

CHAPTER FOUR

FINDINGS

4.1 Introduction

This chapter presents the results obtained from the quantitative data collection method regarding the perceived use of language learning strategy among the students in a suburban secondary school. Data collected is analyzed using SPSS version 11.5. The data obtained is also analyzed using descriptive statistics to find the means and standard deviation of the strategies used as well as the participants' demographic information. The perceived language learning strategy used by the secondary school students is examined for all the six LLS categories as well as for their direct and indirect strategy groupings. Independent sample t-test is used to compare the strategies used by the genders. On the contrary, one-way analysis of variance between groups (ANOVA) with post-hoc Tukey test is used to investigate the variation in strategies used according to the students' school level in lower forms. But the use of t-test and ANOVA requires that the variables analyzed are normally distributed. Therefore, the normality of distribution is firstly assessed using histograms (graphical methods) and Shapiro-Wilk (statistical methods) whereas the Mann-Whitney and Kruskal-Wallis statistical tests are for distribution that is not normal. Then, further statistical analyses are presented in accordance to the four research questions proposed in Chapter One.

4.2 Perceived Language Learning Strategy used by Secondary School Students

As shown in Table 4.1, the metacognitive strategies (M= 3.576, SD= .7153) were the most frequently used strategies by the students, followed by social strategies (M= 3.350, SD= .7334), cognitive strategies (M= 3.188, SD= .6121), affective strategies (M= 3.105, SD= .6971) and memory strategies (M= 2.840, SD= .6016), whereas the least preferred categories were compensation strategies (M= 2.821, SD= .6777).

Table 4.1: The Average Means of LLS used by the Secondary Students (N= 325)

<i>Strategies</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>	<i>Rank</i>
Memory	1.11	4.89	2.840	.6016	5
Cognitive	1.57	5.43	3.188	.6121	3
Compensation	1.17	4.67	2.821	.6777	6
Metacognitive	1.11	5.00	3.576	.7153	1
Affective	1.33	4.67	3.105	.6971	4
Social	1.33	5.00	3.350	.7334	2

The average mean score for direct and indirect strategy used among the secondary school students are shown in Table 4.2. Statistical results proof that the students in secondary school use more of the indirect strategy (M = 3.377, SD = .6085) than the direct strategy (M = 3.001, SD = .5277).

Table 4.2: The Average Means of Direct and Indirect Strategy used by the Secondary School Students (N=325)

<i>Strategy</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>
Direct	1.57	4.52	3.001	.5227
Indirect	1.57	4.76	3.377	.6085

As a conclusion, the overall results explain that the students are in favour of using the metacognitive, affective and social strategies as compare to the indirect strategy (memory, cognitive and compensation strategies).

4.3 Research Question 1: *Is there a significant difference in the types of language learning strategy among the upper secondary male students in a suburban school?*

4.3.1 Normality Test

A sample drawn from a normally distributed population does not automatically mean that the sample will also have an exact normal distribution. Therefore, the assumption of normality in the types of language learning strategy among the upper secondary male students are determined using histograms, and a nonparametric statistic Mann-Whitney test for a distribution that is not normal.

The histograms in Figure 4.1 show the distribution of data collected on the language learning strategies administered to a sample of 81 male students in Form 4 (42) and Form 5 (39). The values on the vertical axis indicate the frequency or number of

cases and on the horizontal axis are midpoints of value ranges. A glance through the charts shows that each distribution has a fairly obvious overlapping bell-shaped curve of a normal distribution. However, there are some deviations that needed a statistical method to proof otherwise.

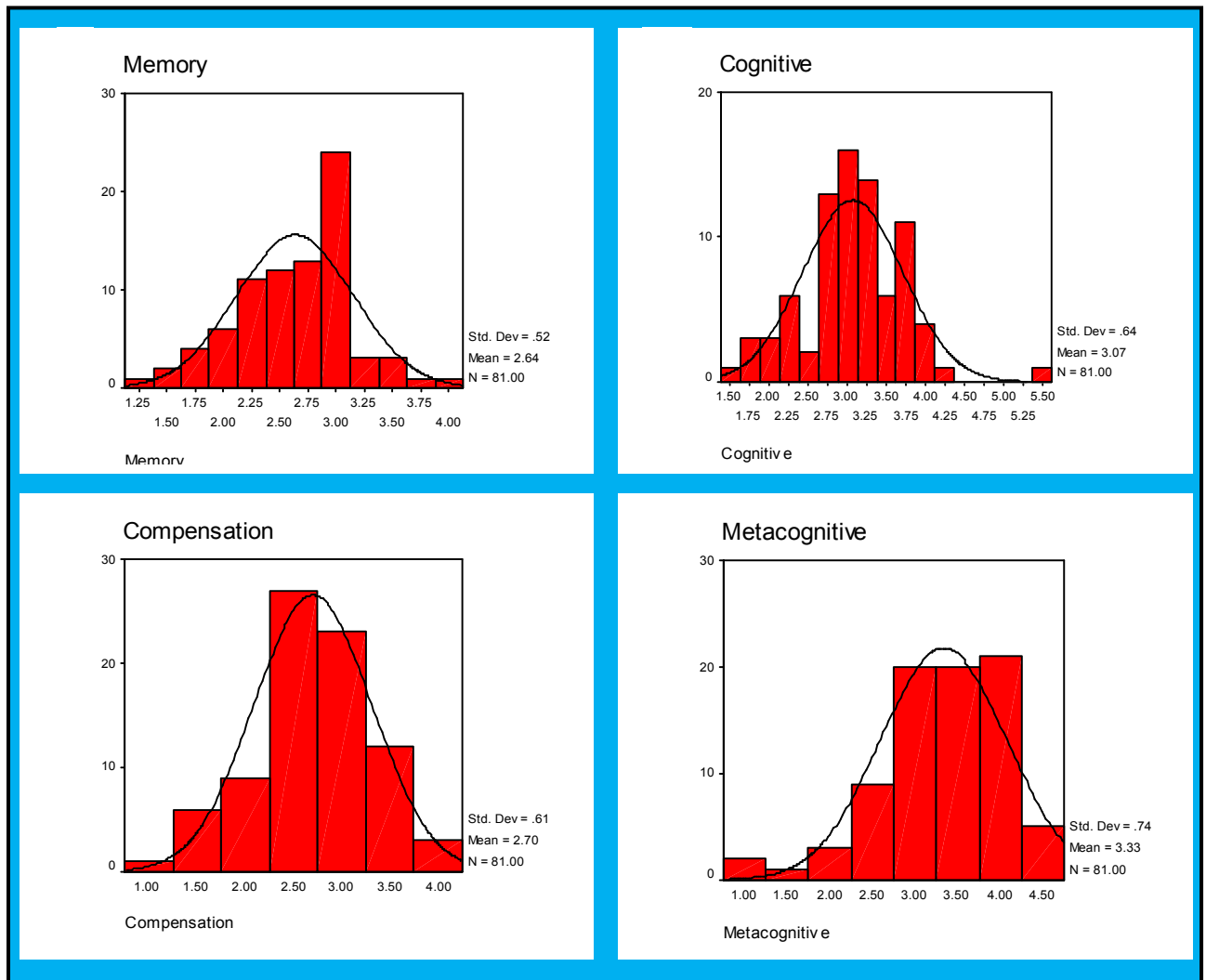


Figure 4.1: Distribution of Scores obtained on LLS for Upper Secondary Male Students (N=81)

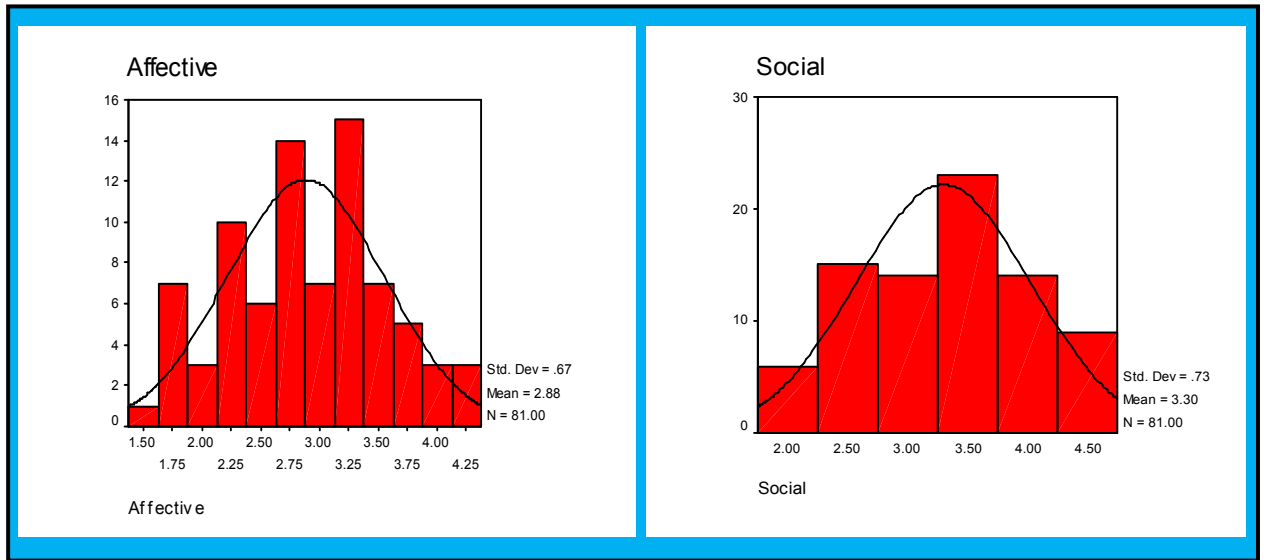


Figure 4.1, continued

The Shapiro-Wilk test result as shown in Table 4.3, is based on the assumption that if the test of significance reports a p-value of less (<) than 0.05, than the assumption of normality is rejected. The test result shows that almost all of the upper secondary male students show a relatively high test statistics for a normal distribution of data. However, the normality tests also indicate that the cognitive strategies used by Form 5 classes and the compensation strategies used among the Form 4 classes hold a significance value of less than 0.05 that is 0.006 and 0.035 respectively. Hence, an alternative non-parametric statistical method is used as for distributions that are not normal.

Table 4.3: Normality Test Results among the Upper Secondary Male Students (N=81)

<i>Strategies</i>	Shapiro-Wilk			
	<i>Classes</i>	<i>Statistic</i>	<i>df</i>	<i>Significance</i>
Memory	Form 4	.978	42	.594
	Form 5	.971	39	.405
Cognitive	Form 4	.960	42	.144
	Form 5	.915	39	.006*
Compensation	Form 4	.978	42	.586
	Form 5	.957	39	.144
Metacognitive	Form 4	.943	42	.035*
	Form 5	.980	39	.686
Affective	Form 4	.972	42	.392
	Form 5	.965	39	.268
Social	Form 4	.963	42	.194
	Form 5	.971	39	.406

(*p<0.05)

In Table 4.4, it is evident that the mean rank (42.29) for cognitive strategies used by the Form 4 testifies a faintly higher than the mean rank (39.62) for Form 5 students. The metacognitive strategies also show a very small difference in the mean rank between the Form 4 (mean rank = 39.89) and Form 5 students (mean rank = 42.19). In other words, there is not much difference between the uses of cognitive and metacognitive strategies among the upper secondary male students. Besides, their p-values are also bigger than 0.05. Thus, it is concluded that there is no significance difference between the cognitive

($p = .609$) and metacognitive ($p = .660$) language learning strategies used by the upper secondary male students.

Table 4.4: The Mann-Whitney Test Results on Cognitive and Metacognitive LLS among the Upper Secondary Male Students (N=81)

<i>Strategies</i>	<i>Classes</i>	<i>N</i>	<i>Mean Ranks</i>	<i>Sum of Ranks</i>
Cognitive	Form 4	42	42.29	1776.00
	Form 5	39	39.62	1545.00
Metacognitive	Form 4	42	39.89	1675.50
	Form 5	39	42.19	1645.50

	<i>Cognitive</i>	<i>Metacognitive</i>
Mann-Whitney	765.000	772.500
Asymptotic Significance (2-tailed)	.609	.660

As a conclusion, the upper secondary male students are normally distributed among the memory, compensation, affective and social strategies. However, since the sample groups are not normally distributed among the cognitive and metacognitive strategies, the Mann-Whitney test is used without the assumption of normality to find out their significance difference. As a result, it proves that there is no significance difference between the uses of all the language learning strategy among the Form 4 and Form 5 male students.

4.3.2 *LLS used among the Upper Secondary Male Students*

Results shown in Table 4.5 revealed that the upper secondary male students perceived metacognitive (M= 3.335, SD= .7400) as the most employed strategies in their language learning, followed by social strategies (M= 3.298, SD= .7278) and then, cognitive strategies (M= 3.068, SD= .6422), affective strategies (M= 2.884, SD= .6684), compensation strategies (M= 2.700, SD= .6069) and least, memory strategies (M= 2.635, SD= .5177). Hence, the statistical results imply that the six categories of language learning strategy are moderately frequent by upper secondary male students.

Table 4.5: The Average Means of LLS used by the Upper Secondary Male Students (N=81)

<i>Strategies</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>	<i>Rank</i>
Memory	1.22	4.00	2.635	.5177	6
Cognitive	1.57	5.43	3.068	.6422	3
Compensation	1.20	4.17	2.700	.6069	5
Metacognitive	1.11	4.67	3.336	.7400	1
Affective	1.50	4.17	2.884	.6684	4
Social	1.83	4.67	3.300	.7278	2

4.2.3 *Types of LLS used between Form 4 and Form 5 Male Students*

The independent sample T-test result on the strategies used by Form 4 and Form 5 male students in the upper secondary level is shown in Table 4.6 below. The degrees of freedom (df) is 79 and the two-tailed alpha is 0.05. The mean score for memory

strategies by the Form 4 male students is 2.582 whereas it is 2.692 for the Form 5 male students. The t-value obtained for their memory strategies is -0.971 which is smaller than the critical value (of student's t-test: Appendix F) which is 1.664. This shows that the t-value is not large enough to be significant. Further statistical evidence also showed that the p-value as shown in the sig (2 tailed) column is .341 which is bigger than the alpha level. Hence, it is concluded that there is no statistically significant difference on the usage of memory strategies among the Form 4 and Form 5 male students.

The same applies to the compensation strategies, where the mean score for the Form 4 male students is 2.663 and 2.740 for Form 5. The t-value is -0.566 , $p = .573$ with a mean difference of -0.077 ; whereas the Form 4 male students have a mean score of 2.778 while the Form 5 male students have a mean score of 2.998 for affective strategies ($t = 1.495$, $p = .139$) with a mean difference of -0.221 ; and the social strategies mean score for Form 4 is 3.270 whereas the mean score Form 5 male students is 3.329 ($t = -0.364$, $p = .717$) with mean difference of -0.059 . As explained, all the p-values are greater than the alpha level of 0.05, hence, it is concluded that there is no significant difference in the all of the categories of language learning strategy used among the upper secondary male students.

Table 4.6: The LLS used between the Upper Secondary Male Students (N=81)

	<i>Form 4</i> (N=42)	<i>Form 5</i> (N=39)	t	df	Sig (2 tailed)	Mean Difference
Memory	2.582	2.693	-.971	79	.335	-.110
Compensation	2.663	2.740	-.566	79	.573	-.077
Affective	2.778	2.998	-1.495	79	.139	-.221
Social	3.270	3.329	-.364	79	.717	-.059

4.3.4 *Direct and Indirect Strategy used among the Form 4 and Form 5 Male Students*

Table 4.7 below shows the result of direct and indirect strategy used among the male students in Form 4 and Form 5. Direct strategy comprises of memory, cognitive and compensation strategies and their mean score for Form 4 is 2.839 whereas for Form 5, it is 2.878. Thus, its mean difference is -.392. Given the alpha level of 0.05 and the df = 79, it shows that its t-value of -.344 is not large enough to be significant (critical value = 1.664). Its p-value of .732 is bigger than the alpha level of 0.05 and therefore, it also confirms that the observed difference between the samples shows no statistical significant. In other words, there is no significant difference on the use of direct strategy among the Form 4 and Form 5 male students. They also verify that there is no significant difference on their use of indirect strategy (metacognitive affective and social strategies) as the mean score for the male students in Form 4 is 3.131 and Form 5 is 3.265 (mean difference = -.1334). Its t-value of -.981 is smaller than the critical value of 1.664 as well as its p-value of .330 is also greater than its alpha level.

Table 4.7: Direct and Indirect Strategy used among the Upper Form Male Students

	<i>Form 4</i> (N=42)	<i>Form 5</i> (N=39)	t	df	Sig (2 tailed)	Mean
Direct Strategy	2.839	2.878	-.344	79	.732	2.858
Indirect Strategy	3.131	3.265	-.981	79	.330	3.199

Hence, from the statistical investigations, it is concluded that the male students preferred to use more of the metacognitive strategies as compared to the other language learning strategies. However so, there is no significance difference in the types of language learning strategy used among the upper secondary male students in a suburban school and neither is there any significance difference on their use of direct and indirect strategy.

4.4 Research Question 2

Is there a significant difference in the types of language learning strategy among the upper secondary female students in a suburban school?

4.4.1 Normality Test

To find out whether the samples of upper secondary female students in the present study are normally distributed, the normality of their distribution is determined using the graphical method (histogram) and the Shapiro-Wilk statistical procedure as each sample group has less than 50 respondents. The results as shown in Figure 4.2 below proved that

the total sample distribution fits the data for all the learning strategies investigated. The bars indicate each distribution has the normal curve (bell shape) overlay.

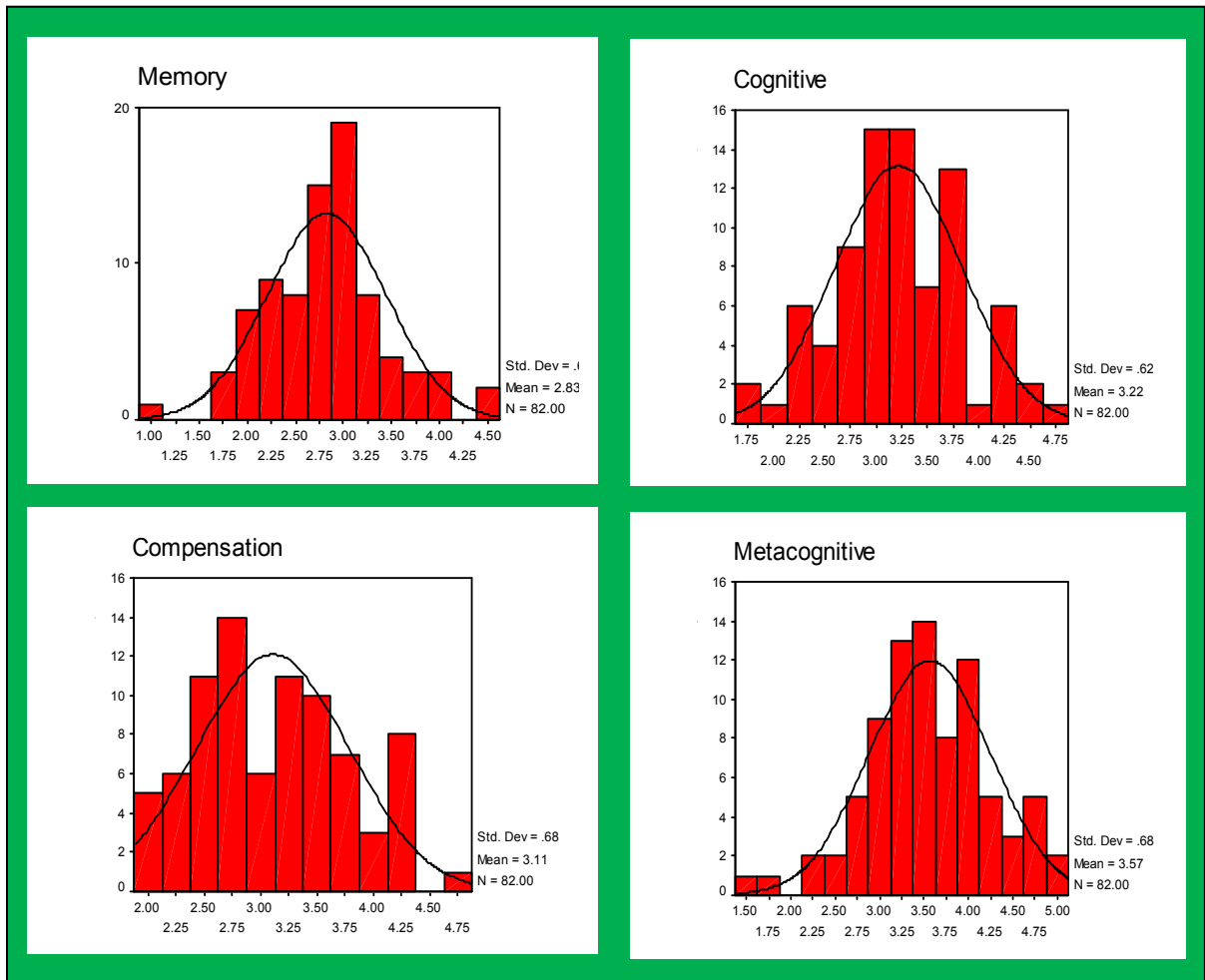


Figure 4.2: Distribution of Scores obtained on LLS for Upper Secondary Female Students (N=82)

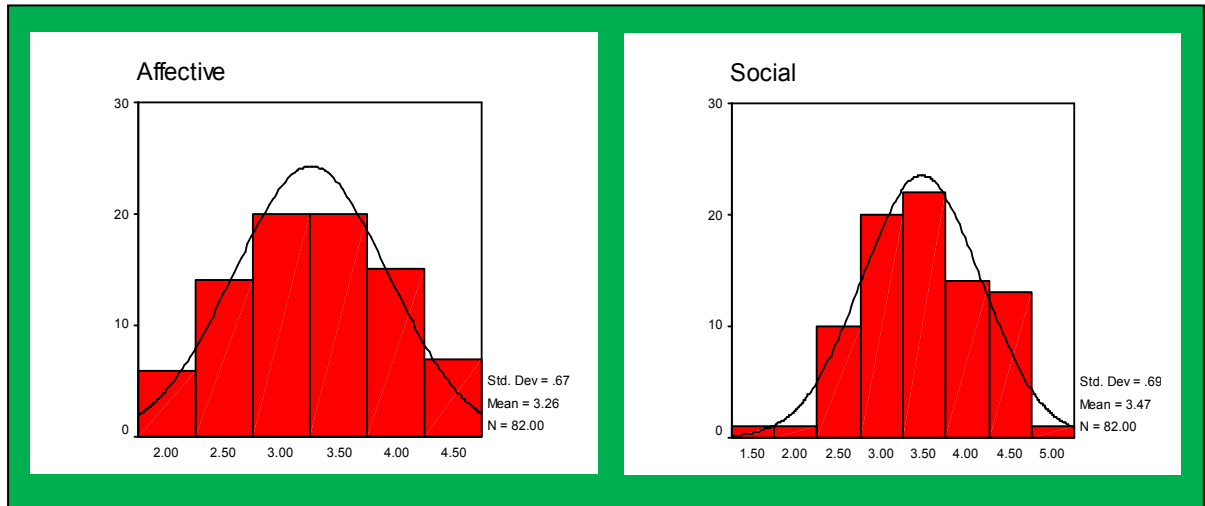


Figure 4.2, continued

The test is to evaluate if a significance level is less than 0.05, it means that the distribution is not normal. However, in Table 4.8 each of the language learning strategy statistical normality test results yields a significance level of more (>) than 0.05. Therefore, this verifies the previous graphical results that if the data follow a normal curve, the test statistic will be relatively high, which means that the data are normally distributed.

Table 4.8: Normality Test Results among the Upper Secondary Female Students

<i>Strategies</i>	<i>Classes</i>	<i>Statistics</i>	<i>df</i>	<i>Significance</i>
Memory	Form 4	.978	42	.574
	Form 5	.983	40	.803
Cognitive	Form 4	.969	42	.316
	Form 5	.976	40	.533

Table 4.8, continued

<i>Strategies</i>	<i>Classes</i>	<i>Statistics</i>	<i>df</i>	<i>Significance</i>
Compensation	Form 4	.961	42	.167
	Form 5	.947	40	.060
Metacognitive	Form 4	.981	42	.689
	Form 5	.967	40	.288
Affective	Form 4	.979	42	.610
	Form 5	.979	40	.665
Social	Form 4	.976	42	.512
	Form 5	.960	40	.164

Based on the normality test results, all the data sets have a normal distribution. Hence, investigation into the second research question could now be explored further.

4.4.2 *LLS used among the Upper Secondary Female Students*

As seen in Table 4.9, the metacognitive strategies are mostly used by the upper secondary female students ($M = 3.565$, $SD = .6815$) with a minimum level of 1.56 and maximum use of 5.00. Social strategies are ranked as the second most favourable group with a mean score of 3.468 ($SD = .6941$) and an average mean score between 1.33 and 4.83. Unlike the upper secondary male students, the upper secondary female students preferred the affective strategies (Mean = 3.259, $SD = .6726$) with an average mean score between 1.83 and 4.67 as their next favourite strategies used; followed by the cognitive strategies (Mean = 3.217, $SD = 3.217$) which are employed with an average mean score between

1.86 and 4.46. With an average mean score between 2.00 and 4.67, compensation strategies are less used by the female students in the upper form (Mean = 3.109, SD = .6750). The least is the memory strategies with their mean score of 2.826 (SD = .6168) with an average mean score between 1.11 and 4.44.

Table 4.9: The Average Means of LLS used by the Upper Secondary Female Students (N=82)

<i>Strategies</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>	<i>Rank</i>
Memory	1.11	4.44	2.826	.6168	6
Cognitive	1.86	4.64	3.217	.6205	4
Compensation	2.00	4.67	3.109	.6750	5
Metacognitive	1.56	5.00	3.565	.6815	1
Affective	1.83	4.67	3.259	.6726	3
Social	1.33	4.83	3.468	.6941	2

4.4.3 *Types of LLS used between Form 4 and Form 5 Female Students*

Table 4.10 shows the results of the independent sample T-test on the strategies used by Form 4 and Form 5 female students in the upper secondary level. The degrees of freedom (df) is 80 (82 minus 2) and the two-tailed alpha is 0.05. The mean score for memory strategies by the Form 4 female students is 2.957 whereas it is 2.688 for the Form 5 female students. The t-value obtained for their memory strategies is 2.009 which is bigger than the critical value (of student's t-test: Appendix F) which is 1.664. This shows that the t-value is large enough to be significant. Further statistical evidence also

showed that the p-value as shown in the sig (2 tailed) column is .048 which is smaller than the alpha level. Hence, it is concluded that there is a statistically significant difference on the usage of memory strategies among the Form 4 and Form 5 male students.

Unlike the memory strategies, the cognitive strategies stated a mean score of 3.238 for the Form 4 and 3.195 for the Form 5 female students. The t-value is .306 ($p = .760$) with a mean difference of .042. The compensation strategies have a mean score of 3.058 for Form 4 and 3.163 for Form 5 ($t = -.699$, $p = .487$) with a mean difference of $-.105$; whereas the mean score for metacognitive strategies is 3.562 for Form 4 and 3.569 for Form 5 ($t = -.052$, $p = .958$) with a mean difference of $-.008$. The Form 4 female students have a mean score of 3.329 while the Form 5 female students have a mean score of 3.186 for affective strategies ($t = .965$, $p = .337$) with a mean difference of .144; and the social strategies mean score for female group in Form 4 is 3.452 whereas the mean score for Form 5 female students is 3.483 ($t = -.201$, $p = .841$) with mean difference of $-.031$. As explained, all their p-values are greater than the alpha level of 0.05. Hence, it is concluded that there is no significant difference in the other five categories of language learning strategy used among the upper secondary female students except for the memory strategies.

Table 4.10: The LLS used between the Upper Secondary Female Students (N=82)

	<i>Form 4</i> (N=42)	<i>Form 5</i> (N=40)	t	df	Sig (2 tailed)	Mean Difference
Memory	2.957	2.688	2.009	80	.048	.269
Cognitive	3.238	3.195	.306	80	.760	.042
Compensation	3.058	3.163	-.699	80	.487	-.105
Metacognitive	3.562	3.569	-.052	80	.958	-.008
Affective	3.329	3.186	.965	80	.337	.144
Social	3.452	3.483	-.201	80	.841	-.031

4.4.4 *Direct and Indirect Strategy used among the Form 4 and Form 5 Female Students*

The independent t-test result on the use of direct and indirect strategy among the upper form female students is shown in Table 4.11 below. Memory, cognitive and compensation strategies are under the direct strategy and their mean score is 3.114 and 3.032 for Form 4 and Form 5 respectively. The mean difference for direct strategy is .0820. Given the alpha level of 0.05, the $df = 79$ and the critical value of 1.664, it shows that its t-value of .671 is not large enough to be significant. Its p-value of .504 is bigger than the alpha level and therefore, it also confirms that the observed difference between the samples and their use of language learning strategies shows no statistical significant. In other words, there is no significant difference on the use of direct strategy among the Form 4 and Form 5 female students. They also confirm that there is no significant difference on their use of indirect strategy (metacognitive, affective and social strategies) as the mean score for the female groups in Form 4 is 3.464 and Form 5 is 3.435 (mean

difference = .0285). Its t-value of .209 is smaller than the critical value of 1.664 as well as its p-value of .835 is also greater than its alpha level.

Table 4.11: Direct and Indirect Strategy used among the Upper Form Female Students (N=82)

	<i>Form 4</i> (N=42)	<i>Form 5</i> (N=40)	t	df	Sig (2 tailed)	Mean
Direct Strategy	3.114	3.032	.671	80	.504	3.073
Indirect Strategy	3.464	3.435	.209	80	.835	3.450

Wrapping up the investigation, statistical evidence has confirmed that the female students preferred metacognitive as their best used language learning strategy as compared to the memory strategies which are used as the least of all categories. Further examination resulted in showing evidences there are no significance difference on the types of language learning strategy used among the upper secondary female students except for the memory strategies. There is also no significance difference on their use of direct and indirect strategy.

4.5 Research Question 3

Is there a significant difference in the types of language learning strategy among the lower secondary male students in suburban school?

4.5.1 Normality Test

Figure 4.3 shows the distribution of data obtained on language learning strategy for lower secondary male students (N = 76). The frequency or number of cases is indicated on the vertical axis whereas the midpoints of value ranges are on the horizontal axis. Each of the charts shows that the distribution of data has a roughly overlapping bell-shaped curve of a normal distribution. The cognitive strategies have a standard deviation of .50 (Mean = 3.11), whereas the memory strategies have a standard deviation of .53 (Mean = 2.87). The compensation strategies have a standard deviation of .62 and a Mean of 2.67. Meanwhile, metacognitive strategies show a Mean of 3.45 (SD = .61), affective strategies have a Mean of 3.04 (SD = .57) and finally the social strategies have a Mean of 3.20 (SD = .64).

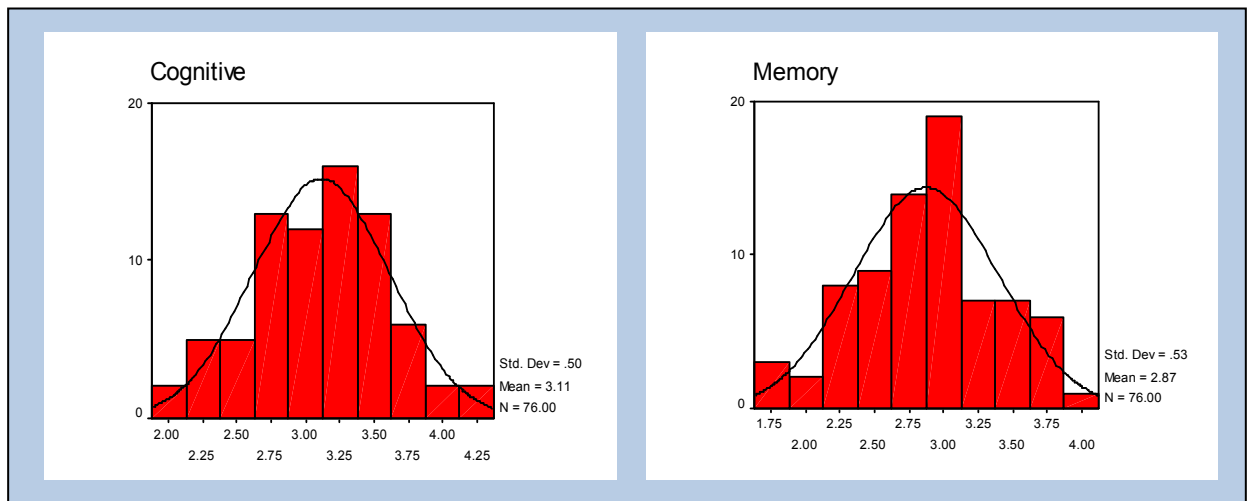


Figure 4.3: Distribution of Scores obtained on LLS for Lower Secondary Male Students (N=76)

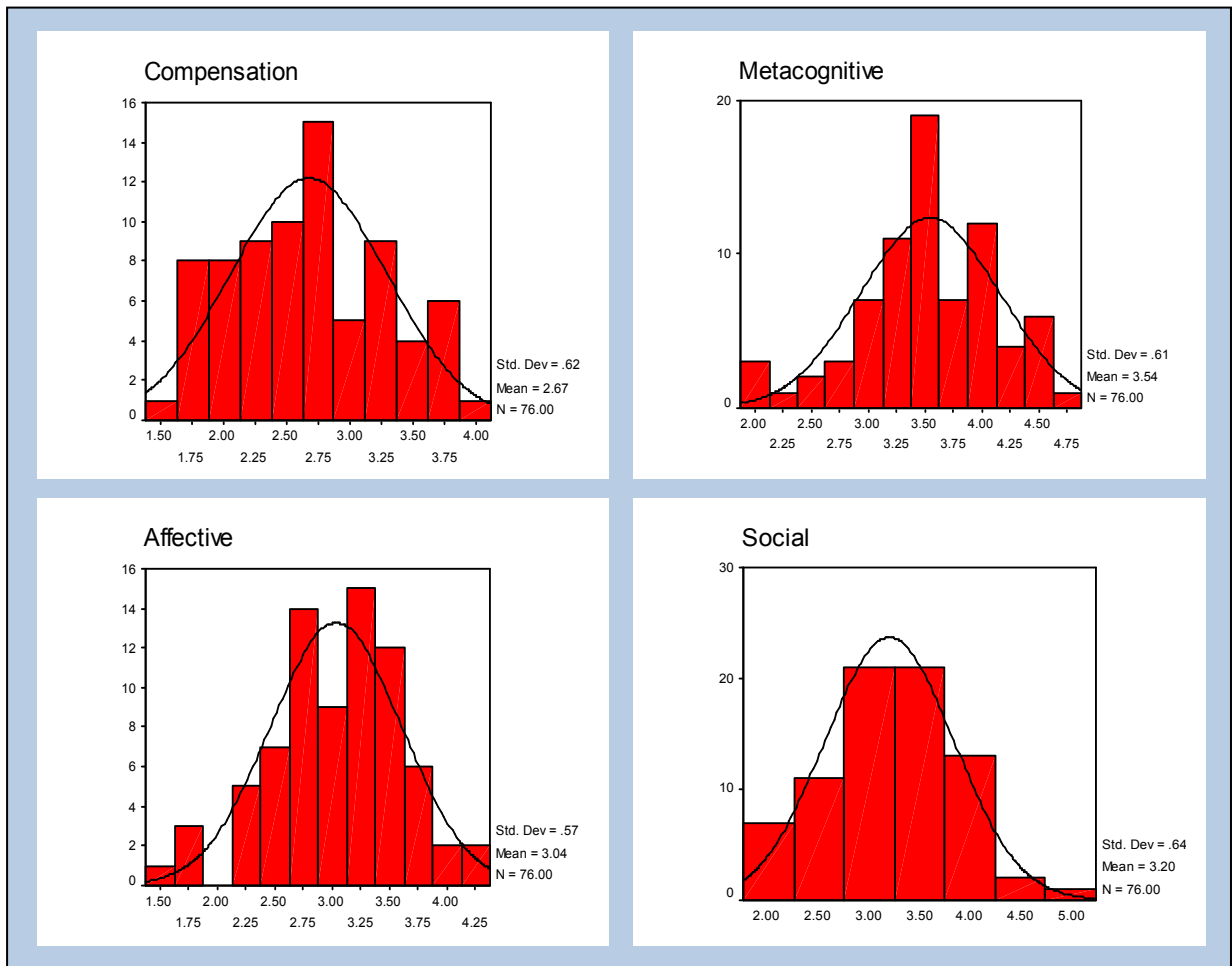


Figure 4.3, continued

A normal distribution can have any mean and standard deviation but the means and standard deviations will differ from variable to variable. Therefore, the Shapiro-Wilks statistics is used as another method for testing whether the data set has been from a normal distribution.

Table 4.12 shows the results of the normality test on language learning strategy among the lower secondary male students. The test result shows that almost all of the

male groups in each class have a relatively high test statistics for a normal distribution of data but it also indicates that the affective strategies used by Form 2 classes have a significance value of 0.023, which is less than the alpha value of 0.05. In other words, the distribution of data among the Form 2 classes is not normal.

Table 4.12: Normality Test Results among the Lower Secondary Male Students (N = 76)

<i>Strategies</i>	<i>Classes</i>	<i>Statistics</i>	<i>df</i>	<i>Significance</i>
Memory	Form 1	.973	28	.672
	Form 2	.959	24	.413
	Form 3	.943	24	.190
Cognitive	Form 1	.965	28	.443
	Form 2	.965	24	.536
	Form 3	.961	24	.468
Compensation	Form 1	.961	28	.359
	Form 2	.972	24	.709
	Form 3	.965	24	.537
Metacognitive	Form 1	.937	28	.091
	Form 2	.955	24	.342
	Form 3	.964	24	.518
Affective	Form 1	.947	28	.166
	Form 2	.901	24	.023*
	Form 3	.969	24	.636
Social	Form 1	.985	28	.955
	Form 2	.949	24	.260
	Form 3	.957	24	.387

(*p<0.05)

A non-parametric Kruskal Wallis test is therefore used to test if there is any significant difference in the use of the affective strategies among the lower secondary male students (Form 1, 2 and 3) since the distribution of the data was not normal. Table 4.13 shows that the Kruskal Wallis χ^2 value is 2.999 and the p-value is .233. With the level of significance sets at 0.05 ($\alpha = 0.05$), it is therefore, concluded that there is no significance difference in the use of affective strategies among the lower secondary male students. The use of affective strategies among the three groups is sparingly not the same. Even though the test statistics does not provide information on the differences in the use of the affective strategies, judging from the mean rank, the Form 3 students (Mean Ranks = 35.13) use the least compared to Form 1 (Mean Ranks = 44.21) and Form 2 (Mean Ranks = 35.21).

Table 4.13: The Kruskal Wallis Test Results on Affective Strategies among the Lower Secondary Male Students (N=76)

<i>Strategies</i>	<i>Classes</i>	<i>N</i>	<i>Mean Ranks</i>
Affective	Form 1	28	44.21
	Form 2	24	35.21
	Form 3	24	35.13

Test Statistic (a, b)	
	<i>Affective</i>
Chi-Square	2.999
df	2
Asymptotic Significance (2-tailed)	.223

- a. Kruskal Wallis Test
- b. Grouping Variable: Classes

4.5.2 LLS used among the Lower Secondary Male Students

Table 4.14 presents the findings of the average means of the language learning strategy used by a number of 76 lower secondary male students. As illustrated, the metacognitive strategies are highly used by this group as their mean score is 3.554 (SD = .6116) whereas the social, cognitive and affective strategies are moderately a favourite among the lower secondary male group. Their mean score is 3.199 (SD = .6377), 3.114 (SD = .4893) and 3.035 (SD = .5705) respectively. Memory strategies have a mean score of 2.871 (SD = .5253) which is the fifth in the rank and finally, the compensation strategies are the least used of all strategies with a mean score of 2.673 (SD = .6203).

Table 4.14: The Average Means of LLS used by the Lower Secondary Male Students (N=76)

<i>Strategies</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>	<i>Rank</i>
Memory	1.67	4.00	2.871	.5253	5
Cognitive	2.07	4.21	3.114	.4893	3
Compensation	1.50	4.00	2.673	.6203	6
Metacognitive	2.00	4.83	3.554	.6116	1
Affective	1.50	4.17	3.035	.5705	4
Social	2.00	4.83	3.199	.6377	2

4.5.3 Types of LLS used among the Form 1, Form 2 and Form 3 Male Students

The One-way ANOVA result shown in Table 4.15 presents comparisons between three groups of male students in the types of language learning strategy that they used in lower secondary school level. The significance value for memory strategies is .173, whereas the cognitive strategies have a significance value of .610. Metacognitive strategies ($p = .572$), and social strategies ($p = .411$) have also identified that their significance values are greater than the alpha level ($\alpha > 0.05$) except for compensation strategies. The ‘Between groups’ row shows that the df is 2 and the mean square is 1.224. It’s ‘Within groups’ row shows that the df is 73 and the mean square is .362. The F value is 3.385 which have a significance value of 0.039 that is smaller than $\alpha = 0.05$. Hence, it is concluded that memory, cognitive, metacognitive and social strategies show no significant difference in the use of the LLS among the lower secondary male students except for the compensation strategies.

Table 4.15: Differences in the LLS used among the Lower Secondary Male Students (N=76)

		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Memory	Between Groups	.972	2	.486	1.798	.173
	Within Groups	19.727	73	.270		
	Total	20.699	75			
Cognitive	Between Groups	.250	2	.125	.498	.610
	Within Groups	18.369	73	.252		
	Total	18.620	75			

Table 4.15, continued

		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Compensation	Between Groups	2.449	2	1.224	3.385	.039
	Within Groups	26.409	73	.362		
	Total	28.858	75			
Metacognitive	Between Groups	.426	2	.213	.563	.572
	Within Groups	27.624	73	.378		
	Total	28.050	75			
Social	Between Groups	.734	2	.367	.899	.411
	Within Groups	29.768	73	.408		
	Total	30.501	75			

The Tukey's Honestly Significant Difference test (HSD) compares all pairs of the group means and the results shown in Table 4.16 determine where the significance lies among the three groups of male students in lower secondary school in their use of the LLS. The interpretation of the result reveals that there is a significant difference in the use of compensation strategies only between the Form 1 (Mean = 2.441) and the Form 3 (Mean = 2.840) at $p = .050$. This also proves that the Form 3 male students use the compensation strategies at a significantly higher level than the Form 1. However, there is no significant difference between the other groups presented.

Table 4.16: Multiple Comparisons between the Male Groups in Lower Secondary School Level

<i>Dependent Variables</i>		<i>Mean</i>		<i>Mean Difference</i>	<i>Std Error</i>	<i>Sig</i>
Memory	F1	3.019	F2	.2272	.1446	.265
			F3	.2411	.1446	.225
	F2	2.792	F1	-.2272	.1446	.265
			F3	.0139	.1501	.995
	F3	2.778	F1	-.2411	.1446	.225
			F2	-.0139	.1501	.995
Cognitive	F1	3.160	F2	.0161	.1395	.993
			F3	.1301	.1395	.622
	F2	3.144	F1	-.0161	.1395	.993
			F3	.1140	.1448	.712
	F3	3.030	F1	-.1301	.1395	.993
			F2	-.1140	.1448	.712
Compensation	F1	2.441	F2	-.3373	.1673	.116
			F3	-.3998(*)	.1673	.050
	F2	2.778	F1	.3373	.1673	.116
			F3	-.0625	.1736	.931
	F3	2.840	F1	.3998(*)	.1673	.050
			F2	.0625	.1736	.931
Metacognitive	F1	3.641	F2	.1374	.1711	.702
			F3	.1687	.1711	.588
	F2	3.504	F1	-.1374	.1711	.702
			F3	.0313	.1776	.983
	F3	3.472	F1	-.1687	.1711	.588
			F2	-.0313	.1776	.983
Social	F1	3.256	F2	-.0218	.1776	.992
			F3	.2004	.1776	.500
	F2	3.279	F1	.0218	.1776	.992
			F3	.2222	.1843	.454
	F3	3.056	F2	-.2004	.1776	.500
			F1	-.2222	.1843	.454

F1 = Form 1, F2 = Form 2, F3 = Form 3

4.5.4 *Direct and Indirect Strategy used among the Form 1, Form 2 and Form 3 Male Students*

The One-way ANOVA result on the use of direct and indirect strategy among the lower form male students is shown in Table 4.17 below. Memory, cognitive and compensation strategies are under the direct strategy. The 'Between groups' row shows that the df is 2 and the mean square is .022. The 'Within groups' row shows that the df is 73 and the mean square is .180. Given the alpha level of 0.05 and the chi-square of 5.991 (Appendix G: Chi-Square Distribution Table), it shows that its F value of .123 at a significant level of .885 is not large enough to be significant. Its significant value of .885 is bigger than the alpha level and therefore, it also confirms that the observed difference between the samples and their use of language learning strategies shows no statistical significant. In other words, there is no significant difference on the use of direct strategy among the Form 1, Form 2 and Form 3 male students. They also confirm that there is no significant difference on their use of indirect strategy (metacognitive, affective and social strategies) as F value of 1.087 which is significant at .343. The 'Between groups' df is 2 and the mean square is .279 whereas the 'Within groups' df is 73 and the mean square is .257. Since its significant value of .343 is $>$ than $\alpha = 0.05$, therefore, it is concluded that there is no significant difference in the indirect strategies between the three male group in the lower forms.

Table 4.17: Differences in the Direct and Indirect Strategies used among the Lower Secondary Male Students (N=76)

<i>Strategies</i>		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Direct	Between groups	.044	2	.022	.123	.885
	Within groups	13.153	73	.180		
	Total	13.197				
Indirect	Between groups	.559	2	.279	1.087	.343
	Within groups	18.765	73	.257		
	Total	19.364				

It is noted that each mean in Table 4.18 is compared three times to every other mean of Form 1, Form 2 and Form 3, therefore, the results are basically repeated. The Tukey's Honestly Significant Difference test (HSD) results reveal that there are no significant differences in the use of direct and indirect strategies between the male students in lower secondary level.

Table 4.18: Multiple Comparison between the Direct and Indirect Strategies used among the Lower Secondary Male Students (N=76)

<i>Dependent Variables</i>		<i>Mean</i>		<i>Mean Difference</i>	<i>Std Error</i>	<i>Sig</i>
Direct Strategies	F1	2.968	F2	.0088	.1181	.997
			F3	.0554	.1181	.886
			F2	2.959	F1	-.0088
	F3	2.912	F3	.0466	.1225	.924
			F1	-.0554	.1181	.886
			F2	-.0466	.1225	.924

Table 4.18, continued

<i>Dependent Variables</i>		<i>Mean</i>		<i>Mean Difference</i>	<i>Std Error</i>	<i>Sig</i>
Indirect Strategies	F1	3.408	F2	.1426	.1410	.572
			F3	.2001	.1410	.337
	F2	3.266	F1	-.1426	.1410	.572
			F3	.0574	.1464	.919
	F3	3.2083	F1	-.2001	.1410	.337

As a conclusion, the male students in the lower secondary level voted metacognitive strategy as their most favourite language learning strategy; followed by social strategies and then the cognitive strategies. The affective strategies are ranked the fourth whereas the memory strategies are on the fifth ranking. The compensation strategies are least of all preferred strategies among the three groups of male students. As a result, the One-Way ANOVA discovered that there is a mixed of interest regarding the use of compensation strategies among the male students in the lower form. A significant difference is detected as the Tukey's HSD test results show that mean score for the compensation strategies for the Form 3 is significantly higher than the Form 1 students. However, there is no significant difference between the use of direct and indirect strategies among the three male groups in the lower forms.

4.6 Research Question 4

Is there a significant difference in the types of language learning strategy among the lower secondary female students in suburban school?

4.6.1 Normality Test

In a normal distribution, points are as likely to occur on one side of the average as on the other. However, there are other distributions that look similar to the normal distribution such as in the distribution of data for the metacognitive strategies in Figure 4.4. The overlapping shape on the other histograms has a slightly normal curve. However, there are some of the deviations in the histograms might need to be investigated to understand whether the deviations are small enough to say that the distributions are approximately normal such as in memory strategies (Mean = 3.02, SD = .67), cognitive strategies (Mean = 3.34, SD = .64), compensation strategies (Mean = 2.79, SD = .72), metacognitive strategies (Mean = 3.84, SD = .73), affective strategies (Mean = 3.23, SD = .79) or in social strategies (Mean = 3.42, SD = .83).

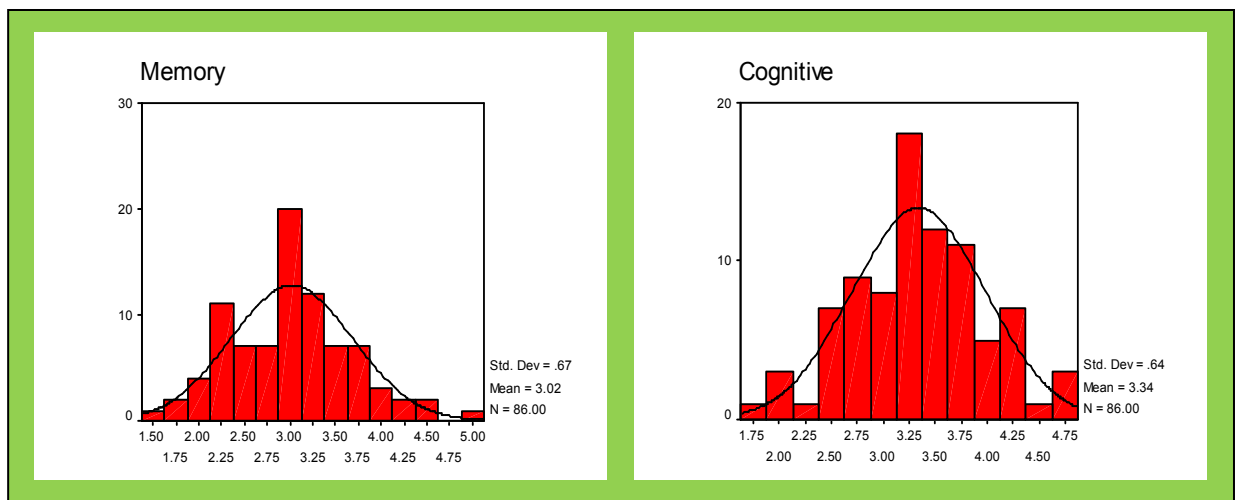


Figure 4.4: Distribution of Scores obtained on LLS for Lower Secondary Female Students (N= 86)

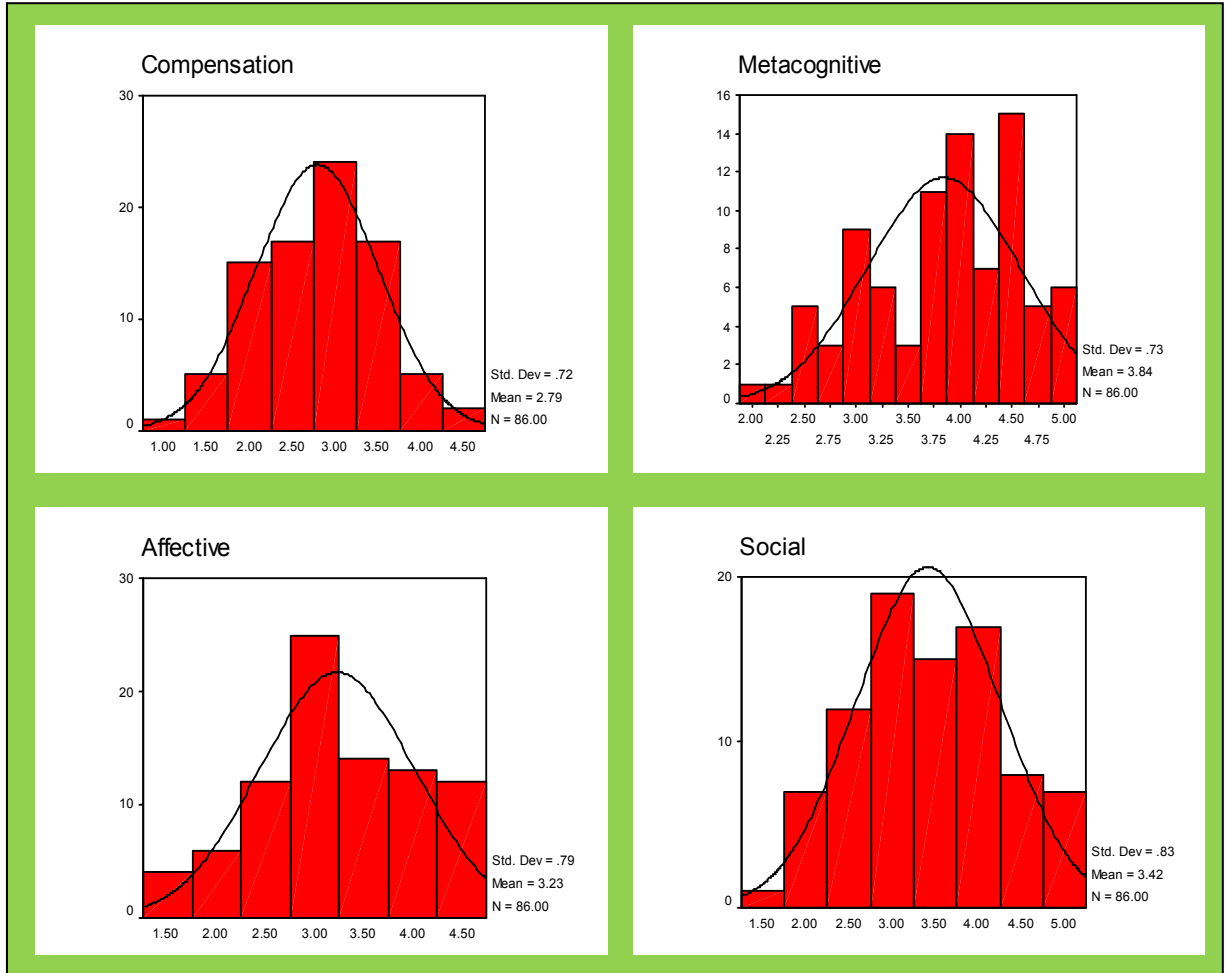


Figure 4.4, continued

Table 4.12 shows the normality test among a group of 86 female students from the lower secondary level. For memory strategies, the Form 1, Form 2 and Form 3 female students present a significance level of more than 0.05 ($p > 0.05$). This signifies that there is a normal distribution in the use of memory strategies among the female students in the lower secondary level. The same results account for the use of cognitive and compensation strategies among the related group of students. The larger the statistics are, the higher their significance level will be consequence for. Hence, the more normal are

their distributions. As observed, the statistics for metacognitive strategies are relevantly small (.838), thus the effect shows a relatively low significance level of .001 which is much smaller than the alpha level of 0.05 ($\alpha = 0.05$). Hence, it has to be noted that the distribution of metacognitive strategies does not fit the sample group of Form 3 students. For affective and social strategies, their significance levels are higher than the p-value for all the sample groups in Form 1, 2 and 3. Therefore, they have a normal distribution of data that fits their sample groups of female students in the lower forms.

Table 4.19: Normality Test Results among the Lower Secondary Female Students (N = 86)

<i>Strategies</i>	<i>Classes</i>	<i>Statistics</i>	<i>df</i>	<i>Significance</i>
Memory	Form 1	.952	35	.134
	Form 2	.959	24	.411
	Form 3	.974	27	.708
Cognitive	Form 1	.980	35	.746
	Form 2	.968	24	.625
	Form 3	.977	27	.798
Compensation	Form 1	.981	35	.802
	Form 2	.944	24	.199
	Form 3	.989	27	.989
Metacognitive	Form 1	.956	35	.169
	Form 2	.944	24	.199
	Form 3	.838	27	.001*
Affective	Form 1	.953	35	.136
	Form 2	.943	24	.194
	Form 3	.956	27	.296

**Table 4.19: Normality Test Results among the Lower Secondary Female Students (N = 86)
(con't)**

<i>Strategies</i>	<i>Classes</i>	<i>Statistics</i>	<i>df</i>	<i>Significance</i>
Social	Form 1	.973	35	.539
	Form 2	.949	24	.264
	Form 3	.939	27	.113

(*p<0.05)

Since the metacognitive strategies have shown evidences that the distribution of data was not normal among the female groups in lower secondary forms, the Kruskal Wallis test is therefore used to test if there is any significant difference. Table 4.20 shows that the non-parametric test χ^2 value is 6.539 and the p-value is .038. With the level of significance sets at 0.05 ($\alpha = 0.05$), it is therefore, concluded that there is a significance difference in the use of metacognitive strategies among the lower secondary female students since their p-value is smaller than the 0.05. Judging from the mean rank, the Form 2 students (Mean Ranks = 34.69) use the least of the metacognitive strategies as compared to Form 1 (Mean Ranks = 42.63); whereas there is a much greater use of the related strategies among the Form 3 as the Mean Ranks is at 52.46.

Table 4.20: The Kruskal Wallis Test Results on Metacognitive Strategies among the Lower Secondary Female Students (N=86)

<i>Strategies</i>	<i>Classes</i>	<i>N</i>	<i>Mean Ranks</i>
Metacognitive	Form 1	35	42.63
	Form 2	24	34.69
	Form 3	27	52.46

Table 4.20, continued

Test Statistic (a, b)

	<i>Metacognitive</i>
Chi-Square	6.539
df	2
Asymptotic Significance (2-tailed)	.038

- a. Kruskal Wallis Test
- b. Grouping Variable: Classes

4.6.2 LLS used among the Lower Secondary Female Students

Based on the descriptive results shown in Table 4.21, the lower secondary female students highly use the metacognitive strategies in their language learning (Mean = 3.842). Secondly, they preferred the social strategies (Mean = 3.419) better than the cognitive strategies which have a mean of 3.341 in the third ranking. Next, are the affective strategies with a moderate mean of 3.229, followed by the memory strategies (Mean = 3.018). The least favourite of all strategies is the compensation strategies that have a mean score of 2.791.

Table 4.21: The Average Means of LLS used by the Lower Secondary Female Students (N=86)

<i>Strategies</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>	<i>Rank</i>
Memory	1.56	4.89	3.018	.6693	5
Cognitive	1.79	4.79	3.341	.6413	3

Table 4.21, continued

<i>Strategies</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>	<i>Rank</i>
Compensation	1.17	4.67	2.791	.7182	6
Metacognitive	2.11	5.00	3.842	.7308	1
Affective	1.33	4.50	3.229	.7901	4
Social	1.67	5.00	3.419	.8323	2

4.6.3 *Types of LLS used among the Form 1, Form 2 and Form 3 Female Students*

Table 4.22 compares the mean squares between groups and within groups among the Form 1, Form 2 and Form 3 female students. Besides the metacognitive strategies which have been investigated by Kruskal Wallis test earlier, it is interesting to take note that there is also a significance difference in the use of memory strategies and compensation strategies among this sample groups. The memory strategies ‘Between groups’ row shows that the df is 2 and the mean square is 1.352. It’s ‘Within groups’ row shows that the df is 83 and the mean square is .426. The F value is 3.172 which have a significance value of .047 that is slightly smaller than $\alpha = 0.05$. Meanwhile, the compensation strategies ‘Between groups’ row presents a df of 2 and a mean square of 2.019 whereas their ‘Within groups’ row shows a df of 83 and a mean square of .480. Its F value is 4.211 with a significance value of .018 which is also smaller than the alpha level of 0.05. Thus, it is concluded that there is a significant difference in the use of memory and compensation strategies between and within the female groups in lower secondary forms.

Apart from that, other strategies such as cognitive strategies ($p = .395$), affective strategies ($p = .061$) and social strategies ($p = .155$) show no significant differences in their usage among the sample groups of Form 1, 2 and 3 female students.

Table 4.22: Differences in the LLS used among the Lower Secondary Female Students (N=86)

		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Memory	Between Groups	2.70	2	1.352	3.172	.047*
	Within Groups	35.37	83	.426		
	Total	38.07	85			
Cognitive	Between Groups	.77	2	.386	.938	.395
	Within Groups	34.18	83	.412		
	Total	34.95	85			
Compensation	Between Groups	4.04	2	2.019	4.211	.018*
	Within Groups	39.81	83	.480		
	Total	43.84	85			
Affective	Between Groups	3.46	2	1.728	2.891	.061
	Within Groups	49.60	83	.598		
	Total	53.09	85			
Social	Between Groups	2.58	2	1.291	1.904	.155
	Within Groups	56.29	83	.678		
	Total	58.88	85			

The Tukey's Honestly Significant Difference test (HSD) results as shown in Table 4.23 interpret that there is a significant difference in the use of compensation strategies only between the Form 1 (Mean = 2.548) and the Form 3 (Mean = 3.056) female students in the lower forms at p-value of 0.15. This also proves that the Form 3 female students use the compensation strategies at a significantly higher level than the

Form 1. However, the memory strategies used between Form 2 and Form 3 reveal a very thin acceptance of significant difference ($p = .059$) while the other strategy groups does not show any significant differences between the other sample groups of female students in the lower forms.

Table 4.23: Multiple Comparisons between the Female Groups in Lower Secondary School Level (N=86)

<i>Dependent Variables</i>		<i>Mean</i>		<i>Mean Difference</i>	<i>Std Error</i>	<i>Sig</i>
Memory	F1	3.102	F2	.366	.1730	.093
			F3	-.059	.1672	.933
	F2	2.736	F1	-.366	.1730	.093
			F3	-.425	.1831	.059
	F3	3.161	F1	.059	.1672	.933
			F2	.425	.1831	.059
Cognitive	F1	3.354	F2	.151	.1701	.649
			F3	-.094	.1644	.836
	F2	3.202	F1	-.151	.1701	.649
			F3	-.245	.1800	.366
	F3	3.448	F1	.094	.1644	.836
			F2	.245	.1800	.366
Compensation	F1	2.548	F2	-.300	.1835	.238
			F3	-.508(*)	.1774	.015
	F2	2.847	F1	.300	.1835	.238
			F3	-.208	.1943	.534
	F3	3.056	F1	.508(*)	.1774	.015
			F2	.208	.1943	.534
Affective	F1	3.005	F2	-.273	.2049	.381
			F3	-.471	.1980	.051
	F2	3.279	F1	.273	.2049	.381
			F3	-.198	.2169	.635
	F3	3.475	F1	.471	.1980	.051
			F2	.198	.2169	.635

Table 4.23, continued

<i>Dependent Variables</i>		<i>Mean</i>		<i>Mean Difference</i>	<i>Std Error</i>	<i>Sig</i>
Social	F1	3.391	F2	.189	.2187	.663
			F3	-.258	.2109	.444
	F2	3.201	F1	-.189	.2183	.663
			F3	-.447	.2310	.136
	F3	3.648	F2	.258	.2109	.444
			F1	.447	.2310	.136

F1 = Form 1, F2 = Form 2, F3 = Form 3

* Mean difference is significant at .05 ...

4.6.4 *Direct and Indirect Strategy used among the Form 1, Form 2 and Form 3 Female Students*

The One-way ANOVA test results show that there is no significant difference in the use of direct (memory, cognitive and compensation) and indirect (metacognitive, affective and social) strategies among the group of 86 female students from the lower forms. The ‘Between groups’ row reveals that the mean square for direct strategies is .557 with the degree of freedom (df) of 2 whereas the ‘Within groups’ has mean square of .319 and a df of 83. Given the alpha level of 0.05 ($\alpha = 0.05$) and the chi-square of 5.991 (Appendix G: Chi-Square Distribution Table), the F value of 1.749, the results implies that the p-value of .180 is not big enough to be significant. Meaning, there is no significant difference in the use of direct strategies between and within the female groups of Form 1, Form 2 and Form 3. This also applies to the indirect strategies (mean square = .986, df = 2) which have the F value of 2.537 and a p-value of .085 that is bigger than the alpha level. Hence,

it is concluded that there is no significant difference in the use of direct and indirect strategies among the lower secondary female students.

Table 4.24: Differences in the Direct and Indirect Strategies used among the Lower Secondary Female Students (N=86)

<i>Strategies</i>		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Direct	Between groups	1.115	2	.557	1.749	.180
	Within groups	26.451	83	.319		
	Total	27.566	85			
Indirect	Between groups	1.973	2	.986	2.537	.085
	Within groups	32.266	83	.389		
	Total	34.238	85			

A Tukey's Honestly Significant Difference test (HSD) results as shown in 4.25 confirm the outcome of the One-way ANOVA statistical results earlier. There is no significant difference in the use of direct and indirect strategies between the three sample groups of female students in the lower forms.

Table 4.25: Multiple Comparison between the Direct and Indirect Strategies used among the Lower Secondary Female Students (N=86)

<i>Dependent Variables</i>		<i>Mean</i>		<i>Mean Difference</i>	<i>Std Error</i>	<i>Sig</i>
Direct Strategies	F1	2.968	F2	.0088	.1181	.997
			F3	.0554	.1181	.886
	F2	2.959	F1	-.0088	.1181	.997
			F3	.0466	.1225	.924
	F3	2.912	F1	-.0554	.1181	.886
			F2	-.0466	.1225	.924

Table 4.25, continued

<i>Dependent Variables</i>		<i>Mean</i>		<i>Mean Difference</i>	<i>Std Error</i>	<i>Sig</i>
Indirect Strategies	F1	3.408	F2	.1426	.1410	.572
			F3	.2001	.1410	.337
	F2	3.266	F1	-.1426	.1410	.572
			F3	.0574	.1464	.919
	F3	3.208	F1	-.2001	.1410	.337

As a conclusion, the lower forms female students' favourite used of strategies is the metacognitive. However, a non-parametric (Kruskal Wallis) test conducted on the variables revealed that this strategy group has a significant difference in its usage among the sample groups. Plus, a One-way ANOVA test results have also presented a similar outcome for the memory and compensation strategy groups. The compensation strategies have identified a big significant difference in their use among the female students in Form 1 and Form 3. However, there is only a very small significant difference detected in the use of memory strategies (0.47). Hence, when a post hoc test (Tukey's HSD) of comparisons was conducted between and within groups for the memory strategies, the Form 2 and Form 3 significance level was thinly at 0.59. In other words, the outcome proved that there is no significant difference in the use of memory strategies among the lower secondary female students. A final One-Way ANOVA test also confirmed that there are no significant differences in the use of direct and indirect strategies among the sample groups of 86 female students in the lower forms.

Summary

This chapter presents the findings to the four research questions. The quantitative findings reveal that the suburban secondary school students preferred the metacognitive strategies the most, followed by social strategies, cognitive strategies, affective strategies and memory strategies. The compensation strategies were the least often used strategy used. Overall, the indirect strategy was much preferred than the direct strategy group. The upper forms (Form 4 and Form 5) male students commonly used the metacognitive strategies in their language learning. This is followed by the social strategies, cognitive strategies, affective strategies, memory strategies and lastly, the compensation strategies. The Mann-Whitney and t-test results disclosed that there were no significant differences in the use of the strategies among the upper male students. The use of direct and indirect strategy among the upper secondary female students did not show any statistical significant difference. However, tests results for the upper secondary female students revealed that there was only a significant difference in the use of memory strategies. Meanwhile, the Kruskal Wallis and One-way ANOVA tests results have also seen a significant difference in the use of compensation strategies among the lower secondary female students (Form 1, Form 2 and Form 3). The Tukey's HSD test results have confirmed the results that showed a significant difference in the use of compensation strategies between the Form 1 and Form 3 male students. Overall, this group preferred the metacognitive strategies better than the social strategies. This is followed by the cognitive strategies, affective strategies, compensation strategies and finally the memory strategies. Finally, the lower secondary female students demonstrated their favourite strategies used for language learning is the metacognitive strategies, followed by the

social strategies, the cognitive strategies, affective strategies, memory strategies and the least of all – the compensation strategies. Statistical test results have also revealed that there were some significant differences in the use of memory, compensation and metacognitive strategies. The Tukey's HSD test has confirmed that the thin significant difference in the use of memory strategies was between the Form 2 and Form 3 female students. The significant difference for the compensation strategies was between the Form 1 and Form 3 whereas the significant difference for the metacognitive strategies was between the Form 2 and Form 3. In general, the use of direct and indirect strategies however showed no significant difference among the use language learning strategies among the lower secondary female students. On the whole, the Form 1 female students have highest frequency use of the memory strategies while the Form 4 male students have the lowest frequency use of the strategies; but they have the highest frequency use for cognitive strategies. The Form 3 male students showed the least use of the cognitive strategies. Female students from Form 5 have the highest frequency use of the compensation strategies as compared to the Form 1 male students who use them the least. The Form 3 female students were outstanding in their use of metacognitive, affective and social strategies as they scored the highest mean frequency use whereas the Form 4 male students revealed the least frequency use for metacognitive and affective strategies and Form 3 male students have the lowest frequency use of the social strategies.

All in a nutshell, Table 4.26, Table 4.27 and Table 4.28 tabulated summaries of the findings analysed in this chapter.

Table: 4.26: Summary Table of LLS Perceived by Secondary School Students

Strategies	Lower Forms (N = 162)						Upper Forms (N = 163)											
	Male (N = 76)			Female (N = 86)			Male (N = 81)			Female (N = 82)								
	Rank	Mean	Sig. (p = 0.05)	Rank	Mean	Sig. (p = 0.05)	Rank	Mean	Sig. (p = 0.05)	Rank	Mean	Sig. (p = 0.05)						
1. Memory	6	2.871	.173	5	3.018	.047*	6	2.635	.335	6	2.826	.048*						
2. Cognitive	3	3.114	.610	3	3.341	.395	3	3.068	.609	4	3.217	.760						
3. Compensation	5	2.673	.039*	6	2.791	.018*	5	2.700	.573	5	3.109	.487						
4. Metacognitive	1	3.554	.572	1	3.842	.038*	1	3.336	.660	1	3.565	.958						
5. Affective	4	3.035	.223	4	3.229	.061	4	2.884	.139	3	3.259	.337						
6. Social	2	3.199	.411	2	3.419	.155	2	3.300	.717	2	3.468	.841						
Results	No significant difference in other LLS except for compensation strategies.						No significant difference in other LLS except for memory, compensation and metacognitive.						No significant difference in other LLS except for memory strategies.					

Table 4.27: Summary Table of Direct and Indirect LLS Perceived by Secondary School Students

Strategies	Lower Forms (N = 162)						Upper Forms (N = 163)					
	Male (N = 76)			Female (N = 86)			Male (N = 81)			Female (N = 82)		
	<i>Rank</i>	<i>Sum of Square</i>	<i>Sig. (p = 0.05)</i>	<i>Rank</i>	<i>Sum of Square</i>	<i>Sig. (p = 0.05)</i>	<i>Rank</i>	<i>Mean</i>	<i>Sig. (p = 0.05)</i>	<i>Rank</i>	<i>Mean</i>	<i>Sig. (p = 0.05)</i>
Direct Strategies	2	13.197	.885	2	27.566	.180	2	2.858	.732	2	3.073	.504
Indirect Strategies	1	19.364	.343	1	34.238	.085	1	3.199	.330	1	3.450	.835
Results	No significant difference.			No significant difference.			No significant difference.			No significant difference.		

Table 4.28: Summary Table of Mean Scores of LLS Perceived by Secondary School Students

Strategies	Lower Form						Upper Form			
	Form 1		Form 2		Form 3		Form 4		Form 5	
	M (N= 28)	F (N= 35)	M (N= 24)	F (N= 34)	M (N= 24)	F (N= 27)	M (N= 42)	F (N= 42)	M (N= 39)	F (N= 40)
1. Memory	3.019	3.102	2.792	2.736	2.778	3.018	2.582	2.957	2.692	2.688
2. Cognitive	3.160	3.353	3.144	3.202	3.030	3.448	3.677	3.238	3.058	3.195
3. Compensation	2.441	2.548	2.778	2.847	2.840	3.056	2.664	3.058	2.740	3.163
4. Metacognitive	3.641	3.844	3.504	3.620	3.472	4.037	3.275	3.562	3.399	3.569
5. Affective	3.214	3.005	2.980	3.278	2.965	3.475	2.778	3.329	2.998	3.186
6. Social	3.256	3.391	3.278	3.201	3.056	3.648	3.270	3.452	3.329	3.483

