

## **CHAPTER 4**

### **Background of Respondents**

#### **4.1 Introduction**

This chapter describes the background of the respondents who were selected as the subject of this study. As mentioned in Chapter 3, the subject of this study is confined to students who were studying sixth form at the time of the survey. This sample was obtained from a random sampling stratified by stream, location and enrollment size as described earlier (See Chapter 3). Further stratification by gender and ethnicity was not possible due to insufficient information at the sampling stage. Detailed information related to the socio-demographic, socio-economic and educational background of respondents is discussed in this chapter. The sample size for sub-groups is not evenly distributed due to missing values. However, the exclusion of missing values would not have much effect on the findings, as the number of missing values is relatively small.

#### **4.2 Demographic Characteristics of Students**

Analyzing the demographic composition in terms of gender, ethnicity, childhood residence and birth order gives some background information of the respondents in this study. This sample represents the three main races in Malaysian, however the sample distribution may not directly reflect the national population distribution of about 6:3:1 for the Bumiputera (the main ethnic group in Malaysia), Chinese and Indians respectively. Bumiputera students accounted for 62.1 percent of the sample, largest among the three ethnic groups, followed by 33.3 percent of Chinese respondents and the remaining were Indian respondents.

Table 4.1 shows a near equal proportion of male to female students in the sample, with the proportion of males being slightly smaller. In analyzing the distribution of students by ethnicity and gender, there is seem to be a significant difference among the Bumiputera students, where the number of female students is much higher than male students. This difference is not observed amongst the other two ethnic groups.

**Table 4.1: Distribution Of Students By Ethnicity, Gender, Childhood Residence and Birth Order**

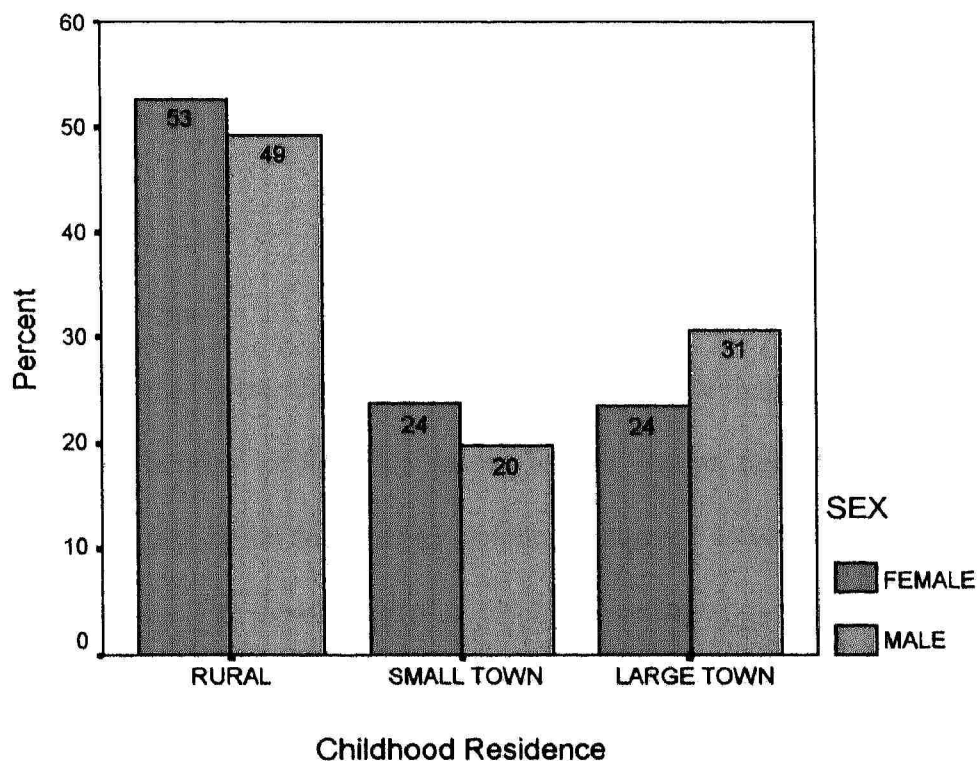
	Bumiputera	Chinese	Indians	Total
<b>Gender</b>				
Female	1069	477	110	1656(57.8)
Male	708	377	122	1207(42.2)
Total	1777 (62.1)	854 (29.8)	232 (8.1)	2864 (100) *
<b>Childhood Residence</b>				
Rural	1216	209	37	1462(51.2)
Small Town	270	288	73	631(22.1)
Large Town	281	357	122	760(26.7)
Total	1767(61.9)	854(29.9)	232(8.2)	2853(100)*
<b>Birth Order</b>				
Eldest	411	263	79	753(26.4)
Second/Third	572	314	82	968(34)
Fourth/Fifth	410	159	34	603(21.2)
Sixth or higher	376	111	38	525(18.4)
Total	1769(62)	847(29.8)	233(8.2)	2849(100) *

Note: Numbers in parentheses indicates percentages. \*Total excluding missing values.

The place where the respondents grew up in is classified as rural, small or large towns. 51.2 percent of the entire sample grew up in rural areas, while the percentage of students who spent their childhood days in small towns (22.1 percent) and large towns (26.7 percent) were roughly similar. The difference in the proportion of male and female students across locality is almost equal (See Figure 4.1). This may reflect equal gender opportunity in education.

Figure 4.2 highlights that most Bumiputera (68.9 percent) students grew up in rural areas compared to other ethnic groups. Childhood residence of respondents can be reflected by parents' occupational sector. It can be seen in Table 4.2 later, that a large proportion of parents' of Bumiputera students are employed in the agricultural sector. As agricultural is the main activity in most rural areas in Malaysia, most parents of students who grew up in rural areas work in the agricultural sector. It also can be seen that high proportion of parents of Chinese and Indians respondents were in the non- agricultural sectors as majority of these students grew up in small and large town. Table 4.1 also shows that every one out of two Indian students come from large towns. Among the Chinese students, 42 percent of them come from large towns, 34 percent from small towns and 24 percent were form rural areas.

**Figure 4.1: Gender Differentials in Childhood Residence**



**Figure 4.2: Ethnic Differentials in Childhood Residence**

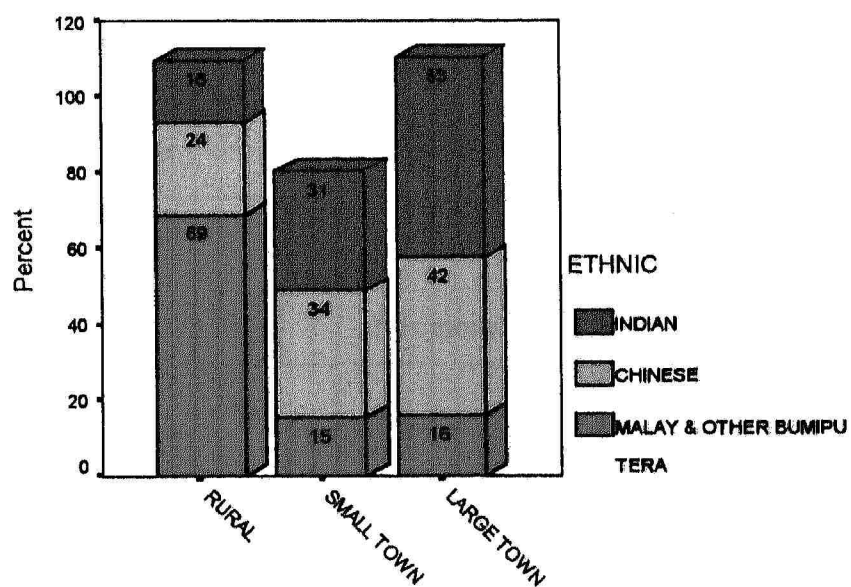


Table 4.1 displays no clear pattern for the relationship between birth order and ethnicity. Overall, majority of the respondents were second or third born in the family. 26.4 percent were the eldest, while the second or third in the family accounted for 34 percent.

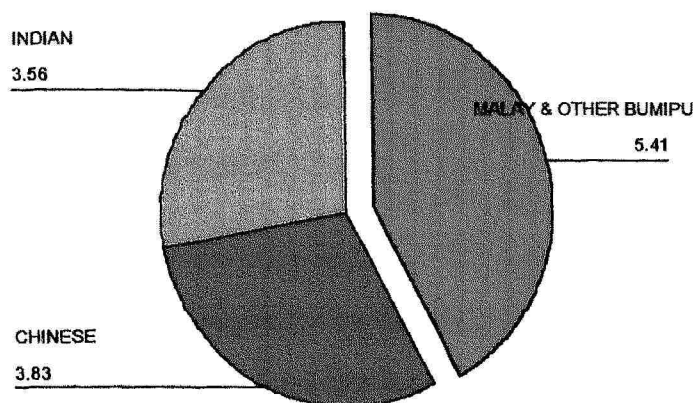
### 4.3 Family Size

Table 4.2 shows that most students come from a family size of 5. A comparison of the mean number of children among ethnic groups indicated that the Bumiputra students generally come from larger families compared to the non-Bumiputera students (See Figure 4.3). The mean number of children in a Bumiputera student's family is about 5 while, both the Chinese and Indian families have a mean number of 4 children.

**Table 4.2: Percentage Distribution of Number Of Children in Respondent's Family**

Family size	Number of children	Percent	Cumulative percent
Small	1	1.6	1.6
	2	5.7	7.3
Average	3	12.2	19.5
	4	15.4	34.9
Large	5	16.3	51.2
	6	13.5	64.7
	7 or more	30.4	75.3

**Figure 4.3: Mean family size by ethnicity**



#### **4.4 Relationship With Present Guardian**

Guardians of students in this survey are namely, parents (both), single parent (either father or mother), grandparents, brothers and sisters, uncle and aunty or foster parents. According to the 1991 population census, about 81.8 percent of families in West Malaysia were headed by males (Department of Statistics Malaysia 1995). Hence, this report will consider only the father as the guardian for respondents whose guardian is both parents or single father.

Not surprisingly, 83.3 percent had indicated that they live with both parents, which is common among Malaysians. 11.3 percent had single parents of which 7.1 percent were single mothers. The remaining proportion of 5.4 percent had other relatives as guardians. Among students whose guardian is a single parent, most of them stay with their mothers. The proportion of female students who stay other relatives (9.2) is smaller compared to the males (14.1).

Table 4.3 reveals the distribution between the respondents and their respective guardians. Almost 90 percent of students have very good relationship with their parents. Good parent-children relationship provides home stability, which has great effect on academic achievement. Students who come from stable families will have better concentration and interest in academic pursuits. Interestingly, more male students compared to the female students have very good relationship with their parents. In comparing different ethnic groups, higher percentages of Bumiputera students have good relationships with parents compared to Chinese and Indian students. Majority of students have very good relationship with their parents regardless of their childhood residence.

**Table 4.3: Percentage Distribution of Student-Guardian Relationship Ratings**

	Gender		Ethnicity			Childhood Residence		
	Male	Female	Bumiputera	Chinese	Indians	Rural	Small Town	Large Town
Very good	59.4	53.2	66.7	53.8	58.8	56.7	55	56.4
Good	31.4	40.4	28.3	34.9	31.6	34.8	36.7	34.6
Satisfactory	7.8	6.4	4	9.4	8.3	7.7	5	9.0
Not Good	0.5	0	1	1.9	0.4	0.6	3.3	0
Not Good at all	0.7	0	0	0	0.9	0.3	0	0
Total	100	100	100	100	100	100	100	100
n	1209	1657	1778	854	233	209	791	1866

#### **4.5 Socio-Economic Status of Parents**

The socio-economic status of the students is indicated by parents' level of education, occupational sector and income. Socio-economic status of parents is a significant predictor of academic achievement in developing countries.

To determine whether any particular groups of students (male, female, Bumiputera, Chinese, Indians, science or arts) or students from different locality are more affected by these socio-economic status factors, the fathers' educational level, occupation sector, and income will be examined.

Table 4.4 summarizes the educational attainment of respondent's fathers' by selected variables. Father's highest level of education is at tertiary level (College and University) but the proportion is only 6.1 percent. Majority of the fathers' had either primary (53.7%) or lower secondary (20.9%) education and only about 8.1percent with no formal education at all. Father's of female students were slightly more educated than the male students. There seem to be quite a glaring difference in the level of education between fathers of science and arts students at all levels.

**Table 4.4: Percentage Distribution of Father's Education Level by Selected Variables.**

	No Formal schooling	Primary	Lower Secondary	Upper Secondary	Tertiary	Total
Male	8.9	51.8	23.7	9.7	6.0	100(1129)
Female	7.5	55.1	18.9	12.4	6.2	100(1562)
Science	5.2	43.2	24.3	18	9.2	100(650)
Arts	9.0	57	19.8	9.1	5.1	100(2039)
Rural	13	67.6	14.9	3	1.5	100(1361)
Small Town	2.7	48.7	26.7	15.1	6.6	100(589)
Large Town	3.3	31.3	27.3	23.6	14.4	100(728)
Bumiputera	10.1	61.8	17.5	6.0	4.6	100(1656)
Chinese	5.2	44.8	24.4	18.2	7.4	100(820)
Indians	3.3	24.8	34.3	25.7	11.9	100(210)
Overall Sample	8.1	53.7	20.9	11.2	6.1	100

Note: Total number for each category of variables is in parenthesis



Among fathers who had at least lower secondary education, the percentage was higher for science students, almost double for upper secondary and tertiary. In terms of ethnicity, majority of fathers of Bumiputera and Chinese students had obtained primary education, while the fathers of Indian students had lower secondary education.

Large proportion of fathers' of students who grew up in rural areas, had only primary education, however almost three quarters of fathers' in small towns had up to lower secondary education. As expected, majority of fathers' of students who grew up in large towns had secondary education or higher.

Further, the percentage of fathers who had at least upper secondary education is much higher among Indians (37.6) compared to Chinese (25.6) or Bumiputera (10.6) students. However, among fathers who had no formal schooling, the percentage of Bumiputera students is almost double and triples the Chinese and Indians respectively.

**Table 4.5: Percentage Distribution of Father's Income Level By Selected Variables.**

	Less than RM 1000	RM1001- RM1500	RM1501- RM2000	RM2001 or more	Total
Male	52.9	29.9	10.5	6.7	100(1542)
Female	54.1	26.1	13.0	6.9	100(1144)
Science	33.3	36.7	19.2	10.8	100(651)
Arts	60.1	24.8	9.6	5.5	100(2032)
Bumiputera	71.9	18.3	6.9	2.8	100(1657)
Chinese	22.6	44.4	19.3	13.7	100(810)
Indians	29.6	37.0	23.1	10.2	100(216)
Overall Sample	53.6	27.7	11.9	6.8	100

Note: Total number for each category of variables is in parenthesis

Looking at the income distribution, as shown in Table 4.5, almost 54 percent of fathers' earn less than RM 1000 a month. Approximately 7 percent of the fathers of students in this sample earn above RM 2000. Distribution of father's income is quite similar between the male and female students, however there is a distinct difference in terms of ethnicity and stream of study. Most of the Bumiputera students come from families where their fathers earn less than RM 1000 a month, unlike the majority of Chinese and Indian students where their father's monthly income ranges from RM1001-1500.

Table 4.5 reveals that only a small proportion of the fathers of Bumiputera students earn above RM 1500 a month. Comparing the father's income distribution by stream of study, it is obvious that father's of science students have higher monthly salary than the arts. Further investigation (See Figure 4.5) of level of income by occupational sector indicates that those who earn less than RM 1000 are mainly agricultural workers.

As indicated in Table 4.1 earlier, majority of Bumiputera students come from rural areas where the main activity is agricultural. For income range of RM 1501-1000, 61 percent of fathers are civil servants. However for range of income exceeding 2001, percentage fathers working in the private sector is higher (almost 56 percent) than all other sectors.

Table 4.6 shows that the distribution of fathers by occupational sector for both male and female students is quite similar but there are significant differences in terms stream of study, locality and across ethnicity.

**Table 4.6: Percentage Distribution of Father's Occupational Sector By Selected Variables**

	Agricultural	Private Sector	Civil Service	Total
Male	37.1	36.0	25.3	100(1562)
Female	40.4	34.3	26.9	100(1129)
Science	24.9	45.4	29.7	100(650)
Arts	43.5	31.7	24.8	100(2040)
Rural	64.6	20.6	14.8	100(1364)
Small town	22.7	45.5	31.9	100(587)
Large town	4.4	54.0	41.6	100(729)
Bumiputera	50.3	22.9	26.9	100(1653)
Chinese	23.4	57.9	18.7	100(819)
Indians	12.6	40.7	46.7	100(214)
Overall Sample	39	35	26	100

Note: Total number for each category of variables is in parenthesis

More fathers of arts than science stream students work in the agricultural sector. The fathers of most (57.9 percent) Chinese students were employed in private sector, which includes mining, manufacturing, construction, transport, commerce and business, while the majority (46.5 percent) of fathers of Indian students worked in civil service. Basically the differences in fathers' occupation sector across ethnic groups can explained by the vast differences in educational attainment and geographical location of their residence.

## 4.6 Education Background of Students

### 4.6.1 Stream of Study

Table 4.7 displays the distribution of students by education variables. There are more students in the Arts stream as compared to the Science stream. Science stream students represent one third of this sample. The proportion of female students is high in the arts stream, almost 85 percent. It is evident that girls favor arts related subject compared science or math. Girls opt out from science courses for many reasons according to Parker (1987), who indicates that the abilities of girls and boys with science appears to be the same up to year 10 and that factors influencing girls' decision not to choose science appeared to be related more to attitudes, motivation and perception.

**Table 4.7: Percentage Distribution Of Student's Stream Of Study By Gender, Ethnicity and Childhood Residence**

	Stream Of Study	
	Science	Arts
<b>Gender</b>		
Male (n=1210)	35.3	64.7
Female (n=1657)	15.3	84.7
<b>Ethnicity</b>		
Bumiputera (n=1777)	10.5	89.5
Chinese (n=854)	48	52
Indians (n=232)	36.1	63.9
<b>Childhood Residence</b>		
Rural (n=1464)	13.7	86.3
Small Town (n=631)	31.1	68.9
Large Town (n=761)	37.5	62.5
<b>Over all Sample (Science: n=681 and Arts: n=2186)</b>	<b>23.8</b>	<b>76.2</b>

Comparing the percentages of science and arts students across ethnicity, the sharpest difference is observed amongst Bumiputera students, followed by Indians. However, there is only a small difference among the Chinese students. The stream of study to a certain extent indicates the performance of students in the SRP examination. Normally students who have performed well (obtained a grade less than 6 for Bahasa Malaysia, Mathematics and Science and low aggregate score) in the SRP examination tend to follow the science stream at upper secondary level but some students, although may done well in SRP examination may chose to follow the arts stream for reasons best known to them. The aggregate score of the best six subjects for SRP examination measures the overall performance in the SRP examination. Thus, comparing the aggregate of the science students, which is 17.09 with the arts students, which are 24.62 implies that science students have performed better than the arts students. The percentage of arts students exceeded the percentage of science students in all localities.

#### **4.6.2 Location of School**

Majority of the students in this study (43.5percent) went to primary schools that were located in rural areas. This is consistent with the earlier results displayed in Table 4.1 where the place of childhood residence of most students was rural areas. There was not much difference in the percentage of students who attended primary schools located in small (28.9percent) and large towns (27.6percent).

#### 4.6.3 Medium of Instruction at Primary School

Almost 78 percent of all students went through the Malay medium of instruction during primary education. The percentage of students who followed Chinese, Tamil and English mediums was 18.9, 1.0 and 0.9 respectively. Table 4.8 shows that majority of Bumiputera and Indian students went to Malay medium schools while majority of the Chinese students studied at Chinese school. Only about one percent of students in this study had gone through the primary education in Tamil schools or schools where the medium of instruction is English and such these students will be excluded in all further analyses.

**Table 4.8: Percentage Distribution of the Student's Medium of Instruction by Ethnicity.**

	Malay (n=2223)	Chinese (n=542)	Tamil (n=30)	English (n=26)
Bumiputera	97	0.2	0	0.7
Chinese	35.5	61.7	0.2	1.5
Indian	84.1	1.7	12.1	0.4
Overall	77.6	18.9	1.0	0.9

With regards to the location of secondary schools, the percentage of students currently studying sixth form in urban areas (81.6) far exceeded the percentage studying in rural areas. Overall, irrespective of the location of schools, more than 70 percent of the respondents indicated that their school had adequate facilities (table not shown)

#### **4.6.4: Examination Performance of Students in the SPM Examination.**

This section looks at the overall performance of students in the three selected subjects namely: Bahasa Malaysia, English, and Mathematics in detail. The performance in each subject is dependent variable in this study and is graded as A1, A2, C3...C6, P7, P8 and F9. Lower numeric value indicates good results. Students who have obtained a grade of A1, A2, and C3 are categorized as high achievers in this study.

These three subjects represent the core subjects for all students taking the SPM examinations, regardless of stream of study. Great emphasis is placed on these three subjects as the grades obtained in these subjects determine the continuity, opportunity and choice of further education. Much has been said about poor performance of students in specific subject like English and Mathematics, and such this section will provide the empirical evidence to at least some if not all the statements and reports regarding student performance.

Bahasa Malaysia is the national language of this country and all students are required to obtained at least a grade of C6 or less (the lower the better), which is classified as a "credit" in order to be able to qualify for selection of further education or employment in public sector.

As reflected in Table 4.10, 98.2 percent of the students in this study had obtained a grade of C6 or better. It should be noted that there is a very slim chance for students who do not obtain at least a credit in Bahasa Malaysia at the SPM examination to be able to continue studying sixth form in public schools.

**Table 4.9: Percentage Distribution of Grades of Selected Subjects in SPM Examination**

	Distinction		Credit				Pass	Fail	Total
	A1	A2	C3	C4	C5	C6	P7&P8	F9	
Bahasa Malaysia	5.6	12.8	37.3	13.3	10.8	19.3	0.8	0	100(2796)
English	12.9	7.0	12.4	3.9	4.6	10.6	28.2	20.5	100(2755)
Mathematics	8.3	14.4	14.8	5.3	5.3	9.7	14.3	27.9	100(2697)

Comparing the percentage of high achievers across the three subjects, Table 4.10 shows that the percentage is much higher for Bahasa Malaysia (55.7) compared to English (32.3) or Mathematics (37.5).

Competence in English language is an added advantage for students who wish to study abroad. In addition, students who are not successful in securing a place in local public universities will have better opportunity and advantage of studying in local private institutions, where the medium the instruction is English. Despite this, student performance in English language is far below average. By observing the percentage of students getting P7, P8, and F9 in Table 4.10, it is evident that the percentage is highest for English (48.7), followed by Mathematics (42.2). However, the corresponding figure for Bahasa Malaysia is less than 1 percent.



Poor performance in English is becoming a serious problem in the country and various measures are being implemented to overcome this problem. One possible reason could be the medium of instruction in primary and secondary schools, where all subjects are taught in Bahasa Malaysia except English language, so the exposure to English language is very little. It is common for most students to communicate either in Bahasa Malaysia or their mother tongue and such the use of English language is minimal.

Although Mathematics is perceived to be a difficult subject by most students, achievement in Math is required for most studies and in general it indicates the thinking and analytical ability of a person. The performance in Math as shown in Table 4.7 reflects the difficulty faced by these students where the percentage of failure is the highest (27.9) among the three subjects. Another notable fact is that, although a large proportion of student have failed Mathematics, the percentage of students who obtained Distinction (A1 and A2) is also high for Mathematics compared to the other two subjects.

Table 4.11 summarizes the descriptive statistics for the three subject grades. The low mean grade for Bahasa Malaysia indicates that students have done much better in Bahasa Malaysia as compared to the other two subjects. Similar observation was made earlier in Table 4.10.

**Table 4.10: Descriptive Statistics of Selected Subjects Grades in SPM Examination**

	Mean	Standard Deviation	Coefficient Of Variation	Skewness
Bahasa Malaysia	3.72	1.51	0.41	0.27
English	5.61	2.8	0.50	-0.36
Mathematics	5.46	2.93	0.54	-0.07

The coefficient of variation is almost comparable for the three subjects, where the lowest was for Bahasa Malaysia grades. Low coefficient variation is an indication of less dispersed distribution. The Bahasa Malaysia grades for most students would be below mean as the coefficient of skewness is positive, while the grades of most students will be above the mean value for English. The grade distribution of mathematics can be said to be approximately symmetrical as the coefficient of skewness is very close to zero.

#### **4.6.5 Other Indicators of Academic Interest**

##### **(i) Tuition**

Most parents in urban areas provide additional for the children. Due to their busy schedule and not being able to supervise the academic performance of their children, parents who can afford send their children for tuition classes. Availability of tuition facilities further encourages tuition among urban students. About a quarter of the students in this study indicated that they had access to such facility, the percentage is higher among students from large towns (48.4) compared to rural areas (12.8) or small towns (35.7).

### (ii) Frequency Of Library Usage

About 55.6 percent of the students in this sample had indicated that they frequently visit the library. The percentage is higher among girls compared to boys and among students who had indicated they do extra reading in the subjects they like.

### (iii) Reading Habits

Table 4.8 shows the type of reading materials and the corresponding frequency of reading these materials.

**Table 4.11: Frequency of Reading Newspaper, Text and Reference Books  
(Percentage)**

	Daily	Weekly	Fortnightly	Monthly	Seldom	Never
Newspaper	79.8	18.3	0.6	0.2	0.8	0.3
Text Books	37.2	27.1	7.5	4.0	21.2	3
Reference Books	70.9	22.1	3.2	0.9	2.4	0.6
Comics	3.0	7.6	8.1	14.6	47.3	19.3

Majority of the students read newspaper daily, with 93.8 percent reading in Bahasa Malaysia, 25.1 in English and 17.6 in Chinese. Only 37.2 percent had indicated that read textbooks daily. However the percentage that read reference books daily is much higher (70.9).

#### 4.7 Summary

In examining the general characteristics of this sample, it is observed that the percentage of science students is much lesser than the arts. Large number of respondents grew up in rural areas and obtained primary education in Malay medium schools. Bumiputera students were raised in large families, mainly grew up in rural areas where their fathers' are mainly employed in agricultural sector as a result the average income of their fathers is lowest compared to other two ethnic groups. Large proportion of Chinese and Indian students grew up in small and large towns and their fathers were generally more educated and had higher monthly income compared to the Bumiputera students. Performance in Bahasa Malaysia varies greatly from the performance in English and Mathematics. The overall performance of students in Bahasa Malaysia is far better compared to English and Mathematics as reflected in Table 4.10 and 4.11.