics as prescribed in the National Curriculum Framework (NCF) in Grades 4 and 7 at primary schools in Maldives. The NCF carries a broad view of the curriculum as the entire planned learning experiences offered in schools. As such, the framework details what students are trying to achieve, how learning would be organised and how its impact would be measured (NIE, 2014).

Quantitative methods of structured test papers, based on the learning outcomes covered in Dhivehi, English and Mathematics Syllabi, were designed along with a questionnaire for both students and teachers in Grades 4 and 7 in 2017.

While the students' test papers were focused on determining their achievements in learning outcomes, the questionnaire was formulated to determine the students' demographics and learning habits that may be related to their learning outcomes in Dhivehi, English and Mathematics in Grades 4 and 7. Meanwhile, the teachers' questionnaire focused on identifying teachers' demographics and classroom practices that may be related to student learning

The assessment framework and test items developed by the international consultant for NALO in 2015 and 2016 were used in this study as a guide to ensure the universal best practices are followed in its design and implementation. After the test items were versioned they were moderated by the subject panels from the NIE to make sure that the items were aligned with the learning outcomes prescribed in the NCF.

Test items in the test papers of NALO 2017 were the same items developed for NALO 2015 (English and Mathematics) and 2016 (Dhivehi) in Grades 4 and 7, which were piloted in 2015 as part of the testing protocol to ensure the validity and fairness of the test items. The piloting involved administering of the test items on a sample of schools and learners. The scoring and statistical analysis of these items provided data on the suitability for its inclusion in the final test. This assessment was conducted on a representative sample basis, rather than a census basis and the student learning outcomes were limited to those related to Dhivehi, English and Mathematics.

When the assessment papers for NALO 2017 were checked and approved by the moderators from the NIE, the papers were sent for printing. The printed assessment papers were packed by the QAD staff according to grade and subject per school. As a security measure the assessment papers were first put into sealed envelopes before being packed into a labeled box for each school. The packing process was closely monitored by the head of the National Assessment Section of QAD to ensure the accuracy of packing.

After the packing process is completed, the Department of Public Examination (DPE) was requested to deliver the NALO 2017 items to the respective island schools.

Under the supervision of QAD staff, the packed assessment papers were delivered to DPE, where DPE officials verified the assessment materials per school. This was done a week before the test administration process.

NALO 2017 was designed and planned to conduct in the same 112 schools, in 20 atolls and greater Male' region, randomly selected for NALO 2015 and 2016. However, due to the absence of entire grades or insufficient number of students in the targeted grades of 4 and 7 in 9 small island schools, NALO 2017 was restricted to conduct in 103 schools (see Appendix). A random sample of 3136 students from Grade4, 4149 students from Grade 7, 284 teachers from Grade 4 and 267 teachers from Grade 7 were selected for the assessment.

Test invigilators were selected from the teachers of the respective schools. Selected teachers were trained on how the invigilation process was to be carried out. The guidelines were emailed and teachers were given further clarification if they had any queries.

NALO 2017 was conducted during the GCE O' Level and A' Level examinations in October 2017. This was to minimize the administration costs with the help of DPE to deliver the national assessment test papers and questionnaires during the trips that they make to schools to deliver the papers for both O'Level and A'Level examinations.

As reported earlier, for the purpose of this study, students, teachers and parents' data drawn from the test papers and questionnaires will be used to compile 2017 NALO report.

Assessment data was entered to Microsoft Excel, and SPSS software was used to clean and analyse the data. Pearson Correlation Coefficient was used for determining the level of correlation, and for cross verification and further detailed analysis extensive data mining processes were conducted with WEKA – open source data mining software.

7. Key Findings

As previously indicated the main purpose of conducting the NALO in Dhivehi, English and Mathematics is to determine the cognitive learning outcomes of students in Grades 4 and 7, and to find out the factors that are associated with students' achievements in order to focus on the government's prioritised goal of improving the guality of education in Maldives.

Because 2017 NALO in Dhivehi, English and Mathematics in Grades 4 and 7 requires it to compare its findings with the findings of the previous NALO studies to see the trends, it is important to provide a summary of the major findings of the similar studies conducted in 2015 (English and Mathematics) and 2016 (Dhivehi). Hence, Table 2 provides a summary of student achievements in the above subjects for Grades 4 and 7 in 2015/2016 compared to 2017.

	Dhivehi				Englisł	lish Mathematics			tics
	2016	2017	% Change	2015	2017	% Change	2015	2017	% Change
Grade 4	62.20	56.80	-5.40	52.90	53.17	0.27	57.50	57.04	-0.46
Grade 7	56.76	66.00	9.24	51.10	49.84	-1.26	44.60	49.47	4.87

Table 2: Students' Achievements in Dhivehi, English and Mathematics in Grades 4 and 7 (2015-2017)

From Table 2, it can be seen that the national average for English in Grade 4 in 2015 NALO was 52.9 percent, and the average achievement for Grade 7 English was 51.1 percent. While the average marks of Grade 4 Mathematics for the nation was 57.5 percent, the national average for Grade 7 Mathematics stood at 44.6 percent. The overall students' achievements in 2016

NALO Dhivehi in both Grades 4 (62.2 percent) and 7 (56.76 percent) was slightly higher than what they had achieved in English and Mathematics in 2015.

When the students' performance in Dhivehi, English and Mathematics in Grades 4 and 7 is compared between 2017 NALO and NALO conducted in 2015 and 2016, it can be seen that students' performance in Dhivehi language has dropped by 5.4 percent in Grade 4 while students' performance has gone up by 9.24 percent in Grade 7. Similarly, students' performance in Mathematics has dropped by 0.46 percent in Grade 4 while students' performance has gone up by 4.87 percent in Grade 7. In contrast, students' performance in English language has gone up by 0.27 percent in Grade 4 while students' performance has dropped by 1.26 percent in Grade 7

NALO findings of 2015, 2016 and 2017 suggest that Maldivian girls outperform in learning outcomes of Dhivehi, English and Mathematics in both Grades 4 and 7 in primary schools across the Maldives. This findings complement with a study done by the researchers at the University of Missouri and the University of Glasgow in Glasgow, Scotland, who found out that girls outperform boys in educational achievements in 70 percent of the countries they studied (Gijsbert & Geary, 2015). Tables 3 and 4 show the gender differences in learning outcomes in Grades 4 and 7 in Maldivian schools.

	DHIV	ЕШ	ENGLISH MATHS		ATHS	
	2016	2017	2015	2017	2015	2017
Number of Students	2628	2937	2357	2982	2289	2970
National Average for Girls	67%	60.42%	55%	55.87%	58.2%	59.53%
National Average for Boys	58%	53.35%	51%	50.55%	56.3%	54.65%

Table 3: Gender Differences in Learning Outcomes in Grade 4

Table 4: Gender Differences in Learning Outcomes in Grade 7

	DHIV	/EHI	ENGI	LISH MATHS		
	2016	2017	2015	2017	2015	2017
Number of Students	2417	2326	2243	2352	2461	2348
National Average for Girls	60.89%	69.14%	57.8%	53.59%	44.9%	49.51%
National Average for Boys	53.19%	62.5%	49.1%	46.36%	43.7%	49.43%

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Tables 3 and 4 clearly show that girls outperformed boys in all three subjects in the two sets of tests done in 2015/2016 and 2017.

The defined cut-point for a minimum achievement in the NCF for Grades 4 and 7 is 40 percent. These minimum pass percentages were used to determine the percentage of students who achieved the learning outcomes in Dhivehi, English and Mathematics for both grades along with the percentage of students who failed to achieve the minimum learning outcomes.

In this section, overall performance of students learning outcomes in Dhivehi, English and Mathematics in Grades 4 and 7 are presented. The following subsections present results for these students groups and provide comparisons between atolls on learning outcomes in those subjects separately.

7.1. Grade 4 Dhivehi Language

As mentioned earlier, a total of 3136 students from Grade 4 nationwide sat for the 2017 NALO Dhivehi paper. A total of 30 multiple choice questions were given in the paper with a score of one point per question. However, question numbers 3 and 13 from the assessment papers were excluded before the analysis commenced due to subject ambiguities in those questions. The internal consistency of the 28 questions in the assessment paper is shown in Table 5. A high alpha value of 0.787 indicates that all the items are associated to the construct, signifying that the test tool is very reliable.

Table 5: Reliability Statistics Grade 4 Dhivehi

Cronbach's Alpha	No. of Items
0.787	28

An analysis of the 28 questions was done to evaluate the number of students who answered the questions correctly or incorrectly. It is evident from the individual item analysis that over 75 percent of the students knew meanings, spellings and opposites of words used in daily life (Competency 2). 92.3 percent of the students answered question number 8 correctly as depicted in Figure 1. This particular question seems to be the easiest for students to answer as it required students to simply choose the name of a bird used in everyday life.





When this competency is disaggregated by atolls, Haa Alif, Haa Dhaalu, Shaviyani, Noonu, Baa, Lhaiyani, Alif Alif,Vaavu, Meemu, Dhaalu, Gaafu Alif, Gaafu Dhaalu and Male' are above the national average of 83.71 percent (Figure 2)





Likewise, students appeared to comprehend information more when the information was illustrated to them (Competency 7b). For instance, after viewing a picture, 91.9 percent of the students were able to provide the correct answer to a question based on that picture (see Figure 3).





An examination of the Competency 7b at the atoll level reveals that Kaafu, Laamu, Gaafu Alif, Gaafu Dhaalu, Gnaviyani, Seenu and Male' are below the national average of 74.1 percent (see Figure 4 below).



Figure 4: Competency 7b - Comprehends Information by Viewing a Photo or Picture



In contrast, students' achievement was the lowest on general knowledge questions (Competency 9). Only 18 percent of the students, as shown in Figure 5, got the question number 12 right. Similarly, students scored low on questions that demonstrated competencies related to parts of speech or tense. As such, a large number of students did not attempt these questions.





On Competency 9, as shown in Figure 6, the atolls Haa Alif, Haa Dhaalu, Noonu, Baa, Lhaviyani, Dhaalu, Seenu and Male' achieved better than the national average of 35.21 percent.





Competency 9 - General knowledge

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Thus, from Table 6 (below), it is evident that students scored best in Competency 2 (83.71%) and worst in Competency 9 (35.21%), at the national level.

	Competency 2	Competency 3	Competen-	Competency 7a	Competency 7b	Competency 9
			cy 5			
Atoll	Knows meanings, spellings and opposites of words used in daily life	Correct sentence formation, punctuation, and sequencing	Parts of speech, gender, number, tense, articles etc	Comprehends passag es of intermediate difficulty	Comprehends information by viewing a photo or picture	General knowledge
HaaAlifu	84.03	59.24	62.02	62.71	80.04	39.86
HaaDhaalu	84.33	67.91	63.13	62.03	76.12	37.85
Shaviyani	83.88	62.40	60.33	56.82	79.96	35.18
Noonu	87.78	58.89	61.33	62.96	82.41	38.10
Raa	81.06	56.06	54.09	52.18	74.43	33.87
Baa	87.60	64.73	68.37	66.28	85.47	40.75
Lhaviyani	85.66	61.19	63.22	58.65	78.32	36.06
Kaafu	82.65	51.53	63.47	54.85	71.68	33.38
AlifuAlifu	84.86	52.75	59.08	59.06	74.54	32.11
AlifuDhaalu	83.65	54.81	60.00	58.41	77.88	31.32
Vaavu	94.83	51.72	67.59	65.52	87.93	30.05
Meemu	86.14	68.07	61.45	61.14	76.81	30.29
Faafu	82.50	55.00	61.20	56.63	76.50	34.86
Dhaalu	84.88	55.23	58.84	59.01	80.23	37.87
Thaa	80.70	46.20	55.20	59.21	74.12	35.17
Laamu	73.36	39.72	45.42	52.45	73.36	31.11
GaafuAlifu	83.82	60.66	58.09	56.80	72.79	33.30
GaafuDhaalu	86.07	55.71	57.14	59.20	73.04	33.78
Gnaviyani	78.85	46.92	54.92	59.90	66.15	34.84
Seenu	77.54	54.35	54.93	59.42	65.58	37.06
Male'	85.77	54.99	57.15	61.39	66.50	35.65
National	83.71	55.99	58.74	59.44	74.10	35.21

Table 6: competencies tested in Grade 4 Dhivehi question paper

The 2017 NALO in Dhivehi analysis shows that the mean performance of students learning outcomes in Grade 4 Dhivehi is 15.91 or 57 percent and the standard deviation is 4.911 as illustrated in Figure 7. It shows a negatively skewed histogram, which indicates most of the students are above the mean score of 15.91. Furthermore, it is evident that the scores of most of the students are clustered around the mean, indicating that the standard deviation (4.911)

or scores deviating from the mean is a small percentage. Therefore, it can be said that most students who sat for this assessment scored higher than the national average of 56.84 percent. However, 19.1 percent of the students failed to achieve the minimum pass percentage of 40 in Grade 4 Dhivehi language.





The 2017 NALO Dhivehi language analysis shows that only 7.1 percent of students of Grade 4 achieved above 80 percent in the learning outcomes of Dhivehi. While 11.7 percent of students got 75 percent, 29.8 percent of students obtained 60 percent. The majority of students (32.2%) got between 40 and 60 percent in the learning outcomes of Dhivehi.

As mentioned before, on average, students in Grade 4 Dhivehi obtained more than 56.84 percent of the learning outcomes tested in 2017 NALO assessments. To understand the range of student performance, it is helpful to look at the distribution of student achievements at atoll level compared with the national level as depicted in Figure 8. It shows that the performance at atoll level is above the mean score in a number of the atolls. Baa Atoll has the highest score of 62.58 percent, followed by Vaavu Atoll (61.33 per cent) and Noonu Atoll (60.71 per cent). Laamu Atoll has the lowest score of 49.43 percent, preceded by Raa Atoll (53.46 percent).







Gender analysis of Grade 4 students in Dhivehi language learning outcomes both at national and atoll levels is shown in Figure 9. Small differences were observed on learning outcomes between atolls.

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Figure 9: National Assessment: Dhivehi Language Atolls Performance Grade 4 - by Gender

However, a higher proportion of female students achieved the learning outcomes compared to male students in Dhivehi. At the national level, female students outperformed with an average score of 60.42 percent when compared to a score of 53.35 percent achieved by male students.

7.2. Grade 7 Dhivehi Language

As mentioned earlier, there were 39 questions (out of 40 questions as question 6 was excluded from the analysis subject to ambiguities) in Grade 7 Dhivehi language assessment paper. In order to understand the reliability of the individual questions, an analysis of internal consistency of all 39 questions were carried out as shown in Table 7. A high alpha value of 0.830 indicates that all the items are associated to the construct, signifying that the test tool is highly reliable.

Table 7: Reliability Statistics Grade 7 Dhivehi

Cronbach's Alpha	No. of Items
0.830	39

The analysis of the individual questions was done to evaluate the number of students who answered the questions correctly or incorrectly. It is evident from the individual item analysis that students scored best on the two questions under general knowledge competency. That is, 75.15 percent and 84.48 percent of the students provided correct answers for the questions 15 and 16 respectively (Figure 10 and Figure 11).

Figure 10: Students Responses to Question Number 15



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Figure 11: Students Response to Question Number 16

An atoll-level breakdown of the general knowledge competency depicts (Figure 12) that Haa Alif, Shaviyani, Noonu, Raa, Baa, Lhaviyani, Alif Alif, Meemu, Faafu, Dhaalu, Thaa and Gnaviyani are above the national average of 79.82 percent.



Figure 12: Competency 9 - General Knowledge

It is also clear from the data that a fairly large percentage of the students were comfortable with questions that required an understanding of passages of intermediate difficulty. An example of such a question is question number 23 (Figure 13) where 92.78 percent of the students comprehended the question which was based on a poem of intermediate difficulty.



Figure 13: Students Responses to Question Number 23

Across-country analysis of this competency shows Haa Alif, Noonu, Raa, Baa, Alif Alif, Vaavu, Meemu, Gnaviyani and Seenu atolls performed better than the national average of 76.91 percent as shown in Figure 14.



Figure 14: Competency 7a - Comprehends Passages of Intermediate Difficulty

On the other hand, students scored least on questions that dealt with correct sentence formation, punctuation and sequencing. Question numbers 8, 9, 10 and 11 fall under this competency category. When this competency is disaggregated by atolls, Haa Alif, Haa Dhaalu, Shaviyani, Kaafu, Alif Dhaalu, Meemu, Faafu, Dhaalu, Thaa, Laamu, Gaaf Alif and Gaaf Dhaalu are below the national average of 40.14 percent (Figure 15).



Figure 15: Competency 3 - Correct Sentence Formation, Punctuation, and Sequencing

Thus, from Table 8, it is evident that students scored best in Competency 9 (79.82%) and worst in Competency 3 (40.14%), at the national level.

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	Competency 2	Competency 3	Competency 5	Competency 6	Competency 7a	Competency 9
Atoll	Knows meanings, spellings and opposites of words used in daily life	Correct sentence formation, punctuation, and sequencing	Parts of speech, gender, number, tense, articles etc	Adhabee bas raivaru etc	Comprehends passages of intermediate difficulty	General knowledge
HaaAlifu	53.26	38.51	69.16	56.78	77.30	83.91
HaaDhaalu	58.06	36.83	63.44	53.98	76.28	76.34
Shaviyani	55.08	36.67	65.24	55.05	76.25	80.00
Noonu	56.60	42.33	69.64	59.41	77.60	85.64
Raa	55.62	44.10	70.79	64.04	78.79	80.34
Ваа	58.80	43.06	72.22	63.19	80.21	85.42
Lhaviyani	59.04	44.89	64.67	61.97	76.63	80.28
Kaafu	53.46	34.45	67.07	61.71	76.91	73.78
AlifuAlifu	48.73	43.35	67.30	61.77	80.62	82.91
AlifuDhaalu	51.40	33.97	64.25	61.07	72.85	71.76
Vaavu	54.86	42.71	70.83	62.50	82.81	77.08
Meemu	56.11	36.67	68.89	63.33	82.50	80.83
Faafu	52.62	32.86	58.81	53.14	72.50	85.00
Dhaalu	54.25	37.25	59.48	60.78	75.00	83.33
Thaa	50.94	35.11	65.92	55.96	73.24	82.02
Laamu	53.43	39.71	65.20	58.82	75.37	77.21
GaafuAlifu	50.44	38.38	64.33	54.56	74.89	76.75
GaafuDhaalu	46.91	34.54	65.46	59.59	76.10	77.32
Gnaviyani	47.59	48.06	75.74	57.11	81.32	88.33
Seenu	50.33	46.22	68.20	56.45	76.93	76.64
Male'	52.65	41.34	66.56	54.90	76.76	78.76
National	53.29	40.14	66.87	58.14	76.91	79.82

Table 8: Competencies Tested in Grade 7 Dhivehi Question Paper

As indicated earlier, a total of 2499 students from Grade 7 nationwide sat for the 2017 NALO in Dhivehi which consisted of 39 multiple choice questions with a score of one point per question. The analysis shows that the mean performance of students is 25.62 or 66 percent and the standard deviation is 6.034 as illustrated in Figure 16.

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Figure 16: Students Performance of Grade 7 Dhivehi at the National Level

From Figure 16 it is evident that the histogram is tilting towards the right or it is negatively skewed indicating that most students scored higher than the mean score of 25.62. Furthermore, it is evident that the scores of most of the students are clustered around the mean indicating that the standard deviation (6.0364) or scores deviating from the mean is a small percentage. Therefore, it can be said that most students who sat for this assessment scored higher than the national average. However, 6.6 percent of the students failed to achieve the minimum pass percentage of 40 in Grade 7 Dhivehi language.

The 2017 NALO Dhivehi language analysis shows that 15.6 percent of students of Grade 7 achieved above 80 percent in the learning outcomes of Dhivehi. While 12.0 percent of students got 75 percent, 24.9 percent of students obtained between 40 and 60 percent. The majority of students (40.8%) got 60 percent in the learning outcomes of Grade 7 Dhivehi.

To understand the range of student performance, it is helpful to look at the distribution of student achievements at atoll level compared with the national level as depicted in Figure 17. It shows that the performance at atoll level is above the mean score in most of the atolls. Baa Atoll has the highest score of 69.96 percent, followed by Vaavu Atoll (69.66%) and Gnaviyani Atoll (69.12%). Faafu Atoll has the lowest score of 61.43 percent.


Figure 17: National Assessment: Dhivehi Language Atolls Performance Grade Seven

Gender analysis of both Grades 4 and 7 students in Dhivehi language learning outcomes at national and atoll levels show that there was a higher proportion of female students who achieved the learning outcomes when compared to male students. Similar to the Grade 4 gender comparisons shown in Figure 9 earlier, Grade 7 female students outperformed, at national level, with an average score of 69.14 percent when compared to a score of 62.05 percent for male students as shown in Figure 18. This indicates that there is a highly significant correlation between Dhivehi Language performance and female students.



Figure 18: National Assessment: Dhivehi Language Atolls Performance Grade Seven- by Gender

7.3. Grade 4 English Language

A total of 3136 students from Grade 4 nationwide sat for the 2017 NALO English paper. A sum of 42 multiple choice questions were given in the paper with a score of one point per question. Table 9 shows the internal consistency of the 42 questions in the assessment paper. A high alpha value of 0.880 indicates that all the items are associated to the construct, signifying that the test tool is highly reliable.



Cronbach's Alpha	No. of Items
0.880	42

An analysis of the 42 questions was done to evaluate the number of students who answered the questions correctly or incorrectly. It is evident from the individual item analysis that over 55

percent of the students achieved Competency 5 (parts of speech, gender, number, tense, etc). Among the five items that assessed this skill set, question number 23 seemed to be the easiest because the highest number of students (79.2%), as seen in Figure 20, got it right. That means, completing one part of a question when the other part was given, was an easy task for Grade 4 English students.





While the national average for this skill set is 66.25 percent, an atoll-level analysis shows that Seenu Atoll achieved the highest score (81.57%) and Laamu Atoll the lowest (51.48%) (Figure 20).



Figure 20: Competency 5 – Parts of Speech, Gender, Number, Tense, etc

However, Grade 4 English students seemed to have struggled to comprehend complex passages of high difficulty (Competency 7). Out of the ten questions that assessed this standard, the analysis showed that an extremely small percentage of correct responses were made for questions 35 (32.2%) and 42 (32.1%). Student responses to both questions are depicted in Figures 22 and 23.



Figure 21: Students Responses to Question Number 35



Figure 22: Students Responses to Question Number 42

At the atoll level, Male achieved the highest score on Competency 7, followed by Seenu, Gnaviyani and Vaavu. The lowest score was achieved by Laamu, preceded by Faafu and Shaviyani (Figure 23).



Figure 23: Competency 7 – Comprehends Complex Passages of High Difficulty

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Thus, from Table 10, it is evident that students scored best in Competency 5 (66.25%) and worst in Competency 7 (41.66%), at the national level.

	Comp1	Comp2	Comp3	Comp4	Comp 5	Comp 6a	Comp 6b	Comp 6c	Comp 7
Atoll	Knows names of objects, birds and animals not seen in daily life	Knows meanings, spellings, and opposites of words used in daily life	Correct sentence formation, punctua- tion, and sequencing	Compre- hends very simple sentences or a simple paragraph	Parts of speech, gender, number, tense, etc	Compre- hends grade appropriate texts or poems of intermediate difficulty.	Identify different text types.	Identify features of a text type (nar- rative)	Compre- hends complex passages of high difficulty
HaaAlifu	56.78	51.19	46.40	64.41	61.86	56.21	35.59	51.13	40.93
HaaDhaalu	51.85	51.85	47.59	65.56	69.19	51.60	54.07	52.84	37.63
Shaviyani	48.63	34.92	39.14	56.66	56.07	45.63	27.87	40.71	33.69
Noonu	48.74	35.76	36.17	55.40	52.73	44.19	31.82	39.39	33.64
Raa	47.87	41.95	38.91	54.51	55.49	48.12	39.10	43.86	34.29
Baa	56.59	45.12	48.64	65.02	63.72	54.52	41.86	55.56	39.22
Lhaviyani	59.82	52.60	51.20	68.07	72.47	58.45	37.67	57.31	43.70
Kaafu	48.30	40.00	43.11	62.88	61.63	50.34	33.67	58.84	39.18
AlifuAlifu	49.38	43.70	40.74	62.96	55.00	49.69	38.89	51.85	36.20
AlifuDhaalu	53.08	43.31	42.68	62.50	62.68	53.29	36.94	40.13	36.56
Vaavu	64.44	52.67	55.00	69.17	80.67	61.11	40.00	56.67	49.00
Meemu	52.33	43.02	46.51	64.24	66.98	51.55	46.51	44.57	40.35
Faafu	44.44	36.77	33.59	53.28	55.15	46.46	31.31	44.44	33.03
Dhaalu	53.97	45.14	46.43	62.62	61.90	48.89	30.48	45.08	36.29
Thaa	54.39	45.15	41.52	63.82	61.64	51.46	32.75	48.15	36.20
Laamu	48.70	40.52	36.52	55.43	51.48	40.00	28.70	35.07	32.96
GaafuAlifu	63.97	49.12	51.65	66.73	66.03	51.72	44.85	53.68	39.41
GaafuDhaalu	52.90	43.62	43.84	64.86	61.30	48.07	44.20	47.83	37.90
Gnaviyani	60.47	52.71	49.81	73.93	79.22	57.62	54.26	56.85	50.85
Seenu	59.76	59.14	58.75	73.93	81.57	66.19	55.71	67.86	53.21
Male'	63.30	61.84	58.96	75.20	78.27	64.74	54.95	65.53	53.50%
National	55.52	48.52	47.38	65.53	66.25	54.10	42.39	52.45	41.66

Table 10: Competencies Tested in Grade 4 English Question Paper

The 2017 NALO in English analysis shows that the mean performance of students learning outcomes in Grade 4 English is 22.33 or 52 percent and the standard deviation is 8.112 as illustrated in Figure 24. It shows a negatively skewed histogram, which indicates most of the students are above the mean score of 22.33. Furthermore, it is evident that the scores of most of the students are clustered around the mean, indicating that the standard deviation (8.112) or scores deviating from the mean is a small percentage. Therefore, it can be said that most students who sat for this assessment scored higher than the national average of 53.17 percent. However, 27.3 percent of the students failed to achieve the minimum pass percentage of 40 in Grade 4 English language.



Figure 24: National Performance of Grade 4 English Students

The 2017 NALO English language analysis shows that only 9.79 percent of students of Grade 4 achieved above 80 percent in the learning outcomes of English. While 5.47 percent of students got 75 percent, 22.10 percent of students obtained 60 percent. The majority of students (35.35%) got between 40 and 60 percent in the learning outcomes of English.

As mentioned before, on average, students in Grade 4 English obtained more than 53.17 percent of the learning outcomes tested in 2017 NALO assessments. To understand the range of student performance, it is helpful to look at the distribution of student achievements at atoll level compared with the national level as depicted in Figure 25. It shows that the performance

at atoll level is above the mean score distribution of atoll students' achievements at national level in a number of the atolls. The highest English scores are found in Male (64.49%), followed by Seenu Atoll (64.27%) and Gnaviyani Atoll (60.43%). Laamu Atoll has the lowest score of 42.36 percent, preceded by Faafu Atoll (42.57%) and Noonu Atoll (42.75%).

Figure 25: National Assessment: English Language Atolls Performance Grade Four



Gender analysis of Grade 4 students in English language learning outcomes both at national and atoll levels is shown in Figure 26.

Figure 26: National Assessment: English Language Atolls Performance Grade Four- by Gender



At the national level, female students outperformed with an average score of 55.87 percent when compared to a score of 50.58 percent achieved by male students.

7.4. Grade 7 English Language

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There were 43 questions in Grade 7 English language assessment paper. In order to understand the reliability of the individual questions, an analysis of internal consistency of all 43 questions were carried out as shown in Table 11. A high alpha value of 0.870 indicates that all the items are associated to the construct, signifying that the test tool is highly reliable.

Table 11: Reliability Statistics Grade 7 English Language

Cronbach's Alpha	No. of Items
0.870	43

The analysis of the individual questions was done to evaluate the number of students who answered the questions correctly or incorrectly. It is evident from the individual item analysis that students' achievement was the highest on Competency 3 (Correct sentence formation, punctuation, and sequencing). For all three questions assessing these competencies, more than 55 percent of the students provided correct answers. However, it appeared that students had difficulty in understanding information presented in authentic material (Competency 6), as much less than 55 percent of the students were able to get correct answers for the four questions that assessed this standard. Especially, question number 26 was performed quite poorly – only 26.96 percent of the students obtained the right answer (Figure 27).



Figure 27: Students Responses to Question Number 26

Consistently, national performance was quite poor in competencies 1 (knows names of objects, birds and animals not seen in daily life), 2 (knows meanings, spellings, and opposites of words used in daily life), 7b (identify different text types) and 8 (comprehends complex passages of high difficulty). A comparative analysis on these competencies between the atolls suggests that the top performing were Male', Seenu Atoll and Gnaviyani Atoll, while the Atolls Faafu, Thaa, Laamu were among the least performing in all the Grade 7 English competencies.

Table	12:	Competencies	Tested in	Grade 7	' English	Question	Paper
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Atoll	Comp 1	Comp2	Comp3	Comp4	Comp5	Comp6	Comp7a	Comp 7b	Comp 7c	Comp 8
	Knows names of objects, birds and animals not seen in daily life	Knows meanings, spellings, and opposites of words used in daily life	Correct sentence formation, punctua- tion, and sequencing	Compre- hends very simple sentences or a simple paragraph	Parts of speech, gender, number, tense, etc	Under- stands infor- mation pre- sented in authentic material	Compre- hends passages of intermediate difficulty	Identify different text types.	Compre- hends complex pas- sages of high difficulty	Compre- hends complex passages of high difficulty
HaaAlifu	32.41	39.37	50.57	49.43	44.44	27.59	43.84	32.18	38.70	36.59
HaaDhaalu	35.32	37.77	57.80	51.06	53.55	27.66	49.70	40.43	54.96	43.26
Shaviyani	31.26	45.15	64.72	50.49	45.47	30.34	44.94	25.24	45.95	40.29
Noonu	28.12	42.57	56.11	48.51	46.86	29.46	43.85	24.75	47.19	40.92
Raa	34.00	42.78	64.07	51.94	48.33	37.22	51.43	48.89	58.89	43.15
Baa	40.82	41.33	62.81	51.70	52.27	35.54	55.59	37.41	57.37	43.42
Lhaviyani	44.86	42.50	65.24	55.54	52.98	39.82	54.39	52.86	58.33	43.81
Kaafu	42.17	44.88	64.26	55.12	51.81	42.17	54.22	27.71	60.64	44.98
AlifuAlifu	28.35	39.24	57.38	51.27	47.05	32.59	46.84	25.32	54.85	39.45
AlifuDhaalu	30.60	41.98	50.00	47.95	49.88	29.29	46.70	19.40	48.51	39.93
Vaavu	41.67	43.75	61.11	55.21	52.78	45.83	55.36	45.83	63.89	43.06
Meemu	35.59	43.64	67.23	57.20	54.52	35.59	61.74	32.20	59.89	48.02
Faafu	34.65	35.56	49.77	47.18	50.47	28.87	44.06	33.80	43.19	34.98
Dhaalu	30.15	38.08	50.77	44.62	42.05	33.46	45.49	30.77	46.15	36.67
Thaa	32.00	40.83	52.59	50.28	49.44	26.67	46.67	11.11	41.11	39.26
Laamu	32.22	37.15	53.24	42.71	42.36	29.51	39.68	20.83	45.83	34.72
GaafuAlifu	38.21	47.10	58.63	52.23	51.34	37.50	54.59	47.32	58.04	44.64
GaafuDhaalu	41.44	44.59	61.86	50.77	51.37	38.66	52.43	40.21	54.64	48.45
Gnaviyani	55.22	49.18	67.75	64.40	62.32	46.20	69.10	61.96	72.10	57.61
Seenu	58.04	46.57	70.15	64.05	62.75	48.69	69.84	71.24	71.24	60.89
Male'	54.64	47.98	72.11	61.44	63.80	47.17	70.31	59.26	70.08	58.93
National	41.43	43.58	62.22	54.23	53.62	37.63	55.72	42.01	57.58	46.88

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A total of 2499 students from Grade 7 nationwide sat for the 2017 NALO in English which consisted of 43 multiple choice questions with a score of one point per question. The analysis shows that the mean performance of students is 21.43 or 50 percent and the standard deviation is 7.926 as illustrated in Figure 28.



Figure 28: Students Performance of Grade 7 English at the National Level

From Figure 28 it is evident that the histogram is tilting towards the right or it is negatively skewed indicating that most students scored higher than the mean score of 21.43. Furthermore, it is evident that the scores of most of the students are clustered around the mean indicating that the standard deviation (7.926) or scores deviating from the mean is a small percentage. Therefore, it can be said that most students who sat for this assessment scored higher than the national average. However, 35.4 percent of the students failed to achieve the minimum pass percentage of 40 in Grade 7English language.

The 2017 NALO English language analysis shows that only 4.5 percent of students of Grade 7 achieved above 80 percent in the learning outcomes of English, while 4.6 percent of students got 75 percent and 24.7 percent of students obtained 60 percent. The majority of students (30.8%) got between 40 and 60percent in the learning outcomes of Grade 7 English.

To understand the range of student performance, it is helpful to look at the distribution of

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student achievements at atoll level compared with the national level as depicted in Figure 29. It shows that the performance at atoll level is above the mean score in a number of the atolls. Seenu Atoll has the highest score of 61.71 percent, followed by Male' (60.79%) and Gnaviyani Atoll (60.47%). Laamu Atoll has the lowest score of 38.53 percent.



Figure 29: National Assessment: English Language Atolls Performance Grade Seven

Gender analysis of both Grades 4 and 7 students in English language learning outcomes at national and atoll levels show that there was a higher proportion of female students who achieved the learning outcomes when compared to male students. Similar to the Grade 4 gender comparisons (shown in Figure 26 earlier), Grade 7 female students outperformed, at national level, with an average score of 53.59 percent when compared to a score of 46.36 percent for male students as shown in Figure 30. This indicates that there is a significant correlation between English Language performance and female students.



Figure 30: National Assessment: English Language Atolls Performance Grade Seven- by Gender

7.5. Grade 4 Mathematics

A total of 3136 students from Grade 4 nationwide sat for the 2017 NALO Mathematics paper. A sum of 35 multiple choice questions were given in the paper with a score of one point per question.

Table 13 shows the internal consistency of the 35 questions in the assessment paper. A high alpha value of 0.846 indicates that all the items are associated to the construct, signifying that the test tool is highly reliable.

Cronbach's Alpha	No. of Items
0.846	35

Table 13: Reliability Statistics Grade 4 Mathematics

An analysis of the 35 questions was done to evaluate the number of students who answered the questions correctly or incorrectly. It is evident from the individual item analysis that in general Grade 4 Mathematics students had a better understanding of the visual shapes, which is geometry and visual estimation (Competency 4) – 69.01 percent – than any other standards set for the subject. As such, the question which the maximum number of students answered right, (question 20) fall into Competency 4, in which 91.5 percent of the students provided the correct answer (Figure 31).





Analysis suggests that with a national average of 62.89 percent, Grade 4 Mathematics students did the second best in concepts and applications of fractions (Competency 3). Students scored in the range of 49.9 to 75 percent for the six questions that tested this competency.

Nevertheless, when it comes to the application of the concepts learned into daily life, Grade 4 Mathematics students showed signs of struggle because only 35.32 percent of them made through the two questions that examined application of commercial mathematics, word and visual problems in daily life (Competency 6).

As far as the atolls are concerned, Baa Atoll with a percentage of 74.42 faired the highest for Competency 4 (Figure 32). Other atolls which obtained more than 70 percent at the national level were Haa Dhaalu, Vaavu, Meemu, Gaaf Alif, Gaaf Dhaalu, Gnaviyani and Male'. Among the atolls that performed below the national average (69.01%) for this competency, Laamu Atoll with only 58.11 percent is shown to be positioned in the bottom of the list (Figure 32).



Figure 32: Competency 4 - Basic Shapes: Geometry and Visual Estimation

While Vaavu Atoll (72.78%) topped the Competency 3, followed by Seenu Atoll (71.2%). Laamu Atoll obtained only 54.13 percent (Figure 33).





Figure 33: Competency 4 – Basic Shapes: Fractions: Concepts and Applications

Faafu Atoll, Alif Dhaalu Atoll and Kaafu Atoll were in the low end of the spectrum for the Competency 6 tested for Grade 4 Mathematics (Figure 34).



Figure 34: Competency 6 - Application in Daily Life: Commercial Maths, Word and Visual Problems

Thus, from Table 14, it is evident that students scored best in Competency 4 (66.25%) and worst in Competency 6 (41.66%), at the national level.

	Comp 1 (%)	Comp 2 (%)	Comp 3 (%)	Comp 4 (%)	Comp 5 (%)	Comp 6 (%)	Comp 7 (%)
Atoll	Number Sense {related to concepts & basic number competency}	Arithmetic Operations {four basic operations, properties & shortcuts}.	Fractions {concepts & applications}.	Basic Shapes {geometry & visual estimation}.	Measurements, Data Interpreta- tion, Analysis and Graphs	Application in daily life {com- mercial Maths, word and visual problems}.	Reasoning and Problem Solv- ing (advanced or challenging problems)
HaaAlifu	56.58	56.90	69.66	68.95	61.38	36.75	63.25
HaaDhaalu	53.28	60.23	63.18	70.65	60.38	42.16	55.22
Shaviyani	47.27	47.11	59.23	66.39	49.66	35.12	55.37
Noonu	48.24	50.11	59.93	64.71	53.48	34.93	51.47
Raa	49.92	47.58	57.52	65.66	51.67	30.83	48.12
Baa	51.63	59.14	63.18	74.42	63.21	38.37	63.57
Lhaviyani	52.74	56.07	67.47	69.86	63.76	33.56	63.70
Kaafu	44.24	46.75	57.24	64.65	53.26	25.76	52.53
AlifuAlifu	47.48	55.54	63.55	63.24	54.46	29.91	48.60
AlifuDhaalu	43.11	52.62	55.49	66.46	54.21	26.71	56.52
Vaavu	55.33	59.52	72.78	72.22	66.67	35.00	63.33
Meemu	51.16	61.79	64.34	72.09	55.60	36.63	59.30
Faafu	45.94	46.25	56.93	63.04	47.34	26.73	42.57
Dhaalu	50.67	50.61	58.25	69.21	60.61	33.33	58.10
Thaa	50.51	52.08	60.10	69.33	54.49	31.14	61.14
Laamu	43.36	46.40	54.13	58.11	51.33	33.19	44.25
GaafuAlifu	60.00	57.36	63.16	73.93	57.14	34.96	58.65
GaafuDhaalu	46.62	51.18	62.35	71.94	53.56	37.05	55.40
Gnaviyani	55.08	54.40	64.23	72.31	62.87	36.92	66.15
Seenu	59.26	61.03	71.20	67.65	63.30	40.44	74.26
Male'	58.55	60.77	67.69	72.48	64.23	41.28	68.83
National	52.00	54.80	62.89	69.01	58.06	35.32	59.36

Table 14: Competencies Tested in Grade 4 Mathematics Question Paper

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The 2017 NALO in Mathematics analysis shows that the mean performance of students learning outcomes in Grade 4 Mathematics is 19.97 or 57 percent and the standard deviation is 6.927 as illustrated in Figure 35. It shows a negatively skewed histogram, which indicates most of the students are above the mean score of 19.97. Furthermore, it is evident that the scores of most of the students are clustered around the mean, indicating that the standard deviation (6.927) or scores deviating from the mean is a small percentage. Therefore, it can be said that most students who sat for this assessment scored higher than the national average of 57.04 percent. However, 20.1 percent of the students failed to achieve the minimum pass percentage of 40 in Grade 4 Mathematics.



Figure 35: National performance of Grade 4 Mathematics Students

The 2017 NALO Mathematics analysis shows that 15.7 percent of students of Grade 4 achieved above 80 percent in the learning outcomes of Mathematic while 4.0 percent of students got 75 percent and 29.9 percent of students obtained between 40 and 60 percent. The majority of students (30.3%) got 60 percent in the learning outcomes of Mathematics.

As mentioned before, on average, students in Grade 4 Mathematics obtained 57.04 percent of the learning outcomes tested in 2017 NALO assessments. To understand the range of student performance, it is helpful to look at the distribution of student achievements at atoll level compared with the national level as depicted in Figure 36. It shows that the performance at atoll level is above the mean score in a number of the atolls. The highest Mathematics scores are found in Vaavu Atoll (63.24%), followed by Seenu Atoll (63%) and Male' (62.85%). Faafu Atoll has the lowest score (48.6%), preceded by Laamu Atoll (49.03%).

Figure 36: National Assessment: Mathematics Atolls Performance Grade Four



Gender analysis of Grade 4 students in Mathematics learning outcomes both at national and atoll levels is shown in Figure 37.

Figure 37: National Assessment: Mathematics Atolls Performance Grade Four- by Gender



At the national level, female students outperformed with an average score of 59.53 percent when compared to a score of 54.65 percent achieved by male students.

7.6. Grade 7 Mathematics

There were 36 questions in Grade 7 Mathematics assessment paper. In order to understand the reliability of the individual questions, an analysis of internal consistency of all 36 questions were carried out as shown in Table 15. A high alpha value of 0.839 indicates that all the items are associated to the construct, signifying that the test tool is highly reliable.

Table 15: Reliability Statistics Grade 7 Mathematics

Cronbach's Alpha	No. of Items
0.839	36

The analysis of the individual questions was done to evaluate the number of students who answered the questions correctly or incorrectly. The individual item analysis reveals that 61.96 percent of Grade 7 Mathematics students had the understanding of the standard of measurement, data, interpretation, analysis and graphs (Competency 6) set out for the subject. As a result, question number 29, which is a part of this competency, was answered correctly, as depicted in Figure 38, by the majority of students (93.19%) who participated in this assessment.



Figure 38: Students Responses to Question Number 29



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Reasoning and problem solving that involved advanced or challenging problems, on the other hand, was the least performed competency (8), by Grade 7 Mathematics students, with a national average of only 33.56 percent.

A comparative analysis of the atolls suggests that while Meemu Atoll topped 5 out of 8 competencies established for Grade 7 Mathematics, Laamu Atoll and Alif Dhaalu Atoll were least performed on the said competencies.

Thus, from Table 16, it is evident that at the national level, Grade 7 Mathematics students scored the highest in Competency 6 (61.96%), and the least in Competency 8 (33.56%).

Table 16: Competencies Tested in Grade 7 Mathematics Question Paper

Atoll Code:	Competency 1	Competency 2	Competency 3	Competency 4	Competency 5	Competency 6	Competency 7	Competency 8
Haa Alifu	41.16%	37.21%	48.55%	43.02%	45.06%	58.72%	40.70%	28.68%
Haa Dhaalu	47.17%	55.43%	61.14%	50.72%	57.61%	64.31%	50.22%	37.68%
Shaviyani	45.48%	31.73%	50.48%	42.63%	55.53%	60.26%	48.46%	31.09%
Noonu	47.94%	49.02%	50.98%	43.14%	50.00%	58.50%	42.16%	30.72%
Raa	46.25%	52.27%	57.95%	45.45%	54.26%	61.93%	46.59%	35.98%
Ваа	47.89%	50.34%	60.03%	45.12%	59.35%	64.06%	50.20%	40.59%
Lhaviyani	45.63%	47.18%	58.27%	45.54%	55.63%	63.62%	47.75%	34.27%
Kaafu	42.93%	43.90%	51.52%	45.93%	57.32%	58.13%	45.12%	32.11%
Alifu Alifu	42.05%	38.46%	48.72%	46.15%	52.24%	62.82%	42.82%	29.91%
Alifu Dhaalu	37.67%	36.09%	45.86%	37.09%	47.56%	52.63%	35.94%	29.57%
Vaavu	47.50%	54.17%	60.42%	47.22%	63.54%	65.28%	47.50%	36.11%
Meemu	53.39%	52.54%	66.95%	47.46%	58.90%	68.08%	56.61%	38.98%
Faafu	43.24%	38.03%	59.86%	41.31%	52.82%	60.09%	44.51%	28.17%
Dhaalu	42.34%	42.19%	52.34%	41.67%	51.95%	59.90%	39.38%	25.52%
Thaa	40.56%	42.70%	44.10%	41.57%	57.87%	61.99%	41.57%	31.09%
Laamu	39.00%	37.14%	51.43%	34.29%	46.79%	59.29%	38.00%	29.05%
Gaafu Alifu	42.30%	53.10%	52.65%	38.94%	58.41%	62.39%	42.12%	33.04%
Gaafu Dhaalu	40.61%	34.69%	49.74%	42.86%	51.28%	61.05%	37.96%	29.93%
Gnaviyani	50.00%	52.75%	48.35%	38.46%	62.36%	65.02%	51.43%	37.36%
Seenu	49.16%	52.26%	65.16%	44.30%	73.23%	66.13%	52.00%	34.84%
Male'	48.41%	49.78%	54.29%	43.48%	64.24%	63.41%	51.43%	35.94%
National	45.36%	46.04%	54.26%	43.10%	57.60%	61.96%	46.40%	33.56%

A total of 2499 students from Grade 7 nationwide sat for the 2017 NALO in Mathematics which consisted of 36 multiple choice questions with a score of one point per question. The analysis shows that the mean performance of students is 17.81 or 49 percent and the standard deviation is 6.5 as illustrated in Figure 39.





From Figure 39 it is evident that the histogram is tilting towards the right or it is negatively skewed indicating that most students scored higher than the mean score of 17.81. Furthermore, it is evident that the scores of most of the students are clustered around the mean indicating that the standard deviation (6.5) or scores deviating from the mean is a small percentage. Therefore, it can be said that most students who sat for this assessment scored higher than the national average. However, 33.9 percent of the students failed to achieve the minimum pass percentage of 40 in Grade 7 Mathematics.

The 2017 NALO Mathematics analysis shows that only 6.9 percent of students of Grade 7 achieved above 80 percent in the learning outcomes of Mathematics. While 4.6 percent of students got 75 percent, 16.7 percent of students obtained 60 percent. The majority of students (37.8%) got between 40 and 60 percent in the learning outcomes of Grade 7 Mathematics.

To understand the range of student performance, it is helpful to look at the distribution of student achievements at atoll level compared with the national level as depicted in Figure 40. It shows that the performance at atoll level is above the mean score in a number of the atolls. Meemu Atoll has the highest score of 56.69 percent, followed by Seenu Atoll (55.32%). Alif Dhaalu Atoll has the lowest score (41.17%), preceded by Laamu Atoll (43.21%)





Gender analysis of both Grades 4 and 7 students in Mathematics learning outcomes at national and atoll levels show that there was almost equal proportion of female versus male students who achieved the learning outcomes. Unlike Grade 4 gender comparisons shown in Figure 9 earlier, Grade 7 female students did slightly better, at national level, with an average score of 49.51 percent when compared to a score of 49.43 percent for male students as shown in Figure 41. This indicates that there may be a small correlation (not significant) between Mathematics performance and female students.

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Figure 41: National Assessment: English Language Atolls Performance Grade Seven- by Gender

8. Factors Associated with Students Achievements

As mentioned before, a nation-wide sample of 3136 students and 284 teachers from Grade 4, and 2499 students and 267 teachers from Grade 7 were taken for this analysis. Students' total assessment marks and the responses from the questionnaires were consolidated and necessary data type transformations were done to fit into type of analysis being done. Teachers' questionnaires were analyzed separately.

Performances of students in the three subjects – Dhivehi, English and Mathematics – were tested against factors in the questionnaire to see if the correlations between the two affect Grades 4 and 7 students' achievements of learning outcomes for the three subjects.

Pearson Correlation Coefficient was used for determining the level of correlation, and for cross verification and further detailed analysis. Extensive data mining processes were conducted with WEKA – an open source data mining software. Where appropriate, Association Rule

mining was conducted for discovering associations among the factors in questionnaires and student assessment results. Association Rules were chosen based on the Confidence Metric of the identified rules. Confidence metric indicates accuracy of the association. A combined analysis for all the three subjects was carried out. Therefore, unless stated otherwise, analysis results are given for all the three subjects together.

The student questionnaire was divided into four themes: school environment, home environment, safety of school and sports and exercise. Therefore, the results pertaining to factor analysis presented below are based on these four themes.

School Environment

The analysis on factors associated with the school environment indicated that these factors are not strongly correlated with the students' performance. Nevertheless, the findings for the school environment related factors revealed, for instance, that more than 90 percent of both Grades 4 and 7 students liked going to school (Figure 42), and over 80 percent of the students enjoyed the time spent in the school (Figure 43).



Figure 42: Number of Students like Going to School



Figure 43: Number of Students Enjoy the Time in School

One reason to explain this discrepancy is – as the detailed analysis of the data with association mining techniques has demonstrated – that the correlations were often seen at different achievement levels rather than the linear relationship shown by Pearson Correlation Coefficient. This trend was observed in the correlations throughout the data analysis. For instance, among the students who liked going to and spend time in the school, only 20 percent of them achieved higher grades (i.e. above 80) in Dhivehi Language, Mathematics (18%) and English Language (12%), and a very high level of association was found between the achievement of this cohort and school environment-related variables.

The students' belief that the teachers were good (Grade 4 - 91.8%; Grade 7 - 86.44%) and well-prepared to teach (Grade 4 - 91.32%; Grade 7 - 85.45%), and opportunities were provided for them to participate in school level activities (Grade 4 - 90.9%; Grade 7 - 92.51%) was found to have a bearing on their aspirations for going to and spending time in the school. However, these beliefs individually did not match with the achievements of their learning outcomes, as there is a weak correlation between these variables and the student achievement.

NALO 2017 finds that a large number of school teachers in Maldivian schools are experienced in their teaching fields. Figure 44 shows that over 48 percent of the teachers had between 6 and 20 years of teaching experience. Kini and Podolsky (2016) reviewed 30 studies published within the last 15 years to see the effect of teaching experience on student outcomes in the United States. According to their findings "As teachers gain experience, their students not only learn more ... [but] they are also more likely to do better on other measures of success, such as school attendance".

Figure 44: School Teachers Teaching Experience



Over 90 percent of Grade 4 students and 70 percent of Grade 7 students felt that classrooms had a conducive environment for learning (Figure 45). While this variable showed a negative association with Grade 4 Dhivehi performance, a positive correlation was shown with Grade 7 English students' performance.



Figure 45: School Classrooms are Conducive to Learn

In spite of data showing more than 80 percent and 70 percent of students of Grades 4 and 7 respectively, believing both teaching resources were available and teachers used different resources for teaching (Figure 46), there exists a weak relationship between these factors and the students' performance in both grades.



Figure 46: Availability of Teaching Resources

Similarly, more than 70 percent of both Grades 4 and 7 students believed that teachers take extra classes for students who are in need (Figure 47). Even though Dhivehi and Mathematics results do not indicate a substantial correlation with this factor, correlation exists for low and average-performed English students in both grades.



Figure 47: Teachers Taking Extra Classes for the Needy Students

Taking leadership roles in school linking students' achievement is statistically significant regarding Dhivehi score of students of Grades 4 and 7, performed in higher achievement categories in the national assessment. Consistently, these students tended to take part in Dhivehi literary activities. However, the existence of a negative correlation in each of the two independent variables with the dependent variable indicates that these relationships do not necessarily effect student achievement in Dhivehi learning outcomes. Moreover, there is no evidence to suggest that taking leadership roles in school or taking part in Dhivehi literary activities increased or decreased students' achievements in Mathematics and English learning outcomes of both Grades 4 and 7.

As opposed to Dhivehi literary activities, the participation of English literary activities has a significant inverse association with the learning outcomes of English, Mathematics and Dhivehi, in both grades.

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Home Environment

As indicated by the data, between 30 and 50 percent of Grades 4 and 7 students did not take tuition in Dhivehi, English or Mathematics (Figure 48). The analysis shows that the correlation between taking private tuition and Grade 4 students' achievement in the three subjects in question is inversely significant. This indicates that the weaker the student, the more time is spent on tuition. Further, spending more time on tuition did not improve the subject performance. Differently, with Grade 7 students, only Dhivehi performance has a notable (negative) significance with weekly tuition.



Figure 48: Number of Students Taking Tuition

Evidence suggests that Grades 4 and 7 students who read Dhivehi books have improved learning outcomes only in Dhivehi. Conversely, these students who read English books have significantly enhanced performance in not just English but the other two subjects too. The latter relationship is much stronger in the case of Grade 7 than Grade 4.

A large number of students (about 90% in Grades 4 and 7) believed that their parents were supportive or involved in their studies in some form or other. Though not strong, a positive link exists for the questions related to parental support and involvement in student's learning and



performance. This relationship is much stronger in the case of Grade 4. As such, it can be said that parental support and involvement do have a role in improving students' performance, and higher achievers tended to have supportive parents.

As illustrated in Figures 49 and 50, about 41 percent of Grade 4 and 57 percent of Grade 7 students used computers, and 50 percent of Grade 4 and about 65 percent of Grade 7 students used Internet at home for studies. Regarding Grade 4 students' achievement, except for some level of correlations that exist for Dhivehi, use of computers or Internet at home does not indicate statistically significant links with the performance among English and Mathematics students. In contrast, an inverse association of these independent variables with the performance of Grade 7 students, in the said three subjects, denotes that neither the use of computer nor the Internet at home resulted in the improved learning outcomes of these students.



Figure 49: Number of Students Using Computers at Home for Studies



Figure 50: Number of Students Using Internet at Home for Studies

Safety of School

The majority of the students appeared satisfied with the rules and regulations established by the schools to the general safety and well-being of the students, as they felt that school was safe (Grade 4 – 79%; Grade 7 – 74%) and they were not harmed during the time spent in school (Grade 4 – 68%; Grade 7 – 70%). However, few students claimed that they were discontented with the behavior of other students which affect their safety in the school environment. For instance, from a range of 5 to 46 percent of students raised hitting, disturbing, not involving in sports and other activities, forcing to do things they do not want to do, and stealing from and telling lies about them as behavioural problems of other students which were issues of concern because they negatively affected their studies (approximately 28% in both grades). This emphasized that bullying was an integral part of school environment since, as shown in Figure 51, a little over 50 percent of Grade 4 students and 47 percent of Grade 7 students specified that they were bullied and called names.


Figure 51: Number of Bullying Cases

Hence, factor analysis indicated that bullying is a factor that is positively associated with the group of Grade 4 students who were academically weak in all three subjects (English being the most prominent), as opposed to Grade 7 students who were weak only in English.

Sports and Exercise

Even though above 80 percent of the students of Grades 4 and 7 fared promisingly toward the factors (such as spending time in and out of school taking part in sports and exercise, and playing electronic games) related to sports and exercise, there is not much of a connection between these factors and the students' performance. Apart from in-school sports and exercise that is shown to improve Grade 4 students' Dhivehi score to some extent, the category of sports and exercise appears to be rather weak in terms of students' performance.

9. Conclusions & Recommendations

The third publication of 2017 NALO Dhivehi, English and Mathematics under the technical assistance from the World Bank is a collective commitment of the Ministry of Education to improve the quality of school education as well as student performance. The overall performance in 2017 NALO shows that the majority of students have achieved the minimum learning outcomes assessed in Dhivehi, English and Mathematics Grades 4 and 7. When the students' performance in Dhivehi, English and Mathematics in Grades 4 and 7 were compared between 2017 NALO and NALO conducted in 2015 and 2016, the findings suggest that students' performance in Dhivehi language has dropped by 5.4 percent in Grade 4 while Grade 7 students' performance has improved by 9.24 percent. Similarly, students' performance in Mathematics has dropped by 0.46 percent in Grade 4 while Grade 7 students' performance has improved by 4.87 percent in 2017. In contrast, students' performance in English language has improved by 0.27 percent in Grade 4 while Grade 7 students' performance has dropped by 1.26 percent in 2017.

Gender analysis of both Grades 4 and 7 students in Dhivehi language learning outcomes showed higher proportion of female students achieving the learning outcomes than the male students in those subjects. Even though the overall performance of some schools at atoll level is above the mean score in most of the atolls, a relatively small difference was observed on learning outcomes between the atoll schools in the country.

Based on the findings presented in the preceding sections in this report, the following recommendations are made:

• The 2017 NALO in Dhivehi, English and Mathematics were conducted only in selected schools so it is important to have a census assessment across the Maldives in order to avoid bias;

• Most of the atoll schools performed well in Dhivehi, English and Mathematics learning outcomes, however, special attention needs to be given to low performing schools in atolls such as Noonu, Raa, Faafu and Laamu to assist with students' learning;

• Extra care needs to be given when designing the test items as many of the questions in 2017 NALO in Dhivehi, English and Mathematics did not focus on the factorial relationships that effect students' achievement. Subject results did have some correlations with many of the factors in the student questionnaires; but many of these correlations are not significant. Therefore, further research needs to be conducted for identifying factors and their correlations that highly effect students' performance at school. Data that had been gathered from this assessment can be utilized to conduct such a research; additional data will need to be collected from vast different factors such as student behaviors, habits, environment, family background, income levels, relationships, school environment and many other prospective factors may be selected for conducting such a data mining study.

 Multiple choice questions may not be the most effective tool for assessing students' performance levels especially for language subjects. Therefore, different types of assessment questions could be used;

• When results were compared between 2015/2016 and 2017 results, significant improvement is not seen. This may be due to the fact that, even though the same schools were tested, the same sets of students were not tested. Therefore, to test the impact of NALO it is imperative that students who were in Grade 4 in 2015/2016 and 2017 be tested when they go to Grade 7.

• NALO 2017 findings complement with the learning outcome gap between the genders, hence effective strategies are required to minimize the gap between boys and girls;

• It can be seen that many students in both Grades 4 and 7 find it difficult to answer cognitive questions in the assessment which may suggest that the classroom teaching is focusing on rote memorization rather than teaching for understanding of the concepts. A comparison of students assessment results with their results at school could be done to verify and determine whether students' performance at NALO truly reflect students' results; and

• In terms of data entry and overall data management across different assessments or studies within QAD, it is recommended that:

- o A simple data management software such as Microsoft Access to be used;
- o To minimize human errors such as blank spaces and wrong Atoll entered for a certain school, and to manage time effectively, automatic input validation from data entry software program could be used; and

o Data collection and storing be done in a consistent manner through a properly designed database program to make is more consistent as data collected for one study will be very useful for other studies as well.

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11. Appendix

Sampled Schools

1	01	101	HA	Ha. Thuraakunu	Thuraakunu School
2	01	107	HA	Ha. Vashafaru	Vashafaru School
3	01	108	HA	Ha. Dhidhdhoo	Atoll Education Centre
4	01	110	HA	Ha. Maarandhoo	Maarandhoo School
5	01	114	HA	Ha. Baarah	Baarashu School
6	02	205	HDH	Hdh. Nolhivaramfaru	Nolhivaramfaru School
7	02	209	HDH	Hdh. Kulhudhuffushi	Atoll Education Centre
8	03	303	SH	Sh. Goidhoo	Goidhoo School
9	03	304	SH	Sh. Feydhoo	Feydhoo School
10	03	307	SH	Sh. Foakaidhoo	Foakaidhoo School
11	03	311	SH	Sh. Lhaimagu	Lhaimagu School
12	03	312	SH	Sh. Komandoo	Atoll Education Centre
13	03	313	SH	Sh. Maaun'goodhoo	Maaun'goodhoo School
14	04	402	Ν	N. Ken'dikulhudhoo	Ken'dhikulhudhoo School
15	04	404	Ν	N. Kudafaree	Kudafaree School
16	04	405	Ν	N. Landhoo	Landhoo School
17	04	406	Ν	N. Maafaru	Maafaru School
18	04	407	Ν	N. Lhohee	Lhohee School
19	04	408	Ν	N. Miladhoo	Hidhaya School
20	04	410	Ν	N. Manadhoo	Atoll School
21	04	412	Ν	N. Fodhdhoo	Fodhdhoo School
22	05	505	R	R. Un'goofaaru	Un'goofaaru School
23	05	506	R	R. Maakurathu	Maakurathu School
24	05	507	R	R. Rasmaadhoo	Rasmaadhoo School
25	05	511	R	R. Fainu	Fainu School
26	05	512	R	R. Meedhoo	Atoll Education Centre
27	05	514	R	R. Hulhudhuffaaru	Hulhudhuffaaru School
28	06	608	В	B. Eydhafushi	Atoll Education Centre
29	06	612	В	B. Goidhoo School	Goidhoo School
30	06	610	В	B. Hithaadhoo	Hithaadhoo School
31	06	603	В	B. Kendhoo	Kendhoo School

32	06	607	В	B. Maalhos	Maalhohu School
33	06	609	В	B. Thulhaadhoo	Thulhaadhoo School
34	07	701	LH	Lh. Hinnavaru	Atoll Education Centre
35	07	702	LH	Lh. Naifaru	Madhrasathullfthithaah
36	07	703	LH	Lh. Kurendhoo	Atoll School
37	07	704	LH	Lh. Olhuvelifushi	Olhuvelifushi School
38	08	801	K	K. Kaashidhoo	Atoll School
39	08	803	K	K. Dhiffushi	Dhiffushi School
40	08	804	К	K. Thulusdhoo	Atoll Education Centre
41	08	808	K	K. Maafushi	Maafushi School
42	09	901	AA	Aa. Thoddoo	Thoddoo School
43	09	902	AA	Aa. Rasdhoo	Atoll Education Centre
44	09	903	AA	Aa. Ukulhas	Ukulhahu School
45	09	904	AA	Aa. Mathiveri	Mathiveri School
46	09	905	AA	Aa. Bodufolhudhoo	Bodufolhudhoo School
47	09	906	AA	Aa. Feridhoo	Atoll School
48	10	1001	ADH	Adh. Hangnaameedhoo	Hangnaameedhoo School
49	10	1002	ADH	Adh. Omadhoo	Omadhoo School
50	10	1003	ADH	Adh. Kun'burudhoo	Kun'burudhoo School
51	10	1004	ADH	Adh. Mahibadhoo	Atoll Education Centre
52	10	1005	ADH	Adh. Mandhoo	Mandhoo School
53	10	1006	ADH	Adh. Dhan'gethi	Dhan'gethee School
54	10	1007	ADH	Adh. Dhigurah	Dhigurashu School
55	10	1008	ADH	Adh. Fenfushee	Fenfushee School
56	10	1010	ADH	Adh. Maamigili	Atoll School
57	11	1101	V	V. Fulidhoo	Atoll School
58	11	1102	V	V. Felidhoo	Atoll Education Centre
59	11	1103	V	V. Keyodhoo	Keyodhoo School
60	12	1201	М	M. Raiymandhoo	Raiymandhoo School
61	12	1202	М	M. Veyvashu School	Veyvashu School
62	12	1203	М	M. Mulah	Mulaku School
63	12	1204	М	M. Muli	Atoll Education Centre
64	12	1205	М	M. Naalaafushi	Naalaafushi School
65	12	1206	М	M. Kolhufushi	Atoll School
66	12	1207	М	M. Dhiggaru	Dhiggaru School
67	12	1208	М	M. Maduvvaree	Maduvvaree School
68	13	1301	F	F. Feeali	Atoll School

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69	13	1302	F	F. Bileiydhoo	Bileiydhoo School
70	13	1303	F	F. Magoodhoo	Magoodhoo School
71	13	1304	F	F. Dharan'boodhoo	Dharan'boodhoo School
72	13	1305	F	F. Nilandhoo	Atoll Education Centre
73	14	1401	DH	Dh. Meedhoo	Atoll School (4 n 5
74	14	1402	DH	Dh. Ban'didhoo	Ban'didhoo School
75	14	1403	DH	Dh. Rin'budhoo	Rin'budhoo School
76	14	1404	DH	Dh. Hulhudheli	Hulhudheli School
77	14	1406	DH	Dh. Kudahuvadhoo	Atoll Education Centre
78	15	1501	TH	Th. Burunee	Burunee School
79	15	1503	TH	Th, Madifushi	Madifushi School
80	15	1504	TH	Th. Dhiyamigili	Dhiyamigili School
81	15	1506	TH	Th. Kan'doodhoo	Kan'doodhoo School
82	15	1507	TH	Th. Vandhoo	Vandhoo School
83	15	1508	TH	Th. Hirilandhoo	Hirilandhoo School
84	15	1509	TH	Th. Gaadhiffushi	Gaadhiffushi School
85	15	1510	TH	Th. Thimarafushi	Atoll Education Centre
86	15	1512	TH	Th. Kin'bidhoo	Kin'bidhoo School
87	15	1513	TH	Th. Omadhoo	Omadhoo School
88	16	1602	L	L. Dhan'bidhoo	Dhan'bidhoo School
89	16	1605	L	L. IsdhooKalaidhoo	IsdhooKalaidhoo School
90	16	1608	L	L. Gan	Ihadhdhoo School
91	16	1612	L	L. Maamendhoo	Maamendhoo School
92	16	1613	L	L. Hithadhoo	Hithadhoo School
93	17	1702	GA	Ga. Villingili	Atoll Education Centre
94	17	1703	GA	Ga. Maamendhoo	Maamendhoo School
95	17	1704	GA	Ga. Nilandhoo	Nilandhoo School
96	17	1705	GA	Ga. Dhaandhoo	Dhaandhoo School
97	17	1708	GA	Ga. Gemanafushi	Gemanafushi School
98	18	1801	GDH	Gdh. Madaveli	Madaveli School
99	18	1802	GDH	Gdh. Hoadedhoo	Hoadedhoo School
100	18	1803	GDH	Gdh. Nadella	Nadella School
101	18	1805	GDH	Gdh. Rathafandhoo	Rathafandhoo School
102	18	1810	GDH	Gdh. Thinadhoo	Thinadhoo School
103	19	1902	GN	Gn. Fuvahmulah	Fuvahmulaku School
104	19	1904	GN	Gn. Fuvahmulah	Hafiz Ahmed School
105	20	2004	S	S. Hithadhoo	Hithadhoo School

106	20	2007	S	S. Maradhoo	Maradhoo School
107	20	2010	S	S. Maradhoofeydhoo	MaradhooFeydhoo School
108	21	2104	Male'	Male'	Kalaafaanu School
109	21	2105	Male'	Male'	Imaduddin School
110	21	2108	Male'	Male'	Dharumavantha School
111	21	2110	Male'	Male'	Muhyiddin School
112	21	2111	Male'	Male'	Ghaazee School