

## Chapter Seven

# Performance of Students in Plantation Schools

### 7.1 Introduction

General patterns of students of Grade 08 in plantation schools are analysed in this chapter. Tamil medium schools from the districts such as Nuwara Eliya, Kandy, Matale, Badulla and Ratnapura were incorporated in this analysis.

#### 7.1.1 Comparison of Plantation School with National Level in First Language

The frequency distribution percentage given in Table 7.1 indicates that students scoring above 50 percentage in First Language in the plantation schools was 38.7 and at national level it was 72.1. Performance of plantations schools, mainly falls in to the class interval 50-79, was around 35.1% and between 10-40 48.4% and was very high. While percentage of students scoring more than 80 marks at national level was 16, in plantation schools it was only 3.5.

*Table 7.1 - Frequency Distribution Percentage in First Language in Plantation Schools*

Class Interval	Frequency Percentage	
	All island	Plantation
90-100	1.6	
80-89	14.4	3.5
70-79	23	11
60-69	18.7	10.9
50-59	14.4	13.3
40-49	10.4	10.4
30-39	8.1	8.9
20-29	5.1	11.5
10-19	3.6	28
0-9	0.7	2.5

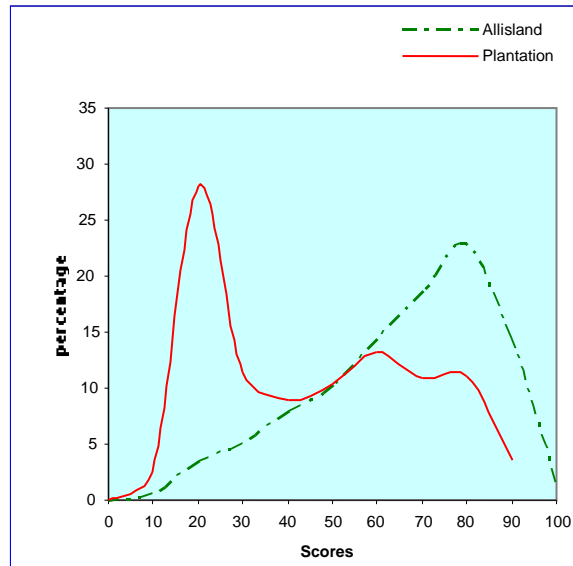


Figure 7.1: Frequency Polygon in Plantation Schools - First Language

The patterns were clearly seen in Frequency Polygon (Figure 7.1). A shift in the nature of the frequency polygon reveals the low achievement level of plantation schools and it is far below the national level curve.

### First Language Sub Skills

Performance of plantation schools in sub skills is also comparatively lower. Except writing skills, where the performance is almost equal to the national level, other skills are lower than that of the national level performance. In vocabulary, the differences in facility value was 0.13 and the differences in comprehension and syntax were 0.02 and 0.06 respectively. In application, the facility value was (0.51 and it was higher than the national value (0.47).

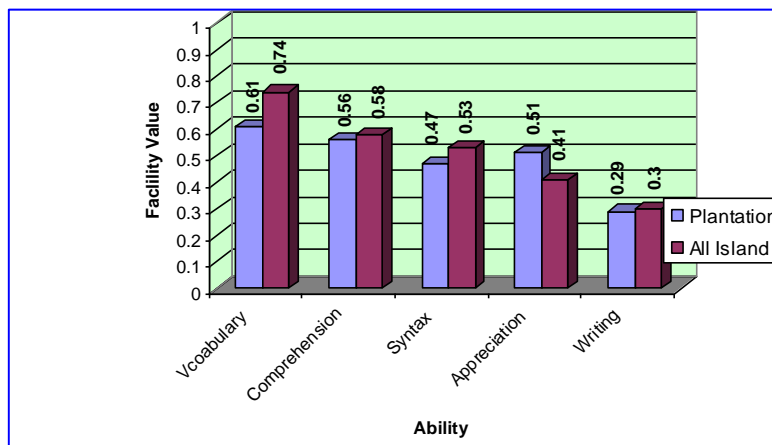
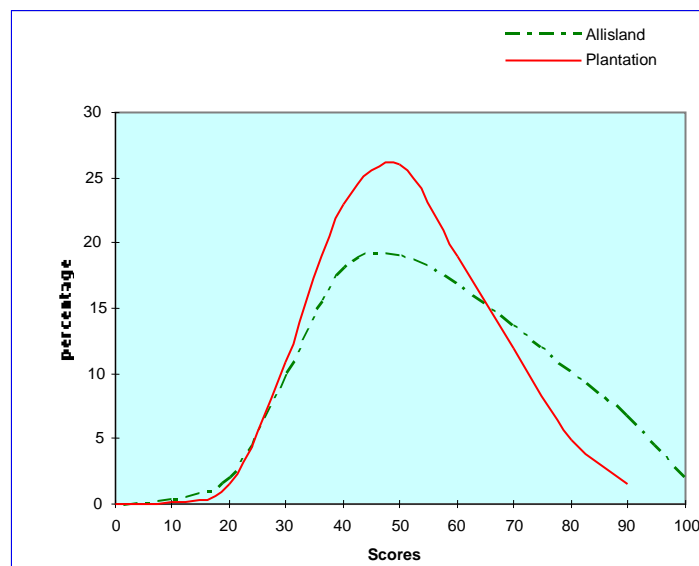


Figure 7.2: First Language Sub Skills

The performance of plantation schools in Mathematics is given in Table 7.2 and Figure 7.2. Concentration of students was mainly in the class intervals between 20-60 and it was 78.8 percent. At national level the percentage was only 64.3. When the percentage of students scoring 50 marks and above was 50 at national level, it was only 37.5 at plantation schools.

**Table 7.2 - Frequency Distribution Percentage in Mathematics in Plantation Schools**

Class Interval	Frequency Percentage	
	All island	Plantation
90-100	2.1	
80-89	6.9	1.6
70-79	10.3	4.9
60-69	13.7	12
50-59	17	19
40-49	19.2	26
30-39	18.2	22.9
20-29	9.9	10.9
10-19	2.2	1.6
0-9	0.5	0.2



**Figure 7.3: Frequency Polygon in Plantation Schools - Mathematics**

The frequency polygons in Mathematics for plantation schools (see Figure 7.3) when compared with national level clearly indicates a poor performance. Eighty percent of scores have fallen within the class interval of 20-60 and this curve shifted more towards left than the national level frequency curve.

## Mathematics Sub Skills

Knowledge, communication, connections, reasoning and problem solving skills were tested in Mathematics. The facility values indicated that in all sub skills, the plantation schools performed lower than the national level. However, the differences in facility values are very narrow except in two sub skills reasoning and problem solving and the differences in facility values were 0.05 and 0.10 respectively.

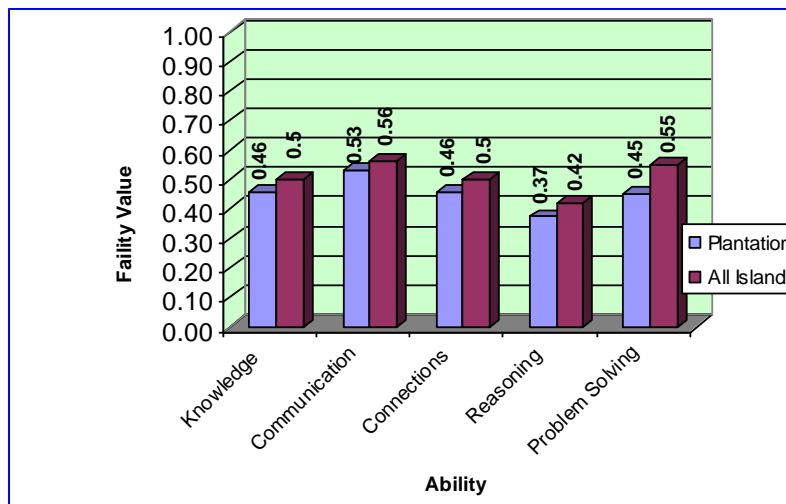
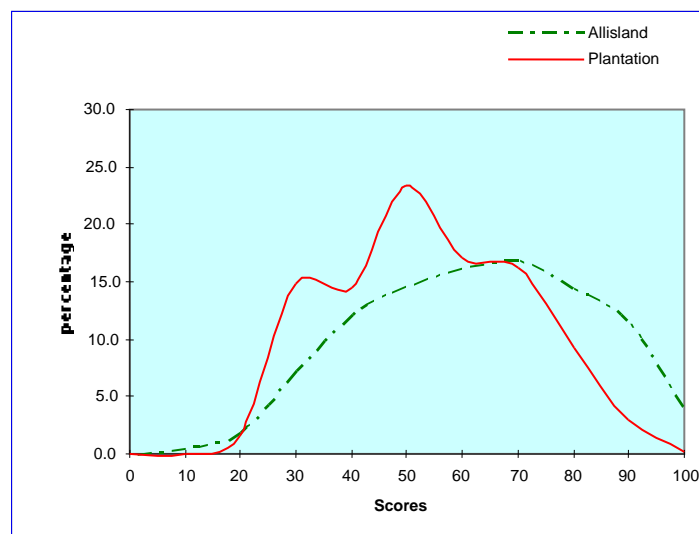


Figure 7.4:- Mathematics Sub Skills

In Science and Technology a different pattern is evident. Students scored above 50 at national level was 63.4 in percentage while in plantation schools it was 45.85. Students scoring above 80 at national level was 15.7% and in plantation schools it was 3.2%.

**Table 7.3 - Frequency Distribution Percentage in Science and Technology in Plantation Schools**

Class Interval	Frequency Percentage	
	All island	Plantation
90-100	4.1	0.2
80-89	11.6	3
70-79	14.4	9.2
60-69	17	16.3
50-59	16.3	17.1
40-49	14.6	23.4
30-39	12.2	14.5
20-29	7.3	14.8
10-19	2	1.5
0-9	0.5	0



**Figure 7.5: Frequency Polygon in Plantation Schools - Science and Technology**

While looking at the frequency polygon, the performance of plantation school was represented by a multi-modal curve and it was moved towards left when compared with the national frequency polygon. The scores of the plantation schools piled between the class intervals 30-70. The percentage of students scoring less than 30 marks in Science and Technology was also too high in plantation schools.

### **Science and Technology Sub Skills**

The nature of the facility values in Science and Technology was different from the other two subjects namely First Language and Mathematics. This was almost equal

to national level performance. It implies that the performance of plantation schools in Science and Technology was satisfactory. However, Education Officers should launch effective programmes to improve the sub skills analysis and synthesis in plantation schools.

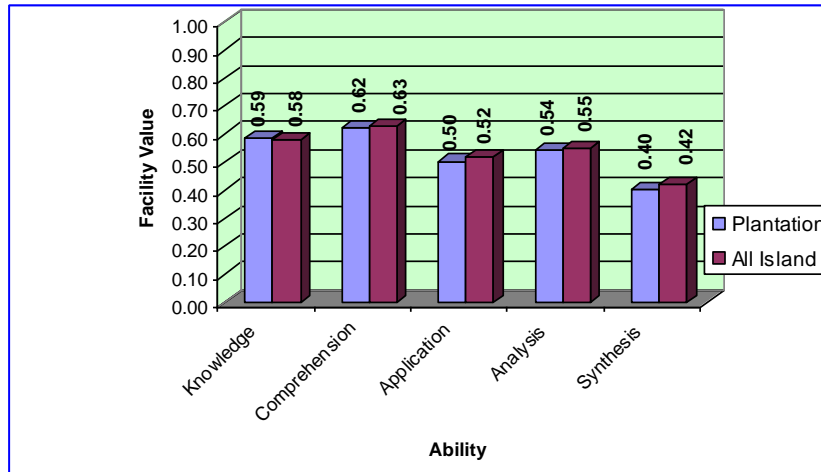


Figure 7.6: Science and Technology Sub Skills

### 7.1.2 Mean Values of Plantation Schools

The mean values of the three subjects First Language, Mathematics and Science and Technology are given in Figure 7.7.

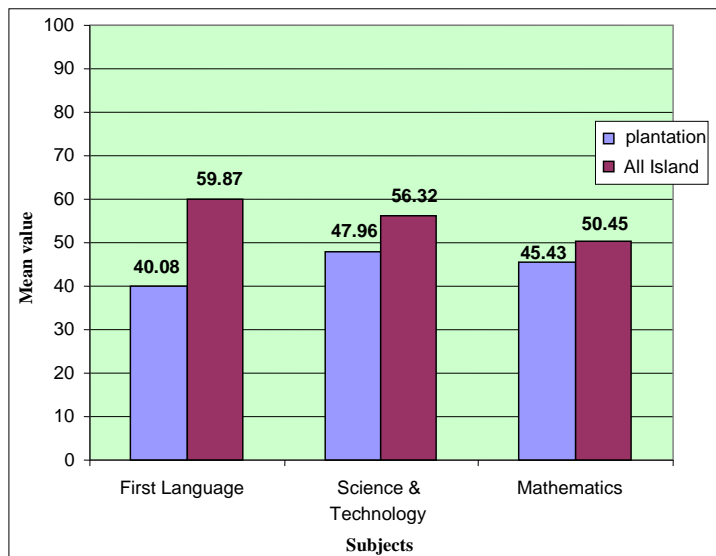


Figure 7.7: Mean values of First Language, Mathematics and Science and Technology in Plantation Schools

The percentage of mean values of plantation schools in First Language, Mathematics and Science and Technology is far below from the national mean values. The mean value in First Language at national level was 59.87 and it was 40.08 in plantation schools.

It reflects that the performance levels of plantation school in all three subjects were lower than those of the national mean values.

### **7.1.3 Average Performance Levels of Plantation Schools**

The values given in Figure 7.7 obviously highlight the performance level of plantation schools in Grade 08. While at plantation schools the mean values in First Language, Science and Technology and Mathematics were 40.08, 47.96 and 45.43 respectively, at national level, the same were 59.87, 56.32 and 40.46.

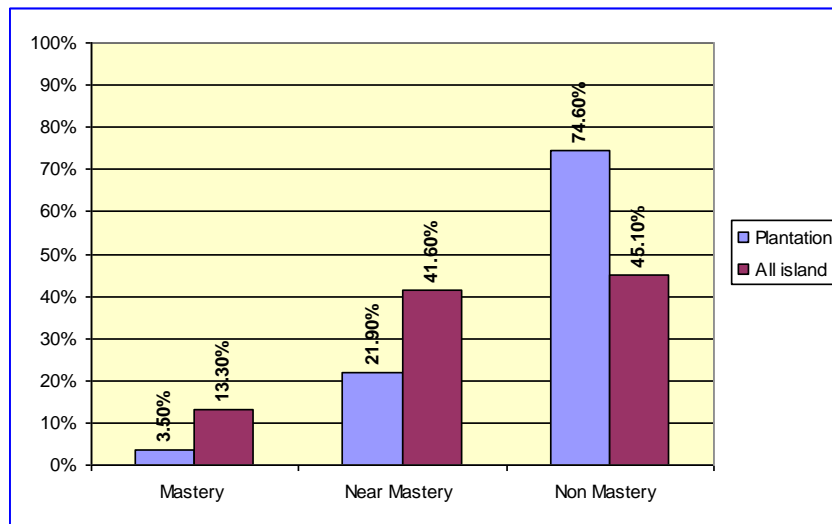
The differences in mean values in First Language (19.79), Science and Technology (8.36) and Mathematics (5.02) denote the low performance levels of plantation schools.

### **7.1.4 Reaching the Level of Mastery**

Table 7.4 indicate the percentage of students reaching the level of mastery, near mastery and non-mastery. In First Language, the percentage achieving mastery was 3.5, near mastery 21.95 and non mastery 74.65. It was 13.30%, 41.60% and 45.1% at national level respectively. When compared with the national level, the improvement in plantation schools is inadequate. Reaching the level of non-mastery in the plantation schools was too high. A systematic intervention programme should have been implemented in order to improve this situation.

**Table 7.4 – Students Reaching the Level of Mastery in First Language**

Grading		Plantation	All island	Difference
Reaching the level of <b>mastery</b> scoring 80 marks and above		3.50%	13.30%	-9.80%
Reaching the level of <b>near mastery</b> scoring in between 60 marks and 79		21.90%	41.60%	-19.70%
Reaching the level of <b>non mastery</b> scoring 0 marks to	scoring 40-59	23.70%	26.30%	-2.60%
	scoring 20-39	20.40%	14.40%	6.00%
	scoring 0-19	30.50%	4.40%	26.10%



**Figure 7.8: – Students Reaching the Level of Mastery in First Language in Plantation Schools**

Achieving mastery in Mathematics is given in Table 7.5 and Figure 7.9. While a percentage of 6.70 reaching the level of mastery can be seen at national level, only 1.6% of students are reaching the level of mastery at plantation schools. There is also a big difference in reaching other levels such as near mastery and non mastery.

**Table 7.5 – Students Reaching the Level of Mastery in Mathematics**

Grading		Plantation	All island	Difference
Reaching the level of <b>mastery</b> scoring 80 marks and above		1.60%	6.70%	-5.10%
Reaching the level of <b>near mastery</b> scoring in between 60 marks and 79		16.90%	21.90%	-5.00%
Reaching the level of <b>non mastery</b> scoring 0 marks to	scoring 40-59	45.00%	35.70%	9.30%
	scoring 20-39	33.80%	32.80%	1.00%
	scoring 0-19	1.80%	2.90%	-1.10%



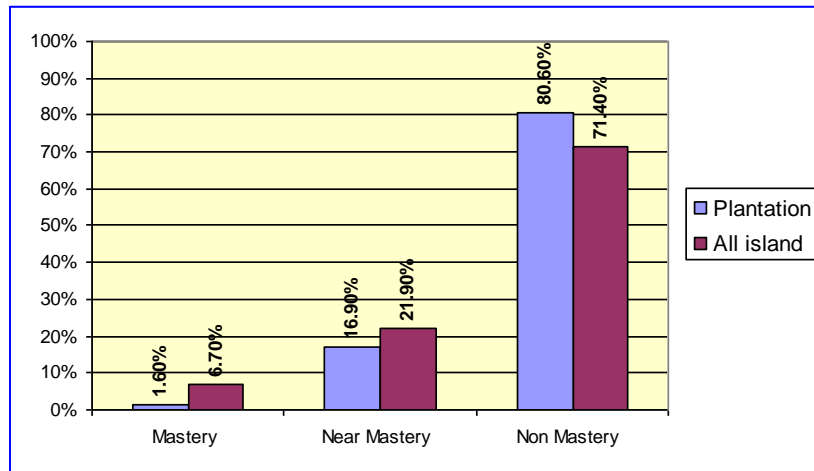


Figure 7.9: – Students Reaching the Level of Mastery in Mathematics in Plantation Schools

Reaching mastery and other levels in the subject Science and Technology too reflects the same trend in plantation schools. Table 7.6 and Figure 7.10 clearly indicate the position of plantation schools.

Table 7.6 – Students Reaching the Level of Mastery in Science and Technology

Grading		Plantation	All island	Difference
Reaching the level of <b>mastery</b> scoring 80 marks and above		3.20%	11.50%	-8.30%
Reaching the level of <b>near mastery</b> scoring in between 60 marks and 79		25.50%	30.70%	-5.20%
Reaching the level of <b>non mastery</b> scoring 0 marks to	scoring 40-59	40.50%	32.50%	8.00%
	scoring 20-39	29.30%	22.50%	6.80%
	scoring 0-19	1.50%	2.80%	-1.30%

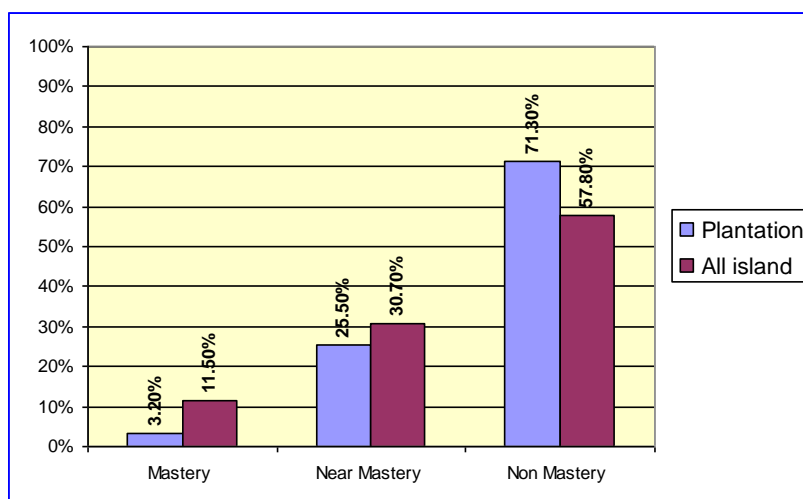


Figure 7.10: – Students Reaching the Level of Mastery in Science and Technology in Plantation Schools

While 3.20 percent of students reaching the mastery level, in Science and Technology at plantations schools at national level it is 11.50%. The difference between plantation schools and national level is - 8.30 percent. The percentage achieving non-mastery is also too high in the plantation schools (71.30%). This is only 14 percent at national level. These figures show that a large percentage of students had no readiness to learn in Grade 08, which has resulted in a poor achievement level. Therefore, paying more attention towards diagnostic testing programmes and remedial intervention strategies is an urgent need.

*Table 7.7 - Summary Statistics - Plantation Schools*

		First Language	Science	Mathematics
N	Valid	607	607	607
	Missing	0	0	0
Mean		40.08	47.965	45.43
Std. Error of Mean		.938	.6779	.596
Median		38.00	47.500	45.00
Mode		16	47.5	48
Std. Deviation		23.105	16.7027	14.692
Skewness		.238	.173	.310
Std. Error of Skewness		.099	.099	.099
Minimum		4	10.0	10
Maximum		89	97.5	88
Percentiles	25	18.00	35.000	35.00
	50	38.00	47.500	45.00
	75	60.00	60.000	55.00

Table 7.7 gives several important aspects of performance of plantation schools. The mean values of the three subjects, First Language, Science and Technology and Mathematics tested are 40.08, 47.96 and 45.53 respectively. These values are low when compared with national mean values.

There are a large percentage of students scoring lower marks in the subject tested. It indicates that the entry behaviour of students in Grade 08 in plantation schools is low in order to work in Grade 09 successfully.

25 percent of the students have scored 18 marks or below in First Language. 35 marks in Science and Technology and 45 marks or below in Mathematics. This shows that the performance level in First Language is lower than the other two subjects. While 75% of students have scored 60 marks or below in First Language and Science and Technology, in mathematics this is only 55 marks. Corrective action should be taken by the relevant authorities in the plantation districts to improve the performance level in all three subjects.

