CHAPTER 4

RESEARCH RESULTS

Introduction

The analysis of the data was based on the data collected from 60 respondents consisting of 20 students each from three different academic achievement level (high, average and low). Using the written responses in the SRM-SF questionnaire, the moral maturity of the respondents was staged according to the manual by Gibbs et al. (1992). Each question attempted by the respondents was given a numeral score and the arithmetic mean score was then calculated. The following sections report the results in terms of the two research questions, namely the level and stages of moral reasoning among 16 year old students in a Malaysian secondary school and the relationship between their academic achievement and moral maturity.

Levels and Stages of Moral Maturity Among Form Four Students in a Malaysia School

According to Gibbs et al. (1992), the levels of moral maturity are classified into immature and mature levels. At the immature level, there are two stages (stages 1 and 2) while at the mature level, there are also two stages (stages 3 and 4) (see pp. 10 -13 in this report).

The results in this study indicated that the level and stages of moral maturity varied among the form four respondents as summarised in Table 4.1 The results showed that 60% (n = 36) of the respondents were at stage 1 while 35% (n = 21) were at stage 2 of moral maturity. In short, 95% (n = 57) of the respondents were scored at immature level (stages 1 and 2) while the remaining 5% (n = 3) were scored at mature level of moral maturity namely stage 3.

Table 4.1

Level and Stages of Moral Maturity of 16 Year Old Respondents

Level	Stage	(n)	%
Immature	1	36	60
	2	21	35
Mature	3	3	5
	4	0	0

The following are examples of responses that were scored by various respondents at the immature level (stages 1 and 2) and matched with the responses in the SRM-SF manual (Gibbs et al., 1992):

Question #1	:	(Contract : Friends). Keeping promises to friends is important:
Response	:	It is important to keep promises to our friends because <u>it would not be nice and they won't be your friend</u>. (Scored as 1).

Matching response in SRM-SF Manual	:	because it would not be nice to the people you promised to. And they won't be your friend. (Stage 1, No. 5, p. 156)
Question #2	:	(Contract : Anyone) Keeping promises to anyone is important:
Response	:	It is important to keep promises to anyone because I am afraid they would not play with me. (Scored as 1)
Matching response in SRM-SF Manual	:	because they would not be your friend. And would not play with you. (Stage 1, No. 24, p. 158).
Question #3	:	(Contact : Children) - Keeping promises to one's children is important:
Response	:	It is important to keep promises to one's children so that they won't get mad. (Scored as 1)
Matching response in SRM-SF Manual	:	because they won't get mad. (p. 158, No : 5)
Question #4	:	(Truth) - Telling the truth is important:
Response	:	It is important to tell the truth because you are going to get punished. (Scored as 1)
Matching response in SRM-SF Manual	:	because you are going to get punished, (Stage 1, No. 22, p. 159).
Question # 5	:	(Affiliation: Parents) - Helping one's parent is important:
Response	:	It is important to help our parents because if you don't help them, they are going to start yelling. (Scored as 2)
Matching response in SRM-SF Manual	:	because if you don't help them with something they are going to start yelling. (Stage 2, No. 12, p. 160).
Question #6	:	(Affiliation: Friends) - Helping to save a friend's life is important:

Response	:	It is important to save our friend's life because <u>they are nice and you might need them one day</u>. (Scored as 2)
Matching response in SRM-SF Manual	:	because some day you're going to need help from that friend. (Stage 2, No. 12, p. 162).
Question #7	:	(Life: Stranger) - Saving a stranger's life is important:
Response	:	It is important to save a stranger's life because <u>you don't want them to die too</u>. (Scored as 2)
Matching response in SRM-SF Manual	:	You don't want them to die too (Stage 2, No. 2, p. 162).
Question #8	:	(Life: Self) - Living even when one doesn't want to is important:
Response	:	It is important because <u>they are able to do the things they wanted to do</u> (Scored as 2)
Matching response in SRM-SF Manual	:	they need to be able to do all the things they ever wanted to do (Stage 2, No. 6, p. 164).
Question #9	:	(Property) - Not taking things that belong to others is important:
Response	:	It is important not to take things that belong to others because <u>you don't want people taking your things</u>. (Scored as 2).
Matching response in SRM-SF Manual	:	You don't want things taken of yours (Stage 2, No. 11, p. 165).
Question #10	:	(Law) - Obeying the law is important:
Response	:	It is important to obey the law because <u>if you want to stay out of trouble</u>. (Scored as 2)
Matching response in SRM-SF Manual	:	If you want to stay out of trouble (Stage 2, No. 14, p. 166).

Question #11	:	(Legal Justice) - Sending lawbreakers to jail is important:
Response	:	It is important to send lawbreakers to jail because <u>they break the law and have to pay for it</u>. (Scored as 2)
Matching response in SRM-SF Manual	:	They did it. They pay for it. (Stage 2, No. 7, p. 167).

At the mature level of moral reasoning only 5% (n = 3) of the respondents were scored at stage 3 and non of them were scored at stage 4 (see Table 4.1).

The following are examples of the responses that were given by various respondents at stage 3 (mature level) and matched with the responses in the SRM-SF manual (Gibbs et al., 1992):

Question #1	:	(Contract : Friends) - Keeping promises to friends is important.
Response	:	It is important to keep promises to our friends <u>because in this way you can be trusted</u>. (Scored as 3)
Matching response in SRM-SF Manual	:	in this way you demonstrate you can be trusted (Stage 3, No. 1, p. 156).
Question #2	:	(Contract: Anyone) - keeping promises to anyone is important.
Response	:	It is important to keep promises to anyone because <u>if you don't they will not trust you</u>. (Scored as 3)
Matching response in SRM-SF Manual	:	if you don't they will not trust you, thus they won't like or want to know you (Stage 3, No. 11, p. 151).
Question #3	:	(Contract: Children) - Keeping promises to one's children is important.

Response	:	It is important to keep promises to our children because <u>the child may think that they don't love them</u>. (Scored as 3)

Matching response in SRM-SF Manual	:	the child may feel the parent don't love them (Stage 3, No. 7, p. 158).
Question #4	:	(Truth) - Telling the truth is important.

Response	:	It is important to tell the truth because <u>we can have a clean conscience</u>. (Scored as 3)

Matching response in SRM-SF Manual	:	so you can have a clean conscience (Stage 3, No. 12, p. 159).

Question #5	:	(Affiliation : Parents) - Helping one's parents is important.

Response	:	It is important to help our parents because <u>children want them to think they are good</u>. (Scored as : 3)

Matching response in SRM-SF Manual	:	because children want parents to think good of them (Stage 3, No. 19, p. 161).

Level of Moral Maturity and Academic Achievement

The results indicated that all respondents (n = 3) who attained mature level of moral reasoning were from the high achievement group as shown in Table 4.2.

Table 4.2

Responses According to Level of Moral Maturity by
Levels of Academic Achievement

Level of Respondent Moral Maturity	Level of Academic Achievement					
	High		Average		Low	
	%	(n)	%	(n)	%	(n)
Immature	85	17	100	20	100	20
Mature	15	3	-	-	-	-

The results show that 85% (n = 17) of the students in the high achievement group are at immature level of moral maturity compared to all respondents in the average and low academic achievement groups who were scored at immature level of moral maturity. This means that none of the respondents with average and low academic achievement were reasoning at the mature level while a few respondents with high academic achievement were reasoning at the mature level.

As each level of moral maturity consists of 2 stages, analysis on the different stages of each level for the three different academic achievement groups were conducted. The following section discusses these results on the stages of moral maturity for each academic achievement group.

Level and Stages of Moral Maturity for the High Achievement Group

Among the 20 respondents from the high achievement group, 30% (n = 6) were at stage one, 55% (n = 11) at stage 2 and 15% (n = 3) at stage 3. None of the respondents reached stage 4 (see Table 4.3). This means that the average stage of the high academic achievement group is stage 2, at the immature level of moral maturity and the highest stage reached by this group is stage 3.

Table 4.3

Level and Stages of Moral Maturity for High Achievement Group

Level	Stages	Respondents	
		%	(n)
Immature	1	30	6
	2	55	11
Mature	3	15	3
	4	-	-

Level and Stages of Moral Maturity for Average Achievement Group

All 20 respondents from the average achievement group only managed to achieve immature level of moral reasoning. In terms of stages, a total of 55% (n = 11) of the respondents reached stage 1 while 45% (n = 9) attained stage 2. In other words, the average stage of the average academic achievement group is stage 1 although some were reasoning at stage 2. All of them however were reasoning at same level of moral maturity (immature) as none of them were scored at either stage 3 or 4.

Table 4.4

Level and Stages of Moral Reasoning for Average Achievement Group

Level	Stages	Respondents	
		%	(n)
Immature	1	55	11
	2	45	9
Mature	3	-	-
	4	-	-

Level and Stages of Moral Maturity for Low Achievement Group

Majority of the low academic achievement respondents were at stage 1 of moral maturity as shown in Table 4.5, that is 95% (n = 19) of the respondents in this group reached stage 1 while only 5% (n = 1) of the respondents attained stage 2. None of the respondents from this group of low academic achievement reached stages 3 and 4 (see table 4.5)

Table 4.5

Level and Stages of Moral Maturity for Low Academic Achievement Group

Level	Stages	Respondents	
		%	(n)
Immature	1	95	19
	2	5	1
Mature	3	-	-
	4	-	-

The overall results on the stages of moral maturity by academic achievement groups thus indicate that majority of 16 year-old students attained an immature level of moral maturity (stages 1 and 2). It however indicates that some respondents from the high achievement group were reasoning at mature level while none of the respondents from both the average and low achievement groups reasoned at this level. Furthermore, the results showed that most of the high achievement group reasoned at stage 2 while the low achievement group reasoned at stage 1 thus indicating a slight relationship between stages of moral maturity and level of academic achievement. In order to obtain an indepth understanding on the moral maturity of the respondents further investigation on the data was then

conducted, firstly on the transitional stages in moral reasoning and secondly, the U-score of the respondents.

Transitional Stage in Moral Reasoning

Out of 60 respondents, 29 respondents were found to be in various transitional stages as shown in Table 4.6.

Table 4.6

Number of Respondents and the Transitional Stage

Level	Min	Stage	High Achiever %	(n)	Average Achiever %	(n)	Low Achiever %	(n)	Total	%
Immature	1.00 - 1.25	1	15	3	15	3	35	7	13	21.6
Immature	1.26 - 1.49	1(2)	5	1	20	4	25	5	10	16.7
Immature	1.50 - 1.74	2(1)	10	2	20	4	15	3	9	15.0
Immature	1.75 - 2.25	2	30	6	25	5	20	4	15	25.0
Immature	2.26 - 2.49	2(3)	10	2	20	4	5	1	7	11.7
Immature	2.50 - 2.74	3(2)	15	3					3	5.0
Mature	2.75 - 3.25	3	15	3					3	5.0
Mature	3.26 - 3.49	3(4)								
Mature	3.50 - 3.74	4(3)								
Mature	3.75 - 4.00	4								
Total										100%

The results shown that there is a transitional stage of 1(2). At the transitional 1(2) stage a respondent is reasoning at a higher level than those at stage 1 but lower than stage 2 (see Table 4.6). 10 of the total respondents were at transitional 1(2) stage. At this transitional 1(2) stage of moral reasoning, 5% (n = 1) of the respondents were from high achievement group with 20% (n = 4) of the respondents from the average achievement group. The highest number of respondents at transitional 1(2) stage was from the low achievement group that is 25% (n = 5).

The following are examples of responses that were scored by various respondents at the transitional 1(2) and matched with the responses in the SRM-SF manual (Gibbs, et al., 1992).

Question #1 : (Contract: Friends) - Keeping promises to friends is important:

Response : It is important to keep promises to friends <u>because some of my friends won't like me anymore</u>. (Scored as 1/2)

Matching response in SRM-SF Manual : because some of your friends won't like you and make you mad (Stage 1/2, No. 21, p. 158).

Question #2 : (Contract: Anyone) - Keeping promises to anyone is important:

Response : It is important to keep promises to anyone <u>because she might beat you up</u>. (Scored as 1 / 2)

Matching response in SRM-SF Manual : because she might beat you up (Stage 1/2, No. 1, p. 157).

Question #4 : (Truth) - Telling the truth is important.

Response : It is important to tell the truth <u>because you are going to get in trouble</u>. (Scored as 1 / 2).

Matching response in SRM-SF Manual : because you are going to get in trouble and you are going to get punched (Stage 1/2, No. 22, p. 159).

Question #9 : (Property) - Not taking things that belong to others is important:

Response : It is important because <u>it isn't theirs and the people shouldn't take them</u>. (Scored as 1 / 2).

Matching response in SRM-SF Manual : because it isn't theirs and people shouldn't take something that isn't theirs (Stage 1/2, No. 22, p. 165).

At stage 2, there are 3 types of transitional stages. They are transitional 2(1), transitional 2(3) and transitional 3(2). Transitional 2(1) stages is obtained by the respondents with moral reasoning higher than stage 1 but lower than stage 2. A respondent at the transitional stage 2(3) or 3(2) stage has a reasoning between stages 2 and stage 3 with transitional 3(2) stage as the highest transitional stage at stage 2 of moral maturity.

Further analysis on the transitional stages at stage 2 showed that the high achievement group has 15% (n = 3) of the respondents at transitional 3(2) stage. This implies that respondents have nearly reached stage 3 at mature level of moral maturity compared to none of the average and low achiever groups who have reached the transitional 3(2) stage of moral maturity (see Table 4.6).

At the transitional 2(3) stage of moral maturity that is at higher stage of stage 2, 10% (n = 2) of the respondents were from the high achievement group. 20% (n = 2) of the respondents were from the average achievement group and 5% (n = 1) of the respondents were from the low achievement group. From the results, it showed that those respondents from average and low achievement groups were reasoning at a stage higher than stage 2 but lower than stage 3 and subsequently indicating that they were capable of reaching stage 3 of moral maturity.

The following are examples of responses that were scored at transitional stage 2(3) and matched with the responses in the SRM-SF manual (Gibbs et al., 1992).

Question #1	:	(Contract: Friends) - Keeping promises to friends is important:
Response	:	It is important to keep promises to friends because <u>I wouldn't want someone to not keep a promise</u>. (Scored as 2.5)
Matching response in SRM-SF Manual	:	I wouldn't want someone to not keep a promise that they promised me (Stage 2(3), No. 11, p. 156).
Question #2	:	(Contract: Anyone) - Keeping promise to anyone is important:
Response	:	It is important because <u>they would respect me</u>. (Scored as 2.5)
Matching response in SRM-SF Manual	:	I want them to respect me (Stage 2(3), No. 12, p. 157)
Question #3	:	(Contract: Children) - Keeping promises to one's children is important:
Response	:	It is important because <u>a child depends and trusts them</u>. (Scored as 2.5)
Matching response in SRM-SF Manual	:	because a child depends on their parents and trusts them (Stage 2(3), No. 4, p. 158)
Question #4	:	(Truth) - Telling the truth is important:
Response	:	It is important because <u>you may lose some friends if they happen to find out</u>. (Scored as 2.5)
Matching response in SRM-SF Manual	:	if someone finds out you may lose some friends (Stage 2(3), No. 11, p. 159)

At the transitional 2(1) stage of moral maturity (lower than stage 2 but higher than stage 1), 10% (n = 2) of the respondents were from the high achievement group while 20% (n = 2) of the respondents were from the average group and 15% (n = 1) of the respondents were from low achievement group. The results show for all the three academic achievement groups. Some respondents were reasoning at transitional 2(1) stage of moral maturity. This means that although they were reasoning at stage 2, they were also reasoning at a lower stage that is stage 1.

In conclusion, it can be said that although the respondents were categorised at absolute stages of reasoning (for example stage 1 and 2) there are some respondents who were reasoning at transitional stages of moral maturity; either at the transitional stage between stage 1 and stage 2 or stage 2 and stage 3.

U-scores in the SRM-SF Responses

Analysis on questions asked on the SRM-SF showed that all respondents did not obtain score for all 11 of the questions attempted. Some of the questions were scored "U" when analysing the data (see page 40). It was found that although all respondents attempted 11 questions only 23.3% (n = 14) of the respondents were scored for a range of 9 to 11 questions. This means that these respondents obtained "U" score for a maximum of two questions. About 63% (n = 38) obtained scored from 6 to 8 questions, implying that they obtained "U" score for 3 to 5 questions in the SRM-SF. 13% (n = 8) of the respondents managed to score a range of 3 to 5 questions thus obtaining zero score for 6 and 8 questions (see Table 4.7).

Table 4.7

Range of Questions Attempted by Respondents

Range of Questions attempted	Respondents (n)	%
11 - 9	14	23.3
8 - 6	38	63.4
5 - 3	8	13.3
2 - 0	0	0

The "U" score in the SRM-SF were given by the researcher for the following reasons:

(i)   The respondents' answers could not be found in the manual.   For example: It is important for people to keep promises to anyone because I don't want them to hurt me (Question 2). The respondent was given u because moral reasoning given by the respondent was not found in the manual. Response given by the respondent can actually be placed at stage 1.

(ii)   When there were incomplete answers. For example: It is very important for a person to save the life of a friend because we must try to help him if he can... (Question 7). Response given by the respondent could not be staged because it is incomplete.

(iii)   When the respondents did not give any reasons but merely echoing the question responses. For example: It is very important for a person to save the life of a friend because he is my friend.   The response given was awarded "U" (see Gibb et al. manual p. 163).

(iv)   The responses were ambiguous or unclear.

For example: When someone does not want his life and I save him from
dying, the person will be grateful to me for saving his life.

In all questions attempted by the respondents, "U" score were obtained as
summarised in Table 4.8. For example, 10% (n = 6) of the total respondents were
given "U" score for question 1 and for question 2, 50% (n = 30) of the respondents
were given "U' score. Among the questions asked, the questions with the most "U"
score as shown in Table 4.9 are Question 6 (51.7%), followed by Question 2 (50%)
(see Appendix A for questions asked). On the other hand, as shown in the same
table (Table 4.8) the question with the least "U" score are question 1 (10%) and
followed by question 3 (15%) (see Appendix A for question asked).

Table 4.8

Total Number and Percentage of Respondents
Score U for all the Question Attempted

Question	U-Score of Academic Achievement Group			Total U-Score	%
	High (n)	Average (n)	Low (n)		
1	0	2	4	6	10.0
2	6	11	13	30	50.0
3	2	3	4	9	15.0
4	7	9	9	25	41.7
5	3	6	4	13	.21.7
6	7	11	13	31	51.7
7	4	10	11	25	41.7
8	7	10	9	26	43.3
9	7	7	6	20	33.3
10	6	8	11	25	41.7
11	6	4	11	21	35.0

Among the three different academic achievement groups, it could be seen that in most questions there were more u score among the low achievement group compared to the high and average achievement groups. It can thus be said that the low achievement group perhaps faced greater difficulty in expressing their reasons in writing compared to the high achievement group.

An analysis on the u scores for questions obtained individually indicated that there was a range of scores obtained by a respondent.

Table 4.9

An example of a respondent's score obtained in
Response to SRM-SF Questions

Question	Score obtained
1	2.5
2	0
3	3.5
4	0
5	2.5
6	2.0
7	4.0
8	3.5
9	1.5
10	4.0
11	1.5
Total score	25
Mean Global Stage	2.78

For example, from Table 4.9, a respondent R # 1 scored "U"; for questions 2 and 4. However, he managed to score a maximum of four for question 7 and 10. What this means is that respondent was capable of reasoning at stage 4 in some questions

although his mean global stage was 2.78. The global stage score thus could "mask" the capabilities of a respondent reasoning at a higher stage of moral maturity than the assigned global stage level.