

CHAPTER 4 PRESENTATION AND DISCUSSION

4.1 Introduction

In line with the focus of this study, the data gathered from the subjects will be analysed to see if there is any relationship between cultural familiarity, reading habits and prior knowledge in influencing schema in understanding the reading text.

In an attempt to achieve this the 16 subjects who participated in this study were given a recall assessment. The subjects were asked to read two texts and retell the content of the text orally. After retelling the two texts, they were also given a questionnaire to answer. The data obtained from the analysis of the questionnaire would give an indication about the reading habits which has an influence on prior knowledge. The prior knowledge of the subjects and their reading habits would help the subjects understand the reading text. The subjects in this study were given a semi structured interview. The purpose of the interview is to establish that the subjects have related prior knowledge to understand the text. The interview would also bring to light cultural familiarity in understanding the text.

4.2 The effects of cultural familiarity, reading habits and prior knowledge of high and low achievers in the recall protocol

Table: 1. High achievers. Recall Protocol Assessment.

Recall/ Retell		S 1	S 2	S 3	S 9	S 10	S6	S7	S 11
Top Spinning	Frequency	29	26	24	28	26	20	22	26
	count	91%	81%	75%	87%	81%	62%	69%	81%
Curling	Frequency	20	20	16	14	16	08	08	16
	count	57%	57%	45%	41%	45%	22%	22%	45%

Six of the subjects depicted in the Table 1, above scored over 70% in the recall protocol assessment of the familiar text, “Top Spinning”. It appears that several mediating factors acted as a catalyst in aiding the six subjects to obtain a higher frequency count in the recall assessment in the “Top Spinning” text as compared to the text on “Curling”. Although traditional top spinning is a Malay cultural sports event associated with the Malay race in Malaysia. Subjects 1, 2, 9 and 11, who scored amongst the high frequency count on the recall / retell assessment on the top spinning text are not from the Malay race. Therefore it can be inferred that, these subjects, being Malaysian are able to recall the text with accuracy, indicating that they have been exposed to the tradition of the Malay culture. This exposure can be assumed to have taken place through their reading habits. Most of them have indicated that they read fiction, travel magazine and newspaper for more than one hour per day. Reading enhances the accumulation of prior knowledge. Subject 3 and subject 10 had indicated in the questionnaire that they had played the game before. Thus when they were reading the text, the information stored in their schema had been activated to understand the text. Grabe (1991:390) in his research on the implication of schema in understanding reading text has indicated that “students need to activate prior knowledge of a topic before they begin to read”. If the subjects do not have adequate schema then the reader is unable to engage in successful top-down processing of information read.

The subjects’ personal experience, which was indicated in their answer to the questions in the semi-structured interview, had activated content knowledge, which helped them to understand the text. Hence it can be concluded that these subjects possessed in their schema the necessary cultural knowledge to understand the reading text. Along the same vein, Nunan (1991:70) posits that, “apart from the cultural

familiarity of the content of the text, the readers' motivation and prior knowledge together with the decoding and linguistic skills are necessary to understand the text". In support of this notion, the subjects indicated that they read for more than one hour per day. Hence, it is assumed that the subjects have accumulated a wealth of prior knowledge, which was drawn upon to understand the text. To strengthen this notion, Nunan (1991) states:

"Reading is a dynamic process in which the text elements interact with the other factors outside the text; in this case most particularly with the readers' knowledge of the experiential content of the text"
(Pg: 70)

Therefore, apart from cultural familiarity it can be concluded that the reading habits have an effect on the accumulation of prior knowledge which would help the reader (subject) in understanding a reading text. All the subjects in this group depicted in Table 1, indicated that they found the text on top spinning interesting and easier to understand. The possible reason for their interest could be related to their personal experience as stated in the response to the interview question. Why did they find this particular text interesting? Some responses were

Subject 1 "... I seen it on T.V."

Subject 2 "... It is a local sport"

Subject 3 "... Like to play top"

A further indication that students were able to recall the text with greater accuracy is because the subjects stated that they were able to picture the top-spinning event in their mind. This is a clear indication that their schema had been activated and related to prior knowledge accumulated through reading or seeing the top spinning competition.

The data gathered gives an indication that the socioeconomic status of the subject's family could play an important role in encouraging the reading habits among

the subjects in this study. Most of the subjects who were able to retell the text with greater accuracy were from families whose income was in the higher and middle-income group. This categorization was made based on the father's and mother's occupation. Greaney (1988:6), (citing Hessard and Halloway, 1984) says that, "home factors contribute substantially to reading achievements". In another similar study Greaney (1980) indicates that students from low-income families do not read very much and home prior as measured by socioeconomic status is related to children's leisure reading. Hence it can be concluded that the subjects mentioned in this section of the study come from high and middle-income families and therefore read more as indicated in the questionnaire that they read for more than one hour per day.

Therefore, it can be assumed that avid readers have a greater advantage because they are likely to possess cultural familiarity and content familiarity of the reading texts. Another factor, which could greatly enhance understanding, is language proficiency and prior knowledge.

Table 2. Low achievers. Recall protocol assessment.

Recall/ Retell		S 4	S 5	S 13	S 14	S 15	S 8	S12	S 16
Top Spinning	Frequency	18	17	14	14	12	14	15	17
	count	56%	53%	43%	43%	37%	43%	46%	53%
Curling	Frequency	10	12	07	10	08	10	10	08
	count	28%	34%	20%	28%	22%	28%	28%	22%

All the subjects scored below 20-recall pausal / ideas in the recall protocol assessment. This group of subjects appears to have poor reading habits, as indicated in their response to the questionnaire. Subjects 4, 14, 15 and 16 have indicated that they did very little reading and they had never read books or newspapers. The subjects in this group also indicated that they spoke predominantly in their L1 or in the Bahasa

Malaysia. They indicated in the questionnaire that they did not like to learn the English Language. However they scored higher in the familiar text, (top spinning) as compared to the unfamiliar text of (curling).

Roller and Matambo (1992) are of the opinion that bilingualism helps improve comprehension of some passages in the target language because readers use prior knowledge acquired in one language and apply it to another. These readers could have had prior knowledge about the familiar text.

However in this instance, cultural familiarity appears to be an important factor in enabling the subjects to understand top spinning text. The subjects have indicated that they were able to understand the content of the top spinning text due to their personal experience of seeing the game on television and also had played a similar version of the traditional game with friends. The subjects in this group indicated that they were able to picture in their mind the game of top spinning but not the game of curling. This understanding was demonstrated when subject 16 was asked;

Question: "What is the rope used for?"
Subject 4: "rope tie...ah...use to tie something...ah ..top"

Question: "Where is the game played?"
Subject 4: "On the.... the ground (pause) earth. "

This indicates that the subject in this group has prior knowledge of the game of top spinning, which originated from the Malay race. The cultural familiarity is also believed to be a factor, which helped the subject understand the top spinning text. Their lower achievements in the recall assessment could be attributed to their low proficiency levels as indicated in their PMR results.(low achievers obtained grade D in their PMR examination)

All the subjects in this group indicated they did not understand the context of the second text (curling) and hence were unable to recall the content as

compared to the text on “top spinning”. We can deduce that cultural familiarity appears to play a role in enhancing the understanding and recall of a reading text. The lack of cultural familiarity or prior knowledge was further confirmed when these subjects were asked if they could picture the events portrayed in the second text, the subjects indicated they could not.

Another possible reason for the subjects’ low achievements in the recall protocol assessment could be attributed to their minimal reading time daily. These subjects indicated that they read for less than one hour per day. Subjects in this group obtained grade D in the PMR examination for their English Language assessment. This indicates that their language proficiency is low. The low language proficiency could be a hindering factor for them to cultivate the reading habit. As a result of poor reading habits their prior knowledge also is limited.

The subjects’ recall protocol marks and their poor reading habits seem to correspond with the findings of a study carried out by Mokhtari and Sheorey (1994). In the study they observed the reading habits of ESL students with high and low achievements in English and focussed on the time spent on reading of academic and non-academic reading materials. It was revealed that the subjects in the study, who had high achievement scores in assessments, spent considerably more time reading than did those with lower achievement scores in assessments. Hence, it can be assumed that the subjects who spent lesser time reading also possessed little content knowledge about the context of the two texts. Roller and Matambo (1992) state the importance of understanding context of a reading text in order to understand the content. They bring to light the notion that low language proficiency levels would impede the understanding because the reader cannot predict the context of a reading text. Clarke (1979) is of the understanding that limited language proficiency would

hamper understanding and creates a situation where understanding stagnates at a certain point.

Three of the subjects, Subject 4, 5, and 15 indicated that they had seen the game of top spinning but not the traditional top spinning competition. Therefore, it is assumed that the prior knowledge the subjects had about the context of the text had made them understand the top spinning text to some extent as compared to not understanding the second text, "Curling". Cooper (1993) puts forth the notion that, "The construction of meaning is a personal process in which each reader will develop his or her own interpretation from the text". In line with Cooper's views, subject 15 was asked,

Question: "What do you think Lawn Bowls are?"

Subject 15 : "Lawn bowls...ah...bowls...mangkuk"

Subject 15 interpreted the meaning of the word "bowls" into his L1 (Malay language) and answered as "mangkuk" which meant a type of plate. Therefore, subject 15 who had low achievement in the recall protocol had attempted to understand the second text by translating the meaning into the subject's L1. This method had given the subject the wrong understanding of the text. The subject's lack of prior knowledge had distorted the understanding of the text seriously. Due to the lack of prior knowledge the subjects would have resorted to text-based (bottom up) processes to understand meaning. The subjects would have related the information that appears in the print form to whatever schema he possesses in his mind to come up with some form of logical understanding of the text. Hence in applying this procedure, confusion arises in understanding the text. As a direct consequence of this, the subjects in this category had obtained very low marks in the recall protocol assessment. Interference from the subjects L1 can be assumed as a serious threat to the process of understanding a text in the English Language.

From the questionnaire, which was given to them, it was observed that most of the subjects in this group had indicated that they spoke predominantly in their L1. They also indicated that they had very little opportunity to read any text in the English Language. The subjects in this group had activated the wrong schema. Hence the cause for subject 15's, interpretation of the word "bowls" as "mangkuk." The subject would have learnt the word "bowl" in a different context and applies the meaning universally to all other instances when he comes across the similar sounding words.

In the same vein, Beard (1991), state that,

"...literacy learning differs profoundly from the learning of the mother tongue"
(pg:233)

As a result of this phonological similarity the subject chose to apply the meaning available in his schema to the word appearing in the reading text.

4.3 Gender influence upon recall protocol

Table: 3. Female subjects. Recall protocol assessment.

		S 6	S 7	S 8	S 9	S 13	S16	S12
Top Spinning	Frequency	20	22	14	28	14	17	15
	count	60%	60%	43%	87%	43%	53%	75%
Curling	Frequency	08	08	10	14	07	08	10
	count	22%	22%	28%	41%	20%	22%	28%

There were seven girls and nine boys as subjects in this study. The two expository text used in this study depicts two competitive sporting activities. The assumption is that texts depicting the content of a sporting activity, which is predominantly played by men, would appeal more to the male subjects. However, the aim of this study is to gauge if subjects possess cultural familiarity and the influence of their schema in aiding the understanding of the reading text. The analysis of the

data collected revealed that several other factors, apart from interest in sports, played a role in influencing the female subjects performance in the recall protocol assessment. The situation was different when the data representing the male subjects recall protocol was assessed. Although, the male subjects performed slightly better than the female subjects there were several factors which caused this differences. As the data shows, there seem to exist some differences in the achievements of the male subjects in the recall protocol assessment.

Subjects 6, 7, and 16 indicated that they were not familiar with the “curling” competition and they were unable to picture it in their mind. This indicates that the subjects had no prior knowledge in their schema to be activated in order to help the subjects to understand the text. Although the subjects indicated that they read daily, but their reading materials were in the fiction category, mainly story books. However, subject 9, who obtained high recall marks indicated that she reads daily for more than two hours and in a variety of topic areas. Hence, this could be an indication that those who have a healthy reading habit appear to possess more prior knowledge which could help them understand reading texts.

The female subjects also indicated that they used their L1 extensively to converse and also to read fiction books in their L1. Hence it can be assumed that when L1 is predominantly used, this can hinder the understanding of reading texts in the English Language. However, some of the female subjects had indicated that they had seen the game of top spinning being played on the television and subject 6 indicated that she had seen the game being played in her neighbourhood. Their personal experience had activated their schematic knowledge and hence it can be inferred that cultural familiarity helped the subjects in this group to understand the

spinning text which is a traditional Malay game but could not understand and the unfamiliar text on “Curling” which is played in Scotland and England.

The SES of the female subjects also does not seem to influence recall abilities. Four of the subjects in this category are in the low SES category and three are in the middle SES category. Subject 9 and 7 in this group achieved 20 marks for the recall protocol assessment on the top spinning text. Here again these two candidates indicated the time-spent reading as more than two hours. Therefore, we can assume that, apart from cultural familiarity and prior knowledge, reading habits could also influence the understanding of a reading text. Subjects 6, 9, 12 and 13 had indicated that they had seen a similar version of traditional top spinning being played and one subject indicated that she had read about it in a magazine. Among the four subjects who indicated that they had seen or read about top spinning, two of them, subject 9 and subject 12 scored well in the recall protocol assessment of the top spinning text. They indicated that they had either seen the game being played or read about it. This could mean that schematic knowledge had influenced content familiarity, which was a factor in aiding the subjects to achieve the grades in the recall protocol assessment.

Table: 4. Male subjects. Recall protocol assessment.

		S 1	S 2	S 3	S 4	S 5	S10	S 14	S11	S 15
Top Spinning	Frequency	29	26	24	18	17	26	14	26	12
	count	91%	81%	75%	56%	53%	81%	43%	81%	37%
Curling	Frequency	20	20	16	10	12	16	10	16	08
	count	57%	57%	45%	28%	34%	45%	28%	45%	22%

The data obtained for the male subjects in this study indicated that the male subjects scored higher than the girls did in the recall protocol assessment of the familiar text. One possible reason could be the content of the text-depicted games

predominantly played by men and therefore was more interesting to the male subjects. Another indication is the questionnaire revealed that the subjects in this category read text relating to different topics such as, sports, world news, fiction books and non-fiction books. Hence it can be inferred that the male subjects had more relevant prior knowledge in their schema which was activated when reading the two texts. Another factor, which could have influenced the higher achievement in the recall protocol assessment, is the time spent reading by the male subjects as compared to the female subjects. Three of the male subjects came from high SES families, three from middle SES families and three came from low SES families. The recall protocol assessment did not indicate any glaring differences in achievements amongst high and middle SES subjects. However, there appears to be a difference when the achievements of the two categories mentioned earlier was compared with the achievements of the low SES male subjects. Subjects from the low SES, indicated spending less time reading the difference of time spent reading, which could also affect language proficiency, and prior knowledge appears to contribute to this difference.

4.4 Recall assessment according to race

Table: 5. Recall assessment according to race.

Indians.		S 1	S 2	S 4	S 11	S 14
Top Spinning	Frequency	29	26	18	26	14
	count	91%	81%	56%	81%	43%
Curling	Frequency	20	20	10	16	10
	count	57%	57%	28%	45%	28%

Chinese		S 7	S 8	S 9	S 13	S16
Top Spinning	Frequency	22	14	28	14	17
	count	69%	43%	87%	43%	53%
Curling	Frequency	08	10	14	07	08
	count	22%	28%	40%	20%	22%

Malays		S 3	S 5	S 6	S10	S12	S 15
Top Spinning	Frequency	24	17	20	26	15	12
	count	75%	53%	62%	81%	46%	37%
Curling	Frequency	16	12	08	16	10	08
	count	45%	34%	22%	45%	28%	22%

The recall protocol assessment data was tabulated according to the race of the subjects. The assessment of the recall protocol according of the three different races would give an indication if the different races in Malaysia are culturally familiar with the tradition of one another. This will also bring to light if the subjects are culturally familiar with a foreign culture depicted in the second texts.

The indications are the Indian and Chinese subjects faired similarly as their Malay subjects in the recall protocol assessments. There was not distinct indication that subjects from a particular race were more culturally familiar with either one of the text. Amongst the high recall subjects there were, two Malay subjects, three Indian subjects and one Chinese subject who scored more than 22 marks in the recall protocol. Therefore it can be inferred that the subjects from the different races had some amount of cultural familiarity of the traditional game of top spinning when reading the text. Another noticeable factor, which could have contributed to the cultural familiarity and existence of prior knowledge in the subjects of the various races, could be their reading habits. The number of hours spent reading by the

subjects in this study corresponds with the marks they obtained in the recall assessment. Those who spent more time reading were able to score higher recall marks. Based on this relationship between time-spent reading and its influence on cultural familiarity, the findings indicate that reading habits had a positive effect on the subjects recall ability. Their reading habits had exposed them to the various cultures existing in Malaysia. Most of the subjects in the high achiever category indicated that they had read about top spinning in magazines or books and travel brochures. Due to this cultural familiarity, the subjects were able to picture in their mind the game of top spinning and hence were able to recall the text in the recall assessment. The subjects from the three different races also indicated that some of them were exposed to the game of top spinning through the media. Some had indicated that they had watched it on television while others had related the text to their experience of playing with tops as children. Therefore there is an indication here that schema present within the subjects had helped them to recall the content of the text.

It can be safely assumed that culturally familiarity and the acquiring of prior knowledge can be inculcated in our students by introducing text depicting the traditional values of various different ethnic race found in Malaysia. By doing so students will have cultural familiarity as well as prior knowledge of the different races in Malaysia.

4.5 Discussion

The findings of this study should be viewed within the limitation of the present study. The influence of schema upon the subjects recall protocol should be viewed in a wider context. The role of cultural familiarity, having adequate prior

knowledge and the subjects' reading habits appear to effect the understanding of reading texts. Whatever conclusions that have been drawn is still tentative and needs the support of future research.

The analysis of the data seemed to indicate that:

- 1) Cultural familiarity had a positive effect on the overall understanding of the reading text. There was positive indication that the subjects were able to activate their schema in attempting to understand the reading text.
- 2) Subjects with good reading habits indicated that the texts was within their level of understanding as compared with readers who did not spend much time reading. Time spent reading appears to correspond with their achievements in the recall protocol assessment. Subjects who read more tend to recall more ideas when they read and recalled the text orally.

4.6 Cultural familiarity and its effects on understanding reading text

Several studies which have been carried out, indicate that prior knowledge which the subjects (reader) have about the content of a reading text appears to have a positive effect on the reader's understanding of the content of the text (Alderson & Urquhart 1988). The notion put forth by various researchers is that the reader is able to activate relevant prior knowledge about the content (content schemata) which is held within their schema to facilitate the understanding of the text. Therefore, based on this notion, it can be concluded that the meaning making process is not solely derived from the print appearing on the page but meaning lies within the reader who precisely matches the input with prior knowledge to understand the text (Carrell 1984). A reader who does not have adequate schemata is not able to engage in holistic understanding of the text (top-down processing). Therefore when the reader is not

able to understand the holistic meaning of the text, the reader will resort to other means of understanding the text. In this case the reader might deploy the bottom up processing technique. The reader relies heavily on the print in the text to make meaning and tries to match his/her limited schema to the words to derive meaning. Translating the words into similar sounding words in his/her L1 to derive meaning. Hence the reader will make an interpretation which is not similar to that of the writer's of the text. Therefore it can be noted that if the reader does not have adequate schematic knowledge about the topic he/she will rely on wrongly matched schematic knowledge and thus derive a grossly distorted meaning of the text. The instance of matching words to wrong schema, in this case schema derived from their L1 was evident in Subject 15's response. The subject mentioned that he had related the word to schema in the L1 and hence found difficulty in understanding the text.

Another aspect of this study, which is worth mentioning, is the effect of cultural familiarity derived by subjects belonging to different ability groups. The data gathered shows that overall performance of the subjects (good and poor subjects) was better in the top spinning text as compared to the curling text. Subjects who had good reading habits appeared to have derived more benefit in understanding the texts by the relating of cultural familiarity to their prior knowledge. The high recall protocol achievers who indicated that they possessed prior knowledge about the top spinning text and read considerably longer daily, is believed to have contributed to greater language proficiency. It was also noted that these subjects had scored better recall grades in the second text (curling) as compared to the low achiever's' recall scores in the first text. Hence, it can be inferred that apart from prior knowledge, language proficiency is also a crucial determinant of understanding a text. One possible explanation why good readers scored higher grades in the recall protocol could be

attributed to the notion that, efficient and effective reading requires the reader to possess both language proficiency and adequate prior knowledge. The combined operation of superior language proficiency levels and enhanced prior knowledge, which the reader possesses effectively, enables top-down and bottom up processing. Therefore, even if the low achievers in the recall protocol assessment had possessed relevant prior knowledge, it is believed that their low language proficiency could have hindered their recall of the content of the texts. Clarke (1979) makes the remark that the limited proficiency of a reader could limit the understanding capabilities when reading a text.

In conclusion, with the general assumption made by researchers regarding the effects of cultural familiarity and prior knowledge aids in the understanding of reading texts. There appears to be another crucial factor that enables these aspects mentioned above to work in tandem to further enhance understanding. Language proficiency is a crucial component of effective and beneficial reading. Language proficiency interacts with prior knowledge and cultural familiarity to enable simultaneous top-down and bottom up processing which is crucial in understanding reading text.