## Chapter Four

## Patterns and Trends in Achievement: First Language - Tamil 2015

### 4.1 Introduction

This chapter presents the patterns and trends in achievement of the students in the first language-Tamil in the year 2015.

In part I, patterns in achievement will be discussed and in part II the trends will be discussed.

## Part I - Patterns in achievement in First Language - Tamil

First, national level student achievement would be discussed in relation to student performance pertaining to Tamil language.

### 4.2 Patterns of achievement at national level



Fig. 4.1: All island achievement in Tamil language 2015 - dispersion of marks

The frequency polygon shown in Fig. 4.1 outlines the total picture of the distribution of marks of grade 04 students in the Tamil language.

Fig. 4.1 depicts a negatively skewed distribution of marks displaying that majority of the students has scored high marks in the Tamil language.

The dispersion of marks is further explained in the cumulative percentage Table 4.1 given below.

Table 4.1: All island achievement in Tamil language 2015- cumulative percentages

| Class Interval | Student \% | Cumulative \% |
| :--- | :---: | :---: |
| $0-9$ | 1.46 | 1.46 |
| $10-19$ | 6.55 | 8.01 |
| $20-29$ | 6.22 | 14.23 |
| $30-39$ | 8.39 | 22.62 |
| $40-49$ | 7.35 | 29.96 |
| $50-59$ | 10.49 | 40.45 |
| $60-69$ | 12.13 | 52.58 |
| $70-79$ | 19.65 | 66.63 |
| $80-89$ | 13.72 | 86.28 |
| $90-100$ | 100.00 | 100.00 |
| Total |  |  |

According to the above Table 4.1 majority of the students has scored between 80-89. There is also $13.72 \%$ of students who falls within the class interval $90-100$. On the other hand, there are $22.62 \%$ of students who has scored below 40 marks.


Fig. 4.2: Box plot and whisker chart representing all island Tamil language achievement

As Fig. 4.2, the box plot displays more than $50 \%$ of students has reached the 67.39 mark level. Further $75 \%$ of students has reached the 82.61 mark level. Twenty five percent of the students has reached only $41.3 \%$.

## Summary of national level achievement

- National level mean is 61.57, while the median is 67.39
- Disparity in achievement prevails with approximately $22.62 \%$ of students scoring below $40 \%$ and $19.65 \%$ of students scoring between $80-89$ marks and another $13.72 \%$ scoring between 90-100 marks. Therefore, student heterogeneity is high in Tamil as a first language performance.

Provincial wise student achievement in the Tamil language would be discussed next.

### 4.3 Provincial wise student achievement

The nature of the distribution of scores in the Tamil language provincial wise reveals certain patterns. First these patterns are discussed using Table 4.2.

Table 4.2: Provincial achievement in Tamil language 2015 - Summary statistics

| Province |  |  |  |  | $$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| North Central | 66.93 | 1 | 0.37 | 21.64 | -0.64 | 52.17 | 71.74 | 84.78 |
| Sabaragamuwa | 64.46 | 2 | 0.39 | 27.09 | -0.64 | 41.3 | 73.91 | 86.96 |
| Central | 63.98 | 3 | 0.20 | 26.28 | -0.53 | 43.48 | 69.57 | 86.96 |
| Northern | 63.92 | 4 | 0.18 | 24.56 | -0.52 | 43.48 | 69.57 | 84.78 |
| Western | 61.94 | 5 | 0.19 | 20.27 | -0.64 | 50 | 65.22 | 76.09 |
| Eastern | 60.04 | 6 | 0.15 | 24.85 | -0.48 | 41.3 | 65.22 | 80.43 |
| North Western | 59.09 | 7 | 0.31 | 26.26 | -0.34 | 34.78 | 65.22 | 82.61 |
| Uva | 58.95 | 8 | 0.31 | 27.47 | -0.28 | 32.61 | 63.04 | 84.78 |
| Southern | 49.74 | 9 | 0.51 | 29.81 | 0.11 | 19.57 | 47.83 | 80.43 |
| All Island | 61.57 |  | 0.08 | 25.26 | -0.48 | 41.3 | 67.39 | 82.61 |

As Table 4.2 indicates based on provincial wise mean achievements North Central Province ranks first and its mean value is above the all island value as well.

Achievement wise the provinces fall into three main categories. North Central, Sabaragamuwa, Central, Northern and Western with mean scores above the national mean, fall into the higher category.

Eastern, North Western and Uva, cluster in the middle and in these three provinces the mean value is above 58. On the other hand, Southern Province falls into the lowest category. Between the Southern and North Central Provinces there is approximately 17 point difference in mean values indicating the disparity in achievement among the provinces.

These disparities are further highlighted through the bar chart given in Fig. 4.3.


Fig. 4.3: Bar chart to represent mean among the provinces- Tamil language

## Disparity in achievement among provinces

According to Table 4.2, Southern Province has the highest SD value. The SD values of Uva and Sabaragmuwa are also higher than the all island SD value indicating the disparity in achievement within the province and among the provinces.

Fig. 4.4, the box plot graphically illustrates this diversity further.


Fig. 4.4: Box plot and whisker chart representing provincial wise Tamil language achievement

North Central Province's $25^{\text {th }}$ as well as the $75^{\text {th }}$ percentile is high indicating the homogeneity of the province. Western Province's $25^{\text {th }}$ percentile is also high compared to other provinces. On the other hand, its $75^{\text {th }}$ percentile is the lowest. Further, its SD is also the lowest (20.27). Although Northern and Eastern Provinces differ in the $25^{\text {th }}$ percentile, they become equal at the $50^{\text {th }}$ percentile. In the $75^{\text {th }}$ percentile Southern province is higher than the Western Province but it has the lowest $25^{\text {th }}$ percentile value. As the SD of the Western Province indicated, the pattern depicted in the box plot confirms that the students achievement in the Western Province is more homogeneous while the Southern Province shows greater heterogeneity in achievement.

Table 4.3 provides the provincial wise percentage of students scoring 50 or above marks. It also confirms that except in the Southern Province in all the other provinces more than $60 \%$ of the students has scored marks greater than or equal to 50 .

Table 4.3: Percentage of students scoring 50 or above, and below 50

| Province | Above or <br> equal to 50 | Below 50 |
| :--- | :---: | :---: |
| North Central | $78.70 \%$ | $21.30 \%$ |
| Sabaragamuwa | $72.51 \%$ | $27.49 \%$ |
| Central | $73.31 \%$ | $26.69 \%$ |
| Northern | $72.41 \%$ | $27.59 \%$ |
| Western | $76.86 \%$ | $23.14 \%$ |
| Eastern | $67.72 \%$ | $32.28 \%$ |
| North Western | $64.88 \%$ | $35.12 \%$ |
| Uva | $64.40 \%$ | $35.60 \%$ |
| Southern | $46.15 \%$ | $53.85 \%$ |
| All Island | $\mathbf{7 0 . 0 4 \%}$ | $\mathbf{2 9 . 9 6 \%}$ |

The above Table 4.3 indicates that even though Western Province was ranked fifth according to the mean scores it is the second when the percentage of students scoring 50 or above is considered.

## Summary of provincial level analysis - Tamil language

- Achievement wise the provinces fall into three categories.

Category 1 - North Central, Sabaragamuwa, Central, Northern and Western above the national mean, fall into the higher category.

Category 2 - Eastern, North Western and Uva, cluster in the middle (Mean scores above 58)

Category 3 - Southern Province.

- Disparity of marks within a province is highest in the Southern Province. In Sabaragamuwa and Uva Provinces also the disparity of marks is high. However, there are more high achievers.
- Performance is more homogeneous in the Western and North Central Provinces.

Achievement levels in relation to the types of school would be discussed next.

### 4.4 Achievement levels by type of school

Table 4.4: Tamil language achievement according to school type

| School <br> Type | Mean | Standard <br> Error of Mean | Standard <br> Deviation | Skewness | Percentile <br> $(\mathrm{p} 25)$ | Median <br> $(\mathrm{p} 50)$ | Percentile <br> $(\mathrm{p} 75)$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1AB | 70.36 | 0.17 | 22.26 | -0.89 | 56.52 | 76.09 | 89.13 |
| 1C | 61.62 | 0.15 | 24.63 | -0.51 | 45.65 | 65.22 | 82.61 |
| Type 2 | 54.31 | 0.18 | 26.02 | -0.15 | 32.61 | 56.52 | 76.09 |
| Type 3 | 61.57 | 0.14 | 25.30 | -0.47 | 41.3 | 67.39 | 82.61 |
| All Island | 61.57 | 0.08 | 25.26 | -0.48 | 41.3 | 67.39 | 82.61 |

As Table 4.4 indicates there is variation in achievement among school types. While the achievement level is highest in the 1 AB schools, it is lowest in the Type 2 schools. Further, the mean value of Type 2 schools is lower than the all island mean value.

The difference in mean values is also shown graphically in the bar chart in Fig. 4.5.


Fig. 4.5: Bar chart representing the mean among the school types- Tamil language

The performance of the school types is further highlighted when the median scores are considered in Table 4.4. Except for Type 2 schools, all the other school types have achieved median values above the national mean for the Tamil language.

## Variation among students

Variation in student achievement in 1 AB school type is the lowest. The lowest standard deviation values are shown by 1 AB schools (22.26). This value is lower than the all island SD value as well. The SD values of 1C schools is also below the all island SD value. In Type 3 schools the SD is quite close to the all island SD value. However, in all school types the SD value is quite high indicating that there is greater variation from the mean. In Type 2 schools while the mean value is the lowest its $S D$ value is high. Therefore, there is greater variation among low achievers.

## Disparity in achievement

All school types have obtained negative skewed values. It reveals that in all school types higher number of students has achieved high marks while lower marks are obtained by a lower number of students. Highest skewed value has been obtained by 1 AB schools. Next higher value has been obtained by 1C schools. Both values are above the all island skewness value. Lowest negative skewed value has been obtained by Type 2 schools. This means that there are many low achievers in Type 2 schools.

The variation among school types is further indicated through the line curve displaying the dispersion of marks (Fig. 4.6).


Fig. 4.6: Dispersion of marks by school type-Tamil language

All curves are negatively skewed indicating that there are more high achievers than low achievers. However, when the highest peaks are considered the four curves differ. While 1 AB schools have the highest peak the lowest is the Type 2 schools, Type 3 and 1C are in between these two types.

The patterns of these curves are further elaborated in the cumulative percentage Table 4.5.

Table 4.5: Cumulative student percentages according to school type- Tamil language

| Class <br> Interval | 1 AB |  | 1C |  | Type 2 |  | Type 3 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Student <br> $\%$ | Cumulative <br> $\%$ | Student <br> $\%$ | Cumulative <br> $\%$ | Student <br> $\%$ | Cumulative <br> $\%$ | Student <br> $\%$ | Cumulative <br> $\%$ |
| $0-9$ | 0.25 | 0.25 | 1.23 | 1.23 | 2.78 | 2.78 | 1.39 | 1.39 |
| $10-19$ | 3.14 | 3.40 | 7.67 | 8.90 | 9.81 | 12.59 | 5.49 | 6.87 |
| $20-29$ | 3.27 | 6.67 | 5.78 | 14.68 | 9.42 | 22.00 | 5.97 | 12.84 |
| $30-39$ | 4.15 | 10.82 | 7.58 | 22.25 | 11.60 | 33.60 | 8.98 | 21.82 |
| $40-49$ | 5.79 | 16.60 | 6.82 | 29.07 | 10.21 | 43.81 | 6.69 | 28.51 |
| $50-59$ | 8.93 | 25.53 | 13.07 | 42.14 | 9.61 | 53.42 | 10.13 | 38.64 |
| $60-69$ | 10.57 | 36.10 | 13.92 | 56.06 | 12.29 | 65.71 | 11.63 | 50.27 |
| $70-79$ | 15.09 | 51.19 | 13.26 | 69.32 | 13.48 | 79.19 | 14.41 | 64.68 |
| $80-89$ | 25.66 | 76.86 | 18.56 | 87.88 | 13.58 | 92.77 | 21.16 | 85.83 |
| $90-100$ | 23.14 | 100.00 | 12.12 | 100.00 | 7.23 | 100.00 | 14.17 | 100.00 |
| Total | 100.00 |  | 100.00 |  | 100.00 |  | 100.00 |  |

As Table 4.5 indicates in all school types the highest percentage of students belongs to the class interval 80-89. However, the highest percentage of students that belongs to this class interval ( $25.66 \%$ ) is in 1AB schools. In addition there is $23.14 \%$ of students that belong to the class interval 90-100. On the other hand the percentage of students that belong to these two class intervals in Type 2 schools is $13.58 \%$ and $7.23 \%$ respectively.

The percentage of students who has scored less than the pass mark (40\%) is considered the 1 AB schools have the lowest percentage (10.82\%). On the other hand, the highest percentage is (33.60\%) in Type 2 schools.

Therefore, it could be concluded that there is heterogeneity in achievement among the different types of schools.

This pattern of performance among different school types is further illustrated through the box plot in Fig. 4.7.


Fig. 4.7: Tamil language marks according to school types using box plot and whisker plot

As can be seen from Fig 4.7 in 1 AB schools both the $25^{\text {th }}$ percentile and the $75^{\text {th }}$ percentile is high. Yet, there is also an outlier in these schools. On the other hand in other school types there are no outliers. In Type 3 and 1C schools the percentage of students who has reached the $75^{\text {th }}$ percentile is similar. This means that there are equal number of high achievers in these two school types. However, in Type 3 schools the $25^{\text {th }}$ percentile is lower than in the 1C schools. While in 1C schools $25 \%$ of students has scored equal or less than $45.65 \%$ in Type 3 schools $25 \%$ of students has scored $41.3 \%$. On the other hand, in Type 2 schools $25 \%$ of students has scored only $32.61 \%$ or less. Further, the Fig. 4.7 illustrates the disparity between the performance of 1 AB and Type 2 schools.

## Summary

- The achievement in Tamil language in 1 AB schools is the highest. (70.36). On the other hand, it is the lowest in the Type 2 schools (54.31\%). 1C and Type 3 schools performance is relatively similar and closer to the national mean (61.57).
- The gap in achievement between 1 AB and Type 2 schools remains where as 1C and Type 3 performances are similar.


### 4.5 Achievement levels by gender

Table 4.6: Tamil language achievement according to gender

| Student <br> Gender | Mean | Standard <br> Error of Mean | Standard <br> Deviation | Skewness | Percentile <br> $(\mathrm{p} 25)$ | Median <br> $(\mathrm{p} 50)$ | Percentile <br> $(\mathrm{p} 75)$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Male | 56.74 | 0.12 | 25.99 | -0.26 | 34.78 | 58.70 | 80.43 |
| Female | 65.96 | 0.10 | 23.75 | -0.68 | 50.00 | 71.74 | 84.78 |
| All Island | 61.57 | 0.08 | 25.26 | -0.48 | 41.30 | 67.39 | 82.61 |

There is a considerable difference in achievement in the Tamil language between males and females. As Table 4.6 indicates this difference is almost ten points.

Further the male performance (56.74) is also below the all island mean (61.57). These differences are further illustrated in Fig. 4.8.


Fig. 4.8: Bar chart representing mean values according to gender-Tamil language

## Variation among students

Variation in achievement among males is higher than that of the female students. This is indicated by the male students obtaining a higher SD value. However, it is equal to all island SD (Table 4.6). On the other hand, the female students SD is below the all island SD which indicates that there is less variation among the females.

Fig. 4.9 graphically illustrates the dispersion of marks according to gender.


Fig. 4.9: Dispersion of marks by gender - Tamil language

The two line curves for males and females are negatively skewed. However, both curves have two high peaks. However, when the two high peaks are considered the high peak in the female curve is higher than in the male curve which means that there are more high achievers among the females. On the other hand, when the low achievers' are concerned the male curve is higher denoting that there are more low achievers among the males. This pattern indicates that while the low performers among the boys are greater, among the girls high performers are greater.

The disparity in the male students' achievement can be elaborated better through the cumulative percentages.

Table 4.7: Cumulative student percentages according to gender -Tamil language

| Class <br> Interval | Male |  | Female |  |
| :--- | ---: | ---: | ---: | ---: |
|  | Student \% | Cumulative <br> $\%$ | Student \% | Cumulative <br> $\%$ |
| $0-9$ | 2.25 | 2.25 | 0.73 | 0.73 |
| $10-19$ | 8.53 | 10.77 | 4.70 | 5.43 |
| $20-29$ | 8.16 | 18.94 | 4.41 | 9.84 |
| $\mathbf{3 0 - 3 9}$ | 9.95 | 28.89 | 6.93 | 16.77 |
| $40-49$ | 7.84 | 36.73 | 6.89 | 23.65 |
| $50-59$ | 11.42 | 48.14 | 9.62 | 33.28 |
| $\mathbf{6 0 - 6 9}$ | 12.24 | 60.39 | 12.02 | 45.30 |
| $70-\mathbf{7 9}$ | 13.02 | 73.41 | 15.01 | 60.31 |
| $\mathbf{8 0} \mathbf{- 8 9}$ | 16.83 | 90.23 | 22.28 | 82.59 |
| $90-100$ | 9.77 | 100.00 | 17.41 | 100.00 |
| Total | 100.00 |  | 100.00 |  |

According to Table 4.7 and Fig. 4.9 it could be concluded that, there are more high performing female students than male students. The highest percentage (22.28\%) of female students falls into the class interval 80-89. Even though, the highest percentage of male students, also falls into the class interval $80-89$, the percentage is less ( $16.89 \%$ ). Further, there is also $17.41 \%$ of females who has scored between $90-100$, there is only 9.77\% males who has scored between 90-100. This supports the claim that there are more high achievers among the females than among the males.

On the other hand, while there is only 16.77 cumulative percent of female students who has scored below 40 marks, there is 28.89 of male students who has scored less than 40 marks. Therefore, the overall achievement in Tamil language of the boys is lower than the girls.

Box plot and whisker for gender wise Tamil language achievement elaborates the performance further.


Fig. 4.10: Box plot and whisker plot representing gender wise Tamil language marks

Box plot and whisker chart shows that female students' marks dispersion is higher than the male students. Fifty percent of male students' achievement lie below the female students' achievement. Median of the male students also lie close to the all island mean value line, where as the female students median is higher than the all island mean.

Female students' $25^{\text {th }}, 50^{\text {th }}$ and $75^{\text {th }}$ percentile values are higher than male student's percentile values and all island percentile values. This emphasises that the female students' performance is higher.

## Summary

- Female students' achievement is higher than male students' achievement.
- There are more high achievers among girls than among boys.

Student achievement by location would be discussed next.

### 4.6 Achievement levels by location

Table 4.8: Tamil language achievement according to location

| Location | Mean | Std. Error <br> of Mean | Standard <br> Deviation | Skewness | Percentile <br> 25 | Median <br> 50 | Percentile <br> 75 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rural | 58.67 | 0.10 | 25.81 | -0.33 | 36.96 | 63.04 | 80.43 |
| Urban | 68.65 | 0.13 | 22.33 | -0.85 | 56.52 | 73.91 | 86.96 |
| All Island | 61.57 | 0.08 | 25.26 | -0.48 | 41.30 | 67.39 | 82.61 |

As Table 4.8 indicates, there is variation in achievement among the schools in the different localities. The urban area schools have performed the best and their mean value is above the national mean. On the other hand, the lowest performance is recorded in the rural area schools and their performance is below the national mean.

The difference in mean values is graphically shown in Fig. 4.11.


Fig. 4.11: Bar chart representing mean values according to location- Tamil language

As Fig. 4.11 indicates the mean values in the rural area schools are lower than the schools in the urban areas. While the urban area schools achievement is above the national mean, the rural schools performance is lower than the national mean. On the other hand, when the median values given in Table 4.8 are considered in the urban area schools the median is also higher than the rural schools.

The deviation of the marks from the mean according to Table 4.8 is high in the rural area schools (25.81). However, this is quite close to the national SD (25.26). This indicates that there is variation in achievement within Sri Lanka as well as among rural schools.

The dispersion of marks according to location, further illustrates this disparity.


Fig. 4.12: Dispersion of marks by location - Tamil language

Fig. 4.12 displays two negatively skewed curves. Hence, the number of high achievers in both localities are high. However, as has been already discussed the dispersion of marks in the urban area schools are high while the performance in the rural schools is lower. Hence, the patterns of the urban area schools and the rural area schools' curves differ.

These differences can be further illustrated in the cumulative percentage Table 4.9.

Table 4.9: Cumulative student percentages according to the location-Tamil language

| Class <br> Interval | Rural <br> Student <br> $\%$ |  | Cumulative <br> $\%$ | Student <br> $\%$ |
| :--- | ---: | ---: | ---: | ---: |
|  | 1.83 | 1.83 | 0.60 | Cumulative <br> $\%$ |
| $10-19$ | 7.71 | 9.54 | 3.80 | 4.40 |
| $\mathbf{2 0 - 2 9}$ | 6.99 | 16.53 | 4.40 | 8.79 |
| $30-39$ | 9.95 | 26.47 | 4.69 | 13.49 |
| $40-49$ | 8.31 | 34.78 | 5.07 | 18.55 |
| $50-59$ | 10.58 | 45.36 | 10.28 | 28.84 |
| $60-69$ | 12.06 | 57.41 | 12.30 | 41.13 |
| $70-79$ | 13.31 | 70.73 | 15.80 | 56.93 |
| $\mathbf{8 0 - 8 9}$ | $\mathbf{1 7 . 9 4}$ | $\mathbf{8 8 . 6 7}$ | $\mathbf{2 3 . 7 0}$ | $\mathbf{8 0 . 6 3}$ |
| $90-100$ | 11.33 | 100.00 | 19.37 | 100.00 |
| Total | 100.00 |  | 100.00 |  |

As Table 4.9 indicates the highest percentage of students in the urban council area schools and rural area schools fall into the class interval 80-89. On the other hand, even though there is $23.70 \%$ of students in the urban area schools that falls into this class interval, a lower percentage of (17.94\%) rural area students falls into the same class interval. Thus, in Fig 4.12 the two peaks of high achievers differ.

On the other hand, while there are $13.49 \%$ of students scoring below $40 \%$ in urban area schools, in the rural area schools there is $26.47 \%$ of students who has obtained less than $40 \%$. Thus, there is greater variation in achievement in urban council area schools.

Box plot and whisker for location wise Tamil language achievement elaborates the performance further.


Fig. 4.13: Box plot and whisker plot representing location wise Tamil language marks

As the box plot displays there are differences between the urban and rural school performances at the $25^{\text {th }}, 50^{\text {th }}$ and $75^{\text {th }}$ percentiles. The difference at the $25^{\text {th }}$ percentile is quite high. This indicates that there are high number of low achievers in the rural area schools. On the other hand, in spite of the high performers in the urban area schools there are also few outliers.

Further, the spread of the two box plots of the urban and rural schools indicate the greater diversity in performance already discussed.

## Summary

- Urban area schools achievement is higher than the rural area schools, when considering the mean values.
- The student achievement is more homogeneous in the urban area schools as their SD is lower than the all island and rural area schools.


### 4.7 Analysis of achievement by sub skills

The test items in the Tamil language paper too, were designed in relation to the sub skills of language as given in Table 2.5 in chapter 2. Further, the test items were prepared according to the ELCs and the syllabus as indicated in the Pupil's text, workbook and the teacher's guide. The performance of students according to the different sub skills is presented in Fig. 4.14.


Fig. 4.14: Achievement in sub skills in Tamil language

As Fig. 4.14 indicates, the weakest sub skill is writing. However, there is not much difference between the achievement of skills except in vocabulary.

Student achievement in relation to Essential Learning Competencies (ELCs)/skills

Table 4.10 indicates student performance in relation to the ELCs/skills

Table 4.10: Student achievement inrelation to ELCs/language skills


According to this table students are weak in subject verb agreement (syntax), spellings of some words and sequencing.

## Facility index values for the Tamil language paper



Fig. 4.15: Facility values for the different test items -Tamil language

According to Table 4.10 students' achievement is lowest in question numbers 18 and 20. These questions were related to spellings and syntax. This is also evident in the Figure 4.15 where the facility values are lowest for these two questions. Therefore, it is not possible to conclude that students' knowledge of syntax is satisfactory.

The achievement in the writing task is further analyzed in Fig. 4.16. This analysis indicates the percentage of completely grammatically correct sentences, partially correct and incorrect sentences and the percentage not attempted.


Fig. 4.16: Competency related to writing skills- Tamil language

The writing task was to describe a picture which related to a specified ELC for the grade. As Fig. 4.16, displays there is more than $37 \%$ of students who has given incorrect sentences. There is also $12-15 \%$ of students who has given partially correct sentences. Further, there are 2-9\% of students who has not even attempted to write at least one sentence. Therefore, it could be concluded that even though students' knowledge of vocabulary and syntax appears to be satisfactory they are unable to use this knowledge in producing sentences. This could be due to ELCs not been achieved. Further, as discussed in relation to Sinhala the ELCs do not go beyond the sentence level. However, in the textbook students are expected to write paragraphs.

While part I of this chapter discussed the patterns in achievement, part II will discuss the trends in achievement over the period 2013-2015.

## Part II- Comparison of achievement level of students in 2013 with that of 2015

Trends in achievement over the period 2013-2015 will first be discussed at national level.

### 4.8 Trends in achievement at national level



Fig. 4.17: Comparison of all island achievement in Tamil language 2013-2015 dispersion of marks

As Fig. 4.17 indicates there is an increase in student performance in the year 2015. This increase is due to the percentage of high achievers being increased and the percentage of low achievers being decreased.

This trend could be explained using the cumulative percentage table.

Table 4.11: Comparison of all island achievement in Tamil language - Cumulative percentages

| Class <br> Interval | Year 2013 |  | Year 2015 |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Student \% | Cumulative \% | Student \% | Cumulative \% |
| $0-9$ | 2.80 | 2.80 | 1.46 | 1.46 |
| $10-19$ | 9.50 | 12.30 | 6.55 | 8.01 |
| $20-29$ | 7.80 | 20.10 | 6.22 | 14.23 |
| $30-39$ | 9.90 | 30.00 | 8.39 | 22.62 |
| $40-49$ | 7.10 | 37.10 | 7.35 | 29.96 |
| $50-59$ | 10.10 | 47.20 | 10.49 | 40.45 |
| $60-69$ | 11.70 | 58.90 | 12.13 | 52.58 |
| $70-79$ | 11.60 | 70.50 | 14.05 | 66.63 |
| $80-89$ | 17.40 | 87.90 | 19.65 | 86.28 |
| $90-100$ | 12.10 | 100.00 | 13.72 | 100.00 |
| Total | 100.00 |  | 100.00 |  |

According to Table 4.11 the percentage of high achievers belonging to the class intervals 50-59 to 90-100 has increased. On the other hand, the percentage of students belonging to the class intervals 0-9 up to 30-39 has decreased. This trend has resulted in an increase in the all island mean value from 58.28 to 61.57 .

### 4.9 Provincial wise comparison of student achievement

As Fig 4.18 displays except in the Eastern Province in all other provinces the mean value has increased. While the decrease in the Eastern Province (.91) is very slight the increase in the North Central and Southern is quite high. While the increase in the Southern Province is $24.20 \%$ in the North Central Province it is $13.43 \%$. These increases have contributed positively to increase the all island mean value.


Fig. 4.18: Provincial wise comparison of student achievement - 2013 \& 2015

Table 4.12: Provincial wise comparison of student achievement - 2013 \& 2015

| Province | Year 2013 |  | Year 2015 |  | Z |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Mean | Standard <br> Deviation | Mean | Standard <br> Deviation |  |
| Central | 55.28 | 27.01 | 63.98 | 26.28 | $5.60^{*}$ |
| Eastern | 60.96 | 27.69 | 60.04 | 24.85 | 0.83 |
| North Central | 53.50 | 26.67 | 66.93 | 21.64 | $4.69^{*}$ |
| North Western | 48.02 | 26.65 | 59.09 | 26.26 | $3.67^{*}$ |
| Northern | 62.81 | 24.71 | 63.92 | 24.56 | 1.11 |
| Sabaragamuwa | 54.42 | 25.13 | 64.46 | 27.10 | $3.83^{*}$ |
| Southern | 25.54 | 13.18 | 49.74 | 29.81 | $6.09^{*}$ |
| Uva | 55.78 | 27.81 | 58.95 | 27.47 | 1.34 |
| Western | 56.72 | 26.50 | 61.94 | 20.27 | $2.02^{*}$ |
| All Island | 58.28 | 26.98 | 61.57 | 25.27 | $5.62^{*}$ |

* Values are significant at 95\%

As the line curves on page 85 illustrates percentage of high achievers has increased in all other provinces, except in the Eastern province.








Fig. 4.19: Comparison of provincial wise distribution of marks - Tamil language

### 4.10 Comparison of marks according to school type



Fig. 4.20: All island comparison of mean values according to school type

Performance in all school types except in Type 2 schools has increased while in 1C schools this is slight, the improvement in 1 AB schools is quite high. On the other hand, the improvement in the other two school types is also not very high. Therefore, 1 AB school performance has greatly contributed to the improvement in the all island performance.

Table 4.13: Comparison of achievement of 1 AB schools

| Class <br> Interval | 1AB-Year 2013 |  | 1AB-Year 2015 <br> $\%$ |  |
| :---: | ---: | ---: | ---: | ---: |
|  | 0.52 | 0.52 | 0.25 | 0.25 |
| $10-19$ | 6.22 | 6.74 | 3.14 | 3.40 |
| $20-29$ | 5.44 | 12.18 | 3.27 | 6.67 |
| $30-39$ | 8.81 | 20.98 | 4.15 | 10.82 |
| $40-49$ | 8.29 | 29.27 | 5.79 | 16.60 |
| $50-59$ | 9.59 | 38.86 | 8.93 | 25.53 |
| $60-69$ | 10.36 | 49.22 | 10.57 | 36.10 |
| $70-79$ | 12.44 | 61.66 | 15.09 | 51.19 |
| $80-89$ | 21.76 | 83.42 | 25.66 | 76.86 |
| $90-100$ | 16.58 | 100.00 | 23.14 | 100.00 |
| Total | 100 |  | 100 |  |



Fig. 4.21: Comparison of achievement of 1AB schools 2013 \& 2015

As Table 4.13 and Fig. 4.21 display the increase in the performance of 1 AB schools is due to the increase in the percentage of high achievers.

Table 4.14: Comparison of achievement of Type 3 schools

| Class <br> Interval | Type 3-2013 |  | Type 3-2015 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Student } \\ \% \end{gathered}$ | Cumulative \% | $\begin{array}{\|c\|} \hline \text { Student } \\ \% \end{array}$ | Cumulative \% |
| 0-9 | 1.94 | 1.94 | 1.39 | 1.39 |
| 10-19 | 9.77 | 11.71 | 5.49 | 6.87 |
| 20-29 | 6.64 | 18.34 | 5.97 | 12.84 |
| 30-39 | 8.29 | 26.64 | 8.98 | 21.82 |
| 40-49 | 7.56 | 34.19 | 6.69 | 28.51 |
| 50-59 | 10.78 | 44.98 | 10.13 | 38.64 |
| 60-69 | 12.44 | 57.42 | 11.63 | 50.27 |
| 70-79 | 12.90 | 70.32 | 14.41 | 64.68 |
| 80-89 | 17.97 | 88.29 | 21.16 | 85.83 |
| 90-100 | 11.71 | 100.00 | 14.17 | 100.00 |
| Total | 100 |  | 100 |  |



Fig. 4.22: Comparison of achievement of Type 3 schools - 2013 \& 2015

The same pattern could be observed in Type 3 schools. As Table 4.14 and Fig. 4.22 display the percentage of low achievers has decreased and the percentage of high achievers has increased.

Table 4.15: Comparison of achievement of 1C schools

| Class <br> Interval | St-2013 <br> $\%$ <br> $\%$ |  | Cumula- <br> tive $\%$ |  |
| :---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |
| $0-9$ | 2.30 | 2.30 | 1.23 | 1.23 |
| $10-19$ | 7.92 | 10.22 | 7.67 | 8.90 |
| $20-29$ | 6.39 | 16.60 | 5.78 | 14.68 |
| $30-39$ | 8.81 | 25.42 | 7.58 | 22.25 |
| $40-49$ | 6.64 | 32.06 | 6.82 | 29.07 |
| $50-59$ | 9.83 | 41.89 | 13.07 | 42.14 |
| $60-69$ | 11.37 | 53.26 | 13.92 | 56.06 |
| $70-79$ | 9.96 | 63.22 | 13.26 | 69.32 |
| $80-89$ | 19.92 | 83.14 | 18.56 | 87.88 |
| $90-100$ | 16.86 | 100.00 | 12.12 | 100.00 |
| Total | 100 |  | 100 |  |



Fig. 4.23: Comparison of achievement of 1C schools 2013 \& 2015

On the other hand, when Table 4.15 and Fig. 4.23 are considered in 1C schools the percentage of high achievers has decreased. This decrease is compensated by the increase in percentage of students that falls into the class intervals 40-79.

Table 4.16: Comparison of achievement of Type 2 schools

| Class <br> Interval | Type 2-2013 |  | Type 2-2015 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Student \% | Cumula - tive \% | Student \% | Cumulative \% |
| 0-9 | 3.54 | 3.54 | 2.78 | 2.78 |
| 10-19 | 8.52 | 12.06 | 9.81 | 12.59 |
| 20-29 | 8.09 | 20.14 | 9.42 | 22.00 |
| 30-39 | 10.40 | 30.54 | 11.60 | 33.60 |
| 40-49 | 6.14 | 36.68 | 10.21 | 43.81 |
| 50-59 | 9.10 | 45.78 | 9.61 | 53.42 |
| 60-69 | 12.20 | 57.98 | 12.29 | 65.71 |
| 70-79 | 11.62 | 69.60 | 13.48 | 79.19 |
| 80-89 | 18.63 | 88.23 | 13.58 | 92.77 |
| 90-100 | 11.77 | 100.00 | 7.23 | 100.00 |
| Total | 100 |  | 100 |  |



Fig. 4.24: Comparison of achievement of Type 2 schools-2013 \& 2015

As Table 4.16 and Fig. 4.24 indicate percentage of students that falls into the class interval 80-89 has decreased. This has resulted in a decrease in student performance in Type 2 schools.

### 4.11 Comparison of marks according to gender



Fig. 4.25: All island comparison of mean values according to gender

As Fig. 4.25 indicates there is an improvement in achievement in both males and females. Although this increase is not very high it has contributed to the increase in the all island achievement in the Tamil language.

Table 4.17: Comparison of achievement of male students

| Class <br> Interval | Male - 2013 <br> Student <br> $\%$ |  | Cumula <br> - tive $\%$ |  |
| :---: | ---: | ---: | ---: | ---: |
|  | Student <br> $\%$ | Cumula- <br> tive $\%$ |  |  |
| $10-19$ | 3.37 | 3.37 | 2.25 | 2.25 |
| $20-29$ | 8.23 | 22.29 | 8.16 | 18.94 |
| $30-39$ | 9.99 | 32.28 | 9.95 | 28.89 |
| $40-49$ | 7.96 | 40.25 | 7.84 | 36.73 |
| $50-59$ | 10.10 | 50.35 | 11.42 | 48.14 |
| $60-69$ | 11.06 | 61.41 | 12.24 | 60.39 |
| $70-79$ | 10.64 | 72.05 | 13.02 | 73.41 |
| $80-89$ | 18.01 | 90.06 | 16.83 | 90.23 |
| $90-100$ | 9.94 | 100.00 | 9.77 | 100.00 |
| Total | 100 |  | 100 |  |



Fig. 4.26: Comparison of achievement of male students - 2013 \& 2015

As Table 4.17 and Fig. 4.26 display the percentage of high achievers (80-89) has decreased. However, the percentage that falls between 50-80 has increased. This has resulted in the increase in the overall achievement of males.

Table 4.18: Comparison of achievement of female students

| Class <br> Interval | Female - 2013 |  | Female - 2015 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Student \% | Cumula <br> - tive \% | Student \% | Cumulative \% |
| 0-9 | 1.53 | 1.53 | 0.73 | 0.73 |
| 10-19 | 6.22 | 7.75 | 4.70 | 5.43 |
| 20-29 | 5.71 | 13.46 | 4.41 | 9.84 |
| 30-39 | 8.48 | 21.95 | 6.93 | 16.77 |
| 40-49 | 5.77 | 27.71 | 6.89 | 23.65 |
| 50-59 | 9.50 | 37.22 | 9.62 | 33.28 |
| 60-69 | 12.78 | 50.00 | 12.02 | 45.30 |
| 70-79 | 12.90 | 62.90 | 15.01 | 60.31 |
| 80-89 | 20.14 | 83.03 | 22.28 | 82.59 |
| 90-100 | 16.97 | 100.00 | 17.41 | 100.00 |
| Total | 100 |  | 100 |  |



Fig. 4.27: Comparison of achievement of female students-2013 \& 2015

In comparison to male performance there is an increase in the performance of high achievers among the females. The percentage that falls between the class interval 80100 has increased while the percentage of low achievers has decreased.

### 4.12 Comparison according to location



Fig. 4.28: All island comparison of mean values according to location

As Fig. 4.28 indicates there is an improvement in the achievement of Tamil language both in the urban and rural area schools. Although the gap between the rural schools and the urban schools still exists, it is a positive sign that the increase in student achievement in the rural areas is greater than the increase in the urban areas. Therefore, the improvement in the rural schools' performance has contributed positively to the all island performance.

Table 4.19: Comparison of achievement of rural schools

| Class <br> Interval | Rural - 2013 <br> $\%$ |  | Rural - 2015 |  |
| :---: | ---: | ---: | ---: | ---: |
|  | 3.18 | 3.18 | 1.83 | 1.83 |
| $10-19$ | 9.81 | 12.99 | 7.71 | 9.54 |
| $20-29$ | 8.05 | 21.05 | 6.99 | 16.53 |
| $30-39$ | 10.10 | 31.15 | 9.95 | 26.47 |
| $40-49$ | 7.06 | 38.21 | 8.31 | 34.78 |
| $50-59$ | 10.32 | 48.54 | 10.58 | 45.36 |
| $60-69$ | 11.79 | 60.32 | 12.06 | 57.41 |
| $70-79$ | 11.93 | 72.25 | 13.31 | 70.73 |
| $80-89$ | 17.24 | 89.49 | 17.94 | 88.67 |
| $90-100$ | 10.51 | 100.00 | 11.33 | 100.00 |
| Total | 100 |  | 100 |  |



Fig. 4.29: Comparison of achievement of rural schools-2013 \& 2015

Table 4.19 and Fig. 4.29 indicate the percentage of students that falls between the class interval 40-100 has increased.

Table 4.20: Comparison of achievement of urban schools

| Class <br> Interval | Urban - 2013 <br> $\%$ |  | Urban - 2015 |  |
| :---: | ---: | ---: | ---: | ---: |
|  | 0.33 | 0.33 | 0.60 | 0.60 |
| $10-19$ | 4.63 | 4.96 | 3.80 | 4.40 |
| $20-29$ | 3.86 | 8.82 | 4.40 | 8.79 |
| $30-39$ | 6.73 | 15.55 | 4.69 | 13.49 |
| $40-49$ | 6.39 | 21.94 | 5.07 | 18.55 |
| $50-59$ | 8.27 | 30.21 | 10.28 | 28.84 |
| $60-69$ | 12.24 | 42.45 | 12.30 | 41.13 |
| $70-79$ | 11.14 | 53.58 | 15.80 | 56.93 |
| $80-89$ | 24.48 | 78.06 | 23.70 | 80.63 |
| $90-100$ | 21.94 | 100.00 | 19.37 | 100.00 |
| Total | 100 |  | 100 |  |



Fig. 4.30: Comparison of achievement of urban schools - 2013 \& 2015

On the other hand, as Table 4.20 and Fig. 4.30 illustrate the percentage of students that falls between the class interval 80-100 had decreased. However, there is an increase in the percentage that falls between 50-59 and 70-79.

### 4.13 Skill analysis comparison



Fig. 4.31: Comparison of achievement of sub skills in Tamil language

When student performance in the language skills are considered there is an increase in performance in all sub skills.

In order to understand how this trend has affected the overall achievement of ELCs Table 4.21 analyzes the achievement of ELCs.

Table 4.21: Comparison of achievement of ELCs/language skills


Table 4.21 displays there is improvement in students' achievement in skills and competencies during the period 2013-2015. However, students' knowledge of spellings is still weak. Further, subject verb agreement is another area that needs to improve further. Low performance in these competencies seems to have affected the writing skills.

Therefore, the performance in the writing task was further analysed in Table 4.22.

Table 4.22: Comparison of achievement of writing skills

| Question No | Writing | Year 2013 | Year 2015 | Change |
| :---: | :---: | :---: | :---: | :---: |
| 35 | Grammatically Correct | 46.72\% | 46.97\% | + |
|  | One Word Answer | 20.94\% | 12.95\% | - |
|  | Incorrect | 29.73\% | 37.89\% | + |
|  | Not Attempted | 2.61\% | 2.19\% | - |
| 36 | Grammatically Correct | 42.92\% | 44.25\% | + |
|  | One Word Answer | 20.77\% | 15.29\% | - |
|  | Incorrect | 33.17\% | 37.85\% | + |
|  | Not Attempted | 3.13\% | 2.61\% | - |
| 37 | Grammatically Correct | 40.52\% | 42.56\% | + |
|  | One Word Answer | 20.75\% | 15.52\% | - |
|  | Incorrect | 35.15\% | 38.69\% | + |
|  | Not Attempted | 3.49\% | 3.23\% | - |
| 38 | Grammatically Correct | 38.64\% | 41.32\% | + |
|  | One Word Answer | 21.02\% | 15.41\% | - |
|  | Incorrect | 35.86\% | 38.69\% | + |
|  | Not Attempted | 4.48\% | 4.58\% | + |
| 39 | Grammatically Correct | 36.16\% | 38.29\% | + |
|  | One Word Answer | 20.01\% | 15.38\% | - |
|  | Incorrect | 37.46\% | 39.55\% | + |
|  | Not Attempted | 6.38\% | 6.77\% | + |
| 40 | Grammatically Correct | 31.46\% | 33.62\% | + |
|  | One Word Answer | 19.98\% | 15.38\% | - |
|  | Incorrect | 40.07\% | 41.04\% | + |
|  | Not Attempted | 8.49\% | 9.96\% | + |

As the analysis in Table 4.22 indicates although the percentage of grammatically correct sentences has slightly increased the percentage of incorrect responses has increased even more.

### 4.14 Summary

Part I of this chapter described student performance in relation to the achievement of learning outcomes in the Tamil language. The discussion pertained to both national and provincial level. Further, achievement was analyzed according to school type, gender and location.

Test items used to assess students' performance were analyzed to assess how far they have been successful in achieving sub skills of the language expected to be achieved by grade 4 pupils.

Part II described the trends in achievement between 2013-2015.

It could be concluded that even though overall the achievement of learning outcomes in the Tamil language is satisfactory there is still disparity in achievement provincial wise as well as location and gender wise.

