

Chapter Six

Conclusion and the Way Forward

6.1 Introduction

The purpose of this chapter is to discuss the main patterns in learning outcomes identified through the National Assessment 2013. This chapter has three main objectives.

1. Summarize the findings in relation to the patterns observed.
2. Analyze the main patterns observed in the light of the main objectives of a national assessment.
3. Identify further measures to provide opportunities to achieve 'education for all'.

6.2 Patterns Identified in the achievement of learning outcomes - 2013

6.2.1 All island performance

Overall performance

The overall performance in **First language** differs according to the two languages. The all island mean value for the Sinhala language is 64.56. Disparity in achievement prevails with approximately 15.3% of students scoring below 40 and 20% of students scoring between 80-89 marks. However, there are also a few outliers- those whose marks are very low compared to others.

The all island mean value for the Tamil language at national level is 58.28. Disparity in achievement prevails with approximately 30.00% of students scoring below 40 and 17.40% of students scoring between 80-89 marks and another 12.10% scoring between

90-100 marks. Therefore, student heterogeneity is greater in Tamil as a first language performance.

For the second language **English**, the national level mean and median values are 51.68 and 50 respectively.

Even though the overall achievement in English language is satisfactory, there is wide disparity in achievement resulting in a SD of 25.632. There is a high percentage of students with low marks. At the same time those who have scored high marks are also relatively high.

When the achievement in mathematics is considered, the national level mean is 60.32 while the median is 62.50.

Disparity in achievement prevails with approximately 20% of students scoring below 40 and 40% of students scoring above 70. However, the highest number of students falls within the marks range of 80-89.

Therefore, it could be concluded that even though the overall performance in all subjects is satisfactory, there is disparity in all island achievement in all three subjects.

6.2.2. Provincial wise performance and trends

The findings of the present study indicate that there are variations in provincial wise achievement in all three subjects.

Achievement in First language - Sinhala

Achievement wise, the provinces can be clustered into three categories in relation to the performance in the Sinhala language. Southern, Sabaragamuwa and North Western with mean scores above the national mean (64.56) fall into category one. Western, North Central, Uva and Central provinces cluster in the middle. While Northern and Eastern with lower mean values fall into category three. Disparity of marks within a province is

highest in the Eastern province. Performance of Sabaragamuwa and Central provinces indicate a similar pattern of homogeneous achievement among students.

Achievement in Tamil

The provinces fall into three categories according to the achievement in Tamil language as well. Northern and Eastern with mean scores above the national mean (58.28), fall into the higher category. Western, Uva, Central, Sabaragamuwa and North Central, cluster in the middle with mean scores above 50. North Western and Southern provinces with lower mean scores below 50 fall into category three. Disparity of marks within a province is the highest in the Eastern province. On the other hand, in Sabaragamuwa and Central provinces the disparity of marks is less. Therefore, in these provinces achievement is more homogeneous within the province.

Achievement in English

Unlike in the performance of the other two subjects, in the achievement of English language the provinces fall into two categories.

Southern, Western, Sabaragamuwa and North Western with mean scores above the national mean (51.68) fall into category one. Central, North Central, Uva, Eastern and Northern provinces which are below the national mean fall into the second category. There is variation among as well as within the provinces with respect to achievement in English. However, all provinces have obtained mean values above 40.

Achievement in mathematics

Achievement wise the provinces fall into three categories.

Southern, Sabaragamuwa, North Western and Western with mean scores above the national mean (60.32) fall into category one. North Central, Uva and Central provinces are in the middle cluster with mean values between 56-60 and the Northern and Eastern provinces fall into category three with mean values below 54. While the disparity of marks within a province is highest in the Eastern province in North Central

and Uva provinces the disparity of marks is less. Therefore, in these provinces achievement is more homogeneous, but the marks are low.

6.2.3 Achievement according to school types

Different patterns could be observed in the achievement of students in all three subjects in all school types.

In the achievement of the **Sinhala language**, there is not a considerable gap between the mean scores of different school types. However, Type 2 schools' mean score is above that of the other types and also above the national mean. Mean score of all school types, except 1C schools is above the national mean. Therefore, the gap between school types in relation to opportunities of "education for all" seems to be narrowing.

The highest percentage of students' marks (18.00%) in 1AB schools falls within the class interval 70-79. On the other hand, in the other three types of schools the highest percentage of marks falls within the class interval 80-89 and the percentages are also higher. The performance of these groups of high achievers have contributed to the increase of overall achievement of these three school types.

However, there is variation in student achievement among different school types. Variation in student achievement in 1AB schools is the lowest. Although the mean and the median values are the highest in Type 2 schools, variation of marks from the mean is also highest in these schools. Even though the highest percentage of high achievers in 1AB schools are less than in other three types, the percentage of low achievers in these schools are less than in other school types.

In contrast to the performance in Sinhala, the performance in **Tamil** is lowest in Type 2 schools. On the other hand, the performance is highest in 1AB schools. Performance of the 1C and Type 3 schools is in between these two extremes. All school types have achieved median values above the national mean for the Tamil language.

In both Type 2 and Type 3 schools, the highest percentage of students (16.30) belongs to the class interval 80-89. On the other hand, in 1AB and 1C schools too, the highest percentage of students belongs to the same class interval. However, the percentage is greater in these two school types. The percentage of students who has scored less than the pass mark (40%) is considered, 1AB schools have the lowest percentage. On the other hand, the highest percentage is in Type 2 schools.

Therefore, it could be concluded that the overall performance in the Tamil language best in 1AB schools.

When **English language** performance is considered, 1AB and 1C Type schools' mean values are above the all island mean, while the mean values of other two school types are below the all island mean. In 1C and Type 2 schools 37.40 cumulative percentage and 39.40 cumulative percentage of students' scores are below 40. On the other hand, in 1AB schools, failure percentage is only 32.10 and there are also 39.20% of high achievers scoring above 70.

The bi model nature of the curves indicating the marks in the English language implies that there are groups of high achievers as well as low achievers. However, in 1AB and 1C schools the percentage of high achievers is greater than the percentage of low achievers. On the other hand, in the case of Type 2 and Type 3 schools the percentage of low achievers is greater than the percentage of high achievers.

There is not a great difference in the overall achievement in **mathematics** in the different school types. The mean values range from 59.5 – 62.3. The performance in 1AB and 1C schools are relatively similar. The performance of Type 2 and Type 3 schools are also similar. The gap in overall achievement between school types appears to be narrowing.

However, in Type 2 and Type 3 schools student achievement deviation from the mean is very high. Type 1AB and 1C schools have SD values which are less than the all island SD value, but Type 2 and Type 3 schools have SD values that are above the all island SD.

6.2.4 Achievement according to gender

In all subjects, females have performed better than their male counterparts.

In the performance of the Sinhala language, the overall performance of girls is higher than the males. Further, while only 9.70% of girls have scored below 40, the male percentage is 20.40%. The highest percentage of females (24.10) fall into the mark range 80-89. On the other hand, among the males the highest percentage belongs to a lower mark range 60-69 and a lower percentage (16.70). However, among girls there are a few low performing outliers.

Therefore, it could be concluded that in relation to the achievement in the Sinhala language, even though the females have performed better than the males, still there is variation in achievement among them.

The same pattern could be observed in relation to the achievement in the **Tamil** language. Female students' achievement is higher than male students' achievement.

Female performance in the **English** language is higher than all island and male performance. Female students' English achievement has contributed greatly for the all island mean to rise.

Among both males and females, there is a larger percentage of low achievers. However, the percentage of low achievers are high among the males than among the females. On the other hand, the number of high achievers among the males is less than among the females. Therefore, the disparity in achievement in the English language is very high.

In **mathematics**, female performance is slightly better than all island and male performance. The percentage of low achievers (below 40 marks) is lower than among the boys.

However when the high performers are considered, the highest percentage of females (17.34%) falls into the mark range 70-79. On the other hand, among the males the

highest percentage belongs to even higher mark range 80-89. Yet, the percentage is less (14.52). Therefore, it could be concluded that there is greater variation in the achievement in mathematics among boys even though their overall performance is low.

6.2.5 Achievement according to medium of instruction

There is wide disparity in achievement among students belonging to different medium of instruction in the English language and mathematics.

Sinhala medium students' mean achievement in the **English** language is better than the achievement of the Tamil medium. While the Sinhala medium students mean value is above the all island mean value, the Tamil medium students' mean achievement is very much below the national mean.

There is a large group of low achievers among the Tamil medium students. On the other hand, among the Sinhala medium students, there are two groups - a group of high achievers as well as a group of low achievers.

Variation of marks from the mean is higher among the Tamil medium students than among the Sinhala medium students.

Therefore, it could be concluded that even though there is disparity in achievement between both Sinhala and Tamil medium students, it is greater among the Tamil medium students.

In **mathematics** performance, there is wide disparity among students belonging to different media of instruction. However, the Sinhala medium students' mean score is above the national mean while the Tamil medium students' mean is lower. On the other hand, while the percentage of Tamil medium students is in the lower marks range, a higher number of Sinhala medium students is in the higher marks range.

6.2.6 Achievement according to location

There is variation in achievement in the Sinhala language among the schools in the different localities. The urban council area schools have performed the best. On the other hand, the lowest performance is recorded in the municipal council area schools though the mean difference is minimal. Both municipal council and pradeshiyasaba schools have performed below the national mean.

There are more high performing students in the urban council area schools. The highest percentage (25.80) of students falls into the class interval 80-89. Even though, the highest percentage of students in the other two localities also falls into the class interval, the percentage is less. Further, in all localities variation of marks from the mean is quite similar. Therefore, it could be concluded that there is more homogeneity in the dispersion of marks according to different locations. However, low performing outliers can be seen in both urban and pradeshiyasaba schools but not in the municipal council area schools.

In considering the achievement in Tamil, the urban council area schools have performed the best. However, there is not much difference in the mean values of urban and municipal council area schools and their mean values are above the national mean. On the other hand, the lowest performance is recorded in the pradeshiyasaba area schools and their performance is below the national mean.

The deviation of the marks from the mean in Tamil in both the urban council area as well as in the pradeshiyasaba area schools are high. On the other hand, in the municipal council area schools, the SD is lower than in the other two localities indicating lesser variation.

In considering the English language performance, the urban council area schools have performed better than the municipal council area schools. On the other hand, the lowest performance is recorded in the pradeshiyasaba area schools. They have performed below the national mean while the other two types of schools have performed above the national mean.

The percentage of high achievers is greater among the municipal council and urban council area schools while the percentage of low achievers is greater among pradeshiyasaba schools.

Even though there is disparity in achievement, the deviation of the marks from the mean is quite similar in all localities.

The urban council area schools have performed slightly better than the municipal council area schools. On the other hand, the lowest performance is recorded in the pradeshiyasaba area schools. They have performed below the national mean while the other two types of schools have performed above the national mean.

Even though there is disparity in achievement, the deviation of the marks from the mean appears to be quite close to each other. However, the SD of the municipal council area schools is less than the schools in the other two localities. Therefore, the deviation of marks is less in the municipal council area schools.

Another pattern observed in the achievement of marks of the different localities is that in the urban and municipal council area schools, there is high percentage of very high achievers. On the other hand, in the pradeshiyasaba schools the percentage of very high achievers is less but at the next level the marks are evenly spread. Therefore, there is more homogeneity in the achievement of marks in pradeshiyasaba schools.

6.2.7 Achievement of skills and Essential Learning Competencies (ELCs)

The analysis of the facility indices for the three subjects indicates that there is great variation in the achievement. The ranges for the facility indices for each subject is given below.

First Language	
Sinhala	0.2923 to 0.9572
Tamil	0.2322 to 0.8829
English	0.2800 to 0.8065
Mathematics	0.2454 to 0.8476

The facility indices given above indicate that there is wide disparity in achievement among students.

In the achievement of sub skills of languages was considered, similar patterns could be observed.

In the first language Sinhala, the mean values of all four sub skills were above 50 with vocabulary achievement being the highest. The lowest achievement could be seen in syntax and writing.

When the achievement of ELCs is considered, the lower competencies are 8 and 4. These competencies relate to spellings and subject verb agreement.

The same paper was given in the two first languages. When the achievement of sub skills in the Tamil language is considered, the same pattern could be observed. Mean values of all four skills were above 50 with vocabulary achievement being the highest and the weakest is syntax and writing.

When the achievement of ELCs is considered, the lower competencies are 8 and 4 which relates to spellings and subject verb agreement.

It is interesting that when the achievement of the second language English, is considered, still the same pattern could be observed. Even though the first language and second language papers differed in content the structure of the papers as discussed in chapter 2, was the same. That is the number of questions for sub skills was same.

When the achievement of sub skills is considered, except for syntax, the mean values for the other three skills are above 50. The weakest skills appear to be syntax and writing. For English the only ELC related to writing is to “write the students name”. Only 32.85% of students has been able to write their names in a grammatically correct sentence. The analysis of the writing task revealed that the lack of knowledge in syntax appears to affect the writing skills similar to the first language performance.

A pattern can be observed in students achievement of sub skills in mathematics as well. For all three sub skills, the mean value is above 50. However, while the mean value for understanding concepts is 65.99, the mean value for problem solving is 53.14. Therefore, problem solving is the weakest skill.

When achievement of ELCs are considered, except for competency 16 which is “Names objects situated both at left and right sides of one's own position”, responses to questions related to other ELCs seems satisfactory. The correct responses for the questions related to these ELCs are above 50%.

6.3 What the findings reveal

6.3.1 Opportunities for equity

As already discussed in chapter 1, promoting “Equity” and “excellence” and reducing disparities in the education system is one of the main focuses of the Government of Sri Lanka and this is highlighted in the Education Sector Development Framework and Programme (ESDFP) from 2013–2017.

One of the major areas identified in this Framework is “improving the quality of basic and secondary education” (p.2). Under the Primary Education Development programmes, one of the objectives is “to ensure quality and accessible education for all as to reduce disparities in the quality and access to primary education”(p.33). Therefore, it is necessary to find out whether any particular subgroups in the population perform poorly. For example, whether disparities exist, between the achievements of boys and girls, students from different language or ethnic groups, or students in different regions of the country.

As discussed in section 6.2, there is disparity in achievement between provinces, between boys and girls, between different languages or ethnic groups, among school types, different media of instruction and according to the location of the schools. There is not only inter provincial disparities but also intra provincial disparities. Therefore, it could be concluded that students’ performance at the end of the fourth year of schooling

indicates that equal opportunities to achieve the goal of ‘education for all’ had not been successful.

6.3.2 Impact on the curriculum reforms

As discussed in chapter 1, there are several objectives of a national assessment. One such objective is to find out whether the findings indicate particular strengths and weaknesses in students’ knowledge and skills so that it would provide input for curriculum reforms.

As discussed in section 6.2, when considering the achievement of the first language, it was revealed that writing skills were weak in both Sinhala and Tamil students. It was further revealed that achieving of the ELCs related to spellings and sentence construction is weak. These are two areas that need to be strengthened in a new curriculum revision.

It was also revealed that there is a lack of balance in the identification of ELCs. There were only six ELCs relevant to reading and writing. Further, they do not adequately represent competencies relating to all four sub skills of language. Even though, the ELC do not correspond to all sub skills, the syllabus is skill based.

The deficiencies identified in the first language curriculum also applies to the second language curriculum as well. Imbalance in the ELCs is even worse in the English language curriculum as there is only one ELC pertaining to writing, even that is not very clear. When considering the ELCs for mathematics, there are only 8 competencies. They also do not adequately represent all sub skills of mathematics. Therefore, this mismatch needs to be rectified in a future curriculum revision.

The ELCs are not given in the Teacher Guides or Pupil’s Books. Therefore, whether the teachers consider the ELCs in their lesson planning is also questionable. As it is expected that “100 percent of the children complete primary education achieving ELCs” (ESDFP, 2013-2017, p.33) teacher awareness is vital.

6.4 The way forward

It has been stressed that the national assessment of learning outcomes should be better utilized for policy purposes (World Bank, 2012). The Ministry of Education (MoE) in collaboration with the Provincial Education Authorities (PEAs) and national level education institutions has developed Education Sector Development Framework and Programme (ESDFP) from 2012-2016. As a rolling plan of this strategic plan, the ESDFP plan for 2013 -2017 has been formulated (Ministry of Education, 2013)

Section 6.4 of this chapter examines how the findings of the national assessment 2013 can further strengthen the proposals of the ESDFP.

Curriculum revision

According to the ESDFP (2013-2017), one of the strategies identified for the development of primary education is curriculum revision and upgrading of primary education curriculum. Accordingly it is claimed that “curriculum upgrading will include the identification of the curriculum areas that need improvement” (p.34). Among the activities identified to achieve these strategies are

- (a) Develop standards for each key stage
- (b) Upgrade ELCs

As the discussion in section 6.3.2 revealed upgrading of ELC’s is necessary. In order to do so there must be coordination between the different stakeholders such as the primary education branch and the subject directors of the MoE and the NIE

Section 6.3.1 discussed the provision of equity. The findings revealed that there are disparities in achievement at all levels such as provincial, school, gender, medium and location. As a result, students are at different levels. Developing standards for each key stage and linking them with the ELCs would be a solution to this issue.

Diversify the curricula

Use of common teaching methodologies to teach students who are in different performance levels in the same classroom has been repeatedly identified as an issue in teaching any subject and especially the English language and mathematics. The item analysis maps clearly indicates that there are high achieving as well as very low achieving students who are not catered to by the present curriculum. This was especially evident in the performance of English language. Therefore, there is a need to and introduce diversified curricular and assessment methods.

Diversified curricula could be linked to the identified standards. This would enable to develop activities and assessments to suit the different levels.

Teacher development

The analysis of data clearly showed that there are high achievers in all subjects. Similarly, there were groups of low achievers as well. Teachers need to identify these students with exceptional abilities as well as learners needing special attention. Further, they should be able to adapt the learning material to provide fast track programmes for the best students and remedial programmes for the low achievers. Thus, teacher development programmes should include these skills as well as to train teachers in the use of strategies such as mixed ability and same ability groupings.

Equity in learning opportunities

Increase equitable access in primary and secondary education and strengthening divisional level planning and enhancing resources to promote student learning at all levels are some of the strategies identified by the ESDFP. However, the national assessment results indicate that there are inter and intra disparities among provinces, gender, ethnic groups, location and to a certain extent among school types. Multiple variables may influence these disparities and special attention of the policy planners and more public resources should be targeted to these provinces and low performing sub groups.

Research and Monitoring

Present study as it utilized new assessment tools would be considered as the baseline for future assessment. Further, these findings could not be compared with the previous assessment findings. However, some of the patterns observed through the findings of this assessment are contradictory to some of the generally accepted beliefs such as performance in all subjects in Type 2 schools is below that of the other school types. However, the findings of the present study reveal that in Sinhala language achievement, performance of Type 2 schools is higher than the other types. Similarly, provinces labeled as low performing are advancing. Therefore, more research is needed to find out the best practices which could be replicated in low achieving areas.

