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UNIVERSITY OF SOUTHAMPTON

FACULTY OF HUMANITIES

DEPARTMENT OF MODERN LANGUAGES

**Reading across the curriculum in a bilingual
context: Reading strategy use in three upper
secondary schools in Brunei.**

by

Rahmawati Binti Haji Bolhassan

PhD (Modern Languages)

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UNIVERSITY OF SOUTHAMPTON

ABSTRACT

FACULTY OF HUMANITIES
DEPARTMENT OF MODERN LANGUAGES

Doctor of Philosophy

READING ACROSS THE CURRICULUM IN A BILINGUAL CONTEXT: READING STRATEGY USE IN
THREE UPPER SECONDARY SCHOOLS IN BRUNEI.

by Rahmawati Haji Bolhassan

The students in the Brunei mainstream education system eventually learn most subjects in English, which is not the first language for most of them. Reading in English is valued as it provides access to knowledge across the curriculum for the majority of students in Brunei as elsewhere too. Reading both for comprehension and learning are two areas of interest in this study. This thesis looks at the strategy use of (upper) secondary students of different abilities from three schools in Brunei when reading their academic materials in English. It aims to compare reading strategies the students used and which strategies the teachers taught (the use of) in two subject areas: English Language and Content Subjects.

Adopting both quantitative and qualitative approaches, data was primarily collected from upper secondary students in three schools in Brunei; one of which consists of high ability students while the other two schools have mixed ability students. In the quantitative part of the study, students responded to the questionnaire on the perceived reading strategies used when reading. In the qualitative part of the study, twenty five students participated in semi-structured interviews where ten of them did a think-aloud reading activity.

In terms of reading strategy use, the quantitative results showed that students employed cognitive reading strategies more than metacognitive strategies when they read in English. The qualitative results also revealed that students of different ability groups, in general did not differ greatly in the types of strategies they used. However, the frequency in the use of strategies and in the elaboration and execution of these strategies do vary among the students and across the two subject areas. Findings of the study further suggest that; (a) reading in the two subject areas differ in the emphasis of reading strategies, (b) ability may contribute to the differences in strategy use among students in the two subject areas.

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Doctor of Philosophy

DECLARATION OF AUTHORSHIP

I, Rahmawati binti Haji Bolhassan, declare that the thesis entitled.

Reading across the curriculum in a bilingual context: Reading strategy use in three upper secondary schools in Brunei.

and the work presented in the thesis are both my own, and have been generated by me as the result of my own original research. I confirm that:

- this work was done wholly or mainly in candidature for a research degree at this university;
- where any part of this thesis had previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
- where I have consulted the published work of others, this is always clearly attributed;
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- I have acknowledge all main sources of help;
- Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
- None of this work has been published before submission.

Signed:.....

Date:.....

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TERMINOLOGIES/DEFINITIONS

In this study, the following terms, presented in alphabetical order will be applied:

Background Knowledge

It refers to knowledge and experience readers have which they used to determine the meaning of unknown words as well as to explain, extend, and clarify content. It also refers to content knowledge readers have previously read or learnt in their classes. In this study, the terms prior knowledge is sometimes used interchangeably.

Bilingual Education

It refers to Brunei bilingual educational policy by which both Malay and English are taught and employed as media of instruction.

Cognitive strategies

Strategies that are used to help in achieving a particular goal. They operate directly on the information in hand, manipulating it to enhance comprehension and in understanding of a text. This includes summarizing, visualizing, making deduction, referring to pictures and illustrations in text etc.

Content Subject (CS)

Subjects other than English Language in schools. In this study the term is used to refer to subjects taught and learn through English. These include Sciences subjects, Geography, History etc.

English as a Second Language (ESL)

English is not the first language of students in Brunei. However, being a predominant language of communication in Brunei, it is being taught and learnt in schools. In this respect, it is considered as ESL in Brunei.

English Language (EL)

It carries two meanings: As a language used as a medium of instruction in education.

Secondly, English Language as a subject which students learn in school.

Unless stated, the term 'English Language' refers to the subject.

First Language (L1)

It refers to a language that is one's home language. The terms first language and home language was used interchangeably in this study.

Lower Secondary

The first three years of secondary education after the completion primary school assessment (PSR), usually at around 12-14 years old. The students in this study, at the end of their lower secondary education, they have sat for the lower secondary assessment (PMB) to be able to proceed to upper secondary level.

Malay

It carries two meanings: As a language used as a medium of instruction in education and a subject.

Secondly, Malay as one of the ethnic groups in Brunei, often called Malay race.

Unless stated, the term 'Malay' refers to the language

Reading

In this study, reading is defined as the activity by which information from the text is processed for academic-related purposes, usually to access the content of the text. It does not include looking at aspects of reading such as critical reading. It merely focuses on information processing activity from a text.

Reading Across the curriculum

Refers to reading related activities during classes in subjects which are taught and learned in English. It includes students reading strategy use and reading instruction in general.

Reading for comprehension

Seen as the most basic purpose for reading, underlying and supporting other purposes of reading (Grabe & Stoller, 2002; p14). In this study it means the ability to understand and extract the meaning conveyed in the written text, usually by producing answer to the questions set for the text.

Reading Instruction

In this study, it covers both the learning and teaching of reading strategies in the classroom contexts.

Reading in English

It refers to a reading activity that was carried out for texts written in English. In this thesis it mostly refers to academic reading for textbooks written in English.

Reading Strategies

In this study they referred to activities that students employed in their reading as a way to access the information from the text they read. It involves deliberate, goal-oriented attempts – mostly conscious mental or behavioural activities directly or indirectly related to reading in order to extract meanings from the text.

Reading to learn

Typically occurs in academic contexts in which one needs to learn a considerable amount of information from a text. It involves activities to remember main ideas as well as details. It also includes to 'recognize and build rhetorical frames that organize information in the text and to link the text with the reader's knowledge' (Grabe & Stoller 2002; p13).

Schema

It refers to a body of knowledge, general or content specific which readers refer to when they read. It also used in a similar context as prior or background knowledge.

Second Language (L2)

It refers to a language which is usually learned or is being learned following the first language.

Upper secondary

A two year secondary education which students do (usually around the age of 15-17 years old) after completing the lower secondary assessment. At the end of this upper secondary education, students will sit for an examination set by the Cambridge Examination Board (BGCE O level Examination).

ABBREVIATIONS

BGCE 'O' LEVEL	-	Brunei General Certificate of Examination Ordinary Level.
CDD	-	Curriculum Development Department
CS	-	Content Subjects
EL	-	English Language subject
ESL	-	English as a second language
L1	-	First Language
L2	-	Second Language
MOE	-	Ministry of Education
MORA	-	Ministry of Religious Affairs
PMB	-	<i>Penilaian Menengah Bawah</i> (Lower Secondary Assessment)
PSR	-	<i>Penilaian Sekolah Rendah</i> (Primary Education Assessment)
SORS	-	The Survey of Reading Strategies Instrument
SPN21	-	<i>Skim Pendidikan Negara Abad ke 21</i> (21 st Century National Education System)

Chapter 1

INTRODUCTION AND BACKGROUND

1.1 Introduction

Reading has always been an area of interest to me, especially reading in English (one of the two languages of education in Brunei Darussalam) among students in the Brunei context. The interest in looking at reading instruction at the upper secondary level in Brunei was as a result of my experience teaching at this level and following a previous Masters study I carried out with lower secondary students. English is one medium of instruction, alongside Malay (*Bahasa Melayu*). *Bahasa Melayu* is the official language of Brunei while English is used as a second language and is spoken and understood by the majority of the population. It is worth noting here that Brunei, although a very small country, displays great linguistic diversity.

When I was first given the responsibility to teach English to upper secondary students, I found that many of my students were struggling with the reading texts we had during English lessons. It made me wonder how students were coping with their reading for their content subjects, especially when most of the subjects were taught and learned through English as the medium of instruction which was not their mother tongue. Reading is an important skill and fundamental to success in academic achievement. It can be regarded as an important 'tool' in the sense that it affects most aspects of the students' learning in school. The students' success in school depends on how much they are able to understand, learnt and acquired from what they have read in different subject areas. It is because of this that I feel intrinsically driven to find out more about reading strategies used and/or taught (the use of) in the classrooms. At the same time, I am also interested to explore the reading strategy use of these students in subjects across the curriculum.

Reading and writing are the major tools for learning in any subject, and consequently reading forms the basis of all learning. These skills help learners learn how to learn. So these must be used in every classroom, regardless of discipline or subject areas, at every grade level, and in every school to provide the application and practice necessary for students to become effective learners. Unlike content subjects,

reading is explicitly tested in English Language (and also Malay Language) subjects. Students, across all levels in Brunei have to do reading comprehension test or examination for these two subjects where they have to do actual reading during the exam. Their comprehension was then tested through a series of questions based on the reading text that they have read during the test / examination. Content subjects, on the other hand only required students to recall or rewrite what they have read for the subjects before the test or examination period. In this respect, reading was not directly tested in Content subjects. However, it can be argued here that before they are able to do their tests or examination, the students have to actually 'read' their Content subjects' textbooks. This means that the students are not only expected to comprehend but have to learn, retain and recall what they have read. The content that they have read prior to the examination is tested by rewriting and recalling the content that they have read. Therefore, how the students read to learn is what the study wishes to look at in order to explain how students learn from what they have read.

According to Cooper, Warncke & Shipman (1988), reading is not merely decoding words but it is actually a process of constructing or processing meaning. Reading does not occur unless comprehension takes place or meaning is constructed and as such the ultimate goal of reading is to process meaning and comprehend a text. In this study, reading does not stop at the ability to comprehend but also include how to learn from what was read. To be able to read and comprehend is essential for students, especially at the secondary levels in order for them to access information from their content area subjects (Science, Geography, History and Mathematics). Bruneian students are mostly students of English as a second language (or even English as a foreign language to many) have to read a large volume of academic texts in English (Yong, 2010, Rosmawijah 2009, Sarifah 2005). Reading and writing are the two language skills which were given more emphasis in English Language classrooms in the local context because these two skills are tested in the BGCE 'O' Level English Language Examination papers which students have to take at the end of their secondary level.

Of the two skills stated above, reading is the focus in this study. Due to the enormous reading the secondary students were supposed to do for their subjects especially the content subjects and assuming that the students have a repertoire of reading strategies, it was initially intended not only to look at which reading strategies were used by the secondary students but also how often and how well these strategies were used and taught (the use of) in the classes across the curriculum. The study, however, is really of the former, looking at the strategies use of students.

1.2 Background of the study

Reading in English, in Brunei as elsewhere, is valued because it provides access to knowledge across the curriculum. The emphasis on reading in English in the Brunei education context begins early in pre-school education, at the same time as reading in Malay (*Bahasa Melayu*) and is continued to secondary school. We will look at the role and function of these two languages in Brunei, especially in education, in Chapter 2 (see section 2.5). Reading is an essential skill needed for English language as a subject (Curriculum Development Department, 1996; 2004; 2008) and it can be assumed that the same applies for the learning of content subjects such as Science, History and Geography. This study is conducted to investigate what actually happens in upper secondary classrooms in Brunei, both in language and non-language classes as far as reading (instruction) is concerned. It also looks at reading strategy use of students. Further elaboration of the educational system in Brunei and the languages of education are necessary to the background and context of this study and therefore will be further outlined in Chapter Two.

The underlying aim of the Brunei education system is for students to be able to follow the school curriculum both in Malay (the national language) and English (the second language), using all four language skills (reading, writing, listening and speaking) (Rahmawati, 2001). Of these skills, I always perceive reading, especially in secondary education in the Brunei context, as an important and vital tool for

students to succeed. This is mainly because, to be able to read in English is essential for Bruneian students in order to access information in their content subjects (e.g. Science, Geography and Mathematics). Personally, I believe that reading in English is further intensified in upper secondary level, not just for the English Language itself but especially for content subjects. This is because in content subjects, apart from reading comprehension, these subjects further required students to read and learn the content.

The English language syllabus (CDD 1996; 2004; 2008) for primary and secondary schools in Brunei indicates the importance of reading and it is my hypothesis that language teachers and teachers of other subjects need to work together to ensure that students are getting the assistance they need to improve their reading skills and to enable them to cope with their academic studies. The ability to read is a skill that all students must acquire in order to be successful in school. Reading skill is considered important to learn from the text, especially for the content area subjects, because it makes available resources for higher –level processing (e.g., Perfetti, 1985). According to Grabe (1991), reading is an essential skill and probably the most important skill for second language learners to master in academic contexts. Since reading comprehension has been distinctively important in first and second/foreign languages, reading strategies are of great interest in the field of reading research. In this study, I look at reading strategy use in both subjects' areas to provide information about what goes on in these two types of classes in order to contribute a better understanding on what happens in English Language classes and Content subject classes. The study will therefore describe the use of reading strategies for comprehension and for learning in the upper secondary classes in Brunei.

It seemed that many students when entering (upper) secondary education and eventually pre-university and university education were often underprepared for the reading demand placed on them (Dreyer & Nel, 2003 in Maritnez , 2008). Various studies have been conducted in Brunei secondary classes both in the English language and in various content subjects. A number of perceived problems, in

relation to reading, were found in these studies which were also found in research elsewhere outside the local context. These include lack of language proficiency (e.g. Nicol, 2004; Yong 2003, Mohiddin, 2007, Norainie, 2008); vocabulary related problem (Hamidah, 2002; Sara, 2009), the unsuitability of the textbooks (Burns & Charleston, 1997; Yong, 2010; Norainie, 2008) and 'poor' reading skill (Nicol, 2004; Rosmawijah, 2009; Yahya & Noradinah, 2012). There were, however, other perceived factors in relation to reading found in the local studies such as motivation and interest (Sarifah, 2005) and also in relation to instruction (Nicol, 2004; Pieronek, 1997 & Rahmawati, 2001). These studies will be further looked at in Chapter 3.

As indicated earlier, reading is a tool for academic success. In the context of learning in the upper secondary education, students' reading process is not only for the purpose of understanding texts literally but it is beyond that. Readers need to explicitly understand and analyse the content of the texts deeply (Yahya Othman, 2010). At the secondary level, there are certain students who are able to read fluently but do not understand the text they have read and the meaning it conveys. They usually will continue to read until the last sentence without understanding the text, even in Bahasa Melayu (Yahya & Noradinah, 2012). Because the content (academic) subjects requires a high degree of reading (and writing) ability that English Language learners might not have or fully acquired, as with the students in the local context, they then experience immense difficulties when reading their textbooks and in understanding the vocabulary unique to particular subjects.

There were quite a lot of studies on reading strategies, particularly for comprehension done in the local context especially in the English Language classes. However, to date there was no study been conducted that specifically looked at reading strategy use of students in the content classes. This study will look at reading strategy use in two types of classes across the two types of schools by looking at reading strategies for comprehension as well as for learning. The perceived and actual reading strategies used and taught (the use of) in upper secondary classes are also looked at. These will hopefully contribute to inform which

reading strategy were effectively used by the students across the two types of school and may also contribute to the reading in ESP/EAP especially as a pre-requisite preparation for the students to study in the higher education.

Asides from the language subjects, 'Bahasa Melayu' (i.e. Malay) and English Language), it is hypothesized that content subject teachers will not be teaching reading strategies to their students. A preliminary study which was carried out in Brunei in 2008, prior to the main study confirmed this prediction. The preliminary study found that little time was allocated to the teaching of reading strategies to students across the curriculum, particularly the content subjects. Often only basic reading strategies are conducted in classrooms especially when reading academic textbooks. These include note-taking, highlighting main points, explanation of vocabulary, questioning as well as activating previous knowledge. Moreover, the preliminary study also revealed that explicit reading strategies were often left to the English language teachers to teach. Content subject teaching is usually for imparting knowledge or content. The procedure of the preliminary study can be found in the methodology chapter (Chapter 4). Results from the preliminary study have further motivated me to explore the students' reading strategy use across the curriculum, particularly in the 'reading to learn' (Chall, 1983; Grabe & Stoller 2002; 2011) setting in the Brunei upper secondary classrooms. The preliminary study which focused on teachers is used to establish the context of the main study, which will primarily look at students.

This study has two main objectives. The first is to investigate what reading strategies students use when reading their academic texts and subsequently which strategies they used they to cope with comprehension and vocabulary difficulties. The second is to describe the reading strategies the students from the two types of schools used for comprehension and for learning.

1.3 Theoretical background

The main concepts and theories underpinning this study include the interactive process of reading (Rumelhart, 1977, Carrell, 1988); cognitive and metacognitive approaches of reading (Carrell, 1983, 1985, 1989; Kern, 1989; Roller & Matambo 1992) and reading to learn (Chall, 1983; Grabe & Stoller, 2002). The study further looks at reading from cognitive and metacognitive perspectives with an interest in strategy use across two subject areas, i.e. looking at reading comprehension and for learning. With regards to reading to learn setting across the curriculum, the study also takes into account the 'instructional dilemmas for L2 reading' as presented by Grabe & Stoller (2002) (see Appendix ii). Two these dilemmas are indirectly related to the current study; (1) building a large recognition vocabulary for academic performance and (2) promoting reading to learn.

Reading in this study is seen as an 'interactive process' (Rumelhart, 1977) which sees the reader playing an active role in trying to make meanings from the printed material. It views reading as a complicated, interactive process involving both bottom-up and top-down approaches (Carrell, 1988; Urquhart & Weir, 1998) which will be elaborated in Chapter 3 (see section 3.3). The study also adopts the cognitive approach to reading emphasizing the interactive nature of reading where readers use the bottom-up (Parry, 1996) and top-down (Goodman, 1967; Smith, 1982) approaches in combination.

This study is further influenced by theories and concepts of content area reading for the purpose of reading to learn, specifically in L2 reading instruction. Reading to learn here, at the simplest level means the ability to extract information and meaning from text (comprehension) and to learn, use and apply the content from the text. This includes the procedure they do to retain and recall the information and the content they have learnt. In other words, as stated at the beginning of the chapter, it goes beyond comprehension. In this respect, aspects of learning strategies also contribute to the concepts of the current study. In a conceptual map for planning L2

reading instruction (see Appendix ii), Grabe & Stoller (2002) regard reading to learn as one of the purposes for reading and acknowledge the importance of it in comprehension and vocabulary building as one of the instructional practices that support reading.

1.4 Research Rationale

Reading to learn across the curriculum is central to this study mainly because when students proceed to secondary level, many seem to lack comprehension and learning strategies necessary to read and understand the texts which they will read in their secondary school classrooms. Studies such as Sara, (2009); Rosmawijah (2009); Yong (2001) found that content subject teachers have reported comprehension as one of the factors why students do not do well in their subjects. In Brunei, it can be assumed here that students who struggle in the area of reading are usually not identified earlier and often continue into upper secondary school reading at low levels and thus have a difficult time to excel in their academic work.

Moreover, the preliminary study has shown that teachers teaching content subjects such as Geography, Science and History in Brunei do not seem to be fully aware of the concept of reading to learn. The observations conducted in the preliminary study showed that explicit reading strategies were not taught to help students with their reading. It can be hypothesized here that the students have their own ways of coping with their reading tasks for their subjects. This has further prompted the interest to conduct a research with a question: how do students read to learn when there was little emphasis on reading strategies in most lessons, particularly in the content classrooms?

Empirical research looking at reading across the curriculum seemed to be lacking in the local context. Most studies in Brunei usually looked at teaching strategies and learning problems, the teaching of certain topics for subjects such as Geography (Norinah Tahir 2005; Sara 2009), Science (Khairul Azmi 2003) and English (Rahmawati

2001; Hamidah 2002; Keasberry 2007). To date there has been no study that looks at these subjects collectively which tries to compare classroom practices in any one particular area, such as reading instruction and strategy use. This study intends to look at what happens in different subject lessons in order to investigate any differences or similarities by focusing on reading, particularly reading to learn. It also focuses on students' use of reading strategies when reading their academic text[books] when they are left on their own.

Apart from the factors and perceived problems found in the local studies across the two types of classes, no study has been carried out that looked at both types of classes at the same time. The focus on students' strategy use was also made in an effort to describe and investigate how the students read in order to learn for their academic subjects. This is particularly true when many studies have identified and concluded that they faced a number of problems and difficulties related to reading. These problems include language proficiency (Yong, 2010 & Nicol, 2004), lack of vocabulary (Nicol, 2004 & Yahya Othman, 2010), unsuitability of reading texts (Yong, 2010) and limited (or poor) reading ability (Yong, 2010, Yahya & Noradinah, 2012). As far as I could tell, to date, no study has been conducted in Brunei that looks at actual students' strategy use when reading the texts for English Language and Content subjects. Therefore this study is hoped to provide information on students' reading and learning strategies use which might inform us to understand better how the students read and learn.

This study can also provide a starting point for more local research and the findings will serve as evidential data from which other comparative studies can be developed. This research is also intended to shed some light on students' reading behaviours and how far their reading skills and strategies have an impact on their studies, not only in English language but also across the curriculum. It is also hoped that the findings in this research will benefit students and teachers in the future to have a better understanding of the process of reading among students. Subsequently, the study has the potential to inform classroom practice amongst secondary teachers

across the curriculum through its recommendations for changes to teacher education and in-service work.

1.5 Research Aims and Questions

The aims of the study are first to investigate students' strategy use when they are reading their academic textbooks and secondly to explore the common practices in relation to reading strategy use in English medium classrooms in Brunei.

It is carried out in order to describe reading strategy use in both English language and the content subjects in the upper secondary level classes in Brunei. The purpose of the study is thus twofold. Firstly is to look at students' employment of strategies when they read their academic material. Secondly is to compare and contrast reading conducted by the teachers teaching English language as well as those teaching content subjects such as Physics, Biology, Combined Science and Geography. From these, it is hoped that the study will be able to shed some light on how the students actually read their academic textbooks (for comprehension and learning). It also seeks to inform teachers on the problems the students encountered when they read.

Based on the aims of this study, four main research questions are proposed:

- (1) What reading strategies do upper secondary students use when reading in English both for English and Content subjects?
- (2) What strategies do students use when reading for comprehension?
- (3) What strategies do students use when reading for learning?
- (4) How do students of different ability groups overcome the difficulties they encountered in their reading?

Underlying these four main questions are specific sub-questions which will be presented in detail in the methodology chapter (see section 4.2).

1.6 The thesis layout

This thesis is organised into eight chapters. The current chapter introduces the research context and situates the study within theoretical background. It presents the significance and purpose of the study, and the research questions.

The second chapter introduces the setting within which the study operates. It provides the background to the languages of education in the Brunei's educational system. This chapter then provides a brief history of the bilingual education policy in Brunei and the issues arising from the policy. Recently, the education system in Brunei underwent a change when the (new) SPN21 was implemented. Due to the complexity at the language background of the students in Brunei, a brief description of the languages spoken in Brunei will follow. This indicates that many Bruneian students are actually multilingual individuals. Therefore this must have impact on their approach to reading in what might be their third or fourth language as their second language of literacy (especially students who attend Arabic school).

A review of the literatures in the area of reading will be presented in the third chapter. This chapter presents the themes and issues relevant to the current study. It first looks at the different approaches / models of reading such as top-down, bottom-up and interactive. Then it continues with a discussion of types of top-down and bottom-up strategies in the L2 environment. This is then followed by a review of research on reading across the curriculum and, reading strategy instruction. We will also look at vocabulary related issues and problems in reading and in relation to reading for both types of classes. Given the complexity of the concept of strategies, this chapter then elaborates on strategies pertinent to this study. This includes monitoring strategies, cognitive and metacognitive reading strategies.

Chapter four first revisits the research questions and presents the methodology by which data are elicited to address the research questions. It then describes the preliminary study that shapes the direction of the main study. This is then followed

by the methodological designs of the study. The rest of the chapter outlines the procedures and instrumentation used in the main study. Finally a section on how the presentation of the data is carried out will be elaborated.

Chapters Five and Six outlined both the quantitative and qualitative findings. In chapter five, reading strategy use of the students is first introduced. Here we will firstly explore which strategies were most and least frequently used by students when they read. Chapter five also presents the results of the perceived problems the students have on their reading. Then the qualitative results on the strategy use of the students across the two types of schools are presented in two sub-sections. This is finally followed by case study of the reading process of two individual students. The profiles of these two students are presented and their strategy usages are looked at including how they overcome difficulty in both reading comprehension and vocabulary. The latter also includes how new and unfamiliar vocabulary is tackled during reading.

Chapter Six presents findings at the school level. It mainly reports on findings on what took place in the two types of subject areas. It compares and contrasts the practices of reading instructions in two subject areas: English Language and content subjects.

Chapter Seven is the discussion chapter. It draws together findings from Schools and Students; EL classes and CS classes; and puts forward a discussion of the results in the light of relevant literature. The research questions are then restated and the results of the analyses are presented and discussed to address each of the Research Questions.

Chapter Eight concludes the thesis and offers possible implications for research practices in second/foreign language reading not only for English Language learning but also for learning content subject. In this chapter, recommendations are put forward. It also discusses possible avenues for further research.

Chapter 2

CONTEXT OF THE STUDY: BRUNEI

2.1 Introduction

This second chapter introduces the setting within which the study operates. It begins with an outline and structure of the national education system in Brunei to show the stages Bruneian students have to go through from primary up to tertiary level. Then an outline of the bilingual education policy of Brunei will follow. This is to provide, not only the context of this study but also to situate the two languages of education in Brunei: Malay (Bahasa Melayu) and English Language. Therefore a section on these two languages of education follows after this. This study, however, focuses on the latter language and looks at how reading in English is carried out across the curriculum.

This chapter then briefly looks at the multilingual setting in Brunei. This section hopes to present the complexity of language background of the students in Brunei in order to show that many Bruneian students are actually multilingual individuals. However, this study does not set out to explore the impact of this multilingualism but merely to point out that this is a complicating factor.

Finally, as this study focuses on reading, this chapter then looks at literacy practice, particularly reading in English, in the Brunei classrooms. In this section we will briefly describe reading activities in English Language subject and try to show how reading has an important role in the academic setting in secondary education across the curriculum, especially in the Bruneian classrooms

2.2 Structure of the Brunei National Education System

The education system places strong emphasis on literacy, numeracy, science, physical education, as well as civics and moral education. The bilingual policy introduced in 1984 enables the child to acquire the national language, Malay, and English. Proficiency in the latter enables the child to access a greater mass of information in this globalised world. School children are also exposed to ICT skills to promote creativity, independent learning and enhance higher order thinking skills. (www.moe.edu.bn)

Under the Brunei education policy, the national education system prioritises the use of the Standard Malay language as the official language and the use of the major

languages such as English and /or Arabic as a medium of instruction. Under the same policy, the Ministry of Education provides a minimum of 12 years of education, 7 years of primary education including a year of pre-school and 5 years of secondary education. Figure 1 (see Appendix iv) outlines the structure of the national education system in Brunei from primary education up to tertiary education.

Of relevance to the current study is the secondary education (age 12-16 years) stage. At the end of this stage, students have to sit for an examination before they can either proceed to their post-secondary education or to look for employment. The fact that all students have to sit for an important examination at the end of this secondary education stage has some implications in the way academic learning takes place, which I personally think influences the way students read to learn in their upper secondary education.

The figure in Appendix v outlines the national education system under the newly implemented 21st Century National Education System (SPN21). Prior to 2007, at the time this study commences, the structure of the Brunei Education system was slightly different (see Appendix v) particularly at the primary and secondary levels. However, since this study only looks at the classroom level, and since the students involved in this study went through the 'old' education system, we will not discuss nor evaluate the rationale behind these changes.

The figure shows that the National Education System comprises of primary, secondary, post-secondary and higher education. The Ministry of Education has responsibility for two main educational strands; government funded schools and private schools. The former category does not include Arabic and Religious schools which are under the control of *Jabatan Pengajian Islam* (Department of Islamic Studies), Ministry of Religious Affairs (MORA). The latter institution, however, include Chinese Schools, International Schools and Tuition Schools, all of which are registered with the Private Institutions Section, Ministry of Education. There are also international schools; *Jerudong International School (JIS) and International School Brunei (ISB)* which offer a British curriculum. Students attending these two schools are normally children of foreign expatriate workers though enrolment of Bruneian students is also accepted.

Privately-funded schools are also available in Brunei. Private schools account for 30 percent of the number of educational institutions in Brunei (figure obtained from the statistics from the MOE 2008). From personal observations and experiences, I would claim that most often parents in Brunei enroll their children in these schools at primary level and continue until secondary level. Some enroll their children in these schools at primary level only, and then transfer their children to government schools for their secondary education. One of the reasons why parents enroll their children in these private schools is to enable the children to be exposed to English language earlier, from the pre-school. Future research might be needed to confirm this perception and this is not what this study is trying to do. The current study only looks at the classrooms setting in secondary education in the area of reading in English and does not set out to take into account the amount of exposure to this education.

As stated in the introduction of this chapter and also in chapter 1 (see section 1.2), the underlying aim of the education policy in Brunei is to provide literacy in two languages of education: Malay and English. The role and function of these two main languages of education will be discussed in section 2.3 and 2.5. The establishment and implementation of *Dwibahasa* (Bilingual System of education) of Brunei and the issues and problems that surround are first looked at in the next section.

2.3 Brunei Bilingual Education Policy

Before the implementation of the Bilingual Education policy, Brunei adopted dual-language education, whereby students either went for an English- or Malay-medium education. In the bilingual education policy, both Standard Malay and English are taught and employed as media of instruction. In January 1985, the *Sistem Pendidikan Dwibahasa* or Bilingual System of Education was fully implemented. The 1985 policy document makes a clear statement about the relative positions of Standard Malay and English in the hierarchy of languages in Brunei. However, the actual allocation of time to the two languages in the classroom, especially in the secondary classroom, clearly legitimises English as the major language of instruction (Martin & Abdullah, 2002)

The bilingual education policy was based on the understanding that effective use of English is essential if students are to succeed in study at tertiary level overseas and if the country is to have a voice in international business, economic and political arenas. The stated aim (Brunei Ministry of Education, 1992, p. 4) is that "this bilingual policy should ensure that pupils attain a high degree of proficiency in both English and Malay."

Under the bilingual policy, prior to the implementation of the new SPN21, primary schools students used Malay as the medium of instruction for the first three years and study English as a subject. However, under the new SPN21, as of January 2008, Mathematics is now taught in English as well as English language from primary one. With the full implementation of SPN21 in 2009, a new science curriculum for the lower secondary and primary schools was introduced and therefore Science is also taught in English from Primary One onwards. This major shift of teaching Mathematics (from 2008) and Science (from 2009) through English was seen as necessary in order to provide exposure as early as possible to young students. It is my perception that this new education system can be seen as a step to bridge the gap of 'unequal access' (Braighlinn 1992 cited in Martin 2008). Moreover it is presumably intended to minimise the problem of understanding and acquiring high cognitive subjects such as Mathematics and Science, and as a solution to the problem of 'abrupt transition' from Malay to English (Jones, 1996) in the previous education system at the primary level.

The use of English at the lower level eases transition difficulties, an issue that was previously pointed out in other research and reports (such as Jones, 1996; Baetens Beardsmore, 1996; and Ahmad, 1992), as students proceed from Primary Four onwards. Therefore with the new SPN21 education system, young children are exposed to the target language (English in particular) as early as lower primary for two reasons: first to minimise the difficulty in having to switch language (Malay to English) when they reach upper primary, and secondly to help those less privileged children in getting exposure to English.

We will now look at the issues surrounding the implementation of the bilingual policy education in Brunei. This hopefully allows some insights into why reading in English,

particularly in upper secondary education may be a problem for many students in Brunei.

2.3.1. Bilingual Education System – its efficacy, drawback and actual practice and its position in the New National Education System (SPN21)

In the period since the implementation of the Bilingual Education Policy, there has been considerable debate about its efficacy. A number of drawbacks of the system were identified particularly at the operational level which include factors such as a demanding syllabus, insufficient numbers of bilingual teachers, the abrupt transition from Malay to English (Ahmad 1992; Jones , 1996) as well as teacher proficiency, teacher training, teaching strategies, and use of available teaching materials (Baetens Beardsmore, 1996). Braighlinn (1992:21) cited in Martin (2008), even suggested that the system provided 'an illusion of equality' as well as 'unequal access' for the majority of non-middle class youth whom he argues received virtually no education because the medium of instruction (English) cannot be understood, when compared to the former situation in which there were separate streams of education (dual-language education).

The issues highlighted above inevitably do happen in the system and certain measures have been taken into consideration by the government. With the implementation of the SPN21 in 2009, changes in writing new curricula for various subjects including Mathematics, Science, History, Geography, ICT subjects started in 2007. An outline of the implementation stages of this new national education system is outlined in Appendix vi for information. The teaching of certain subjects (Mathematics and Science) in English as early as Primary One is beginning to overcome the 'abrupt transition' issue to upper primary, or at least that is what is hoped for. A research into the implementation of this new education system should be carried out in the near future to evaluate if it does help minimize this. In this new education system, the government, through the Ministry of Education still sees the importance of English, both as a subject and as a medium of instruction, besides Malay.

It has been mooted that one solution to the unequal access to knowledge in Brunei schools is that, contrary to the situation in Malaysia, the cognitively demanding subjects such as mathematics and science should be taught in the students stronger language,

for example Malay, and cognitively less demanding subjects be taught in English (Baetens Beardsmore, 1996). The new SPN21 education system, however, does not take into account this issue of teaching cognitively demanding subjects through Malay. Instead these subjects are taught through English in early lower primary classes, at the age of 5 or 6 years old.

The complexity in specifying the first or home language of Bruneian children may contribute to the difficulty in teaching Malay, which is often taken for granted as the stronger language (and probably mistakenly seen as the first language) of students in Brunei. This will be looked at in the next section when looking at the profile of Bruneian students.

2.4 Bruneian students – Bilingual or Multilingual?

Martin (2008) grouped the languages of Brunei Darussalam into three categories - supraregional, indigenous and non-indigenous. The supraregional languages in Brunei are Malay and English. The former, closely resembles Bahasa Malaysia, the national language of Malaysia and, has been the official language of the country since 1959 and one of the media of instruction in the country bilingual system of education since 1985. English, due to the historical links between Brunei and Britain, also has an important role in the country.

Like its neighbouring countries, Malaysia and Indonesia, Brunei is a Malay dominated country. Yet, the languages that can be heard spoken in Brunei are Malay (and its varieties), English, various Chinese dialects and the languages of the different indigenous people – *Dusun*, *Murut*, *Tutong* and *Belait*. The official language, *Bahasa Melayu* (Standard Malay) is spoken by the majority of the population, with about 69% being ethnic Malays (Martin 2008). Besides the dominant *Brunei Malay*, there are nine other indigenous ethnolinguistic groups: *Belait*, *Bisayas*, *Dusun*, *Kedayan*, *Murut*, *Tutong*, *Mukah*, *Iban* and *Penan*. Except for the last three, the rest are known as *Puak Jati* or 'indigenous groups of the Malay race' (Government of Brunei 1961:118-120). These indigenous people speak their own languages. Of the seven indigenous languages, with the exception of *Brunei Malay* and *Kedayan*, five (*Tutong*, *Belait*,

Dusun, Bisayas and Murut) are linguistically speaking, not dialects of Malay.

Significantly none of the seven *Puak Jati* languages has a written tradition (Martin 2008), though there were some initiatives done to compile words or vocabulary for some indigenous languages such as *Brunei Malay, Tutong* and *Belait*.

However, there are certain groups in Brunei which are not constitutionally considered to be indigenous (or *Puak Jati*) and thus the languages of these groups are usually referred to as the non-indigenous languages of Brunei. These include Chinese, *Iban, Penan* and *Mukah*. This thesis does not look at these languages in greater detail because it is outside the scope of the current study. It is mentioned briefly here to provide a summarized profile of Bruneian students which may have implications on the way students perform in their education. It has also created difficulty in specifying whether the students are bilingual or multilingual, though the latter seems to be the case.

To state that Malay is the first or home language of many Bruneian is not as straightforward as it seems simply because Malay, in the Brunei context, could either mean Brunei Malay or Standard Malay (Bahasa Melayu).

Brunei Malay and Standard Malay exist in a complex relationship. Although Standard Malay is the official language and one of the languages of education the common perception is that it is Brunei Malay that symbolizes Bruneian's national identity (Martin, 2008). Its symbolic importance is reflected in its increased legitimization through corpus elaboration by the National Language and Literature Bureau and its increasing use, albeit unofficial, in formal contexts and interethnic communication (Martin, 1996, Saxena & Sercombe 2002). Both varieties of Malay in Brunei have their own important roles and functions for Bruneians, the former being the language of identity whilst the latter is the language of literacy, education and is very important for social mobility and the individual's academic future. It is one of the two, besides English, languages of education in Brunei.

English is another language that is widely used and considered important for the same reasons as acquiring Standard Malay, and on a personal note, may be perceived to have

a far more important role among the two languages of education particularly from secondary education onwards.

2.5 Malay and English: Their roles and functions

As a Muslim Kingdom, the Sultan and government of Brunei has its own ideology called *Melayu Islam Beraja*, known locally as MIB (Malay Islamic Monarchy) that supports the Malay Sultanate, the absolute monarchy and invokes Brunei's historical and Islamic values, which in turn creates an inextricable link between Malay ethnic identity, Malay culture, Malay language (the official / national language), Islam and the Nation (Martin, 2008).

Brunei realizes the importance of English language and this is reflected in its education policy where English language is one of the two languages of education as media of instruction in its bilingual education system as discussed in section 2.3.

Therefore in Brunei, literacy in Standard Malay and English is highly valued. The other indigenous languages of Brunei, however, have no literate tradition and there has been limited institutional support in the country to promote these languages. The *Dewan Bahasa Dan Pustaka* (Language and Literature Bureau) was established to support Standard Malay literacy, and it publishes a variety of literature in this language, including books, anthologies, journals and periodicals. Even in the media, there are both English and Malay newspapers. The daily newspaper, the *Borneo Bulletin* and the *Brunei Times*, are in English, with its sister publication *Media Permata* in Malay. Brunei also has access to daily Malaysian newspapers, *Berita Harian* and *Utusan Melayu*, *New Straits Times* and *The Sun*, and these are popular and are, arguably, the most important sources of reading materials for the adult population in Brunei.

Probably, the most important 'sponsor' of literacy in Brunei over the last century is education. Both Malay and English are taught and employed as media of instruction in the Brunei education system. Being an English Language teacher myself, I was drawn to English Language education especially in the area of reading.

2.6 The teaching of reading skills in Brunei

One of the main aims of Primary Education in Brunei Darussalam is to provide basic education, which embodies the 'Three Rs' (Reading, Writing and Arithmetics) and emphasis is given to the development of creativity and basic skills in these 'Three Rs' in the lower primary. (Arpian, 2004). Of the three basic skills, reading is the basis for learning and is an important skill which all pupils need in their later life. Dato Seri Laila Perkasa Dr Haji Ahmad bin Haji Jumat, the acting Minister of Education (1997), in his speech at the opening ceremony of the International Development in Asia Committee Conference said that reading was the gateway to all knowledge. He added that if children did not learn to read effectively, it would be problematic for them in learning, as they would not have reading skills, the crucial tool, to assist them with the learning of subjects across the curriculum (cited in Arpian, 2004).

Reading is therefore has been considered as central to all disciplines of education. It contributes to the language proficiency of students, which is crucial to their academic disciplines if they cannot read. This study, although acknowledge the fact that language proficiency can affect reading ability, will only describe what reading strategies students use when they read.

2.6.1 Teaching of reading skills in Bahasa Melayu

In Brunei Darussalam, *Bahasa Melayu* (henceforth Malay) is the official language and can be assumed as the first language for the majority of the population. Various techniques and strategies are employed in the teaching of reading in this language. In Brunei Darussalam, the teaching of reading in Malay starts at the Primary level where children begin to learn basic skills of reading at the pre-school level.

As mentioned earlier in section 1.2, the Curriculum Development Department (CDD) plays a major role in designing the syllabi, teachers' guide, teaching aids, textbooks and workbooks for all subjects that are being taught both in the government and non-government primary and secondary schools.

In the *Bahasa Melayu* syllabus, prior to the implementation of SPN21, the treatment of reading is not elaborately documented and there is only a 1990 teacher's guide for the teaching of reading in *Bahasa Melayu* at the Lower Primary levels (Arpian, 2004). Arpian (2004) also stated there were no current teacher's guide on reading for the teachers to refer to and the reading syllabus is not detailed enough to assist them in their preparation of the reading lessons. This resulted in teachers preparing passive reading lessons with few activities and therefore reading lesson is neither enjoyable nor effective (Arpian, 2004) and lacked of up-to-date resources. Often the teachers tend to follow the techniques by which they themselves learned to read.

The sight-word approach was not used in the teaching of reading at the Lower Primary level (Arpian, 2004). In Brunei Darussalam, the early reading skills in *Bahasa Melayu* are taught at the lower Primary level. Three major methods are considered when designing the present *Bahasa Melayu* syllabus. They are (a) 'Suku Kata' or the syllabic method, (b) the Look and Say method and (c) to some extent, the Phonic method. This was confirmed when the new *Bahasa Melayu* textbook for Primary one was examined (Arpian, 2004).

Following an informal discussion with the teachers in his study (Arpian, 2004), they indicated that insufficient training in teaching reading and restrict themselves to the syllabication or 'suku kata' approach. A cursory examination of the textbook also indicates the widespread use of 'suku kata' for reading instruction in Malay. Indeed, 'suku kata' seems to be the only method used to teach beginning-skills in reading in *Bahasa Melayu*.

In a study investigating the three aspects of teaching reading in the Lower Primary Malay medium classes in the Brunei-Muara district, Arpian (2004) investigated the strategies and techniques lower primary teachers use to teach reading in *Bahasa Melayu* to Primary One, Two and Three classes. He collected data from 110 teachers from three sources: survey questionnaire, observations of reading lessons and interview. His study revealed that the dominant approach to teaching reading in *Bahasa Melayu* at the Lower Primary level is bottom-up followed by the combination of the bottom-up and the top-down models of reading. The teachers in his study

predominantly uses 'saying-the words' and 'whole-class-reading' technique followed by reading short sentences and inviting individual pupils to read, which were ranked second among the most used technique. He also found that the two practices teachers employed were the schemata activation and sustained silent reading.

They study also found that primary One Teachers used syllabification when teaching reading, as well as echo reading and establishing pupils' schemata prior to reading. While the Primary Two and Three teachers established pupils' schemata prior to reading, they tend to mostly adapted 'Look and Say' method, chorus/repeated reading, spelling technique and sentence construction.

However, as of 2009, a new literacy programme for Pre School, Year 1 and Year 2 was introduced: the phonic approach in the teaching of reading and writing, which are looked at in a separate section

2.6.2. Teaching of reading skills in English Language

In line with the New SPN 21 Education System, English Language as one of core subjects is compulsory to be taught in all primary and secondary schools in Brunei Darussalam. In relation to reading, the aims of Primary English include the following: (a) to master the skills and strategies needed to comprehend as a result of interacting with text; (b) to value reading (and writing) as pleasurable and enriching experiences to develop creative and imaginative skills; and (c) to develop lifelong habit relying on reading (and writing) to gather information, substantiate one's thinking and solve problems (CDD, 2008).

The English Language Curriculum Framework also states that 'reading skills are taught to enable learners not only to read independently a variety of texts but also to read with understanding so that they are able to extract information efficiently' (CDD 2008, pg 4). As majority of the students in Brunei receive their formal or acquire formal reading skills in English Language in School, particularly in primary level, therefore this section will briefly look at the teaching of reading skill in English Language at the primary level. The component of 'Reading' emphasizes the teaching of the skills of reading to enable learners to become independent readers. In this component, the

focus is on, among others, (a) the teaching of reading at word and phrase levels before progressing to sentence recognition and reading at the paragraph level. . In this early stage of reading, a combination of phonics and the whole text approach will be applied; (b) guiding learners to extract specific information from a text; c) showing and guiding learners how to use dictionaries; (d) exposing learners to a variety of texts to help them develop their reading skills for different purposes; (e) motivating learners to read extensively (CDD, 2008).

One of the teaching aims of Primary English syllabus is to inculcate a fondness for reading in the students which will enable them to enjoy and appreciate a wide range of reading materials and to extract relevant information correctly. The new SPN 21 curriculum still emphasizes the continuing value and importance of the Reading and Language Acquisition (RELA) programme, which is viewed as central to early English language education in Brunei. A RELA strategy of the Shared Book Approach (SBA) and the Language Experience Approach (LEA) is the core method of teaching English in Year 1 to Year 3. RELA strategies for Year 4 to Year 6 include Sustained Silent Reading (SSR), Guided Reading, K-W-L (what I Know, what I Want to learn and what I have Learned) as comprehension strategy. .

At the secondary level, reading skill continue to be developed and taught. The Gateway to English (GTE) 1, 2 and 3 replaced the old textbooks Secondary English for Brunei Darussalam (SEBD) course books 1, 2 and 3. GTE textbooks incorporate the teaching of specific reading skills and strategies according to themes in different sections. Some of the main reading strategies found in the lower secondary textbooks include predicting content, Inference, identifying topics from details, identifying main events, application to own experience, evaluating decision, scanning for specific information, finding explicit and implied information. Vocabulary related strategies are also stated in the textbook. These include guessing and inferring word meanings from context (Gateway to English, CDD 2000).

2.6.3. The new literacy programme: The Phonic Approach.

The Phonic approach was introduced in the teaching of reading and writing in 2009; a new literacy programme for Pre School, Year 1 and Year 2 and is implemented in all

government primary schools. One of the rationales for this change was due to what was found by the English task force set up by the MOE in 2003. The English task force found out 'that the low students' achievement in the secondary schools may possibly be the knock on effect from their primary schooling. This in part focused to the students' ability to read' (Sutinah, 2011).

As shown in the previous sections, reading is taught in *Bahasa Melayu* through memorizing syllabi by repeating the letter names in each syllable. In English Language whole words are memorized through repeating the letter names. This approach does not make use of the phonological system in which both languages are based on. In the phonic approach, a consultant employed by the MOE created a very unique reading programme which specifically designed for the children of Brunei Darussalam. This reading programme makes use of the similarities and relationships between *Bahasa Melayu* and English language. Through these associations reading started in *Pra Bahasa Melayu* lesson right from Term 1 while children are developing their oral language development in English classroom. Learning to read in *Bahasa Melayu* could provide the basis for learning to read in the English Language.

Brunei Darussalam has a centralised system of education, with the Ministry of Education the sole authority responsible for all matters relating to education (Burns & Charleston, 1997). The country has a national curriculum and there is uniformity of syllabus throughout the state. Texts and teaching materials are developed by or on behalf of the Curriculum Development Centre (CDD) (Burns & Charleston, 1997).

Reading in English provides access to knowledge across the curriculum. The emphasis on reading in English, as a subject, begins early in pre-school education in Brunei Darussalam and is continued to the secondary school. The Reading and English Language Acquisition Programme (RELA) was implemented in lower primary in 1989 and in upper primary in 1992. The aims of the project are to improve English Language learning and to foster positive reading interests (CDD 2000). The programme is based on the language experience approach, the whole language and child centred curriculum (Cox and Haji Kanafiah, 1999, p. 81 cited in Hjh Zulyana, 2009).

The English language syllabus for lower secondary education (CDD, 2004) continues to reinforce the importance of fostering reading skills and interest among secondary school students. One of its aims (CDD, 2004) is to inculcate a fondness for reading in students which will enable them to enjoy and appreciate a wide range of reading materials and to extract relevant information. A second aim (CDD, 2004 p.1) is developing the reading and writing skills required for the successful study of English-medium subjects and to prepare the students for the Lower Secondary Assessment (PMB) English Language Examination, which dictates which courses students study at upper secondary level. Ultimately, the lower secondary English course should provide students with the English language skills which will enable them to function effectively in the upper secondary classes.

The upper secondary language teachers are provided with a guide to the English language syllabus (CDD, 1996) to supplement the syllabus for the Brunei General Certificate of Education (BGCE) English language 'O' level examination conducted by the University of Cambridge Examinations Syndicate. This exam is taken by students at the end of their final year in secondary school. In this guide, the Curriculum Development Department includes as an aim that students should develop the reading and writing skills which they require for successful performance in the different components of the BGCE 'O' level examination. The objectives are to enable students to 'read extended texts, fiction and non-fiction books, for both information and enjoyment; to read and understand a wide range of academic and general texts' (CDD, 1996, p.20). In addition, students are expected to adjust their reading speed and techniques to the nature of the text and the purpose of reading.

2.6.4. Teaching materials for the teaching of reading.

In Brunei, English Language textbooks are used as the main source of teaching. The lower and upper secondary used the textbooks supplied by the CDD. Following the report published in 1987 (The Project Group, 1987) based on a survey of classrooms teachers' perception of the problems on the low percentage of students attaining a credit at O level English Language, made eight recommendations. One of these was to change (updated) the course books. The SEBD (Secondary English for Brunei Darussalam) course books were commissioned. They were written by CFBT teachers

working in Brunei. Since 1991 the books have been available in all government schools for both lower and upper secondary levels. They, particularly the former are currently being replaced with an improved text book, the GTE (Gateway To English). However, up until now the SEBD course book is still used in the upper secondary.

In the SEBD4 and SEBD5 course books used in upper secondary, specific reading strategies were included in the book. The reading comprehension strategies presented in the books include strategies such as predicting, scanning, skimming and summarizing. Different types of comprehension skills were also found in these course books. These include the teaching of different types of comprehension questions such as literal comprehension, reorganization questions, inference questions and vocabulary techniques. The course books also contained different types of texts with the inclusion of expository text, cause and effect types of texts and also narrative texts. However, based on experiences, the course books were often not fully utilized. This is because in upper secondary 4 & 5 (now referred to as Year 10 & 11 respectively), teaching instruction was mostly geared to provide revisions in preparing students for their 'O' level exam. At this time, the materials used in the classroom were mostly from past year 'O' level examination papers.

The textbooks supplied by the Curriculum Development Department are more or less obligatory to be used. However, teachers can choose their own to supplement these textbooks. The English Language textbooks do cover the teaching of reading strategies but not the content subject textbooks. In this respect, students only acquire or are taught reading strategies in English Language classes (and also Malay Language classes) and that the students possibly used these strategies when they read in the content subjects. The use of reading strategies in Malay might also be transferred to English reading context.

Many reading comprehension materials in the local classrooms still maintain the traditional format of text and questions on content and vocabulary (Chamberlain, 2004). Generally, teachers also create their own materials to teach reading. In the Malay reading lesson most teachers produced their own reading materials and some used resources from the internet (Arpian, 2004). The teaching of reading comprehension,

however, still consisting mainly of texts accompanied by worksheets for the students to complete in a given time. This approach is not really teaching reading comprehension: it is simply continuously testing reading comprehension. Moreover, the various types of reading texts provided in the textbooks were not exploited by the primary teachers when they teach reading comprehension (Limawati, 2007).

2.7. What 'reading' means in the current study

In this study, reading involves the employment of strategies in order to extract the information from any given reading text, both for comprehension and learning purposes. In this sense, reading is defined in its narrowest definition of processing information from the page. One of the students in the study reported that 'reading for English doesn't involve any memorizing only has to understand whereas other subjects involve both understanding and memorization' (B4, 2010).

It seemed that the upper secondary students were aware that in the English Language classes, there is no need for them to retain what they have read other than completing the tasks set by their teachers. On the other hand, this might not be the case for English Literature classes, a subject which was not offered in many secondary schools. Unlike the English Language reading, in the case of content subject reading, the students are required to retain what they have read. Therefore the strategy they used to read to learn is looked at in this study and to compare it with those in the English Language classes. Not intending to discard other aspects of reading, reading in this study does not look at aspects of reading such as strategic reading, critical reading, extensive reading and evaluating reading. It simply means how students process or extract information from the text through the employment of various reading strategies in order to comprehend it and consequently how they read and learn the content.

The quote from B4 seemed to suggest that no actual reading is done in the content subject classes though it was suspected that reading to memorize the content might take place outside the classes, especially before an examination. Actual reading is often take place inside the English Language classes but possibly less outside the classes as indicated by many of the teaches in the study and in the preliminary study. There are

some students who do read non-academic books outside the classes but reading culture in Brunei is yet to be fully inculcated. On the other hand, it can be assumed here that the opposite might be for the content subject areas. The students were expected to read the notes or chapters from the textbooks as a preparation to learn the new content in the classroom before their classes. Teachers most often confirm and 'tell' their students which of the content they are expected to remember and possibly memorised for future use, such as to answer their examination papers.

2.8. Summary

This chapter briefly describes the language background and linguistic make-up of the students in Brunei. Bruneian students are actually multilingual individuals. The majority come to school speaking at least two languages (Brunei Malay or one of the indigenous languages) and by the time they reach (upper) secondary level, they have also learned the two languages of instruction (Malay and English Language). Added to this, Muslim Bruneian students also have to attend religious education from the age of 8 or 9 years old. Throughout their religious education, students learnt and are taught how to read and write Jawi transcripts. Some students also have the opportunity to study in the Arabic medium school where they learn Arabic language as a subject and learn content subjects through Arabic as the medium of instruction. Those who attend Arabic school are therefore taught through three media of instruction: Malay, Arabic and also English.

All students in the Brunei mainstream education system eventually learn most subjects in English (except for Malay Language and Islamic Religion) throughout their 12 year education (see Appendix iv for illustration). As pointed out by researches (such as Jones, 1996; Baetens Beardsmore, 1996; Ahmad, 1992) it has created problems and difficulties for both teachers and students in trying to achieve the aims of the education as well as to ensure lifelong learning for the students.

This study sets off with a premise that reading is an important aspect to explore and looks at how students' strategy use contributes to their reading to learn activity. In short, this study looks at the students' view of the teaching and learning experiences that they have had throughout their primary and secondary education. This study

focuses on reading because this skill seems to be given less emphasis in the upper secondary classroom.

Chapter 3

REVIEW OF THE LITERATURE: READING STRATEGIES FOR LEARNING AND COMPREHENSION

3.1 Introduction

Chapter One and Two have situated the study in terms of both the academic context and theoretical background. These two chapters introduced the study within the framework of reading (comprehension) strategies in a second (and possibly foreign) language. At the end of Chapter Two, I explained how this study uses the term 'reading' in its narrowest definition as information processing in the classroom settings, particularly for academic purposes for comprehension and learning.

This study intends to describe the strategies use in upper secondary reading for the purpose of both comprehension and learning in the ESL context. This chapter mostly concerns with ESL reading, content area reading and reading comprehension strategies. This chapter thus attempts to do a review of strategies in the teaching of reading and strategy instruction methods.

This chapter looks at the literature and studies on reading from L2 perspectives focusing on reading strategies related to the research questions being investigated here. Many of the themes or issues to be reviewed are interconnected, but will be discussed under separate headings. The two interrelated areas of most relevance to the present study are the various reading approaches in relation to second language reading and reading to learn (Chall, 1983; Grabe & Stoller 2002). This study mainly attempts to focus on the learning experiences of the students particularly in their use of reading strategies when reading their academic texts.

The chapter starts with the review of studies conducted in the local context in both subject areas. And as stated at the beginning of this thesis, I have indicated that the ability to read is a skill that all students must acquire in order to be successful in school. Literature has indicated that for many years secondary teachers have received students into their classrooms that are not academically able to read and comprehend textbooks designed for a secondary classroom (Glencoe, 2001). This seemed to be the case with the local classrooms as implied from the local studies (Nicol, 2004; Yong, 2010;

Rosmawijah, 2009; Sara 2009. As our review of the literature will also include students' strategies use, therefore we will also look at the different types of reading strategies when we discussed the three models of (or approaches to) reading: top down, bottom up and interactive.

As this study also concerns with the reading to learn aspect, a review of strategies for comprehension and learning will also be looked at. The latter also means that learning (or studying) strategies are also presented in this chapter. A large part of this section is devoted to strategies by looking at types and categories of reading (comprehension) strategies (e.g. Oxford, 1990; Palincsar & Brown, 1984; Grabe & Stoller, 2002; Mokhtari & Sheorey, 2002), how these strategies can be used for learning the content of the text which the students have comprehended. The chapter will also briefly look at strategy instruction that could enhance comprehension, especially in second language reading. One area of reading, that is reading to learn across the curriculum, is also looked at as it is central in this current study.

This chapter starts with a discussion of the studies carried out in the Brunei context. Issues and problems raised in these studies are brought forward as they have shaped the direction of this thesis. Then, theories concerning the reading process, particularly models of reading, are briefly discussed. The chapter then continues to look at (comprehension) strategies in the L2 reading environment, particularly in content area reading and subsequently for reading to learn (Chall, 1983; Grabe & Stoller, 2002). These serve as a foundation for identifying the research questions and the theory underpinning this research.

3.2 What research in Bruneian context found on 'reading'

Studies in the area of education in Brunei were mostly carried out either in English Language classrooms (Hjh Zulyana, 2009; Hamidah, 2002; Keasberry, 2007; Rahmawati 2001) or in the content subject classrooms (e.g. Sarifah, 2005; Sara, 2009; Rosmawijah, 2009 and Yong, 2010). In this study, content subjects or classes refer to the non-language classes (e.g. Geography, Biology or Physics) in secondary education. The term

'reading to learn' in this study is seen as a purpose for reading. It 'typically occurs in academic and professional contexts in which a person needs to learn a considerable amount of information from a text' (Grabe & Stoller, 2002 p.13).

Several issues and problems concerning the teaching and learning environment from studies done in Brunei have been pointed out in section 1.2. What caught my attention from these studies was how reading could affect students' academic learning. Though not explicitly stated, reading related factors are often mentioned as something which contributes to the problem or issues students face in their secondary education. These include: the fact that students are required to read a lot (Rosmawijah, 2009; Sara 2009; Sallimah 2007; Khairul Azmi 2008), students do not read enough (Sarifah 2005, Sallimah 2007; Hamidah 2002); vocabulary as a barrier for comprehension, (Hamidah 2002; Sara 2009); students lacking understanding of what they read (Limawati, 2007; Sarifah, 2005; Sara, 2009; Rosmawijah, 2009) as well as students reading materials beyond their ability (Burns & Charleston, 1997; Yong, 2010)

Section 1.2 has also stated that some of the perceived problems found in these local studies, were often related to reading. These include the place of language proficiency (e.g. Shamsulbahri, 2005; Nicol, 2004; Norainie, 2008), vocabulary related deficit (e.g. Hamidah, 2002) lacking reading skills (e.g. Nicol, 2004; Rosmawijah 2009), unsuitability of textbooks (e.g. Yong, 2010; Burn & Charleston, 1997). Studies in reading strategies (Rahmawati 2001; Limawati, 2007; Md Arpian 2004) were also included in this chapter to look at the teaching and learning environment involving reading procedure. These studies, however tend to focus on the teachers in the classroom and the learning situation and how the teaching of reading was conducted. In this section, we will briefly review the studies by looking at areas such as language proficiency; strategy use, strategy instruction as well as other reading related problems. These perceived problems were not only found from studies in the English Language classes but also in other content subjects' classes.

Research has demonstrated that in essence, reading in a second language is a dynamic and interactive process whereby learners make use of their background knowledge, text

schema, lexical and grammatical awareness as well as their own personal goals, to arrive at an understanding of the written material. Like English Language learners elsewhere, the students in the local context can also be said to experience intense problems in content area learning because they might not yet acquired the language proficiency needed to succeed in understanding subject matter content. Because the language of academic subjects requires a high degree of reading and writing ability that these ESL do not have, they experience immense difficulties reading their textbooks and understanding the vocabulary unique to particular subjects.

Research demonstrates that vocabulary knowledge highly correlates with reading comprehension (McNeil, 1987; Nicol, 2004). Vocabulary knowledge refers to the reader's knowledge and allows the reader to represent this knowledge to schemata. For second language learners, reading and comprehending in their weaker and non-dominant language is difficult. One of the major obstacles in their construction of textual meaning is vocabulary (Gunning, 2005) and in the context of local classrooms, the teaching of vocabulary was not taught well (Hamidah, 2002). In a study with upper secondary students and teachers' perception on the teaching of vocabulary, Hamidah (2002) found that her research participants perceive vocabulary to be an important aspect of language teaching which was unfortunately not taught well in the classroom. This was evident from the classroom observations when the most frequent approach found was eliciting and providing word meaning. In the think-aloud procedure, the study found that students did use several strategies in decoding words such as the use of contextual clues, using associative meanings, translation, rereading the text and background knowledge.

As stated earlier, language proficiency is another factor that also associated with academic failure (Shamsulbahri, 2005; Nicol 2004) and indirectly reading. In an exploratory study conducted in Science content subject area with secondary students, Shamsulbahri (2005) stated that the level of comprehension and understanding was not up to the standard. Based on the interviews with the students in the study, it was revealed that the students found the textbook and worksheet simple and were able to read it, but some students mentioned that even though it is written in simple English,

they still had difficulty understanding what they read. They even seemed to prefer English Language as a subject to Science or Mathematics. Yong (2001) study on students' low achievement in GCE O Level Biology also found that students' command of English was the main problems, as many students had difficulty in understanding their teachers' notes as well as written texts in the Biology textbooks. Yong also reported that lack of comprehension led students to resort to rote learning. This is not surprising because one of the major problems confronted by ESL problems by ESL in learning Science is the lack of language proficiency (Yong, 2010). ESL learners encounter problems because learning Science through English is complicated by having to simultaneously master both the science content and language at the same time (Rollnick, 1999).

In another study looking at problems encountered by Bruneian students with the Cambridge O Level English Language Reading Comprehension Paper (Nicol, 2004), four problems were identified by the teachers with regards to reading comprehension paper. These include difficulty of the text, lack of vocabulary, the lack of world knowledge, poor reading skills and difficulty of questions. The first problem was reported by 66% of the teachers surveyed. This may be made even more difficult because students have poor reading skill.

Nicol (2004) also found that passive, non-interactive style of teaching was prevalent in secondary and primary schools in Brunei and reported that this could contribute why the students were not equipped with the basic language skills (including reading) necessary in the 'O' level English Language Examination paper. Studies on reading strategies (e.g. Limawati, 2007; Yahya & Noradinah, 2012) have shown that the students were actually taught reading strategies in the secondary classes.

In a study looking at the employment of metacognitive strategies to comprehend Malay texts by pre-university students, Yahya & Noradinah (2012) found that the pre-university students in their study often use strategies such marking marks, checking, seeking help, and writing a summary. The students were also seen to focus on strategies such as underlining when reading and reading more than once. Limawati

(2007) investigated the strategies the upper primary students of different ability levels used to process meaning in order to understand texts. In the latter study, a reading comprehension test and a questionnaire were used. She also found that there was a distinction in the meaning making process across the different ability levels. The high ability students were capable in utilizing their background knowledge and employed more than one strategy than the low ability students.

As reported in Nicol's (2004) study, the difficulty of the text was the top problem English Language students seemed to encounter in the reading comprehension examination paper and which also seemed to be the same problem the students encountered in the content area classes. The textbooks used in the content subjects, particularly the Science textbooks were too difficult for the students to comprehend and to learn their content (Yong, 2010). Yong's (2010) looks at the readability of Secondary Science for Brunei Darussalam Book 1 and found that it far exceeds the reading age of the students who used the textbook. He found that, in terms of reading level, the majority of the students were found to be at the 'frustration' level. The text materials presented in the textbook are too difficult for the students and consequently they will not be able to read and learn from the text materials alone without teachers' assistance. The reading level of the students in the study was determined using the cloze test. Nicol (2004) also found the same situation with the texts in the reading comprehension Cambridge examination. The teachers in her study reported that most 'O' level texts were above the reading level of their students and thus led to students unable to achieve credits for the exam.

Based on the above studies and looking at the two types of classes, a number of factors and problems were found that could affect students 'reading ability'. Consequently, since reading is a vital tool for education, it is a challenge for educators to transform the non-reading culture of the majority of the students in Brunei (Rahmawati 2001; Teoh, 2003) and more specifically to enable students to 'read to learn'.

In the English language classrooms, reading comprehension, summary and vocabulary instruction seems to constitute the main focus of reading instruction in upper

secondary level in Brunei classrooms. It is hypothesized that actual reading instruction does not exist in the content classes. The preliminary study (2008) carried out prior to this study seemed to confirm that reading instruction in content classes was almost rare though students were expected to read their content notes or textbook prior to class, usually at home without the teachers' assistance. As pointed out in Yong's (2010) study, it can be assumed that most probably the textbooks in the upper secondary level deemed unsuitable for the majority of the students due to readability problems.

Although the teaching of reading is mainly found in the English language classes, the preliminary study seemed to confirm Hjh Zulyana's findings. She indicated that reading comprehension in secondary schools is focused more on testing reading comprehension than teaching it (Hjh Zulyana, 2009). The preliminary study also found that the teaching of reading in many secondary classrooms in Brunei is characterised by goal oriented reading in search of answers confirming Hjh Zulyana's (2009) study. This is evident in both English language and content subject classes.

To be able to comprehend is essential for any students, especially for those in upper secondary classes (age 15-16) in order to access the increasing complexity and abundance of information from subjects across the curriculum (Hjh Zulyana, 2009). The local studies found that Bruneian secondary students most often did not understand what they are reading, particularly in content subject classes and adopt a strategy by memorizing the contents of their subjects without fully understanding them. These studies seem to confirm that success in school depends on how much students are able to understand and acquire knowledge in different subjects particularly in the area of reading to learn (Vacca & Vacca, 1999; Chall, 1983; Gomez & Gomez, 2007). This has an implication for providing students with reading instruction in strategy use. Instruction in comprehension strategies is particularly important for struggling readers as they are unlikely to discover these strategies on their own.

Reading strategies (e.g. vocabulary knowledge, activating previous knowledge, text organization, use of visual, scanning and skimming) are clearly stated in the Brunei English Language Syllabus for both lower and upper secondary levels (CDD, 2000). It

can be hypothesized that most English Language subject teachers teach these strategies to their students and that ideally students are taught to employ various reading strategies throughout their secondary learning (CDD, 1996, 2004). However, current practices in Bruneian English Language classrooms do not explicitly emphasize the importance of employing metacognitive reading strategies to facilitate critical understanding of the reading text and meaningful engagement between the learner and text (Rahmawati 2001; Pieronek 1997). Classroom practice does not always prepare learners to utilize skills and strategies to predict, infer, analyze, agree, criticize, and evaluate by interacting with the reading comprehension passage given (Hjh Zulyana, 2009) but often 'geared more towards reading for learning and preparing students for their examination' (p.6).

Before we look at reading strategies and reading to learn in an educational context, I will now continue this chapter by describing three models and approaches of reading. For the purpose of this study, the terms models and approaches were used interchangeably to refer to processing information during reading. By having a basic understanding of how reading takes place hopefully helps with the transition of this thesis from reading process to reading strategy use.

3.3 Models of reading

'A complete model of reading has yet to be devised'

(Erler & Finkbeiner, 2011.P.187).

This thesis will firstly discuss three models or approaches of reading. Though these models emerged from reading research in L1 reading, they influenced the conceptualization of L2 reading (Erler & Finkbeiner, 2011; Grabe & Stoller, 2011). These two models are 'top-down' (Goodman, 1967) and 'bottom-up' (Smith, 1982).

3.3.1. Bottom-up Approach

According to Nunan (1999), the bottom-up model views reading as a matter of decoding a series of written symbols into their aural equivalents in the quest in making sense of the text. Also called data-driven or text-driven (Parry, 1996), the model

conceives reading as a linear process which view the reader as always begins at the bottom with the identification of letters (the smallest units in language), working up through words and sentences until the meaning of texts is understood. Bottom-up processes include 'lower-level processes, such as identifying words and basing comprehension on meanings at word or phrase level' (Erler & Finkbeiner, 2011. p.188). In general, these viewpoints claim that readers recognize letters, transfer them to sounds and then move on to decode the next letter. Then after the readers master the letter and word recognition skill, they attend to letters and words automatically and thus meaning was built from the smaller to the larger units. Variables including grammar, vocabulary and syntax are the main focus of bottom-up theories and models. Simply put, this model describes processing directions during reading from the text to reader.

The effective use of reading strategies has been recognized as an important way to increase reading comprehension; as a result studies in the L2 (second language) reading literature has generated lists of reading strategies to help students read more productively (Block, 1986; Cohen, 1998; Oxford, 1990; Lee-Thompson, 2008).

Bottom up strategies are the strategies that readers use to understand specific linguistic units; they are called local strategies (Block, 1986 and Block 1992) or problem-solving and support strategies (Sheorey & Mokhtari, 2001). Lee-Thompson (2008) developed, based on the think-aloud protocols in her study, the reading strategy scheme consisting of two groups: Bottom-up strategies and Top-down strategies. The twelve bottom-up strategies are primarily used to help solve difficulties in comprehension of smaller units, such as characters, words, phrases, or sentences (Lee-Thompson, 2008) and are listed below:

1. Scanning for unfamiliar words
2. Marking the text.
3. Using textual features
4. Writing the L1 and/or English Equivalent
5. Rereading
6. Skipping
7. Translating
8. Substituting
9. Using visual aids

10. Applying linguistic knowledge
 - (a) Using lexical knowledge
 - (b) Using syntactic or grammatical knowledge
11. Using context
12. Vocalizing

From the point of view of this model, accuracy in understanding linguistics units is very significant and the lower-level processing skills in reading are important. This model, however, weakens the significance of reading comprehension because the focus is on linguistic knowledge but little attention is paid to schema, i.e. related cultural background, the whole text, etc. Some example of reading activities used in this approach includes:

- Finding or underlining examples of tenses or grammar structures.
- Scanning a text for specific information.
- Making a timeline of the events in the text
- Finding synonyms or definitions of words in bold.

(Munoz Fuendalida, 2010, p13)

3.3.2. Top-down Approach

The top-down model is in direct opposition to the bottom-up model. Also called the concept-driven or reader-driven approach, this model recognizes the critical role played by readers' expectations of the contents of the text being processed (Urquhart & Weir, 1998). Goodman (1967) presented reading as "a psycholinguistic guessing game", a process in which readers sample the text, make hypotheses, confirm or reject them, make new hypotheses, and so forth. Here, the reader, rather than the text is at the heart of the reading process. This top-down model views readers as beginning with meaning and sampling information sources in the text and then making connections with their own experiences to construct the meaning of what they read. Top-down processes are characterized as higher level processes whereby processing direction during reading is from the reader to the text. Briefly stated, the top down model views the reader beginning with meaning and sampling of information sources in the text. The readers then make connections with his/her own experiences in order to construct meaning from their reading. Variables including reader's background knowledge of the text and

the world, cognitive development, use of strategy, and purpose of reading are the main emphasis of top-down theories and models.

Top down strategies are strategies that readers used to predict text content, construct goal for reading, and self-monitor the reading problems. These are called general strategies (Block, 1986 and Block, 1992) or global strategies (Sheorey & Mokhtari, 2001). Lee-Thompson's (2008) top-down strategies were mainly applied to 'assemble or integrate information to gain a holistic understanding of larger portions or the entire text' (p.709) which also used to evaluate or monitor the reader's progress towards achieving his/her goal of comprehension. These fifteen top down strategies are as below:

1. Previewing
2. Paraphrasing
3. Using background knowledge and personal experiences
4. Anticipating
5. Hypothesizing
6. Formulating questions
7. Identifying main ideas
8. Taking notes
9. Making a summary
10. Planning
11. Attending Selectively
12. Monitoring Comprehension
13. Identifying problems
14. Evaluating performance
15. Evaluating Strategy use

(Lee-Thompson, 2008. Pp709)

Examples of reading activities that are based on this approach include:

- Predicting the text using titles, pictures
- Writing a journal entry about a time the learner had a similar experience
- Expressing an opinion or reaction to the text
- Writing a summary of the text or the author's point of view
- Taking notes in the margin of the main ideas of each paragraph
- Relating the text to something in current events

(Munoz Fuendalida, 2010, p14)

Bottom-up and top-down approaches competed with each other throughout the 1970s and 1980s until a general consensus began to emerge that reading is a complicated, interactive process that involves both approaches (Carrell, 1988; Stanovich, 1980; Rumelhart, 1977). As Wolf (1987) puts it, both data-driven processing and concept-driven processing are “interdependent processes” (p.311). Each compliments the other. It is further difficult to process L2 reading texts on the strength of either the top-down or bottom-up approach alone.

3.3.3. The Interactive Approach

In this model reading is viewed as an interactive, cognitive psycholinguistic process where both, bottom-up and top-down processes are simultaneously involved. This approach considers an interaction between the reader and the text. Specifically, bottom-up processing is evoked by the incoming data from the text, while top-down processing occurs as the reader makes predictions in the light of his/her background knowledge (Carrell & Eisterhold, 1983).

As indicated in section 1.3, this study views reading process as the interaction of both bottom-up and top-down processing during reading. This is seen of relevance to this study because L2 reading processing seemed to be happening on several levels.

Researchers in the L2 reading have also acknowledged the interactivity of reading processes (for example Carrell, 1985; Carrell, Devine, and Eskey, 1988; Grabe & Stoller, 2002; Eler and Finkbeiner, 2011).

In this interactive approach to reading, the processing information during reading involve readers starting with bottom-up reading to process a chunk of a sentence and then shift to top-down reading to make a hypothesis about the meaning of a sentence or a group sentences. Readers will use top-down reading to predict the meaning of the input then switch to bottom-up reading to check whether their prediction is correct. In the L2 reading context, when students read a text, he or she attempts to interpret the reading material and in doing so, various sources of knowledge interact with each other. Such sources of knowledge include orthographic knowledge, lexical knowledge, syntactic knowledge and semantic knowledge (Faizah Abdul Majid, Zalizan Mohammed

Jelas and Norzaini Azman, 2008). The current study, however, does not explore all these variables but attempts to gain insight into strategy use during the reading process and how students process information from the text, i.e. for comprehension and eventually to learn the content. .

According to Cooper, Warncke & Shipman (1988), reading is not merely decoding words but it is actually a process of constructing or processing. Grabe (1991) further states that reading is not merely a receptive process of picking up information from the page in a verbatim manner but it is a selective process which characterizes an active process of comprehending. Reading does not occur unless comprehension takes place or meaning is constructed. Therefore, the ultimate goal of reading is to process information and comprehend a text. In this respect, this study is further based on the assumption that reading is a complex process of making meaning from the text, for a variety of purposes (Allan & Bruton, 1998) and that readers make use of background knowledge, vocabulary, grammatical knowledge, experiences with text and other strategies to help them understand a written text (Paris, Cross & Lipson, 1984; Block 1992). This reading process is even more complex in second language reading context because other variables also contribute to the process. These include motivation, task and purpose of reading, L2 proficiency and reader's background. These variables are not the focus in this study but the employment of reading strategies in processing information from a text written in a second language.

Second language reading is therefore an important skill that can facilitate or hinder academic success to second language learners across educational context. Reading is also a crucial source input for L2 development (Taylor, Stevens & Asher, 2006). This adds further support to the current study in Brunei because the results might have great implications for success in content subjects and English language.

We will now look at how reading strategies play a significant role in reading, particularly in academic setting as in the current study.

Since reading is now integrated into all subject matters, teachers of all subjects are expected to teach literacy, in this case reading in their classroom. There needs to be a balance between teaching reading skills and teaching reading particularly in the content subject classes. Reading in these classes does not just include comprehension but to enable students to learn, use and apply the content. Content area reading instruction includes helping students tap into their reasoning abilities, increase problem solving skills, and demonstrate higher-level thinking abilities (Misulis, 2000). In the preliminary study conducted prior to the main study, the teachers stated that the students in Brunei are required to read extensively. And since subjects in the Brunei secondary schools are predominantly taught in English, it can be hypothesized that Bruneian students do need reading instruction, particularly reading to learn for study purposes.

It has been recognized that students encounter many new words, or words used in new ways in content subjects and that students need to read with understanding and to study effectively in order to learn subject matter (Singhal, 2001). Research has encouraged teachers in recent decades to identify and use tools other than explaining the content of their lessons that can enable students to engage with and more effectively learn subject matter (e.g. Ogle, 1986; Palincsar & Brown, 1984; Gersten, Fuchs, Williams, & Baker, 2001). Therefore the next sections will try to describe reading strategies used for comprehension and for learning.

3.4 Reading comprehension strategies

The National Reading Panel's (NRP) report (cited in Dole, 2004) listed a number of comprehension strategies that have been found to be useful to L2 readers and have been successfully taught. These strategies include procedures such as identifying existing prior knowledge, predicting, visualizing, summarizing, generating questions, monitoring comprehension, and repairing comprehension breakdowns. Students can learn or taught to use these strategies, with practice and instruction, on their own and thus can learn to become strategic readers (Paris, Wasik & Turner, 1991).

When comprehension strategies are directly taught to L1 and L2 readers, their comprehension improves as shown in a study by Palincsar & Brown (1984). Palincsar & Brown (1984) identified four particular important strategies to teach: predicting, summarizing, clarifying hard parts, and asking questions. The researchers taught L1 students in their study over an extended period of time. They first modeled the strategies when reading content area textbooks, then the students worked in peer learning groups and over time students are given responsibility to use the strategies completely on their own. Students eventually learned how to use the strategies on their own. The teaching of these four particular strategies is well known as reciprocal teaching (Palincsar & Brown 1984). Although their study was done with L1 students, L2 students may benefit from the reading strategies component when reading in the L2 context. Comprehension strategies are therefore useful to teach and useful to learn. The body of research supporting their use is abundant (e.g. Palincsar & Brown 1984; Beach, 1996; Block, 1992; Kern, 1989; Nassaji, 2002).

In the field of second language acquisition (SLA), language learner strategies have enriched the SLA literature by providing insight into the metacognitive, cognitive and affective processes involved in L2 learning (Chamot, 2005). Learner strategies can be defined as specific actions taken by learners to facilitate language learning task (O'Malley & Chamot, 1990). Within the L2 context, language learner strategies can be classified into two categories: language learning and language use (Cohen 1998). Though not the intention of this study to exhaustively outline what these strategies are, it is necessary to discuss here briefly the difference between the two strategies.

Research in second language reading suggests that learners use a variety of strategies to assist them with the acquisition, storage, and retrieval of information (Rigney, 1978 cited in Singhal, 2001). Strategies are defined as learning techniques, behaviours, problem-solving or study skill which make learning more effective and efficient (Oxford & Crookall, 1989). In the context of second language learning, a distinction can be made between strategies that make learning more effective (that is reading to learn), versus strategies that improve comprehension (Singhal, 2001). The former are generally referred to as learning strategies in the second language literature. Language learner

strategies are those that language learners draw upon to promote language learning and acquisition in general (Phaktit, 2003) whereas language use strategies are those that language learners use to successfully achieved their goals in a specific context (e.g. to obtain better scores on a reading test).

3.4.1. Defining Strategies

Defining strategies has also leads to various controversial issues and difficulties. The fuzziness of the definition of strategies is due to the decision to be made on whether strategies are referred to as activities or behaviours deployed consciously, subconsciously or unconsciously (e.g. Barnett 1988; Kern 1989) or whether they are only referred to activities or behaviours employed in a conscious way (e.g. Anderson, 2005; Cohen, 1998; Ellis, 1994). However, despite the debate of the clear cut extent of consciousness, most researchers (e.g. Chamot, 2005; Cohen, 1998; Hsiao & Oxford, 2002; Oxford & Cohen, 1992) agree that the involvement of a certain level of conscious intention is an indispensable element in employing strategies.

Added to this, there is also the issue concerning whether strategies are mental operations or behavioural activities. Some strategy researchers view strategies as mental operations that language learners deploy in L2 acquisition, L2 use or L2 test contexts (e.g. Abbott, 2006; Cohen 1998; Hosenfeld, 1977; Macaro, 2006) while among several researchers (e.g. Anderson, 2005; Ellis, 1994; Purpura, 1997), 'there remained [remains] a determination that strategies should encompass more than mental operations' (Grenfell & Macaro, 2007:21). That is, strategies are conceived as both mental and behavioural activities related to given task performance.

The controversial definition of strategies seems to be associated with methods utilized to investigate strategies that learners use. As verbal reports are applied to examine learners' strategies deployment, it appears evident that actions or activities occurring consciously will be verbalized and detected. On the other hand, when questionnaire are adopted, subconscious or potentially unconscious activities, in addition to conscious ones, may be self-reported. In this study, a strategy is defined as a consciously or subconsciously, mental or behavioural activity related to directly or indirectly to task

performance, specifically reading to access meaning. With this definition and in the context of reading, processing information from academic text (books) by students is an area of interest in the study.

As this section looked at reading strategies and since the preliminary study found that the students seemed to use more cognitive strategies, It was felt that a section on this type of strategy will be discussed.

3.4.2. Cognitive and metacognitive strategies .

It is quite difficult to distinguish between what is cognitive from what is metacognitive or in other words how to distinguish between 'meta' from 'cognitive' (Borkowski 1992, Brown 1987). This difficulty arises in trying to differentiate a cognitive strategy (such as thinking, reasoning and perceiving) from a metacognitive strategy. Metacognitive strategies are higher order skills which include planning for, monitoring, or evaluating the success of a learning activity (Brown, 1985) and are applicable to a variety of learning tasks and should be integrated into instruction for both L1 and L2 students at various ability levels (Nolan, 1991). Cognitive strategies operate directly on the information in hand, manipulating it to enhance learning. Such strategies may include inferencing, summarizing, deduction, imagery and transfer. Another difficulty arises when reading strategies that were once considered as cognitive are now considered metacognitive. Such strategies include:

- I. establishing the purpose of reading
- II. modifying reading due to variations in purpose
- III. identifying important ideas
- IV. activating prior knowledge
- V. evaluating text for clarity, completeness and consistency
- VI. compensating for failure to understand text , and
- VII. assessing one's level of comprehension

(Baker & Brown, 1984)

Overseeing whether a cognitive goal has been met is a criterion in determining what is metacognitive. Cognitive strategies are used to help in achieving a particular goal (e.g. understanding a text) whereas metacognitive strategies are used to ensure that the

goal has been met (e.g. questioning to evaluate one's understanding of a particular text). Metacognitive activity usually follows a cognitive activity, especially when cognitions fail (e.g. when one does not understand what one is reading). When this happens, learners activate their metacognitive processes in an attempt to rectify the situation (Roberts & Erdos, 1993).

Metacognitive and cognitive strategies may overlap: the same strategy, such as questioning, could be regarded as either a cognitive or a metacognitive strategy depending on what the purpose for using that strategy might be (Collins et.al.; Livingston 1997). For example, a self-questioning strategy while reading can be used as a mean of obtaining knowledge (i.e. cognitive) or as a way of monitoring what one has read (i.e. metacognitive). The basic metacognitive strategies according to Dirkes cited in Blakey & Spence (1990) are (i) connecting new information to former knowledge, (ii) selecting thinking strategies deliberately and (iii) planning, monitoring and evaluating thinking processes. Studies (e.g. Anderson, 1991; O'Malley & Chamot, 1990; Carrell, 1989, 1992) show that increases in learning have followed direct instruction in metacognitive strategies and that direct teaching of these strategies may be useful. Though these studies focused on university L2/FL students, the results have implications for post-secondary and secondary students. This supports the need for students to be able to employ metacognitive strategies right from the secondary level.

Blakey & Spence (1990) state the implications of metacognitive behaviour for learning to learn. Such behaviour is essential in developing a repertoire of thinking processes so it can be applied to solve problems, which is in turn a major goal of education. The term 'learning to learn' which this study perceives as a component of 'reading to learn' is of great relevance to the Brunei situation in that educators should try to develop cognitive behaviour in their students to help them with their content subject areas. As pointed out by Pieornek (1997), Bruneian primary school children have the potential to develop their awareness of what is going on during learning. This implies that teachers should help students by giving deliberate or explicit instruction on strategies in developing their metacognitive behaviour. The strategies listed below (cited in Blakey & Spence 1990) are strategies which may be used for the above purpose:

- I. Identifying 'what you know' and 'what you don't know'
- II. Talking about thinking
- III. Keeping a thinking journal
- IV. Planning and self-regulation
- V. Debriefing the thinking process
- VI. Self-evaluation.

Other studies in metacognitive strategies with students of various levels and settings (i.e. L2/FL) show that (i) comprehension monitoring (Schraw 1994; Casanave 1988; Block 1992; Jimenez, Garcia & Pearson, 1996), (ii) connecting prior knowledge with text (Roller & Matambo 1992) or use of schemata (Hudson 1982), (iii) knowledge of text structure (Spires, Gallini & Riggsbee 1992; Carrell 1985) and (iv) Metacognitive strategy training and reading strategies (Carrell, Pharis & Liberto 1989, Kern 1989) do help to enhance reading comprehension.

3.4.3. Studies looking at reading comprehension strategies.

During the last decades, both L1 and L2 researchers have emphasized the importance of active and flexible strategic processing during reading (e.g., Palincsar & Brown, 1984; Pressley, El-Dinary, & Brown, 1992). Moreover, it has been demonstrated that extensive strategic processing during reading is a hallmark of expertise within an academic domain (Pressley & Afflerbach, 1995) These include the use of deeper-level strategies such as building a mental representation of the text and identifying gist (e.g., Alexander, Murphy, Woods, Duhon, & Parker, 1997), generating explanations (e.g., Magliano, Trabasso, & Graesser, 1999), formulating and solving problems (e.g. Deegan, 1995), and monitoring comprehension (e.g. Block 1992; Schraw, 1994) have been linked to better recall and comprehension.

Students especially those in the L2 contexts need to be able to use a variety of strategies if they are to be successful and confident learners in secondary schools. Strategies for studying and learning do not develop automatically; most students need instruction in strategies specifically designed for expository, conceptually dense content learning (Ogle, 2004). Various research studies have been conducted in the past looking at various areas concerning L2 reading strategy use and strategy deployment

by successful and unsuccessful; good and poor readers using a number of approaches in their reading activities (Hosenfeld, 1977; Carrell, 1998; Block, 1986). For example, using think-aloud procedures, Hosenfeld (1977), found that successful L2 readers approached the text in a main-meaning manner such as keeping the meaning of the passage in mind while processing L2 written texts, skipping less important words, and possessing positive self-concepts as readers. In contrast less successful readers processed the text at word level, lost the meaning of the sentences, seldom skipped less important words, and held negative self-concepts as readers. In a qualitative study with EFL readers, Block (1986), successful EFL readers used more general strategies which include monitoring their comprehension frequently than less successful readers. Block's study in fact gives evidence of monitoring strategy employed by FL (and presumably L2) readers.

L2 strategy researchers also implement questionnaire procedures to examine strategy use of good or poor readers in L2 reading (e.g. Carrell, 1989; Mokhtari & Reichard, 2002; Mokhtari & Sheorey, 2002; Hauptman; 1979); in investigating employment of reading strategies by good and poor readers (e.g. Cohen, 1986; 1998). These studies found that good readers employ strategies such as reading for meaning, making an inference, scanning, skipping unknown words, reading in a critical manner, guessing in a context, recognizing the structure of text, activating adequate background knowledge and monitoring comprehension. The findings from the above studies, though mainly focused on reading comprehension in the language learning setting, can also be used to conceptualize reading strategy use in content subject setting such as in the current study.

3.5. Reading Strategies for Learning

Reading is one of the most important academic tasks faced by the students especially when reading the textbooks. Teachers assume that students learn most from content material, primarily content subject textbook as well as from prepared and modified notes from the teachers. However, most research suggests that textbook reading is not

as prevalent as assumed, and most students depend on the teacher, not the textbook, as their primary source of information (Ambruster, Anderson, Armstrong, Wise, Janisch & Meyer, 1991; Vacca, 2002; Yong, 2010). Because of the usefulness and the validity of the information presented in the text, teachers feel they cannot abandon the textbook. Yet, many teachers become frustrated with students' apparent lack of critical reading skills and their inability to comprehend effectively from their texts (Allington, 2002; Yong 2012). Since these teachers are not themselves trained in teaching content area reading strategies, many resort to telling their students what they need to know rather than requiring them to read the text. Instead of employing strategies that make use of active learning, many secondary teachers rely on passive approaches such as retelling and memorization (Simpson, 1995) which might be the case of the classes in the local context (e.g. Nicol, 2004, Sarifah, 2005).

Content area teachers can equip their students with strategies that will help them access and use background knowledge, text feature knowledge, and general knowledge gained from the world, or as some would call it, common knowledge (Bell & Lee, 2005). Based on the description in this section, reading strategies for learning possibly employ more top-down strategies than bottom-up strategies. In order to help students read to learn, content area teachers must teach students strategies to tackle materials containing the needed information. The literature in the content area reading seemed to have a consensus agreement in placing background knowledge being greater importance in reading in the content subject. Therefore activating and building reader's background knowledge is one of the main reading strategies for learning.

Before discussing further the different types of reading strategies in the learning context, first let's look at what is involved in reading textbooks in the secondary level.

3.5.1. Content Subject reading: What is involved in reading texts from these classes

According to Chall (1983), reading in secondary grades is about using those skills to comprehend what one has read, or reading to learn. All these expectation of students in their content subjects puts more pressure on them, especially in the L2 reading context.

Texts in content areas often use language, syntax, vocabulary, and concepts that are specialized in a certain field of study (Jacobs, 1999). Vocabulary in subjects other than Language is especially important because 'the vocabulary within the texts becomes more specialized, with technical terms and abstract ideas. The syntax of texts becomes more complex and demanding. The reasoning about information in texts also shifts, with greater emphasis on inferential thinking and prior knowledge.' (Allington, 2002).

Grabe & Stoller (2002) also discuss another area of instructional dilemma in L2 reading that is promoting reading to learn. They pointed out that 'there is little exploration in L2 reading research of the transition from learning to read to academic reading to learn, yet this transition is expected to occur in many L2 contexts' (p. 85). This point is further related to another dilemma which centered on the role of strategies in reading comprehension, abilities that 'everyone agrees are important' (Grabe and Stoller, 2002:81). This transition seems to be lacking in the Bruneian context and yet the students seem to be able, some do so exceptionally well, to excel in subjects where reading from their textbook is greatly emphasized.

Reading requirements and reading materials also change greatly in secondary classes (Chall, 1983; Ness, 2007). A considerable amount of secondary school reading material is centered on expository or informational text (Schifini, 2005). In a study looking at ESL students reading task, Ness (2007) found that the academic tasks students encounter in secondary school involve a great deal of reading in support of learning new and complicated content and 'as the academic demands on secondary students becomes more complicated, explicit reading instruction diminishes' (Ness, 2007). This further supports the claim that students are not always well prepared to deal with the new material and text structures presented in the reading materials in secondary schools which centers on expository or informational text (Schifini, 2005).

Therefore as the student progress up the educational levels, the volume of reading required becomes much greater, vocabulary becomes more specialized, and concepts become more complex. This usually happens in Bruneian classrooms especially once students enter upper Secondary level. From studies in the Bruneian classrooms (see

section 3.2), it seems that Bruneian students are struggling to cope with the content of their subjects, most of which are taught in English. It can be also hypothesized that this creates more obstacles for the students because there is also an issue of whether they have reading problems or language problems (Alderson, 1984) which might hinder their overall comprehension of the information that they came across in their reading.

Generally, from primary to the secondary level, students not only are required to study more subjects, the reading expectation also changes, a transition which is not given attention to in L2 reading instruction (Grabe & Stoller, 2002). It is often assumed that by the time students reach secondary school, they know how to read well enough to function in classrooms. It is further suggested that one of the reasons why it is so difficult to teach 'reading and writing' at the secondary school level is that many secondary school teachers consider themselves to be content experts who only focus on the content and not on teaching their students how to learn (Vacca, 2002; Ogle, 1986).

In most cases, struggling readers are more likely than not to experience reading-related problems in many of their content subject classes in their secondary education if this transition is not taken into account. For this reason, all teachers, not just English language teachers, need to address the issue of weak readers and plan ways to assist them. Zwiers (2004) argues that non-language teachers, especially in subjects like science and social studies where there is a great deal of reading, are "uniquely qualified to teach students how to actively think about texts in their particular classes" (p.5). He suggests that content subject teachers, for example in social studies can have students analyze cause and effect of historical processes while science teachers can have their students visualize physical and chemical processes. This is particularly essential for reading in a multilingual setting as, in Brunei.

The question of who is responsible for teaching students reading strategies to help them with their academic studies is the next area of concern. It is suggested that there should be a transition to promote reading to learn (Grabe & Stoller, 2002). Content subject teachers, as also found in the preliminary study (2008), do not consider that

they should be teaching reading comprehension when they are teaching Science, Geography and History (Majdi et.al. 2009; Wren, 2003). Such attitudes need to change. Even though the goal of non-language teachers is the content, this goal will not be achieved unless attention is given to developing reading comprehension (Duke & Pearson, 2002). The two are closely interrelated as argued by Vacca et. al. (2005) that 'all teachers play a critical role in helping students think and learn with text' (p.3).

A reading lesson in a content areas requires teachers to enlarge students' background knowledge, pre-teach vocabulary and concepts, show students how to monitor their comprehension so they can learn the content, and to show students how to apply fix-up strategies, such as rereading and looking for clues, to figure out difficult words.

3.5.2. Prior Knowledge

Students' prior knowledge plays an integral role in learning (Ryder & Graves, 1994). In this strategy use, students attempt to relate new information to already known information in order to make sense of the text to be read. The students can be taught in the content subject with strategies or activities for building background. Prior knowledge can act as a framework through which the reader filters new information and attempts to make sense of what is read (Barton, 1997; Vacca & Vacca, 1999; Richardson & Morgan, 2000). If the students' background knowledge is well-developed and accurate, they will understand and remember more of what they read. Because of the usefulness of prior knowledge in comprehending, processing, and remembering new information, pre-reading strategies need to be used when reading in content subject classes.

Pre-reading strategies include brainstorming; graphic organizers of students' background knowledge, including concept maps; or cloze exercises. In the cloze exercises, students attempt to replace important vocabulary or concepts that the teacher has deleted from the text in order to draw attention to those points (Fisher, Fry & Williams, 2002; Jacobs, 2002). Ryder & Graves (1994) provides two instructional activities that can help build students background knowledge by first to help structure

the subject matter content. The first activity was by asking questions in discussion and recitation and the second was to use study guides.

Study guides are teacher-generated questions and activities that students respond during reading (Wood, Lapp & Flood, 1992). One example of the study guides is a textbook activity guide (TAG, Davey, 1986) which contains a variety of questions and activities about the subject matter, cues about the processes to use to respond to these, and self-monitoring component. Davey, (1986) cited in Ryder and Graves (1994) suggests the following strategy and self-monitoring when reading a textbook.

Strategy codes

P = Discuss with your partner.

WR = Provide a written response on your own.

Skim = Read quickly for the purpose stated; discuss with your partner

Map = Complete a semantic map of the information.

PP = Predict with your partner

Self-Monitoring Codes

I understand this information

I'm not sure if I understand.

I do not understand and I need restudy.

3.5.3. Pre-teach vocabulary and concepts.

Vocabulary development needs to take place in all content classrooms (Richardson & Morgan, 2000). Readability researchers have contended that vocabulary strongly influences the difficulty of texts and teaching vocabulary is important across the two types of classes. Educators have shown that teaching vocabulary can improve students' comprehension and memory of selections containing the vocabulary taught (Beck, Perfetti & McKewon, 1982 cited in Ryder & Graves, 1994).

Ryder & Graves, (1994) in his book presents six word-learning tasks which include: (1) learning to read words in students' oral vocabularies, (2) learning new labels for known concepts, (3) learning words representing new and difficult concepts, (4) clarifying and enriching the meanings of known words, (5) learning to actively use words in speaking and writing, and (6) learning new meanings for already known words (Ryders & Graves, 1994, pp. 73). Richardson and Morgan (2000) further outline strategies that help

students to learn vocabulary. One way students can get meanings of difficult vocabulary is to use context clue whereby students can make look for specific clues in the text such as definitions, signal words (i.e. for example, in the way that, such as, like, etc), direct explanation, synonyms, antonyms and inferences.

3.5.4. Monitoring reading

When students read in order to make sense of the text, and to extract the main concept to be learnt, they are to monitor their reading and to apply fix-up strategies to enhance their reading comprehension. Similarly the same apply in the content subject reading where students further can apply study strategies when they read for learning.

Researchers cite two different categories of strategies: 'fix-up' strategies to resolve comprehension failures and studying strategies to enhance storage and retrieval when comprehension failure is not necessarily an issue (Ambruster, 1983). Tei & Stewart (1985) discuss several strategies for improving comprehension which can be used when reading content subject materials before they learned the content. These include forming mental image, rereading, adjusting reading rate, searching text to identify unknown words, and predicting meaning that lies ahead.

When comprehension took place, students then can also use study strategies. Study strategies are important in reading to learn and can be applied to enhance text processing. Common studying strategies include underlining, outlining, note-taking, summarizing, self-questioning. Many of these strategies are complex and best handled by older and more experienced readers. Various studies have reported improved performance by middle school, junior high and high school students who were trained to use specific studying strategies (see for example Gertz, 1984; Langer & Neal, 1987).

Studying strategies are learning strategies that help students organize, process, and use information effectively. A learning strategy is a tool or technique used by students to enable them to successfully approach new learning situation and to complete assignment set to them independently. Learning strategies have been categorized into cognitive and metacognitive strategies (Anderson 2002). Cognitive strategies are those

strategies that can be applied to learning (and reading) problems such as paraphrasing, rereading, outlining or guessing from context. Often more than one cognitive strategy is used with others, depending on the learner and his/her schema for learning. Some of cognitive strategies include visualization, making associations, chunking, questioning, scanning, underlining, accessing cues, using mnemonic, sounding out words, and self-checking and monitoring. More explanation on these strategies can be found in another section.

Students today have difficulty getting through a short reading assignment, such as a newspaper article. This difficulty is associated with the lack of ability to focus and concentrate on written words. Due to this, many students need guidance and strategies to help them to focus on their reading and to do more than just read the words on a piece of paper. Based on a brief review on reading strategies in reading to learn context in this section, the skills of a strategic reader in the content areas can be broken down into seven areas (Hollas, 2002):

1. Predict – declaring in advance or to foretell on the basis of observation and/or experience.
2. Visualize – forming mental pictures of scenes, characters and events.
3. Connect – to link two things together or to associate and see a relationship.
4. Question – to inquire or examine.
5. Clarify – to make understandable or to become clear and free of confusion.
6. Summarize – to concisely obtain the essence or main point of the text.
7. Evaluate – to form an opinion about what you have read.

3.6 Is reading instruction needed across the curriculum (CS)?

As pointed out in Chapter 1 (see section 1.2), studies conducted in Brunei across the curriculum have revealed conflicting results on how students perceive their reading ability and what the teachers report on the comprehension abilities of their students. Cahoon (2007) suggests in her report that there seems to be an increasing number of secondary students who might be ill-equipped to read and comprehend the textbooks designed for secondary readers. Other studies, however report that teachers did not

fully teach reading comprehension strategies in their classes (Majdi Abdullah et. al., 2009; Ness, 2007) and it is possible to hypothesize here that the same applies to classes in Brunei.

The study by Majdi et.al.(2009) on the use of reading strategies in developing students' reading competency among primary school teachers in Malaysia revealed that although the teachers were aware of the use of reading strategies in developing reading competencies, they did not fully utilize them in their classes. Effective reading strategies such as setting the context, relating text to students' schemata and predicting or interpreting text were less frequently used. Majdi et.al. (2009) also found that the teachers in their study also failed to encourage readers' interaction with the text. Similarly, Ness's (2007) study looking at instructional practices of secondary language teachers, found that little instruction in reading comprehension was actually observed. Only 82 minutes out of the 40 hours of classroom observation conducted were allotted to teaching, explaining, modeling, scaffolding, and assisting students in using effective reading comprehension strategies. Furthermore the reading comprehension instruction observed was limited in scope and the most heavily used strategies to support comprehension was asking literal questions and having students write summaries of texts (Ness, 2007).

It is assumed that the teaching of reading has been left up to language teachers. One of the problems with this line of thinking is that most often the texts used in language classrooms are often different from the texts used in the non-language classrooms (Chall, 1983; Zwiers, 2004) and therefore the strategies used in language classrooms may not be applicable for non-language classes. Also, as language teachers tend to focus on the teaching of narrative-based texts in their classes, this does not necessarily transfer to the teaching of information-based texts in non-language classes. Even in language classrooms where reading is considered the most emphasised skill (Susser & Rob, 1990) because it is not a skill that can be automatically learned, an important aspect of teaching reading that is often being overlooked is the need to teach students the appropriate reading strategies (Majdi et. al 2009). Wren (2003) pointed out that majority of teachers at the secondary school level do not consider themselves to be

reading teachers and even if they are aware of weak readers in their classes, teachers are often unaware of the best way to help them.

The preliminary study carried out in Brunei secondary classrooms also revealed that appropriate reading strategies, particularly comprehension strategies, are not taught explicitly. Studies such as Palincsar & Brown (1984); Paris, Wasik & Turner (1991) and Faizah et.al.,(2008) have shown that reading comprehension strategies can be taught explicitly by teachers and learned by the students in the L2/FL classrooms setting. Comprehension strategies are 'routines and procedures that active readers use to better understand what they read' (Dole, 2004:85) while comprehension is the "process of simultaneously extracting and constructing meaning through interaction and involvement with the written language" (Snow, 2002, p. 11).

One way to interact with a text is through the application and regulation of reading strategies. Comprehension strategies are conscious, deliberate, and flexible plans readers use and adjust with a variety of texts to accomplish specific goals (Dole, Duffy, Roehler, & Pearson, 1991; Lenski & Nierstheimer, 2002). Moreover, strategies are cognitive tools that can be used when comprehension breaks down; as such, using strategies can improve student's performance on academic tasks (Beach, 1996).

3.6.1. Methods in teaching reading

There are many methods of teaching strategies that have been developed which teachers can use in their classrooms for content learning and comprehension. There are multiple ways to enhance reading. Descriptions of the methods of teaching are given in the rest of this section.

3.6.1.1. Experience-Text-Relationship (ETR)

ETR was found to be an effective method for helping students to use their background knowledge by Au (1997) who used it in an L1 context and by Carrell et.al (1989) who used it in an L2 context. It has three steps: experience (E), text (T), and relationship (R). In the first step (E), the teacher starts a discussion to activate students' background

knowledge about the topic of the passage to be read and to motivate them to read. In the second step (T), the teacher asks the students to read short parts of the text and asks questions on the content of the text. In this way, the teacher tries to make sure that they understand what they read. In the third step (R), the students are encouraged to relate the content of the text to their personal experiences and knowledge. During the reading of the texts, the teacher tries to model the cognitive processes involved in the comprehension of the text.

3.6.1.2. Reciprocal teaching.

The second method, namely Reciprocal Teaching, was first developed by Palincsar and Brown (1984) in the L1 (English) context and was found to be effective in improving students' reading comprehension and comprehension monitoring. Then this method was used in the ESL context by Cotteral (1990, 1993) and in the EFL context by Song (1998).

The general procedure in reciprocal teaching consists of students and teachers taking turns in leading a dialogue concerning the use of a reading strategy during the reading of a text. The teacher's modeling of the strategy prepares all the students for the role of group leader who will demonstrate the strategy use. Then, the teacher assigns one of the students to be the group leader. The students are constantly reminded that the aim of these activities is to help them improve and monitor their own comprehension.

Besides the above methods, there are also other methods that can be used and taught to the students. Some of these include Think Aloud strategy, using KWL, Directed Reading-Thinking Activity (DR-TA), summarizing, study guides, and SQ3R. The use of KWL method is discussed in the next section.

3.6.1.3. KWL ('Know', 'Want to know', 'Learned')

The KWL activity (Ogle, 1989) is a three step-procedure which begins with a pre-reading activity for engaging students in retrieval of their prior knowledge, followed by a question-generating activity and an after-reading activity for reflecting and elaborating on what was learnt. The procedure is guided by a worksheet composed of

three columns reflecting the three steps activity. KWL guides students through their reading material and which can be used in reading to learn context. Although the process begins as a before reading activity, its primary purpose is to develop a framework which students can use as they read.

The following steps are the procedure in using KWL method in teaching reading. It includes first to provide students with the opportunity to brainstorm and list the ideas and details that they have already know. Next they review the topic again and consider what they still want to know. They list these items in the W section of the chart. Then as they read of after they read, students add details that they have learned while reading. This procedure can be used for content subject reading.

3.7 Comprehension monitoring in reading

Comprehension monitoring is an on-going activity of evaluating and regulating reader's understanding of either written or spoken text (Baker & Brown 1984). It is thus one kind of activity with the term metacognition whereby readers, particularly L2 readers, can judge whether or not comprehension is taking place and decide how and what strategy to use when necessary (Casanave 1988). This mechanism is also referred to as an 'executive' mechanism (Garner, 1987). Reading for meaning therefore requires readers to make use of comprehension monitoring because in the learning process various things can occur that interfere with the attention and understanding.

Devine (1993), in discussing the role of metacognition in second language reading and writing, used the terms "cognitive monitoring" and "strategy use" to raise several issues including; (i) to what extent and with what success do L2 learners monitor their efforts in reading and writing? and (ii) how do L2 readers/ writers go about monitoring their reading/writing efforts? (What strategies do they employ?). The interaction between metacognitive knowledge and experience, cognitive goals and strategies is the basis of what Flavell (1981, 1985) cited in Devine (1993) refers to as "cognitive monitoring" and what Baker & Brown refer to as "self-regulation". Casanave (1988) calls comprehension monitoring a 'neglected essential' in ESL reading and argues for teachers and

researchers to find ways to help inefficient L2 readers learn to monitor their own reading strategies.

Casanave's argument that comprehension monitoring is a 'neglected essential' in ESL reading research is supported by Block (1992) because "for one thing, L2 readers can be expected to encounter more unfamiliar language and cultural references while reading authentic or un-adapted texts than L1 readers would" (p320) and therefore L2 readers have to 'repair' more gaps in their understanding of what they read than the L1 readers do. Studies conducted on comprehension monitoring (Block, 1992) and self-regulation (Lan, Bradely & Parr, 1993) found that monitoring and self-regulation by L2 readers facilitates reading comprehension.

Irwin (1991) stated that instruction in comprehension monitoring could either be incidental or explicit. The former type can be encouraged in various situations, including content-area classes across all level. For example, teachers should encourage students to clarify the source of their breakdown. By engaging in this process, students may discover that specific vocabulary/words were the cause of their problems or that they do not have adequate prior knowledge or even find out that the main point was unclear. Then, students can be shown how to take appropriate steps to facilitate their own comprehension to help them to become more active and independent readers or to be 'active consumers of information' (Rubin, 1992). Studies in both L2 and FL settings have shown that comprehension monitoring enhanced reading comprehension (Schraw 1994; Casanave 1988; Block 1992) and performances of students having problems and difficulties in reading and content areas (Jitendra, Hoppes & Yan, 2000; Malone & Mastropieri, 1992).

3.8 Summary

This chapter looks at the literature in the area of reading strategies and will provide a series of literature reviews and outline the theoretical background to the study. This research has contributed a great deal to our understanding of reading, reading process, reading instruction and reading strategies including strategies for reading to learn.

Most of the literature reviewed in this chapter shows that students do benefit from comprehension strategy instruction (e.g. Dole, Duffy, Roehler, & Pearson, 1991; Palincsar & Brown, 1984) and that students can employ various comprehension reading strategies, including cognitive and metacognitive strategies (e.g. Block, 1992; Roller & Matambo, 1992; Carrell, Pharis & Liberto 1989, Kern 1989). These studies show how students are taught to use and employ reading strategies and how their reading comprehension is enhanced both in the language classes or content subject classes. It can be suggested here that the studies reviewed often begin with the assumption that students do not have enough repertoires of strategies; or what effect specific strategies have on the students' reading performances.

As the main focus of the current study is to explore what takes place in the area of reading in academic settings (that is English language and Content subject classrooms), the studies in this chapter provide the basis in shaping the direction of the current research. What can be summarized from these studies are presented below:

- L2/FL readers seem to need explicit strategy training to enhance their reading comprehension, even more for content learning in L2.
- Good L2 reading seems to be related to proficiency and strategy use. Ability levels of students also play an important role in students' strategy use
- Monitoring comprehension strategy is seen as an important component of L2 reading across the curriculum.
- Strategy use by students involves the employment of various/several strategies concurrently or simultaneously depending on the purpose and task for the reading activity.

What seems to lack in the studies reviewed is the comparison between language and content subject classes in the actual classroom situation. Reading instruction and employment of reading strategies by students are two main areas of interest in exploring the comparison between language and non-language classes. The current study thus begins with the assumption that students do have a set of reading strategies

that they have learned or picked up throughout their school years. The study thus hypothesizes that students used and employed these strategies to help them with their reading regardless of what is (or isn't) taught to them in classes, particularly in reading for their content subjects. With these in mind, the study is conducted within the framework described in the next section.

Chapter 4

RESEARCH DESIGN AND METHODS

4.1 Introduction

This chapter focuses on the research design and method adopted in this study. As has been established in the previous chapters, the purpose of this study is to look at strategy use and to explore reading instruction across the curriculum in (upper) secondary education as perceived by the students. It is primarily a student-centered study gathering mainly qualitative data from three secondary schools in two subject areas: English Language, henceforth EL, and Content subjects, henceforth CS. Although this thesis is mainly student-based, it began with a focus on teachers as well. Therefore data collected from teachers are also presented because they are used in the interpretation of the results in the next chapters. Unless otherwise stated, most of the methodology described in this chapter is the procedures of collecting data from the students.

I begin the chapter with a reminder of my research questions and their subsidiary questions. Then I continue to describe the exploratory study, which functions as a pilot study, conducted prior to the main study of this thesis. This is seen as necessary because it has shaped the direction and refined the main study.

Before going to the main study, the methodological considerations underpinning this thesis is given, outlining the use of survey questionnaires, interviews and think aloud techniques to collect data for the study. Ethical considerations pertaining to the study are then described and this is followed by details of the data collection process of the main study. Then the steps and stages involved in the quantitative and qualitative data analysis are also provided.

4.2 Research questions

The three research questions are listed again here and elaborate on the subsidiary questions for each. As this chapter proceeds, details of how these research questions

will be answered by means of questionnaires, interviews and think-aloud techniques are discussed.

Research Question 1 (RQ1)

What reading strategies do upper secondary students use when reading in English both for English Language and Content Subjects?

- (a) What problems and difficulties do students of different academic ability groups seemed to encounter when reading in English?
- (b) What strategies are most frequently or least frequently used by the students of different academic ability groups from the three schools?

Research Question 2 (RQ2)

What strategies do students use when reading for comprehension?

- (a) What takes place in the language classroom as far as reading is concerned?
- (b) How is vocabulary explained and dealt with during English Language classes?

Research Question 3 (RQ3)

What strategies do students use when reading for learning?

- (a) What takes place in the content classroom as far as reading is concerned ?
- (b) How is vocabulary explained and dealt with during Content Subject classes?

Research Question 4 (RQ4)

How do students of different academic ability groups overcome the difficulties they encounter in their reading?

- (a) What strategies do students used the most when students faced difficulties when reading for comprehension and learning?
- (b) What strategies are used when students encountered difficulties with unknown or difficult words?

The next section will look at the exploratory study, which is carried out prior to the main study.

4.3 The Preliminary study

This study started with an initial purpose to look at how reading instruction was conducted in English medium subjects across the curriculum in upper secondary classes in Brunei. It was then decided that an exploratory study looking at what goes on in Brunei upper secondary classrooms for various subjects would be a way forward to pinpoint the precise focus of my study. Prior to this exploratory study, four research instruments were prepared and adapted: questionnaire, interviews, classroom observation and think-aloud protocols. Thus this exploratory study had a dual function. It allowed me to explore the feasibility of conducting my initial interest of research on the teaching of reading and at the same time served as a pilot study to test the instrumentations and materials used for the actual data collection for the main study.

The preliminary study was carried out from August to October 2008 in three secondary schools in Brunei Darussalam. The procedures and stages involved in conducting the exploratory study are summarized in Table 4.1.

Stages		Department / people involved	Procedures	Instruments / documentation used
1	Ministry level	<ul style="list-style-type: none"> • Director of School (DS) • Department of Schools (secondary section) 	<ul style="list-style-type: none"> • Getting permission to go to schools through MOE 	<ul style="list-style-type: none"> • A letter to the Director of School explaining the purpose of the study (see Appendix vii)
2	School level	<ul style="list-style-type: none"> • The Principals of the three schools • Heads of Department of various subjects (HODs) 	<ul style="list-style-type: none"> • meeting with the principal • meeting with the HODs of various subjects • distribution of questionnaire to teachers through the HODs • selection of teachers to be observed by the HODs 	<ul style="list-style-type: none"> • Schedule for the observation (see Appendix xii) • Questionnaire for teachers (see Appendix viii)
3	Class level	<ul style="list-style-type: none"> • Content subject (CS) teachers • English Language (EL) teachers • Students 	<ul style="list-style-type: none"> • Arranging times for observations and interviews with the teachers involved. • Arranging times to trial the interviews and think-aloud session with the students selected by the teachers. • Students to participate in the interviews and think-aloud activities were selected by the teachers 	<ul style="list-style-type: none"> • Classroom Observation Protocol (see Appendix xiii) • Interview questions for teachers. (see Appendix xiv) • Questionnaires for students (see Appendix ix) • Interviews questions for students (see Appendix x) • Reading text for think-aloud task (see Appendix xi)

Prior to the exploratory study, a letter, describing the background of the study, its purposes, participants and methodology was sent to the Ministry of Education. After permission was granted, visits were then made to the three schools. I first met with the principal of each school who then arranged for me to meet the Heads of Department (HODs). The departments involved in this exploratory study were English, Geography, Science and History. These HODs then selected teachers from their departments to participate in the exploratory study and follow up meetings for the observations and interviews were agreed with these teachers.

Scheduled times and dates for the observations and interviews were made with the HODs and the respective teachers. Several limitations and problems encountered during this stage of the study were as follows:

- (a) Cancellations of the observations occasionally happened due to the schools conducting religious functions; teachers on medical leave; teachers requesting not to be observed and public holidays at the beginning of the fasting month.
- (b) There was a three week school holiday from September 18th to October 5th 2008.
- (c) Lessons were shortened during the fasting month (from mid-August 2008) and often there were last minute changes to the lesson.
- (d) All three schools had their Qualifying examinations prior to the study and most lessons were allocated for corrections of the examination paper and revision.

In the preliminary study, four research tools were used and piloted: questionnaires, classroom observation protocol, interviews and think-aloud protocols as stated in Table 4.1. As the study initially wanted to look at the teaching of reading across the curriculum, the main purpose for the preliminary study was to primarily conduct and pilot the classroom observation protocol. Teachers teaching English, Geography, History and Science (Combined Science and Pure Science subjects) were the main participants. However, since the study also looks at strategy use, students taught by these teachers were also involved. This focus changed later in the main study.

Piloting of the questionnaire for the teachers was distributed through the Heads of departments. A few teachers were then selected to discuss the wording of the items in the questionnaire that might cause confusion, ambiguity and misunderstanding. Teachers were welcomed to make comments on the questionnaire.

Questionnaires for students were also piloted at this stage. The distribution of the questionnaires to the students was conducted by the researcher. Classes were visited for the distribution of the questionnaires not only for piloting purposes, but also to test the duration and students' ability to do the questionnaire. Students were asked to complete the questionnaire at their own pace and were also encouraged to ask

questions. They were also encouraged to make comments and remarks on any of the items in the questionnaire that created confusions.

The interview questions for teachers and students were also piloted in this exploratory study. Due to time constraints, only a total of nine interview sessions were conducted: six students and three teachers. The purpose of the study was explained to all participants and that they were expected to respond in English. However, they were allowed to use Malay during the interview if they feel they can express their opinions freely in that language or a mixture of English and Malay. I

4.3.1 Revision made following the preliminary study

Apart from the rewording of the sentences and deleting some redundant sentences, no major changes were made to the questionnaire for the teachers. This was done following feedbacks and comments received from teachers as well as colleagues.

No major changes were also made apart from the wording of the questionnaire for students and redundant statements were eliminated in the revised version of the questionnaires (as in Appendix ix) used for the main study. These changes include the deletion of one of the following statements. Item 22 was deleted.

Item 21 – When I do not understand the paragraph. I try to reread it.

Item 22 – When I do not understand the meaning of a sentence. I try to reread it.

The preliminary study not only enabled the testing of the instruments to be used but the findings (see Appendix xv for summary) have led to refinement of the focus of the study. Data gathered from the observations and the interviews had revealed (a) the reading activities the teachers conduct in their lessons; (b) which aspects of reading the teachers and students focus on and (c) whether or not actual reading occur during the observations. These findings led to other potential areas of interest including as below:

- which reading strategies / skills are most (or least) frequently taught and used in the two subject areas across the curriculum;

- which reading strategies occur more often in Content Subject or English Language classes;
- how vocabulary or terminology is dealt with in these classes;

Before proceeding to describe the methodology of the main study, I will first explain the methodological considerations carried out in determining the approach of this study. It adopts a primarily qualitative study research design using case studies of secondary school classes.

4.4 Methodological considerations

Grabe & Stoller (2002) have put forward dilemmas that arise from linguistic knowledge bases and processing information central to reading instruction (see Appendix ii). Following this, I reviewed research designs in previous L2 reading research that looks at reading instruction, strategy use and reading strategies. Many of the research studies have adopted quantitative, qualitative or both approaches in their data collection procedures. The research methodologies relevant to this study are questionnaires, interviews, think-aloud protocols and classroom observation. Of these, the last method was only used in the first stage of the main study. Data obtained from this method, however, was not extensively analyzed in this thesis because the focus of the study has changed (see section 4.7.2 for details). Nonetheless they provided the background for the findings especially in the interpretation of the results. The other methods are discussed in separate sections in this chapter.

In section 3.4.1, we have looked at the issues in defining strategies and the controversial definitions of strategies seem to be associated with methods utilized to investigate the strategies that students employ. The techniques utilized to collect strategy data is often related to the approaches adopted in the research. When the focus is on understanding the strategy use of a large group of students, questionnaire can be used to collect data. This data allows inferential analysis to be conducted and a quantitative research approach is adopted. Research on awareness of reading strategies often adopted this

approach (e.g. Carrell 1989; Mokhtari & Sheorey, 2002). Alternatively, in examining strategy use on a given task or understanding the employment of strategies by students from a small sample, interviews, verbal reports, diaries and journals tend to be used to gather data. Through these procedures, data is obtained and transcribing is necessary. In this respect, qualitative research approach is adopted, although sometimes the data is quantified and some statistics are performed (e.g. frequency). Research on reading strategies, strategy training or comprehension monitoring tends to adopt this approach (e.g. Hosenfeld, 1997; Jimenez et.al. 1995; Block, 1986; Auerbach & Paxton, 1997; Ericsson & Simon, 1993; Faizah et.al. 2008).

This study adopts both quantitative and qualitative approaches of data collections mainly through questionnaires, interviews and think-aloud protocols. The questionnaire was utilized in an attempt to elicit an overall general findings of the strategy use perceived by the students while a more detailed strategy use are hoped to be extracted through interviews and think-aloud protocols. The questionnaire alone does not allow the opportunity for students to describe their thoughts and perceptions on reading instruction therefore regarded not sufficient for this study. As I wanted to elicit the actual strategy use of students during reading, qualitative techniques such as interviewing and think-aloud protocols seemed essential. The data from these techniques can also be used for triangulation purposes.

Qualitative research approach is not without its problems and its small-scale samples have been criticized for lack of wider generalisability (Cohen, Manion & Morrison, 2000). In addition, the issues and problems surrounding data management in this approach have also been highlighted (Huberman & Miles, 1994). These can be largely overcome by having a clear description of the research and the steps taken to carry it out (Cohen, Manion & Morrison, 2000). For the remainder of this chapter, efforts have been made to describe as clearly as possible the steps taken in conducting and analysing this study. The following section will now look at case study approach, which this study adopts.

4.4.1 Case Studies

A case study was ultimately the main approach used for this research. Case studies often provide a systematic way of looking at events, collecting data, analyzing information, and reporting the results. As a result the researcher may gain a sharpened understanding of why instances happened as they did, and what might have become important to look at more extensively in future research.

As this study intends to describe what happens in English (ESL) medium classes involving reading activities or instruction, it was felt that this research needs to capture the reading strategy use of students within the teaching and learning contexts (i.e. schools and classes). Classes vary depending on the profile of the students who make up the class, the teacher, the school, the subjects and other factors. This study views reading as an activity of processing information and thus tries to investigate how this takes place in the classroom context across the three schools.

4.4.2 Questionnaire

The questionnaires used in the main study are provided in Appendix viii (for teachers) and Appendix ix (for students). Although this was a qualitative study, I included the use of questionnaires because they are useful for collecting numerical data from all participants. These questionnaires were utilized because I wanted to have a general overview of which reading strategies were most and least frequently used across the curriculum.

The questionnaire for students (see Appendix ix) was formulated and designed to explore reading strategies the students used while reading. In this questionnaire, students were required to indicate their opinions on a five-point Likert Scale on which strategies they 'always', 'frequently', 'sometimes', 'rarely' or 'never' use when reading. I opted to use these scales so that they could be analysed statistically. The twenty two items in the questionnaire were formulated to elicit the most and least frequently employed reading strategies by the students. This has provided a basis for RQ1 and in providing a set of analytical codes. The questionnaire also helped to provide superficial strategy use to partly answer RQ2 and RQ3.

The questionnaire for teachers (Appendix viii) was designed to elicit the different skills or strategies taught in different subjects. The questionnaire was used to answer RQ2 and RQ3 on the teaching of reading strategies perceived by the teachers. This was the only source of data from the teachers that were analyzed and presented in this thesis. It was used to elicit the reading strategies teachers said they have taught during their lessons which were then matched with what the students actually perceived as being taught to them.

The results from the questionnaires were triangulated with other methods, including student interviews which are described in the next section.

4.4.3 Interviews

As the main study centered on students' perspectives on reading strategy use, interviews were considered an essential part of the data collection process. Interviews are commonly used in qualitative research because they enable researchers to explore students' points of views (Cohen, Manion & Morrison, 2000) and enable aspects of experience to be revealed that cannot be directly observed (Mackey & Gass, 2005). Moreover, they are becoming the most frequently qualitative tool used in the Brunei context (Hjh Zulyana 2009; Rosmawijah, 2009).

Furthermore the interview "is used most often to describe a method of gathering information from a sample of individuals" (Scheuren, 2004, p.9). Baumann & Bason (2011) further presents various research studies showing that educators have used and continue to employ this research methodology as a means to address a variety of questions about the nature of literacy programs and instruction. This includes those by research on topics as diverse as students' and teachers' reading habits, interests, attitudes, and motivation for reading (e.g. Howard & Jin, 2004; Ivey & Broaddus, 2001; Kelly & Decker 2009; McKenna, Kear & Ellsworth, 1995; Mellard, Patterson & Prewett, 2007 cited in Baumann & Bason, 2011).

This method was used because it can, not only confirm what was found in the questionnaire design but allow flexibility for me to control the dynamics of the interview process.

The main study used two sets of semi-structured interviews for the students which were carried out in two stages. The second set was written up as a follow up from the distribution and analysis of the first set. The data collection procedures and analysis will be discussed in separate sections (see section 4.7 and section 4.8 respectively).

The first interview is provided in Appendix x. It was designed with the aim of eliciting opinions about the implementation of reading instruction across the curriculum in upper secondary classes. The interview questions in the first stage covered several themes listed below:

- students' experiences when reading for their academic learning (RQ2 & RQ3);
- skills and strategies students used whenever they read in English (RQ1);
- students' preferred approaches to reading instruction in the classroom (RQ2 & RQ3);

Revised interview questions for students were further developed based on the students' responses to the interviews in the first stage. Outcomes from this stage have influenced the central focus of the main study which shifted from classroom teaching to students' learning in relation to reading. The interview questions in the second stage thus focused more on the reading strategy use of students across the curriculum (see Section 4.7.1 and 4.7.2 for detail of the two stages)

- How students read in English? (RQ1);
- How students read to learn? (RQ2 & RQ3);
- How students approach various texts? (RQ1, RQ2, RQ3 & RQ4);
- Reading for English subject and content subjects (Biology, Geography and Physics) (RQ2, RQ3&RQ34);

The second set of interview questions is provided in Appendix xvi.

Apart from questionnaires and interviews, this study also adopts a think-aloud technique.

4.4.4 Think-aloud technique

One way to elicit which reading strategies students use in their reading is to engage them in think-aloud protocols (Lavaden, 2003). With think-aloud protocols, students verbalize, in an interview context, how they are processing the text they are reading (Jacobson, 1998). Think-aloud protocols, such as those serving as one of the data sources in this study have been regarded as an effective tool for gaining access to on-line processing during reading (e.g., Ericsson & Simon, 1980; Pressley & Afflerbach, 1995). It is believed that the method is a promising way to tap comprehension strategies as they happen, that is, during reading. When readers are asked to think aloud, they are instructed to verbally produce whatever thoughts immediately come to mind after reading sentences within a text.

There is a growing body of evidence that the strategies revealed by thinking aloud are indicative of comprehension and reading skills (Coté & Goldman, 1999; Magliano et. al, 1999; Pressley & Afflerbach, 1995; T. Trabasso & Magliano, 1996; Zwaan & Brown, 1996). Thus think-aloud protocols are not only an instrument used to tap into readers' comprehension strategies usage but also used as reading comprehension techniques (Yang 2006; Pressley & Afflerbach, 1995; Pressley & Hilden 2004).

As this study also tried to describe how students actually process their reading task, think aloud activity was one technique that was best thought to get students to 'talk' through the reading strategies that they were using while they read. This technique was used mainly to validate the responses from the questionnaire. This study followed the model referred as concurrent verbal reports (Pressley & Hilden 2004) whereby the students were urged to report what they are thinking as they read.

The think aloud sessions were conducted twice for the main study with the same group of students. The first session was held between August–September 2009 while the second session was carried out between August-September 2010. The data collected in both think-aloud sessions were based on two different sets of reading texts taken from the curriculum textbooks provided by the Ministry of Education for secondary schools in Brunei Darussalam. Think-aloud procedure was conducted for the second time in order to allow the use of different types or reading texts. In the second stage students read an expository/descriptive reading text. In the first stage, students read a narrative text. The use of different types of text for the two stages was also conducted in order to find out if strategies they used in order to learn from the expository and descriptive texts.

The reading texts used for the two think-aloud sessions were different in order to see if students approach different types of academic texts in the same way or differently. The reading text for the first stage (Appendix xvii), taken from the Secondary English textbook (SEBD 4) was of descriptive type entitled 'Fit or Fat'. The reading texts (Appendix xviii & xix) for the second stage were taken from a Combined Science textbook. Both textbooks are curriculum textbooks provided by the Curriculum Development Department (CDD), Ministry of Education to secondary schools in Brunei.

The procedure for the think-aloud sessions is discussed more in section 4.7.1.c

Having discussed the considerations involved in deciding the methodology and instrumentation used to collect data for the main study, this chapter continues to look at the selection of classes and students.

4.5 The main study

As explained in Chapter 1 (see section 1.4), I believe that it is essential for secondary students to be able to read effectively. Therefore data was collected primarily from upper secondary students from three schools. However, this main study does not

intend to evaluate the effectiveness of reading strategies employed by the students through comprehension tests. It only tries to explore and investigate the types of reading strategies students utilized when they read in an effort to shed some insights into what might work for the students in a reading to learn context.

This section will now continue to illustrate the profiles and the selection procedures of schools, classes and students involved in the main study.

4.5.1 The Schools

Three schools were selected from a total of 15 government schools in the Brunei-Muara District, Brunei Darussalam. These schools were different not only in the ability of the students studying in each school but also in the expectation of the academic achievements of the students. They were also chosen according to their locations and their accessibility. Entrance to School A is different from the other two schools (B and C) for Secondary One classes (at the age of 12) when students begin their secondary education. Enrolment to School A requires specific criteria, namely 'A' grades in the Primary School Assessment Examination (PSR – an internal Public examination taken at the end of Primary education by students at the age of 11). For the other two schools (School B and C), enrolment after the PSR examination is not selective: all students within the residential area can enroll in these schools.

This study thus used two different types of schools: a high-ability School A and average ability Schools B and C.

Table 4.2 Profile of the three schools in the main study.		
SCHOOL	Entrance requirements	School Profile
School A (Science School)	<ul style="list-style-type: none"> - 5As (in English, Malay, Mathematics, Science and General Paper) in Primary School Assessment (PSR). - Students, with the above requirements, from around the Brunei Muara District can apply to this school at the beginning of their secondary education. 	<ul style="list-style-type: none"> - A high ranking prestigious school in the Brunei Muara District, often producing scholars receiving prestigious scholarships for further studies abroad. - The school offers secondary and post-secondary education: Secondary One to Secondary Five and up to pre-university level. - The school has high ability students as measured by the Primary Education Examination results (PSR).
School B (Situating in the resettlement housing scheme area)	<ul style="list-style-type: none"> - Completed Primary School Assessment (PSR) - Students who live around the residential area of the school can enroll to this school. 	<ul style="list-style-type: none"> - A relatively new school which began operating (in 1997) in two sessions: morning and afternoon. - As of 2010, the school operates one session for all levels from Secondary One to Secondary Five classes (12 years – 17 years of age) - A mixed ability school.
School C (Situating in a residential area in one Brunei Muara District)		<ul style="list-style-type: none"> - The school began its operation in June 1990 and offers secondary education for students from the age of 12 to 17 years old (Secondary One to Secondary Five levels). - A mixed ability school.

Data from six Secondary Four classes, consisting of 15-16 years old students, were collected and analyzed in an attempt to address the research questions for this study. Two classes from each school were involved in this study. In this study, the selections of classes were left to the three schools.

4.5.2 The Classes

One of the reasons why the current study focuses on upper secondary classes is because of the intensifying needs to read academic texts, as indicated by teachers in the exploratory study. The choice of collecting data from Secondary Four classes (15 years old students) is made for two reasons: firstly because students are just starting their two-year course of upper secondary level study in Secondary Four and secondly

because at the end of this two-year course, they will sit for the GCE Examination, an external public examination set by the Cambridge International of Examinations board.

It was initially intended to match the strategy use of students with academic performance from the O level examination in an attempt to find relationships between strategy use and success. However, I decided to focus exclusively on how these students cope with their academic study in order to get through the examination, specifically how they extract information when reading their academic books. It was hypothesized that this is a key stage because of the amount and types of reading that the students face at this point in their academic study.

The schools were informed of the purposes of the study and that data was needed from content subject lessons (e.g. Geography, Physics, Biology and Combined Science) as well as from English Language lessons. Two classes were selected by each school to participate in the study, a 'science class' and a 'non-science' class (see Figure 4.4 for detail). In a 'science class' the three pure sciences subjects (Biology, Chemistry and Physics) are compulsory but not in a 'non-science' class. The students in 'non-science' classes learn combined science instead. These two classes are sometime referred to as 'science stream' and 'arts stream' classes respectively. These classes were observed in the first stage of the study but the data was not analyzed extensively because this thesis decided only to focus on the students' data on their strategy use. However, in the interpretations and discussion of the results, evidence sometime can be extracted from the observation data. When this happens it will be stated clearly where the data came from.

Table 4.3 illustrates the profiles of the students and the subjects they studied in these classes.

Table 4.3 Classifications of classes according to subjects offered in the three schools				
SCHOOL	CLASS INVOLVED	Students	Subjects learned by students	
			Main Subjects	Optional Subjects
A	A1 (Science)	A high ability group of students who have completed lower secondary assessment (PMB) taken at the age of 14.	English Language, Malay Language, Physics, Biology, Chemistry,	Geography, Computer Studies
	A2 (Science)			
B	B1 (Science)	A high ability group of students who obtained grades A-C in English, Malay, Maths and Science in lower secondary assessment (PMB)	English Language, Malay Language, Physics, Biology, Chemistry, Additional Mathematics, Mathematics	Computer Studies / Geography / Commercial Studies
	B2 (Non-Science)	A mixed ability group of students who passed their lower secondary assessment (PMB) at the end of Secondary 3 level (by 14 years old students)	English Language, Malay Language, Mathematics, Combined Science, Geography, Islamic Religious Knowledge (IRK)	Accounting / Malay literature / Commercial Study /
C	C1 (Science)	A high ability group of students who obtained grades A-C in English, Malay, Maths and Science in the lower secondary assessment (PMB)	English Language, Malay Language, Physics, Biology, Chemistry, Mathematics	Geography / History / Computer study / Additional Mathematics
	C2 (Non-Science)	A mixed ability group of students who passed their lower secondary assessment (PMB).	English Language, Malay Language, Mathematics, Combined Science, Islamic Religious Knowledge (IRK)	Geography / Accounting / Computer Study

4.5.3. The Students

The total population of the study comprised 160 students of 15-16 years old from six upper Secondary Four classes. From this, sixty students were randomly selected to participate in the interview sessions and a sub-sample of thirty students participated in the think-aloud reading activity in 2009 (the first stage of the study).

The initial number of students for the qualitative data gathering was too many and I encountered difficulty in the analysis part, particularly in the transcribing stage. I did not manage to transcribe all the data gathered from this stage. As I anticipated this

problem in transcribing the enormous qualitative data at hand, I decided to reduce the number of the students sample for the second stage. Therefore from the sixty students interviewed in the first stage, only thirty were involved in the 2010 second stage interview sessions and a sub-sample of fifteen students did the think-aloud reading activity. The selection of the students for the interview and the think-aloud will be discussed in a later section (see section 4.7.1.b and 4.7.1.c for detail respectively).

Data collected from the thirty students in 2010 were used as the main source for analysis in the interpretation of the results in this study, particularly for answering RQ1. Although the qualitative data gathered in the second stage was reduced, it took me longer to transcribe them and by the time I was done with the transcribing, I only managed to analyze the interviews data in depth compared to the think aloud data.

In order to maintain anonymity, each student from the three schools is referred to as A1 to A10 (for School A); B1 to B7 (for School B) and C1 to C10 (for School C). This was particularly used when discussing the results.

4.5.4 The Teachers

This study is primarily student-based. But as indicated earlier in this chapter, data from teachers were also collected at the beginning of the study (particularly in the first stage) through classroom observation, interviews and questionnaire. However, as it was decided to focus on the students' perspectives, the only data from teachers used in this thesis came from the questionnaires. These are used as background for the data collected from the students.

Therefore only the teacher questionnaires are illustrated in this thesis. Twenty teachers teaching English, Physics, Biology, Combined Science, Geography and History to the six selected classes completed the questionnaire for this study. The data from the classroom observations in the first stage (2009) were also referred to but not extensively. This was because there were not much reading took place in the classroom observation. Moreover, as the focus was now to explore students' data, analysis and transcriptions of data from the classroom observations was not done fully because of

the time constraints. This is especially when it took me an even longer time than anticipated to complete transcribing the qualitative data gathered from the students. The results presented from the classroom observation data in the findings chapter were only done superficially.

4.6 Ethical considerations

'Research with human participants is an intrusive process' (Lewis & Lindsay, 2000:1). As the subjects for the study consisted of young participants of 15-16 years old and audio and video were used in the current study, issues concerning ethics were first considered and necessary measures were taken into consideration to deal with this ethical issue.

Necessary ethical measures and procedures were sought from the University Research Governance Office (RGO) in 2008. A follow up was again made in early 2009 and the following documents were submitted to the office:

1. Information for Teachers (Appendix xx)
2. Information for Students (Appendix xxi)
3. Consent Form for Parents / Guardian (Appendix xxii)

Revision were then made to the ethics documents and resubmitted together with the instrumentations to be used. While waiting for the ethics approval, necessary procedures were carried out to gain access and acceptance to conduct the data collection. Access and acceptance needs to be obtained to carry out research in the organization or institution in question (Cohen & Manion, 1994). The permission to administer the questionnaire survey, to conduct interviews, and to carry out the think-aloud protocols were obtained from the Ministry of Education in writing. The letter seeking permission from the Ministry explained in detail the purpose of the study and the instruments to be used for gathering data. Permission was granted in late June 2009 with the condition that further arrangements were to be made with each school's administration to avoid any interruptions.

In late July 2009, the study was given approval to proceed with the data collection (Ethics reference RGO Ref-6027) and following this, data collection especially the interviews and the think-aloud procedure commenced as described in section 4.7.1.b and 4.7.1.c

The distribution of these ethical documents to the teachers and students are described in the following subsections.

4.6.1 Information for teachers

The document was distributed to these teachers through their respective Heads of Departments with the information about the study and that they should formally inform their Principals by writing if they did not want to participate in the study. None of the teachers formally objected to participate in the study. They were again explained about the study during their first meetings with the researcher and were further assured the confidentiality of the data gathered.

4.6.2 Information for students and consent forms for parents / guardian.

Distribution of these documents to students and parents/guardians were made with the help of the class teachers. Students were given both documents and asked to return a signed consent form from their parents back to their class teachers.

The consent form for parents/ guardian (see Appendix xxii) required parents to indicate whether or not to allow their child to participate in the study particularly the interview and the reading activity. As soon as the consent forms from parents were collected, students who were allowed by their parents to participate in the study for both methods were then identified.

For the second stage of the data collection, consent forms were not distributed again as the same group of students was involved. The ten students selected from each school were again informed about the study and that a follow up of the study is needed to collect more data. They were also reminded that they can withdraw from the study or

not to participate again if they decided not to, thus covering any ethical issues that might arise.

In the next section I will outline the data collection procedures in the distribution of questionnaires to students and teachers, the interviews and the think-aloud sessions.

4.7 Data collection

The data collection for the main study was carried out in two stages. The first stage and the second stage of data collection took place in Brunei Darussalam in 2009 and 2010 respectively. The following sections describe the procedures conducted in all stages.

4.7.1 First stage of data collection

This stage was carried out from July 2009 to October 2010. Prior to data collection, necessary ethics measures were sought through the University Research Governance Office in 2008, as described in section 4.5. The procedures for the main study were similar to the procedure for the preliminary study (see Table 4.1). A letter, seeking permission to conduct the main study in Brunei Secondary Schools was sent in June 2009 (see Appendix xxiii) to the Director of Schools at the Ministry of Education, Brunei Darussalam. Approval was obtained from the Department of Schools in late June 2009 (Appendix xxiv) for the data collection and that further arrangements were to be made with each of the schools' principal.

Each school was informed of the requirements of the study. These included its purposes, procedures, methodology and the intended participants. Two classes from each school were the main sources of data for the study, including the students and the teachers teaching these two classes, particularly for EL and CS (Geography, Physics, Biology and Science) classes. The two classes were selected by the school the researcher will 'follow' these two classes during their curriculum time throughout the duration of the study. However, as explained in section 4.5.2 and 4.5.4, in-depth analysis was not made on the data obtained from the observations of these classes because of several

reasons: firstly as the main focus of the study is to look at students strategy use and since not much of this was found in the observation data; secondly, the lessons observed at this stage were mainly non-reading lessons; thirdly, due to the time constraints in transcribing all the qualitative data gathered from both teachers and students samples.

Alternate weeks were allocated for each school for the data collection. Schedules for interviews and think aloud for each school were prepared and submitted to the teachers and copied to the principal prior to the actual data collection procedure. The following sections will outline the procedures taken for each data collection.

4.7.1.a. Distribution of questionnaires in the first stage.

The questionnaires for teachers were distributed via their Heads of Department. Teachers and students were assured of the confidentiality of their responses and all the survey questionnaires were conducted before the interviews for the students. The distribution of the questionnaire was done by the researcher herself by entering the class during registration time. Majority of the students were able to complete the questionnaires during the allocated time.

4.7.1.b. Students Interviews

The students who participated in the interview were selected or nominated by their teachers. Teachers were asked to nominate students who are not too shy, able to speak freely and able to express their thoughts and opinions. As the study tries to explore students' opinions and their reading strategy use, it was thought that valuable responses can be elicited from students who can express themselves freely to the interview questions. Therefore nominations by the teachers were sought as teachers knew the students better than the researcher.

The schedule for the students' interviews took longer to complete. As the school required minimal interruptions of learning, the interview sessions were conducted during break time or during the Physical Education lessons. A total of sixty students were interviewed in the first stage of the study.

During the interview sessions, the purpose of the interview was again explained and students were reminded that their responses will be recorded and that all answers, opinions and views will solely be used for the study's purposes and that their names, subjects and school will remain confidential. Participants were also informed that they are expected to respond in English in the interview, but Malay or a mixture of both English and Malay is also allowed if the participants find it easier to express themselves in their chosen language. One control procedure taken to ensure any inconsistencies with interview approaches was that all the interviews were guided by an interview schedule and the responses were either repeated or summarized by the researcher after each question was asked to be sure there was agreement about what the interviewee had said.

4.7.1.c. Reading Tasks in Schools

A subsample of thirty from the sixty students were further selected to participate in the think-aloud sessions on reading. Selection of these students was also based on teachers' nominations.

Prior to the think aloud reading activity, a visit was made to all six classes after the interview sessions were completed. These visits were conducted during PE lessons which lasted for sixty minutes. During this session, students were explained what to do in a think-aloud activity and an information sheet (Appendix xxv) was given to all students. Two main activities were conducted during each visit, firstly it was explained what is involved in the think-aloud activity and secondly, a reading activity involving think-aloud was modeled to them. The researcher modeled the reading and thinking aloud using a text entitled 'The Earth Rocks like a boat' (Appendix xi) taken from the Secondary English for Brunei Darussalam Book 4 (SEBD 4) textbook. The thinking aloud technique was modeled with the first paragraph of the passage and then students tried the activity in groups of two for the rest of the paragraphs.

A schedule was arranged for the time and place to do the think-aloud session for each school. Each session lasted for 15 minutes for each student. Students were again

informed that they were expected to read the text and to think aloud while reading and in making sense of the passage. The students were expected to use English during their think aloud although Malay or a mixture of both English and Malay Languages was allowed if they preferred to do so.

Students' activities during the reading and think-aloud session were videotaped and recorded. Whenever students were silent for more than two minutes during their reading, they were stopped and asked questions such as: what are you thinking at the moment? Did you have any difficulty in understanding what you have read? How do you make sense of the text?; or How do you deal with vocabulary?

4.7.1.d. Classroom Observation Protocols Procedure

Another data-gathering technique used in the first stage was classroom observation. It was used to provide detailed evidence of the current practices on the reading activities conducted, presented and modeled in the two types of the classes. The teaching and learning of reading strategies both for comprehension and learning on how students tackled their academic reading tasks were hoped to be observed and captured using this technique.

The observation protocol (Appendix xiii) used as a guideline for this study was adapted from Garrett County Public Schools: Skills for success 1998's observation schedule. The schedule consists of a section on the lesson's background information such as the name of the school; the teacher's name; subject taught; class observed; and the topic taught. The schedule has three sections: (A) Teacher Emphasis; (B) Students responses / emphasis and (C) others reading behaviours or activities.

Section A tries to record instances or activities the teachers used related to reading instruction. This include (a) teachers referring to text structure, (b) modeling their 'inner thoughts' while reading or talking to students, (c) planning specific pre-reading questions, (d) using specific techniques to elicit students' prior knowledge, (e) initiating, building or referring to a certain strategy for assimilating information from text, (f)

activating reading strategies and (g) making use of questioning technique in getting information and meaning across to students.

Section B focuses on students' reaction and responses in relation to processing meaning or information from the reading text used in the lesson. It includes (a) students asking questions about the text used in the lesson, (b) students elaborating on their own or other students' responses, (c) using processes/strategies in some visible way when engaged in reading, (d) referring to part of the text to prove a point, (e) students using various reading strategies, (f) students revisiting/ rereading the passage to extract information, and (g) students using and/or adjusting prior knowledge to predict a point or elaborate an idea.

Section C is for other observable reading instruction activities. These include (a) how vocabulary has been captured, (b) actual reading activities occurred, (c) ways to enhance students' motivation to read, (d) teachers' feedback to students' responses, (e) students' production of past topic visible in the class, (f) encouragement of intellectual risk taking, and (g) teachers openly share what they learned from the current topic or theme.

However, the data gathered in this procedure was not used in the analysis and in presenting the data. In-depth analysis for the classroom data was not carried out due to factors such as time constraints in transcribing all the qualitative data from the teachers and students interviews, think aloud and the observation data. Specific problems were stated in Sections 4.5.2, 4.5.4 and in 4.7.1. Moreover, this procedure was not carried out in the second stage of data collection in 2010, because majority of the teachers observed in were not available in the second stage because most of the teachers no longer taught the same classes and also most of the lessons were focusing on doing revision for the upcoming BGCE 'O' Level examination in October/November 2010.

4.7.2. Second stage of data collection

A preliminary analysis of data gathered from the first stage showed that more information can be extracted from the student data while it was decided that the data

from the teachers would provide the background for the study. The focus was now more on the learning process than the teaching process, particularly in reading in the English medium subjects across the curriculum.

When reviewing the data collected in the first stage, it was found that not enough data was collected that could answer the questions exhaustively especially in the area of the strategy use. Listening to the interviews recordings led to several other questions that could be asked to elicit much more relevant information and responses from the students. Moreover, the interview questions in the first stage were mainly formulated to elicit information on the reading instruction in the classroom rather than on students' reading strategies. Therefore there were still gaps in the data gathered from the students which led to a decision to conduct a second stage of data collection.

The second stage of data collection was conducted to bridge the gap in the students' data. This second stage of data collection focused on the sixty students from the first stage to add to the existing data. The second stage of the data collection was conducted from July to September 2010 in the same three schools. The three principals were again contacted and explained the purpose of this second stage of data collection was a follow up of the previous data collection. Since only twenty students from each school were involved in this stage, the schools had no objection to the interviews and think aloud sessions to be conducted.

The first meetings with the principals were carried out in early July. During this meeting, the school's examination timetable was obtained to enable the researcher to prepare a schedule for the interview and think-aloud sessions with the students. A follow-up meeting was then arranged with the school to distribute the schedule for the interview and think-aloud activity with the selected students in their respective schools.

The procedures for the interview and think-aloud in this second stage were similar to those in the first stage but with revised interview instrumentation (see section 4.4.3 for the revisions made to the interview questions). The interview questions were revised by focusing on students' usage of reading strategies in their study as in Appendix xvi. The

think-aloud activities also followed the same procedure but with different reading texts. In the first stage, the text was taken from an English textbook whereas the texts used in this second stage were taken from a Combined Science textbook (see Appendix xviii and xix). The first passage was on 'Platelets' containing technical/scientific words while the second passage on 'Tissue Rejection' was a mixture of narrative and descriptive. The students read these two passages for about fifteen minutes following the same procedure as in the first stage of data collection (see section 4.7.1.c).

The next sections focus on the data analysis and include initial steps in the construction of a database for managing the data and a description of the approaches taken in analyzing the numerical data from the questionnaires and the qualitative from the interviews and think aloud protocols.

4.8 Data Analysis

Two types of data gathering procedure was used in this study: quantitative and qualitative. The former was used to provide the general findings on the perceived reading strategies used by the students and taught (the use of) by the teachers across the two types of classes in the two types of schools. It was the qualitative data that was mainly used for the findings in this study. Two data analysis programme were used in this study: the SPSS for the quantitative data and the NVIVO for the qualitative data and are further described in the following sections.

4.8.1 Quantitative data analysis: Questionnaires.

The data from the questionnaires were used to create an SPSS database by entering all the responses from the questionnaires. This was necessary to help in managing, codifying and collating large quantities of data from the questionnaires. However, SPSS was only used to generate the frequency of each item in the questionnaire being referred to. This study did not utilize the whole range of statistical functions in the SPSS (such as means, median, mode, regression, correlation) because I only used data from the questionnaires in presenting the general reading strategies used in the classes across the curriculum.

From the students' questionnaire, the twenty two items elicited the types of strategies which students utilized in the following circumstances:

- (a) during their reading process,
- (b) when they encounter unfamiliar vocabulary, and
- (c) to access meaning from their reading.

Some of the strategies from the above include *activating previous knowledge and associating them with the new one, making predictions, guessing, making inferences, using translation, rereading, skimming, asking questions, relating to personal experiences, summarizing, using visualization, monitoring strategies* and *using fix-up strategies*. Both top down and bottom up reading strategies were included in the questionnaires.

The above reading strategies provide guidelines in the categorization of codes for the interview and think aloud data, especially in the type of strategies being used. Both data obtained from the questionnaires of the students for both years (2009 & 2010) were compared in terms of the most and least frequently employed strategies. In terms of reading strategies, both groups of students in both years used almost similar strategies. A summary of the results is provided in Appendix xxvi. The same group of students also did the interviews and the think-aloud procedures (in both stages) and therefore, the results were from the same cases (students) and this was a way to provide consistency in students strategy use.

The items in the questionnaire for teachers were designed to elicit the different skills or strategies they usually teach in their classes. These items focused on two broad areas. Firstly *to identify the main emphasis teachers place in their teaching* – vocabulary, grammar or comprehension. Secondly, *to identify the different reading skills or strategies the teachers used or taught (the use of) to their students in their classes* reading aloud, translation, guessing, scanning, skimming, summarizing, checking comprehension, prediction, using dictionary, finding main ideas, retelling, activating

background knowledge, teaching connections of each paragraph, using visual elements of the text and teaching the different types of text structure.

Data collected from the questionnaires (teachers and students), are presented at the beginning of Chapter 5 in the form of descriptive statistics (i.e. percentages). Test for statistical significance have not been carried out. The purpose of the questionnaire data has been to contribute to an understanding of the types of reading strategies least and most frequently used by the students. It also enabled comparisons to be made between schools, classes and the students. It has been supplemented by the detailed qualitative data.

4.8.2 Qualitative data analysis: Interviews and think aloud protocols

The raw data from the students' interviews and think-aloud protocols were first transcribed at verbatim level. Transcriptions and translations occurred concurrently with the data analysis. Thirty interviews and fifteen think-aloud sessions carried out in 2010 were the main source for analysis. The process of transcribing these data took longer than anticipated mainly due to the fact that I had to carry out a 'two in one' task, transcribing and translating at the same time. Added to this was the limited time I had in the completion for my thesis. For the qualitative data, I used NVIVO to help me with the analysis but again I did not utilize most of the functions in the software.

Once the transcriptions were completed, they were imported into NVIVO. The next stage involved assigning responses from the transcriptions according to codes. Units of analysis were formed by coding the students' data entries (Cohen, Manion & Morrison, 2000). Coding is the central process to qualitative data analysis as gathered from the Grounded Theory (Glaser and Strauss 1967) and that content analysis approach was mainly used in this stage.

Coding was approached in two ways. Although many of the reading strategies were pre-obtained from the questionnaires, for the most part codes were allowed to emerge

from the data. Initially four core categories for analysis for coding were formulated (see Table 4.5):

- difficulties and problems students said they have with reading in English (PROB);
- reading across the curriculum (RAC);
- strategies employed when reading in English in general (RS).

Students' phrases and comments from the interview data from the first stage of the study were placed under one of the four categories as shown in Table 4.4. It illustrates the initial stage of my coding. Further classification of strategy use made during this stage is provided in Appendix xxvii.

Table 4.4 The brainstorming stage: Categorization of strategy use			
Difficulties and problems (PROB)	Attitudes (RA)	Reading across the curriculum (RAC)	Reading strategies / monitoring / regulation (RS)
<p>Because i have a few miss pronunciation</p> <p>Words affect my reading actually</p> <p>Also layout matters like font size, lengthy text, unfamiliar vocabulary.</p> <p>What makes it difficult is for me the unfamiliar words. Long and complex sentences in a long paragraph also add to the difficulty in understanding of what i am reading.</p>	<p>I think it's average because reading for my current subjects (Form Five) is very different from reading for Form One subjects.</p> <p>Ah...slightly okay because sometimes it is hard to understand what I read.</p>	<p>They just explain the notes again in class on board. Teachers usually just explain what in the notes again in class and students do usually read the notes given to them.</p> <p>They would read the passage aloud first and then..... Er..but sometimes they ask us to read the passage on our own aloud..</p> <p>Content subjects such as Science are easier because lots of pictures and diagrams.</p>	<p>Try to reread the sentence and apply my own words.</p> <p>First I read the title and then I read the first paragraph. And then if I don't understand, I read twice.</p> <p>.</p> <p>No i don't often translate because i find it different when we translate, so i try to make sense of it with the help of the rest of the text.</p>

In the middle of the coding procedure, nine main categories were further identified replacing the initial four categories. This was made because it was felt that some of the categories in Table 4.4 were too broad and for comparison to be made, these categories were further separated. A new category relating to vocabulary (Vcb) was also added because it was found in most of the qualitative data (especially the interviews and the think aloud protocols. Table 4.5 summarizes the process in these changes.

Codes used for the 'Main Categories'	Initial categories	Final categories
	PROB	PROB – <i>What makes it difficult to read in English</i>
		HELP – <i>What makes it easy to read in English</i>
	RA	RA – <i>How they perceived their ability to read in English as a whole.</i>
	RS	RdgStr – <i>Reading strategies that they use which help them to access meaning of what they read (other than metacognitive reading strategies)</i>
		MReg – <i>Reading strategies used to monitor and regulate their reading such as when facing with difficulties in comprehension. These can also be categorized under the umbrella term of 'metacognitive reading strategies'.</i>
	RAC	RAC – <i>Reading across the curriculum. The general views and perception on the place of reading instruction and strategy use in the classrooms</i>
		EngCls – <i>Reading activities or strategies specifically referred to or found in EL classes.</i>
		NonEngCls – <i>Reading activities or strategies specifically referred to or found in CS classes.</i>
	Vcb	Vcb – <i>Strategies used in relation to vocabulary, particularly how to handle new or unknown vocabulary (or words)</i>

Each of the nine main categories in Table 4.5 above also contained smaller codes. A list of these smaller codes used in the analysis with NVIVO can be found in Appendix xxviii.

Findings based on these smaller codes are discussed. Interpretation of the results was then made in relation to research questions.

4.9 Discussion of the results

In an effort to capture the overall employment of reading strategies by the students, the strategies coded in this study were grouped and discussed according to the four main research questions proposed for the study.

There are two chapters for the findings: Chapter Five and Chapter Six. These chapters have specific focus. The first part of the finding chapter will present the reading strategy use of upper secondary students while the second chapter (Chapter Six) focuses on English Language and Content Subject classrooms by describing what takes place in the two types of classes. Chapter Five also looks at two case studies on their strategy use to exemplify the context and profiles of the rest of students involved in the study. It also looks at problems and difficulties students encountered when reading in English. This chapter looks at reading strategies for comprehension and for learning.

In Chapter Six, we will also include results obtained from the teachers' questionnaires to provide a base against which to understand the results obtained from the students.

4.10 Triangulation

Triangulation of the data and results in the study was hoped to be achieved through the use of both qualitative and quantitative approaches. Data obtained from these approaches were triangulated in order to see if what was found in the student's survey will be confirmed by other data gathering procedure, such as interview and think-aloud. From the teachers' data, what the teachers reported they used in the classroom were also corroborated by the data from the students' interview data. In the teacher's survey on the teaching of reading in their classes, data were also matched with what the students have reported. Triangulation on the students strategy use when they read reported in the questionnaire was made with their actual use of the strategies in the think aloud procedures.

4.11 Summary

This chapter has set out the methodology underpinning this study. It started off with a reminder of the research questions. A section on the procedures in undertaking the preliminary study was also outlined. The methodological considerations taken in selecting the research design and tools (questionnaires, interviews and think-aloud protocols) were then discussed. Then the procedures in the data collection for the main

study were outlined in the three schools and ethical issues pertaining to the research was also specified and considered. The analysis of the quantitative and qualitative data followed and the stages in the coding of the qualitative data were explained. Finally the format of the presentation of the findings was also outlined.

The next two chapters will look at the findings. In Chapter Five, presents results from both quantitative and qualitative. General findings of the strategy use obtained from the questionnaires and the case study (of two students) are presented. This is then followed by detailed findings into specific and sub-categories strategy use in Chapter Six. This chapter also looks at strategy use at the school level in two distinct types of classes, i.e. EL and CS classes.

Chapter 5

READING STRATEGY USE OF STUDENTS

5.1 Introduction

Findings are presented in two chapters. This chapter presents findings on reading strategy use of students from the three schools. It looks at reading strategies students said they use when reading texts in English. This chapter will also present findings on reading strategies the students said they used when they read for comprehension and for learning. The next chapter will look at reading instruction and activities across the curriculum in upper secondary classes in Brunei. What takes place in English Language, henceforth EL and Content Subjects henceforth CS classes are presented and detailed in Chapter Six.

This chapter begins with overall findings from the quantitative and qualitative data (Section 5.2). Reading strategies most frequently used by the students obtained from the questionnaires data are first presented to provide a basis for a detailed report of the specific strategies that the students said they use when reading in English. Results from the interviews and think-aloud are presented under the four main themes.

Then the chapter continues with a section on problems and difficulties students in this study said they encounter when reading in English (Section 5.3). This is followed by a description of reading strategies used by upper secondary students from the three schools: School A, B and C (Section 5.4). Reading strategies use of students in School A, consisting of academically high ability students will be presented first (Section 5.4.1). Then reading strategies use of students in Schools B and C, consisting of academically average and moderate ability students will follow where similarities and differences in strategy use among the students in the three schools are presented (Section 5.4.2).

We will also present findings from two of the four case study students (Section 5.5). These case studies are presented for two purposes. Firstly to exemplify in detail the students' actual strategy use when reading in English and secondly to further exemplify in detail how they read for their English Language (i.e. reading for comprehension) and for their other Content Subjects (i.e. reading for learning). An idea of the complexity of

the multilingual background the students in this study come from is also briefly presented in the case study students, although the study does not seek to assess the impact of different levels of multilingualism.

5.2 Overall Quantitative and Qualitative Findings.

This section briefly presents the general findings of the reading strategies upper secondary students in this study said they used when they read in English. It is divided into two parts; quantitative results from the questionnaire and qualitative results from the interview and think-aloud data.

5.2.1 Results from the questionnaires - Reading strategies most frequently used

This sub-section looks at the overall results from the three schools, on the strategies most frequently used by the students. Overall, the students were quite positive about the employment of various reading strategies when they read in English. Results showed that eleven questionnaire items (see Table 5.1) received a high percentage of responses which indicate strategies students most frequently used.

Items 6 to 9, although not explicitly reading strategies, were also included in the analysis. This is because having these awareness the students' reading might be affected as these can also be a pre-requisite for the choice of reading strategy they will use.

Results further showed that the students were aware of their reading and product when a high percentage of them indicated that they were *aware when they do not understand a part of the passage, know when they were not concentrating* and *aware of the difficulty of the passage*, as shown by items 6 – 9 in Table 5.1. These findings are similar with some of the strategies found in the students' responses from the interview on factors which they reported can contribute to their reading problems and difficulties.

Rereading was one strategy employed by the majority of the students as 98% and 95% of them reported using the strategy when they do not understand a paragraph or a sentence respectively.

While reading, most students (91%) indicated that they will use what they already know in understanding the passage they read, to visualize what they have read in their mind and to guess the meanings of any words that they did not know. These indicated that students seem to have an awareness of a range of strategies they could employ.

Students reported that they also made use of textual features such as the title and the pictures. Many of them used the former to imagine what the text is going to be about (88%) and to relate the pictures with the article (86%).

Table 5.1 Quantitative Results: Strategies most frequently used by students when reading in English.			
No	Readings Strategies employed (based on the items from the questionnaire)	percentage of students used this sometimes, frequently or always	Rank in order of used
1	I use the title to try to imagine what the article might be about.	88	6
2	If there are pictures I use them to try to guess how they relate to the article.	86	7
3	I try to guess at the meaning of the words I don't know.	91	5
4	To use what I already know to help me understand the passage.	91	5
5	To have a picture in my mind about what I am reading.	91	5
6	I am aware when I do not understand the meaning of a word.	93	3
7	I am aware when I do not understand a part of the passage.	92	4
8	I know when I am not concentrating.	88	6
9	I am aware of the difficulty of the passage.	93	3
10	When I do not understand the paragraph, I try to reread it.	98	1
11	When I do not understand the meaning of a sentence, I try to reread it.	95	2

We will now look at the overall findings from the qualitative data, i.e. the interviews and the think aloud protocols in the next section. Data from the 30 students in the second stage was the primary sources for the results in the next sections (section 5.2.2 and 5.4.).

5.2.2. Results from the qualitative data - Strategies used when reading texts in English

Results from the interviews and think aloud data are presented under the four main themes below.

- Factors affecting reading (What makes it difficult to read in English)
- Students' approach to reading (Strategies they said they used)
- What students do to help them with their reading in English (both for comprehending and learning content)
- What students do when they encountered unknown or difficult vocabulary (including new, unfamiliar and difficult words).

Results under these themes are briefly presented in each of the following subsection below.

5.2.2.1 *Factors affecting reading (What makes it difficult to read in English)*

This section illustrates students' responses to the factors that they thought might contribute to the difficulties when reading in English for both their EL and CS.

Eleven factors were found to be the common factors that can create difficulty for the students in the upper secondary classes when they read in English (Table 5.1) These include *vocabulary used, length of text, unfamiliar topic, lack of interest, the layout of the text, sentence complexity, misunderstanding of main points, the text genre, pronunciation, confusing content and lose of concentration when reading.*

When asked what makes reading in English difficult, vocabulary seemed to be reported by many of the students as being the top contributing factor. It was found in almost all students' transcriptions in the interviews. It was reported being the common factor that the majority of students think could make reading in English either easy or difficult followed by the familiarity level of the topic and the length of the reading text. This finding is not a surprising one because research had also shown similar result (Hamidah, 2002; Sara, 2009). Because of this, vocabulary related aspect to reading is further

looked at in-depth. Analysis on how vocabulary was approached when reading in English was also made and the findings are detailed in separate section, particularly when presenting results for research question 4.

Table 5.2 Factors contributing to difficulties / problems in reading – Results from different schools.					
Main Category	Factors emerging from the students' responses	Sources (students' transcriptions)			
		Overall Result	School A	School B	School C
PROB	Vocabulary	30	9	8	13
	Long text	15	7	3	5
	Confusing content	9	2	2	5
	Pronunciation	8	6	2	1
	Unfamiliar topic	8	4	2	2
	Interest	6	4	1	1
	Layout of text	7	2	3	2
	No concentration	5	2	0	3
	Sentence complexity	3	0	2	1
	Wrong points	2	0	0	2
	Types of text	2	0	1	1

Comparing results from the three schools, there were differences in the students' responses. High ability students in School A reported that factors such as topic familiarity and interest can affect reading. This indicates that without enough background knowledge and interest, reading can be difficult. On the other hand, not many average ability students in schools B and C indicate 'interest' as a factor that could affect their reading. The students in School C reported that confusing content also affect their reading.

5.2.2.2 *Students' approach to reading (Strategies they employed).*

This section illustrates students' approaches to reading including the reading strategies they used when they read. Results are presented according to the number of times these strategies (or activities) were mentioned in the students' descriptions and in the think aloud data (see Table 5.3).

Six reading behaviour / strategies were reported by the students as what they most frequently used when they read. These were found in most of the students' responses

when asked how they approach their reading texts (Interview question No.3 – see Appendix xvi). These include ‘using the title’ to help with reading, ‘rereading’, reading from the beginning till the end’ of the text, ‘making use of visual illustrations’ in the text to access meaning, ‘scanning’ and using ‘translation’ as shown in Table 5.3 below.

Code category	Specific types of reading strategies	Sources (students' transcription)	References (no of times these were mentioned in the transcription)	Rank in order of use
Reading strategies used.....	Use of title / heading	36	67	1
	Rereading	29	51	4
	Reading from the beginning to the end	35	63	2
	Refer to Illustration in the text	24	54	3
	Scanning	17	25	5
	Translate to Malay	13	20	6

Making use of the title (e.g. *looking at the title of the text that they are going to read*) was coded 67 times in the students' descriptions. This was often the first thing which many of the students do whenever they have a reading task to do.

For me, I look at the title first. Because by looking at the title / topic, I can usually already guess what the text is going to be about. When there's the title, I read the title .If there's no title, I just straight away read from the beginning till the end. [C5]

Reading from the *beginning till the end*, *making use of the illustrations or pictures in the text* and *rereading* were each being referred to 63, 54 and 51 times respectively are three other strategies or activities that students used when they read. Apart from these, strategies such as *scanning* and *translating to Malay* were also used.

5.2.2.3 *What students do to help them with their reading in English (both for comprehending and learning content)*

Students in this study also reported using various strategies as illustrated in Table 5.4 to get meaning from their reading. Results in Table 5.4 showed six strategies were frequently used by the students when they read. These include *activating background knowledge* which received the most references (50) and found in most sources (26) in

the analysis. Other strategies employed also include *'stop and read'*, *'asking (oneself) questions'*, *'visualizing / imagining'* on what they read, *'summarizing'* and *'rephrasing'*.

These six strategies were found in many of the students' descriptions suggesting that students are able to employ strategies to help them to monitor their reading in order to comprehend the text and to learn. These results will be further elaborated and presented when looking at strategy use of the students from the three schools.

Table 5.4 Qualitative Results: Strategies students frequently used when they read.				
Main Category	Specific types of reading strategies	Sources (students' transcription)	References (no of times these were mentioned in the transcription)	Rank in order of use
Reading strategies for comprehension & learning	Background knowledge	26	50	1
	Stop and read	21	39	2
	Asking oneself questions	21	37	3
	Visualizing / imagining	17	35	4
	Rephrasing	15	21	5
	Summarizing	22	35	4

5.2.2.4 What students do when they encounter unknown or difficult vocabulary?

As presented in section 5.2.2.1 and Table 5.2, vocabulary is perceived by the students as the top contributing factor to (their) reading difficulty. When asked what steps they usually take when they encountered difficult vocabulary in their reading, students' responses were presented in Table 5.5. Seven strategies were found to be used a lot by the students in order to cope with new or difficult words. These are: *using a dictionary*, *guessing meanings of words*, *using contextual clues*, *asking for help*, *highlighting the words*, *ignoring the words* and *translating to Malay*.

As shown in Table 5.5, the most frequent strategy used was *referring to a dictionary*. This strategy was ranked the top when it was found in 17 of the students' transcriptions.

Guessing the meaning of words and *using contextual clues* were also said to be used quite often. The students further said that they also tried to get outside *help* and *highlighting* the words when they have difficulty with the vocabulary used in the reading text. The former includes getting help from friends, siblings and even their teachers. The latter seemed to be used more when dealing with texts from the CS. This will be looked at in relation to RQ2, RQ3 & RQ4.

Although the responses were less common, strategies such as *ignoring the words* and *translating them into Malay* were also found in the students' descriptions when they encountered unfamiliar words. The students only referred to the employment of ignoring the words four times and the use of translation twice.

The use of these strategies, either on their own or combined with others strategies, will be looked at in Section 5.4 when we look at results on students' reading strategy use across the two types of schools.

Main Category	Specific types of reading strategies	Sources (students' transcription)	References (no of times these were mentioned in the transcription)	Rank in order of use
VOCABULARY	Use Dictionary	17	22	1
	Guess the meanings	15	20	2
	Use context	12	18	3
	Ask for help	11	14	4
	Highlighting	11	11	5
	Ignore	04	04	6
	Translate	02	02	7

Results presented in Section 5.2 suggested that students do have a repertoire of strategies that they can use when reading in English. These results implied that teachers did teach, or at least exposed their students either implicitly or explicitly with various reading strategies for reading in their classes.

The strategies reported by the students and presented in Table 5.3, 5.4 and 5.5 were commonly used by most of the students. Many of these strategies were also found to be frequently used by the students as shown in the quantitative data (Table 5.1) as well as strategies which teachers said they used in the classrooms in the next chapter (see Table 6.1 and Table 6.3). There was, however, a difference in the result in strategy use in relation to handling vocabulary. Although using a dictionary was a top choice by the students (see Table 5.5) more than half of the teachers (57%) claimed that they 'seldom' or 'almost never' teach the use of dictionary to their students (see Table 6.2 and 6.3).

We now will look at the reading strategies used by the students across the two types of schools. Reading strategy use of academically high ability students in School A are first presented in Section 5.4.1 followed by the strategy use of academically average or moderate ability students from Schools B and C in Section 5.4.2. But first let us look at problems and difficulties the students reported they often encounter when reading in English. Findings were derived from the interview data (refer to interview question No1 in appendix xvi)

5.3 Problems and difficulties encountered by students when reading in English.

When students were asked how they read in English, they were also asked to indicate how they rate their reading ability. Table 5.6 summarizes the students' responses on their own reading ability.

Table 5.6 Students' responses on their reading ability			
School	Reading Ability		
	Good	Average	Negative
A	4	5	1
B	5	1	1
C	5	5	0
Total	14	11	2

The students from the three schools were quite positive of their own reading abilities when the majority indicated that their reading ability is either average or good. Only

two students replied that their reading ability is either 'poor' or 'difficult' as in the examples below:

I think my reading ability is very poor. I don't really enjoy reading. [What is your reading ability in understanding the text?] I think it is OK. But sometimes I have to read it twice to understand, mostly for comprehension and questions. [A8]

For me I find it quite difficult because I sometime find myself worrying when I don't understand or misunderstood what I read. I have to read it several times because I tend to lose concentration when reading (easily get distracted) [B2]

In their respond to the question on their reading ability, a lot of the students also mentioned problems and difficulties that they often have in their reading. The majority of the students in school A, for example, were aware of the various problems and difficulties they faced in reading as indicated in the examples below.

'Just above average because I have difficulty in saying difficult words and my grammar is not that good so I don't really understand sometime what I read' [A10]

'I think....hmm...I am having problem with pronunciation. In terms of understanding or comprehension, I think I rate myself as 50/50' [A5]

..... 'I think it's Ok...not very good but it's OK. [why?]I get distracted. Like, if I read, I get distracted and my minds somewhere else and sometimes I get sleepy.' [A2]

'I think just good {lah} because I don't have a very big vocabulary and I don't know much words.' [A7]

The students from School B and C on the other hand seemed to attribute reading difficulties with 'vocabulary' and 'understanding' as in the examples below:

Ah...slightly okay because sometimes it is hard to understand what I read. It is hard because sometimes it is difficult to understand the meaning. [What do you mean by meaning? Do you mean meaning of words?]. Well sometime meaning of the whole sentence and sometime meaning of words [C9]

Just average because sometimes it is difficult to understand what I am reading. [B1]

Just average because sometimes there are meanings of words (specific scientific words) that I don't understand. [B5]

I think average because sometimes the words make it difficult to understand. [B7]

Maybe 7 out of 10. I sometime stutter. I might get stuck with complicated words and I sometime might read a bit too quick. When I do this, I miss something sometimes and might not understand the passage. [C7]

The above examples showed that the students in the three schools all agreed that 'vocabulary' is a common factor that can affect their reading. The students seemed to be aware of their comprehension difficulty when many of them, especially the academically average ability students in School B and C, stated that they sometime find it difficult to 'understand' what they are reading. Findings on how students overcome these difficulties will be presented in a Section 5.4.2.2.

Section 5.4 will look at results on reading strategy use of upper secondary students in the three schools

5.4 Reading strategy use of upper secondary students across the two types of schools

Reading strategy use of upper secondary students are presented in two parts (Section 5.4.1 and 5.4.2). Section 5.4.1 looks at reading strategy use of academically high ability group of students in School A.

Results showed that a high percentage of the students employed both top down and bottom up strategies when they read both in comprehending the text as well as in overcoming comprehension and vocabulary difficulties. Students used top down strategies such as making use of the title, text features (such as pictures), background knowledge and visualizing in helping them to access meaning from their reading. In terms of handling comprehension difficulty, students used the strategy of rereading and they also used the strategy of 'guessing' to help with vocabulary difficulty. Many of the strategies, presented in the examples in this thesis, were often used in combination with other strategies. Some of these strategies even have dual functions which will be discussed in detail in various sections in the remaining of Chapter 5 as well as in Chapter 6.

Before looking at how reading strategy use of students of different academic ability groups, we will first compare the strategies used by the students in each School. The results were illustrated in Table 5.7.

No	Strategies employed (based on the items from the questionnaire)	Percentage of students used this 'always' or 'frequently' when they read		
		School A	School B	School C
1	I use the title to try to imagine what the article might be about.	80	80	90
2	If there are pictures I use them to try to guess how they relate to the article.	90	80	90
3	To use what I already know to help me understand the passage.	70	80	80
4	To have a picture in my mind about what I am reading.	100	80	90
5	When I do not understand the paragraph, I try to reread it.	90	100	100
6	When I do not understand the meaning of a sentence, I try to reread it.	90	90	100
7	First I read the comprehension questions and then I look for the answers when I read.	40	70	30
8	I skim the whole article to get the general idea of what it is all about.	50	70	40
9	I read the text through twice.	40	50	50
10	During the reading process, I try to identify key words in the sentence	50	40	60
11	During the reading process, I try to question myself whether I understand the meaning of the sentence I have read	80	40	40
12	During the reading process, I try to mark the sentences that I do not understand	30	60	70
13	When I read a passage, I try to predict what I am going to read.	20	70	30
14	When I read a passage, I try to summarize what I read.	50	70	90
15	When I read a passage, I try to mark key points in the passage	60	80	100
16	When I read a passage, I try to ask myself questions about what I have read	60	20	30
17	When I read a sentence, I notice whether it is related to the questions/task assigned to me	70	50	40

The first six items in Table 5.7 showed that high percentages (70% - 100%) of the students across the three schools were positive in their use of these strategies when they read. This confirmed the results in Table 5.1. Rereading is the most frequently strategy used by the students when they did not understand a paragraph or a sentence. Half of the average or moderate ability students indicated that they always read a reading text twice while only 40% of the high ability students do this.

Academically high ability students in School A further reported to use more demanding top down cognitive strategies such as 'asking oneself questions' to monitor their comprehension and on what they have read (items 11 and 16) more than the average or moderate ability students in School B and C. The students in School A even display the ability to employ metacognitive strategy when 70% stated that they always or frequently notice whether what they read is related to the reading task (item 17).

On the other hand, average or moderate ability students in School B and C seemed to use less demanding top down cognitive strategies such as 'skimming' the whole text (item 8), 'marking' the sentences that they do not understand (item 12), 'predicting' what they are going to read (item 13), 'identifying' (item 10) and 'marking' (item 15) key points and even summarizing (item 14) what they have read more than the high ability students in School A.

Differences in handling vocabulary difficulty were also noted between the academically high ability and average or moderate ability students as illustrated in Table 5.8 below. Results showed that a high percentage of students in School A used strategies such as 'to guess' (item 3) and 'to infer' (item 8) meaning compared to those in School B and C. These strategies are more demanding top down cognitive strategies while less demanding cognitive strategies such as 'marking' (item 5) the unknown words and use of 'translation' (item 4) are employed by only 20% and 10% of the students in School A respectively while nearly 50% of those in the other two schools reported using these strategies. Moreover, a dictionary was reported being used by only 10% of the students in School A whereas 50% and 40% of the students in School B and School C respectively used this to look up unknown words.

No	Strategies employed (based on the items from the questionnaire)	Percentage of students used this 'always' or 'frequently' when they read		
		School A	School B	School C
1.	I ignore the words I don't know and continue reading.	30	50	0
2.	I read every word and look up the ones I don't know in a dictionary or word list.	10	50	40
3.	I try to guess at the meaning of the words I don't know.	90	50	60
4	When I read a passage, I try to translate a word into Malay	10	40	50
5	When I encounter an unknown word I try to mark it	20	30	60
6	When I encounter an unknown word I try to guess its meaning by breaking it into parts.	50	0	40
7	When I encounter an unknown word I try to guess its meaning by using context clues.	80	50	60
8	During the reading process, I try to infer the meaning of an unknown word from the immediate sentence.	70	50	40

To obtain a conclusive result on reading strategy use of upper secondary students, detailed analysis of the interview data was also made on not only which strategies were said to be used but also how the students across the two types of schools used them. These are presented in Sections 5.4.1 and 5.4.2.

Results on the specific types of strategies students used in the next two sections are presented and briefly discussed under the following headings; (i) how students approach their reading; (ii) strategies used when encountering difficulties in reading; (iii) strategies for comprehension and (iv) strategies for learning.

5.4.1 Reading Strategy use of students in School A

Data was obtained from ten students in School A. Reading strategy use of academically high ability students in School A are presented under each of the four sub-sections below.

5.4.1.1 *How students approach their reading text in English - Reading Strategies used.*

Analysis on the students' responses to the interview questions showed that most of the strategies employed occur before they read including 'previewing the text', making use of text features such as 'title', 'pictures' and 'layout'. The students in School A most often were able to indicate what their reading was for.

The students in School A had specific purposes or reasons when they read. Some of these were to 'answer questions', 'to get the right answer' and 'to prepare for examination and test'. They even reported that the purposes of reading for EL and CS are different as in the examples below:

.....But since we have our exam and test, so I have to read again. I refer to the questions from past year exam papers, class work andthen to look for the necessary information for the questions..[A8]

Well reading for my English subject is usually for writing purposes [A7]

5.4.1.1 (a) *Previewing the text : Use of title*

Analysis showed that, previewing the text was found in most of the students' descriptions of their reading, which usually occurs at the pre-reading stage. Two common strategies reported by the students when previewing the text were consistent with the results in Table 5.3 and 5.4. They were 'making use of the title' and 'making use of their background knowledge'.

The students in School A further indicated that the strategy of *previewing the text* was often done by looking at the title first and then to try to get the general meaning of what the text will be about.

'The Title.....because we can try to make sense of the topic just by reading the title....'
[A1]

'.....If there's a title, I will read the title first and find out what the passage is all about.....' [A5]

The students also indicated that they previewed the text before the actual reading by employing other strategies such as *skimming, scanning* or *using the title* in order to *predict or guess text meaning* as well as to understand what they will be reading. These results were consistent with what was said taught to them by their teachers presented in the next chapter (see Table 6.1).

'What is it about? What the passage is about...I mean...I think about this...and so I look at the title first and then make predictions about it and hope that it is not going to be boring..' [A2]

First look at through it. I scan the title, the first paragraph. If there is picture, yeah I scan the picture.....I imagine what can happen. I use the title to imagine what is going to be in the text....if I have some background knowledge or have read on the topic somewhere, I find it easy to understand the text.[A4]

The above examples not only showed that students combined various reading strategies when they read, but have also indicated that students were able to plan and were conscious of the steps they have taken in using these strategies in order to help them to understand what they are reading.

5.4.1.1 (b) *Previewing the text : Making use of background knowledge*

Many of the students in School A also acknowledged the importance of background knowledge in reading. Activation of background knowledge can be done by integrating their background knowledge with textual information such as 'pictures' and 'the title' to prepare them for their reading.

Eight of the students in School A said they often tried to relate what they are reading to their personal experiences and to what they have learned or heard before.

'In general, I usually look at the title of the reading text and then try to gain more information about the topic and then begin reading. I usually ask myself about the topic and try to relate what I am about to read by referring to my general knowledge that we already have. I try to relate them to what I have read or heard before.' [A9]

I read the title.....or .relate it to other similar areas. For example for a passage with the title 'Disaster', I would think about tsunami, earthquake etc....before reading the text. [A10]

The excerpts above showed that the students in School A employed a combination of several strategies when they read. The students did not use only one strategy at a time. Instead they were able to employ a combination of various strategies either to help with their comprehension or to help in overcoming reading difficulties.

5.4.1.1 (c) *Rereading or reading more than once*

Apart from the use of background knowledge, the students also employ the strategy of 'rereading' or reading more than once. Table 5.7 shows that only 40% of the students in School A read their text twice. But when analysis was made with the qualitative data, the strategy of 'rereading' was reported being used by the majority of the students in School A (found in 8 out of 10 students' transcriptions). Findings also revealed that the students in School A used the 'rereading' strategy for two purposes. One was as an indication of their consciousness of the comprehension process (to help them to understand what they have read) and the other was as a 'fix-up' action when comprehension breaks down (to overcome comprehension difficulty).

The results in this section will only present examples of 'rereading' or 'reading the text twice' in helping them to access meaning (i.e. comprehension). Examples of rereading being used to overcome or to fix comprehension difficulty will be presented in Section 5.4.1.2. The former can be illustrated in the examples below;

'I usually read two or three times to help me understand better. First reading, I read through and then second reading, I read for details' [A10]

'I read it again and again and again until I understandread it again and then if I already get the main point, I'll read the next line...' [A2]

I repeat my reading. I reread again and then try to imagine what really happen, ask myself questions. [A6]

The examples also showed that the students in School A knew what to focus on when they read for the second time. These include 'reading for details', 'reading for main points', 'reading and focusing on specific part of sentence or paragraph', 'reading and imagining' and 'reading and focusing on vocabulary'.

Further analysis also showed that the students were consciously in control of what strategy to execute, either to choose to use it or not and also what to do in the second reading as evident in the excerpts from the think-aloud data below when the students were reading the text (see Appendix xviii for sample):

"[Student sigh]...er..er..ar.. I am not really sure like... about paragraph 3.....I usually need to read it more than once but today I didn't do it..." [A8]

[How many times did you read the text just now?] "Twice....yeah I read the paragraph twice. Because first to scan the names then to memorize the characteristics and their functions.....I scan like platelets, fibrinogen and fibrin and plasma and blood clot and also scab" [A9].

Students in School A even specifically stated that they usually reread when reading for their EL subject. This suggests that students read differently for different subjects areas. Examples of students' descriptions when reading for EL subject are illustrated below:

'Reading for English, sometime I have to reread the paragraph or passage. I will read it one more than once.' [A5]

'For English, In terms of understanding, I will reread the text again. During my second reading, I usually try to find words that I can relate to the passage. For example in a comprehension text, sometimes when you first read it, you have no clue about the text and then you find the situation and you try to be in the situation and read it the second time and feel the situation in which the text is all about....' [A9].

5.4.1.1 (d) *Asking oneself question.*

Results in Table 5.4 (see Section 5.2.2.3) has shown that 'asking oneself questions' was among the top three strategies reported to be used by the students. However, the results in Table 5.7 (items 11 and 16) showed that 'asking oneself questions' were reported to be used more by the students in School A than the students in School B and C. The students in School A used this strategy in order to comprehend what they read as well as to check their comprehension.

Detailed analysis on this strategy use revealed that the students in School A asked themselves questions mainly for two purposes. One is to monitor their understanding of the passage while the other is to help them to locate the required information for the reading task such as answering questions.

One of the students also reported using this strategy in combination with *rereading* and *visualizing*. However, the student did not specify the reason and the steps he took when using this strategy.

I repeat my reading. I reread again and then try to imagine what really happen, ask myself questions. [A6]

Two of the students in School A, were able to elaborate more on this strategy use by providing evidence of the questions that they usually asked. These are illustrated in the examples below:

At home when I am reading alone, I do ask myself question sometimes like...What am I reading? I don't understand what I have read....When reading together with my friends and there are things that we don't understand, then we asked each other questions.[A5]

What it is about, by asking myself questions such as....what is this about? And then try to understand it. [A10]

A10, for example has shown that he was able to predict the nature of the reading text by *scanning the text layout* and *asking himself questions* to find out more about the text. These were often done at the pre-reading stage as in the example below.

The first thing I do is I scan the layout and ask myself if the passage is going to be complicated or not.[A10]

The students in School A were also able to consciously describe the steps that they took when using various strategies when they read, as shown in many of the earlier examples in this section. This indicates 'planning' on the students' parts. It also shows that the students were also aware if reading is going to be difficult or vice versa and that they were able to take necessary actions to overcome the difficulties they encountered.

5.4.1.1 (e) *Visualizing and imagining what was read.*

Another strategy which the students in School A frequently used was *visualizing*. This includes forming a mental picture and to imagine what was read. The students also showed that they used this strategy differently when reading for different subject areas.

For example when they read for their content subject, they visualized what they read whereas for English Language they visualized themselves being in the text such as taking part in a role (e.g. in conversation).

I would like to have a holographic...visual. I visualize on to reading... In Sciences and Geography too... to help me understand. [A4]

.....with dialogues in an English text, I can put myself (take the role) of the characters in the text. [A10]

As the main goal of reading is comprehension as well as learning which is the focus of this study, the students were also asked on what strategy they use when they encounter reading difficulties (both comprehension and vocabulary difficulties). Findings are presented in Section 5.4.1.2. Section 5.4.1.2 is further divided into two sub-sections. Section 5.4.1.2.1(i) looks at how the students overcome comprehension difficulty (to fix comprehension breakdown) while Section 5.4.1.2.2(ii) looks at how the students handle vocabulary difficulty.

5.4.1.2 Strategies used when encountering reading difficulty.

Results indicate that the students in School A were generally conscious of their comprehension process and were able to take actions when comprehension breaks down. Moreover it also shows that academically high ability students in School A were reflective and careful when they read in English. For example, when they did not understand what they read, they employed the strategy of 'rereading' as shown by the quantitative and qualitative results in Tables 5.1 and 5.3.

5.4.1.2 (i) Strategies used to overcome comprehension difficulty

Two strategies were mainly used by the students in School A when they have difficulty with their reading: 'rereading' and 'stop and read' strategies. These strategies, as found with other strategies presented in this thesis were also used in combination with other strategies.

5.4.1.2 (i)a *Rereading Strategy*

As presented in Section 5.4.1.1 (c) and also from Table 5.7, this strategy was used by 90% of the students in School A when they read. Apart from its usage in helping students to comprehend, this strategy was also used to help them when they encountered difficulty with their reading. In short, this strategy is used both for monitoring comprehension and to cope with comprehension difficulty. As in the previous examples, this strategy was also used in combination with other strategies. It was also used for handling difficult vocabulary which will be discussed in the next section. Example of their usage can be illustrated below:

'.... But if there are certain things during my reading that I don't understand, I reread again. I usually do this for each paragraph..' [A7]

Example on how students combined strategies in order to monitor their comprehension and to cope with comprehension difficulty is shown below. When faced with reading difficulties, one student outlined the steps that she took which include 'rereading' and 'determining what to read closely' and then 'visualizing or imagining' what she read.

I usually ask the teacher. If not, I usually read it again and again, 2 or 3 times. When I read the second time, I just focus on the parts that I don't understand. I think I just imagine what I read because it is easier [A3]

5.4.1.2 (i)b *Stop and Read Strategy*

Results further showed that the students also employed another strategy coded as 'stop and read' in the qualitative data (See Table 5.4). It is similar to 'pausing and thinking' about the text read used in the SORS survey (Mokhtari & Sheorey, 2002). In this study, this strategy is said to be used when the students stopped in the middle of their reading to either 'think' or 'pause' about what they are reading before continuing with their reading. The students seemed to use this 'stop and read' strategy when they don't understand what they have read; when reading novels; and when reading a long text (of more than one or two paragraphs). Six students in School A mentioned that they employed 'stop and read' strategy either to 'reread' back in order to make sense of

what they read, or to think about the text again before reading it again. Two of the examples are given below:

...depending on novels, I stopped within a few chapters..[A4]

If there are more than one or two paragraphs, I sometime stopped between my readings to make sense of what I read. [A9]

Data from the students' think-aloud provides a clearer picture of students employing this strategy. Students' non-verbal behavior and 'pauses' and 'sounds' seemed to show that they were thinking about the text when they stopped or paused while they read.

Analysis also showed that although more than half of the students in School A indicated that they used 'stop and read' strategy when they read, only three students actually exhibited this strategy when they read. An example of such strategy being observed from one student when reading the text on 'Tissue Rejection' (see Appendix xviii for sample) is illustrated below:

<....I think I started reading whether {supaya match or not {inda} with mine..[paused]...I was thinking of structures right {kan}?Then{Lapas atu} I started reading to match whether my thinking {sama ani atau inda} were similar or not...>

[....read the text silently though occasionally he whispered to himself softly while reading. Then athe spoke out<that is the germ...[paused].....and white blood cells>[Then continued reading and stopped after finished reading the whole text]

5.4.1.2 (ii) *Handling vocabulary difficult*

Vocabulary difficulties in this study include when student encountered difficult words because they are either new or unfamiliar to them. One of the strategies in Table 5.1 showed that 91% of the students in this study reported that they will try to guess the meaning of the unknown words when they read. This result was also found from the qualitative data (See Table 5.5) when it was ranked second for the most coded strategy students used when handling difficult vocabulary after the 'use of dictionary'.

Table 5.8 further showed that the students in School A reported to use three strategies more than the students in the other two schools. These include 'guessing the meanings of unknown words' (90%) by using 'context clues' (80%) and also to 'infer meanings of unknown words' (70%). These strategies were also reported in the interview and examples of these strategies use will be discussed in Section 5.4.1.2(ii)b.

5.4.1.2 (ii)a Use of Dictionary.

Seven students in School A made use of reference materials, mostly dictionaries to facilitate their reading, especially when dealing with vocabulary. One student even mentioned that he used his iPod as a reference to look up unfamiliar and difficult words. Another reported getting help from someone or using a dictionary when encountering difficulty with words or vocabulary.

And if there are difficult words, sometime I take my iPod and check for their definitions. [A5]

I don't have a very big vocabulary and I don't know much words. So if there are words that I don't know, I have to refer to the dictionary or ask someone. [A7]

The excerpts above suggested that the students were aware of the role of 'vocabulary' when reading in English. They knew that vocabulary is one of the factors that contribute to difficulties with reading in English (see Table 5.2 and Section 5.3 for further detail).

Two students in School A further indicated that they used a combination of various strategies to cope with vocabulary difficulty as shown in the excerpts below.

With vocabulary.....I usually mark the words and after finish reading then I ask my friends (or look up in the dictionary). Sometimes I try to guess with words or keywords, I use the context to guess what it means.....and if it makes sense, then it is correct but if it's not then I will ask my friends just to confirm it is correct or not. [A1]

I read the sentence and then I put one word in and see if it makes sense or not to the whole paragraph. I substitute the hard / unfamiliar word with a word that I know and see if it fits and this works most of the time for me. [A6]

5.4.1.2 (ii)b *Guessing meanings.*

As stated earlier, majority of the students in School A used the strategy of '*guessing the meaning*' of unknown words or phrases. Four students in School A clearly reported the use of this strategy to cope with unfamiliar or unknown words.

[What about vocabulary?] *If it is hard, I am ok because I like challenges but I won't get the dictionary to....I will just guess what it means.... [A2]*

The students in School A seemed to have a clear idea of what to do when encountering vocabulary difficulties in their reading. Four out of ten students in School A described how they used a combination of strategies though the reasons of employing these strategies may, however, vary among the students.

For example, one student used a combination of '*rereading*' and '*guessing*' strategies. The student stated that he '*reread*' to '*guess the meaning*' with the help of '*the context*' in an effort to cope with unfamiliar vocabulary he encountered during the reading process.

When I came across with new or hard words while reading, I usually guess their meanings by rereading the sentence where the words are found. I use the context to help me [A9]

When encountering new or difficult words, another student first *guessed* the words and then *used a dictionary* to *confirm* her guess as illustrated below.

... if I come across new or difficult words,... Yeah, i guess the meanings but sometimes I do look them up from the dictionary only if I get too curious what does it mean.[A2]

Results from the quantitative data (Tables 5.1 and 5.7) showed that the students were not only aware of the strategies they usually used, but were able to confirm their actual usage in their reading during the interview and think aloud sessions, though not all strategies were able to be observed in the latter session. But this was not at all surprising because the texts used in the think-aloud sessions might not require the students to employ the strategies which they said they would use. There are other factors that need to be considered in interpreting the result. One of these may be because the reading texts used were relatively easy for the students in School A.

5.4.1.3 Strategies for comprehension – Reading in English Language classes

At the end of Section 5.4.1.1 (c), students A5 and A9 reported that they have to 'reread' the reading material for English Language subject in order to enable them to comprehend the text. This suggests that the students' strategy use are different when reading for comprehension (as in English Language Subject) and reading for learning (as in the Content Subjects). The latter will be dealt with in section 5.4.1.4.

One student mentioned how, when reading for EL subject, he started with a 'purpose of answering question' and then began reading to 'look for the answer'. When he could not locate the answer he was looking for, he then employed the 'rereading' strategy. In this respect, one common purpose of reading in EL classes is mainly for comprehension, that is to answer comprehension questions set for the task.

For English, we need to look for answers for the given comprehension questions. Sometimes, the answers were not given directly in the passage, it's sometimes embedded between the lines. Reading for English, sometime I have to reread the paragraph or passage. [A5]

Findings in earlier sections have informed us that students read differently for different subject areas. The employment of strategies such as *summarizing* and *looking for key points* were used quite often when reading for comprehension (for EL texts). This may be the influence of the classroom activities that occur in EL classes. *Summarizing* is one of the skills that students are expected to learn in their English Language subject. It is also one of the main components in the O level English Language examination papers. Therefore this strategy was often explicitly taught in the EL classes. More on this will be discussed in the next chapter.

The students in School A also reported the use of 'visualizing' strategy when reading for comprehension in their English Language classes as presented in Section 5.4.1.1 (e). The students in School A reported that when they read for their EL subject they just need to 'understand' and tend to read from the beginning to the end (see Table 5.4) and to look for answers for the comprehension questions. A more detailed result on strategy use for reading comprehension for EL subject will be presented in the next chapter.

5.4.1.4 *Reading to learn in Content Subject classes*

The students in School A seemed to be able to report more on the employment of reading strategies when they read for their content subjects (CS) by employing strategies including using study skill such as 'graphic organizers', 'summarizing', 'note taking' and also 'highlighting key points'.

Moreover, when students reported the employment of strategies such as summarizing, memorizing important points, picking out key points and mind mapping, these require them to think about the main ideas. This is mainly because when employing these strategies, the students picked out the main ideas and re-arranged them in a graphic form to help them to remember the content.

Reading in the content subject classes, not only requires students to comprehend but also to learn the content itself. The students in School A were able to report what they do when they are reading to learn. They used strategy such as thinking about the main ideas to facilitate their reading. Consequently, when students were thinking about the main ideas of the text, they reported using mind maps and concept maps as illustrated in the examples below:

....Biology and other subjects – use mind mapping or concept map. We don't have to use full sentences, just point forms to help us understand more of what we learn using concept map. [A10]

....With notes as in content subjects such as the sciences and geography, first our teachers explain them and then ask us to interpret it in a mind map form to make us easy to read and understand. [A9]

The students in School A indicated that they also employed strategies such as 'summarizing' and 'looking for key points' to help not only in remembering the key ideas but also to identify what to focus on in a particular text.

Reading strategy use for learning the content will be presented in detail in Chapter 6 when we are looking at what takes place in the EL and CS classes in relation to reading.

Now I will present the results of reading strategy use of academically average and moderate ability students from the other two schools (Schools B and C). Consequently any differences and similarities found in the students' strategy use across the three schools are also presented.

5.4.2 Reading Strategies use of students in Schools B and C

Results were obtained from seven students from School B and ten students from School C. As with their peers in School A, the students in these two schools too were quite positive towards their reading ability. The majority of the students in School B perceived themselves as being good readers with one who indicated that their reading ability is average. The students in School C perceived themselves as either good or average readers (see Table 5.b).

Similar to the results in Section 5.4.1, results on strategy use of the students in School B and C are also presented under four similar sub-sections (i) how students approach their reading; (ii) strategies students used when encountering difficulties in reading; (iii) strategies for comprehension and (iv) strategies for learning.

5.4.2.1 *How the students approach their reading*

Overall findings indicate that the students in all three schools used similar types of strategies. These include 'previewing the text' by making 'use of the title' and 'their background knowledge'. Average and moderate ability students in School B and C also reported the use of less demanding top down cognitive strategies such as 'skimming', 'scanning', 'predicting' and 'imagining' what they have read.

Despite the similarities in the employment of several top down reading strategies by the students in the three schools, how they approached these strategies in their reading was different. There were also differences in the employment of the strategies not only between students in School A with those in schools B and C, but also among the average and moderate ability students within School B and C as well.

Average and moderate ability students in School B and C also reported the use of strategies such as 'previewing the text' before reading such as 'using of background knowledge' and 'using text features'; to set a purpose for reading'; 'predicting' and 'guessing text meaning'; 'rereading'; 'visualizing'; and 'asking questions'. These are some of the strategies frequently used by the students in School B and C. Most of these strategies were also used by the high ability students in School A but how they used them were different with the students in School B and C.

5.4.2.1 (a) *Previewing the text: skimming and scanning.*

Students in School B and C reported using strategies including *skimming, scanning, using the title, looking at the layout of the text and looking at the pictures* at the pre-reading stage when previewing the text. The average ability students in these two schools also indicated that they utilized the first three strategies more when *previewing the text*. However, unlike the high ability students in School A, the students in School C explicitly reported the use of skimming and scanning in their reading as in the examples below:

First we skim and scan. Then we try to understand what we read clearly [C9]

Sometimes I scan and skim the pages to get the feeling of whether it's going to be an interesting read or not. Then I read bit by bit. When I skim or scan, I also read at the same time and this helps me to read further. [C1]

Moreover, how the students in these two schools executed these strategies were also different. The students in School B, for example, did not elaborate in detail on 'what' and 'why' they skim or scan as those in School C did. One student mentioned he scanned the pictures first if there were any in the text. The students in School C, on the other hand seemed to be more organized in their reading by demonstrating some conscious 'planning' in their strategy use and on how they actually 'take on' the reading activity. They indicated that they 'skim' or 'scan' to find out if the reading text is going to be easy, interesting and also to help with their understanding of the text.

The result seems to suggest that the students in School C knew how to tackle the reading activity by planning what to do before the actual execution of the reading task. A student [C1] for example, *previewed the text* by skimming and scanning the pages in

order to find out how it can influence him to read further and even reported what went on while he skimmed or scanned.

The students in School B, on the other hand only stated the execution of these strategies without further elaboration. Despite the lack of elaboration in the actual strategy use, one student [B5] illustrated how he previewed the text by skimming and scanning and then employed a different strategy (i.e. imagining/visualizing) what he was going to read. This showed that, like those in School A, the students in School B too either simultaneously or concurrently employed several strategies when they read.

5.4.2.1 (b) *Previewing the text: Using the title.*

I look at the title and try to imagine what I am going to read. Then I read the text and if there are pictures I scan them first though. [B5]

Using the title was another strategy which the students said they used when previewing the text. Results showed that the students in all three schools used the title when previewing the text to be read. In section 5.4.1.1 (a), the students in School A were able to elaborate further on 'what' and 'how' they make use of the title in their reading. An example from student [B5] above showed how he used the title to anticipate what to expect he will find in the actual reading. This is done after he scanned at the pictures.

The students in schools B and C also *used the title* for almost the same reasons as their counterparts in School A do. They referred to the title as the first thing that they usually do when they got a text to read. They also used the title to guess or to predict what they are going to read. The students also knew the importance of a 'title' to help them to understand what they will read.

I look at the title and then start reading. I think title is important as it helps you to understand what we are reading better [B6]

Analysis has also shown that many of the students in the three schools employed two or three strategies at one time when they read. The execution of different types of strategies as in the examples presented in this thesis indicated that students had with

them a repertoire of strategies which they can use. They may or may not be aware of the effectiveness in employing two or more strategies simultaneously or concurrently in reading, but they do have various strategies at their disposal to help them with their reading.

One student [C5] reported a combination of strategy use such as 'predicting' *and* 'guessing' text meaning and 'previewing the text' before the actual reading.

For me, I look at the title first. Because by looking at the title / topic, I can usually already guess what the text is going to be about. When there's the title, I read the title then I scan from the beginning till the end. If there's no title, I just straight away read from the beginning till the end. [C5]

Results further showed that the employment of two or more reading strategies mostly took place at the pre-reading stage. Average and moderate ability students in Schools B and C used more strategies at this stage than the students in School A. For example, one student in (B4) indicated that they '*used the title*' before 'asking themselves questions' and then used their 'background knowledge' to 'predict and guess' what the text will be about at the beginning of their reading task.

When looking at the title, I try to figure out what the text is going to be about (what we are going to learn). I also ask myself questions and get ready of what to expect (activating background knowledge on that particular topic?). For example if it's about Tin Mining (for Geography), I ask myself about Tin, Mining, method etc. With English text / passages, I look at the questions and then I look at the title. [B4]

5.4.2.1 (c) *Previewing the text: Using background knowledge.*

In a respond to a questionnaire, it was found that a high percentage of the teachers in the study responded that they 'usually' or 'always' activate the students' background knowledge in their class when they have reading activities (see Table 6.1). The students, having received these tips from their teachers, utilized the strategy when they were on their own. Statement such as 'activating prior knowledge', 'recalling previous lessons', 'relating what was read to personal experiences and knowledge' and 'relating the contents of the text with what was read or heard before' were often found in the students' descriptions and were classified under this strategy use.

Results in the use of background knowledge by the students in School B and C have revealed that the students in School C seemed to use it more than the students in School B. In fact, the students in School C reported that the utilization of this strategy was more directed for their CS reading. It seems that CS teachers tend to give their students, as in the case of School C, advice or tips on how to approach their reading. This strategy was mainly seen as a tool to help students acquire or learn new topic. We will look at this more in the next chapter.

Most often, when the students are given a reading text on a new topic in class, they are required to recall back what was previously learnt. They are encouraged to make use of 'old' information to help understand the 'new' information by their content subject teachers.

Our History teacher usually at the beginning recalled what we have learnt in the previous lesson by asking us questions. We were often encouraged to relate what we learnt (new topic) with what happened in the past (those related to the topic). [C4]

Furthermore for one topic, we have to read from another topic, from the previous topic. With Sciences subjects, we need to relate what we learn with what we have already learnt [C9]

The use of background by the students in the three schools has enabled us to conclude that too the students were aware of the importance of background knowledge in reading. However, there is one noticeable difference in the employment of this strategy among the students across the three schools. The students in Schools B and C seemed to use this more when reading the CS texts than for their EL texts. The students in School A, on the other hand, did not specifically make any distinct differences in the employment of this strategy for subjects across the curriculum.

Similarly the students in Schools B and C also employed the strategy of activating and using background knowledge with other strategies. For example, one student [C6] described how he activated his background knowledge after previewing the text by using the title. He also asked himself questions.

I first look at the title. I feel that the title is the main key that tells about the story (or the content of the passage). I sometime ask myself questions when I look at the title and also try to relate it to myself / personal experiences. [C6]

The above examples and those from B7 and B3 below provide us with more evidence that students do make connections on what was read in the text with their background knowledge. Students too were aware that when the text fits with their 'schema', then reading will be easier.

Topics that are familiar or that I have some background knowledge of are easier than those that I haven't. [B7]

I usually try to read with general knowledge (background knowledge?) and highlighting key points. I understand it, like History, First World War – what happened? What's the main cause? [B3]

5.4.2.1 (d) *Setting Purpose: Why do students read?*

In terms of setting a purpose for reading, the students across the three schools have one similar purpose for their reading task: *to find answers and information for the questions set for the task.*

Results also showed that the students in School B and C did not seem to be fully aware of the importance of having a purpose for reading compared to those in School A. The students in School A indicated that any reading activity should have a purpose.

...we should read the questions first before we read the comprehension passage, so we have a purpose for our reading – to answer questions. [A6]

.....Yeah.....We need a purpose, so we need to have the questions and then look for the necessary information for the questions. [A8]

The students in schools B and C, on the other hand tend to quote what their teachers encouraged them to do. They appeared to set a purpose for their reading because it was what they usually did in class – answering questions.

When the students read for their CS, their main purpose was usually to answer the questions and to extract the new content learned in the classroom. Some read because they *had to* or read *only when it is time for examination*. This can be attributed to the

classroom practice in the upper secondary level which is most often focused to prepare students for the examination which they will take at the end of their secondary education.

Furthermore, due to the 'unsaid' practice of education system in the upper secondary level in Brunei which relied heavily on academic performances to measure 'success', it was not entirely surprising to find students who only read for examination purposes. These were reflected in their responses that they need to have the questions before they read so that they know what to look for.

5.4.2.1 (e) *Predicting and guessing.*

This strategy was also employed by the students in Schools B and C as did their cohorts in School A. Comparisons in the use of this strategy among students in Schools B and C showed that the students in School C appeared to use this strategy more than those in School B. Similar to their counterparts in School A, the students in these two schools also used predicting and guessing either simultaneously or concurrently with other strategies such as 'using the title', 'visualizing' and 'imagining' what they have read. Below is an example of how such combination of strategies were used as reported by a student.

I look at the title) and try to imagine what the text is going to be about. I then read the first paragraph and then I make predictions of what going to happen next (what's coming next). Then I continue reading and I do ask questions to myself. I usually read twice especially when I find it difficult to comprehend what I read. [C4]

The students in Schools B and C appeared to predict or guess what the text is going to be about after looking at the title. The students in school B again attributed the employment of this strategy, as with the previous strategy, to what was commonly practiced in their classrooms. The strategy of 'using the title' was said to be frequently used when 76% of the teachers said that they always direct their students' attention to the title in their classrooms. (see Table 6.1).

5.4.2.1 (f) *Using Text features.*

Another strategy reported being used quite frequently by the students is making use of the *text features*. This includes making use of any visual illustrations found in the text including diagrams, tables or pictures. These are used by the students to help them to try to understand what they are reading.

On the whole, many students from School B and C expressed how the presence of pictures and visual elements help to make their reading easier. Students in these two schools also reported what they usually do when there are pictures in the text and how the presence of visual illustrations affects their understanding when reading for different subject areas. Most students in School B and C seemed to agree that pictures, when combined with other factors, could help make a reading text easier to comprehend.

If there are pictures and diagrams in the text, it is easier for me. What makes it difficult is when the reading text is lengthy, long and has lots of difficult and unfamiliar words. [C1]

Diagrams and pictures, especially related to the text do help with my reading in order for me to understand what I am reading.[B5]

5.4.2.1 (g) *Rereading and reading more than once.*

Similarly, as presented in section 5.4.1.1(c) and 5.4.1.2 (i)a, rereading serves two purposes :for monitoring, understanding and checking comprehension and also for fixing comprehension difficulty. If the students in School A used this strategy for both purposes, the students in School B used it more for monitoring their comprehension as in the examples below:

To understand what I read, I usually have to read twice though in order to get it 'sticks' in my head. Reading for content subject like Geography, I have to read harder and more. Yeah I think...I read them twice for better understanding. [B3]

I just read it. First read the title... then read from the beginning to the end. I usually read twice. [B7]

Analysis also revealed that 'rereading' is often used by the students in two ways. One is when they reread again by 'reading slowly and carefully'. The other is when the

students 'pay close attention to their reading' because they know what to focus on when they have to reread again.

Rereading strategy employed by the students in this study also includes reading for the second time or third time, often done with 'more focus' and 'in detail' as reported by the students. When this happened, students are actually employing the strategy of reading slowly and carefully (and thus monitoring their comprehension) and subsequently 'fix' any comprehension breakdown. Both strategies are often employed concurrently whereby *rereading* is 'what' students do to assist with their reading while *reading slowly and carefully* is 'how' students carried out the activity. Six students from School C, compared to only 2 students in School B, reported using this strategy.

The strategy of *reading slowly and carefully* also provides detail elaboration on what the students actually do when they 'reread'. A lot of the students in the three schools stated that when they read, they read at least twice where the first reading was usually 'just read' from the beginning till the end and then in the second reading or any subsequent reading after that were done with a purpose. Rereading for the second time was done slowly in order to fulfill the task demanded from that particular reading.

Usually when I read for the second time, I read much louder and slower than my first reading. I read aloud and louder so I can focus and remember better. [B5]

I just read only. If I understand, it's ok. If not I reread again. In the second reading, I usually focus more on the key points and sometimes I ask myself questions to help me understand better. [B4]

5.4.2.1 (h) Visualizing and imagining. .

Another strategy which the students in School B and C reported using was visualizing. The students used this strategy when they tried to make sense of their reading by *imagining what the text is about, by personalizing what they have read and imagining what the situation in the story was like* as illustrated below:

Sometime when I read, I imagine it in my head what the passage is all about. [C10]

When I read, I try to imagine what the sentence is trying to tell me. I try to imagine the situation and sometime I try to relate it to my own experience but not often. [C7]

Analysis on the employment of this strategy by the students in Schools B and C has yielded similar results with those in School A. The students used two or three strategies at one time when they read and that they were also able to employ the strategies for the right purposes. The only question is whether or not they are being utilized effectively by the students. However, given the scope of the study to describe the reading strategies used by the students when reading to learn, this was not looked at in this study.

The students in School C seemed to 'visualize what they read more than their counterparts in School B. Many of the students employed this strategy in combination with other strategies such as 'using the title' and 'asking questions'.

I read the title, visualize about it, ask myself questions. Read twice when I have difficulty. I sometime use mind mapping too. [C8]

The students in School B, on the other hand reported that they mainly visualized and imagined what was to be expected from the text, from the content of the text and to 'be in the story' when they read. Unlike the students in School C those in School B tend to utilize only this strategy by itself.

If there is a sentence I read, I imagine what I read. [B5]

I usually read and then I put myself into the text (that I am being in the 'story' or text). I try to personalize what I read. If I can't think of what I have read, then I won't be able to understand it. [B4]

5.4.2.1 (i) *Reading Aloud.*

Reading aloud was not widely employed by the students in School A, but was found in the descriptions of students in School B and C. Students reported that they read aloud in order to keep them on task, to help with the understanding of the text and also to help them remember what they have read. This informs us that students differed in 'how' and 'why' they read aloud. Some of the purposes to why the students employing

reading aloud include to help them to remember better; to help in visualizing or imagining what was read; and to help with what to focus on when they reread. One student [C4] even stated how she read differently for different subjects

For English I usually read aloud so I can focus and able to remember what I am reading. Other subjects I seldom read aloud. [C4]

Usually when I read for the second time, I read much louder and slower than my first reading. I read aloud and louder so I can focus and remember better. [B5]

.....to make sure we understand each sentence before moving on to the next one and to always say it aloud if we can't imagine it in our mind. The things that we might not understand - usually when we say it out aloud, it might make more sense when we hear it. [C7]

Although the results showed that *reading aloud* was only reported by three students in the interview, the think-aloud data has revealed that more students actually used this strategy when they read. A total of six other students from across the three schools were found to *read aloud* during the think-aloud sessions; three of whom were from School B and one each from School A and C. This suggests that average ability students as in School B and C used this strategy more than the high ability students as in School A. An example of how this strategy was observed in the think aloud is illustrated below:

[Began reading the passage aloud beginning with first paragraph] <Sometimes during.....is the recipients> [then stops reading aloud and began reading (or whispering) silently for about 7 seconds before continuing to read aloud the second paragraph] <It is essential to make sure that.....the reci.pi.ent.. the recipient is of the correct type...> [Continued reading aloud the rest of paragraph two followed by paragraph three]... <blood cells that are not compatible is...for example...a.er..{apa?} what?.....for example of tissue rejection> [then began reading silently (or whispering) for about 5 seconds] [B2]

The students in School A, on the other hand also exhibited the use of this strategy during the think aloud sessions but the emphasis was mostly to read the title or certain words aloud.

5.4.2.1 (j) *Asking oneself questions.*

The strategy of '*asking oneself questions*' was found in most of the students' descriptions across the three schools. But further analysis has indicated that the students from School C reported using this strategy more compared to those from School B and A; where the students in School B used this strategy the least.

Two students in School B reported that they used this strategy in order to help them understand the text better. One student even specified that this strategy was usually employed when reading for her Content Subject.

I also use mind map to help my reading particularly with content subjects. I also ask myself questions such as 'why' and 'how' especially when reading for my academic. [B7]

.....I usually focus more on the key points and sometimes I ask myself questions to help me understand better. [B4]

The students in School C also employed this strategy for both purposes as those by the students in School A (see Section 5.4.1.1 (d)): for better understanding of the text and for monitoring their comprehension. It was also found that the students employed this strategy with other strategies such as *rereading*, *visualizing* and *relating to background knowledge*. The students appeared to be aware of how to monitor their reading and were actually engaging themselves with reading by using various strategies mentioned in this section together.

Results have also shown that students appeared to engage in various metacognitive activities including *planning*, *checking*, *monitoring*, *evaluating* and *understanding* when they read. These activities were done in the study through the employment of strategies such as *rereading*, *using the title*, *relating to background knowledge* and *asking oneself questions*.

In terms of understanding an idea, I reread the paragraph several times until I understand it... In the process, I keep on asking myself – 'What is this...I do not understand'. [C5]

I usually just read through everything at one go though sometime I do realize that I don't understand a thing that I have read. I often ask myself 'what is the story about?' so I read it again. [C3]

When I visualize about the passage, I do ask myself questions. For example if the topic is on earthquake, I ask questions such as what happened?, What caused an earthquake?...[C8]

5.4.2.2 Strategies used when encountering reading difficulties

Similar with the results in School A, how the students in School B and C handled their reading difficulties will also be presented in two sub-sections: strategies used for comprehension break down and strategies used for handling vocabulary difficulty.

5.4.2.2 (a) *Strategies used to overcome comprehension difficulties*

Students in all three schools reported the use of various strategies to help them when they encounter difficulties with their reading: both in understanding the text and with vocabulary difficulty. There seemed to be no differences in the types of strategies used for this purposes by the students in School A and the students in School B and C.

As with the students in School A, the students in School B and C too reported explicitly the use of two strategies to help them with their reading difficulties. These are 'rereading' and 'stop and read' strategies.

5.4.2.2 (a) i *Rereading Strategy*

If the students in School Bin section 5.4.2.1 (g) used 'rereading' strategy to monitor their comprehension and to help them understand the text better, the students in School C, on the other hand reported using rereading when they encountered difficulty with their understanding or when comprehension breaks down, as did their cohorts in School A.

I usually read twice especially when I find it difficult to comprehend what I read. [C4]

Usually if I don't understand, I read twice. In my first reading, I read all and if I don't understand, let say paragraph one, I tick it and then after that I reread again. [Any reading strategies used?] Usually I tried to imagine what I have read (or in the story). [C2]

When I don't understand what I am reading, I usually stop in the middle of my reading and reread the part that I have difficulty. I reread several times to try to understand the text. [C5]

These results showed that while displaying the ability to detect comprehension difficulty, the students too were able to employ various types of strategies to help them fix when comprehension breaks down. The strategy most frequently used for this, as exemplified in this thesis, was 'rereading'.

This strategy was consistently employed by most students in the three schools as a strategy to handle their comprehension difficulty. The students also demonstrated that they usually 'reread' because their teachers had given them the tip to do so. This strategy was also used when the students encountered difficulty with vocabulary. For example, students reread the sentence which contains the difficult word before they could guess the meanings.

When coping with unfamiliar words when reading on my own, I usually reread the text again. [C10]

Other strategies were also reported being used by the students in the two schools which were embedded in the utilization of 'rereading' strategy. This include to 'read in detail' and to 'know what to focus' when they read the second time and to 'read slowly and carefully',

5.4.2.2 (a) ii *Stop and Read*

As with their counterparts in School A, the students in School B and C also employed the strategy of 'stop and read'. When this happened, the students were *pausing and thinking about reading*. However, unlike the six students in School A, who reported using this strategy, the students in School B and C did not explicitly or directly mentioned its employment. Nonetheless, this does not necessarily mean that the students in the two schools did not utilize the strategy at all. Results showed that there were a few instances of such strategy being reported by the students in School C but was not found in students' descriptions from School B.

When I don't understand what I am reading, I usually stop in the middle of reading and reread the part that I have difficulty with. [C5]

Students, when reporting that they 'focus on those parts that cause difficulty', 'read again and to look for details' or 'read the second time to locate the answers to questions that was being asked' were actually paying close attention to reading. These enable them to execute strategies such as 'summarizing', 'picking out key points', 'locating main ideas' and eventually 'comprehending' the text that best suited their purposes. This is because to effectively execute these strategies, they need to pay close attention to their reading. Here is an example illustrating students '*paying close attention to reading*'.

I usually read several times. If still I don't understand, I usually have to guess the answer to questions being asked for that reading assignment (...usually by trial and error). First reading I usually read from beginning till end and then the second read, I read more slowly and look for detail or answer. I do find myself asking questions like 'what am I reading?' or say to myself 'I don't understand what I am reading..' etc.. I usually say this or ask myself while reading in Malay. [C3]

5.4.2.2 (b) *Handling vocabulary difficulties*

As shown in Table 5.8 in Section 5.4, the students in School B and C also used various strategies to help with the difficult vocabulary they encountered in their reading. The results presented in the next few sections provide examples on how these strategies were used by the students as reported in the interviews and observed in the think-aloud. However, the examples from the latter data were very few because the students did not exhibit enough thinking aloud in the procedure.

5.4.2.2 (b) i *Guessing meanings of words*

One strategy used by the students in School B and C to handle vocabulary difficulties was to guess the meaning the unknown words. Results showed that this strategy was used more by the students in School C than those in School B. Only one student from School B reported that he 'guessed' the meaning of unfamiliar words compared to five students in School C from the qualitative data. The results from the quantitative data

(refer to Table 5.8) confirmed the results that more students in School C used this strategy than those in School B.

With difficult words, I try to predict and guess the meaning of unfamiliar words that I came across that might hinder my understanding. [B5]

If I have difficulty with vocabulary, I use the context to make sense of the word and guess the meaning. [C5]

Similar with the students in School A, the students in School B and C also employed a combination of strategies. They used the strategy of 'guessing' the meanings of unfamiliar words with other strategies. These include making use of the context, predicting and also referring to a dictionary. As shown by C4 and C5 above, the students employed the strategy of using the context to help them to guess the meanings of the unknown words which they encountered in their reading.

5.4.2.2 (b) ii *Using contextual clues to guess meanings of words*

Similar with the students in School A, the students in schools B and C also employed a combination of strategies in handling vocabulary difficulty. They used the strategy of guessing meanings of words with other reading strategies. These include making use of context, predicting and referring to a dictionary. This again suggests that students are aware of the various strategies which they can utilize to help them with unfamiliar and difficult words.

With difficult words, I try to predict what it means. I make use of the context to help me guess the meaning of the words as well. I do use dictionary but not always because I think it's a waste of time to stop our reading and to check for meanings in a dictionary because it also interrupt the flow of our reading as well. [C4]

5.4.2.2 (b) iii *Using a dictionary*

The students in School B and C seemed to refer to a dictionary to help them with unfamiliar or difficult words more than the students in School A. Results in Table 5.8 has shown that about 50% of the students in School B and C indicated that they always refer to a dictionary while only 10% of the students in School A reported to do this when they encountered difficult vocabulary. Although this strategy of referring to a

dictionary was reported being used by the students in the three schools, some students were aware that this could impede comprehension or interrupt the flow of their reading if used extensively. The students also reported that they use the dictionary in order to confirm the meanings of unfamiliar words after they have employed other strategies such as *guessing* and *using the context*.

With difficult words, I try to predict what it means. I make use of the context to help me guess the meaning of the words as well. I do use dictionary but not always because I think it's a waste of time to stop our reading and to check for meanings in a dictionary because it also interrupt the flow of our reading as well. [C4]

The students in School B further indicated that having a dictionary with them when they read is necessary. The students in School C on the other hand, tend to refer to the dictionary at the end of their reading. Two students in School B even reported that they 'need' to have a dictionary with them when they read but did not elaborate further.

I need to have dictionary as well. [B5]

If I encounter any difficulties, for example with meaning of difficult words, I refer to dictionary. [B3]

I need to have a dictionary with me. [B6]

I usually ask my teachers if in school or class. If at home, I use my dictionary to help me. [B1]

The students in School C appeared to use this strategy much more effectively. They referred to a dictionary after employing other strategies or only to get meanings of content-subject specific terminologies.

Use dictionary – always. I underline unfamiliar words, continue reading and then get back to them later. I also try to guess the meanings....[C8]

.....because English is just English, the words are simple English. For Science, the words are complicated that I need a dictionary to help me with scientific terms. [C8]

5.4.2.3 Reading for comprehension – Reading in EL classrooms

The students in School B reported that their EL teachers usually 'taught', 'told', or 'gave' them tips on how to tackle the reading activity. This provides evidence that the

teaching of reading strategies in the upper secondary level in Brunei mostly takes place in the English Language classes.

Our English teacher told us to first read the title, make predictions and then try to understand things that are related to the title. Science subjects don't usually give tips to read better though, other than try to understand the questions. I usually use the strategy or reading tips when reading for other subjects. [B6]

For English, we were given tips like whenever we read, you predict, scan, skim and then read. Other subjects we are told to try to understand what we read. I use the tips given by our English teacher when I read for my other content subjects. [B5]

As reported in section 5.4.2.1(d), one of the common purposes the students read is to look for the answers to the questions of the task set by the teachers. Students further indicated that they often looked for answers when they read especially during summary lesson in EL subject. Students knew what to look for when reading in order to answer their summary question.

An example from a student [B6] in School B below showed that the students often read more than once with their English text particularly for examination purposes.

With English, we are to read twice. In paper 2 for English, we are to read the text more than twice. We read the passage twice and then reread again by focusing on each paragraph and then look for answers and points for the summary. In other subjects such as Science, we are to understand (not much reading). [B6]

5.4.2.3 (a) *Paraphrasing or summarizing strategies*

These strategies are widely and commonly employed by the students in the Brunei Upper secondary classrooms, mainly due to the format of the BGCE 'O' Level English Language examination paper: a compulsory exam that all students in Brunei will take at the end of their secondary school.

Results indicate that all students knew what it meant to do 'summary' as most often this was one of the main activities in most English Language lessons. Therefore, due to its importance in the examination question, it was not surprising that *summarizing* was one of the frequently employed reading strategies by the students.

It was evident from the data that most of the students were familiar with *summarizing strategy*. A higher number of students in School B and C than School A employed these summarizing and paraphrasing strategies.

In English, we are to encourage to read-aloud, to summarize what we read....and usually I summarize the key points when reading for these (content) subjects. [B5]

5.4.2.4 Reading for learning – Reading in CS classrooms.

Apart from the above, other strategies were also used when the students read for their content subjects. This further showed that the students in School B and C employed a combination of strategies to help them in learning the content of their subjects. These strategies are presented briefly in this section. The results here can be used as a base to discuss the results in depth in the next chapter.

Rereading was used quite often in this study not only in terms of purposes, but also when used for different subject areas. The students in School C, for example, employed rereading strategy more for reading CS than for their EL.

But I usually have to read more than once for sciences subjects whereas for English, usually I just read once. [C7]

For subject such as History, I usually read the text and then if I don't understand, I reread it again. I don't think there are any complicated words in History. [C4]

The students in these two schools further stated that when reading for CS, a text which contains illustrations make reading easier to understand. They described how they can refer to the diagrams or pictures and also to relate the pictures with the text to help them to comprehend and learn. The following example showed how pictures helped students with their content subject reading.

I usually look at the diagrams in the notes for Geography. Then I look for key points and write down the key points before reading. I also look at the topic (title) too. [B1]

The students in School B and C also indicated that they read in order to look for correct answers in the academic setting and for preparing for their examination as in the examples below:

I personally read the notes only when it is time for examination. [B6]

..... If the topic looks 'interesting' then I continue reading but if it doesn't then I sometime don't read it unless I have to do it. There are occasionally questions in my mind when I look at the title and then when I read, I try to answer them. [C3]

I usually read the questions first. When I read the notes or passage, I wrote down the answer to the questions that I came across during my reading. This is particularly true for subject Geography and also English. [C1]

5.4.2.4 (a) *Highlighting and underlining strategy.*

For this type of strategy, the students in schools B and C not only highlighted the important information in the text, but also use of this more with Content Subject reading. A few students also stated that they used this strategy when they came across unfamiliar words.

The students reported that they highlighted key points and main points when they read an academic text. This was often done when they reread the text for the second time. They also used this strategy to simplify the reading text and to shorten longer text.

Sometimes I reread and then make it shorter by highlighting the important points and ignoring the less important ones. [C1]

I sometime highlight key points during my second reading. [B5]

When I received notes (long paragraphs of notes and texts), I usually coloured them using highlighter pens and add some extra information on them to help me understand them better. I highlighted the key points. [B3]

5.4.2.4 (b) *Paraphrasing or summarizing strategies*

Since summarizing and to some extent paraphrasing techniques were given emphasis in English Language Lessons, the students seemed to show that they were able to transfer these strategies to their content subjects reading. These were illustrated in the examples below:

For other subjects such as Combined Science, we are told to read and think about it on our own. What I do is I make up own words to summarize what I have understood from my reading. [C2]

I also use summarizing technique when I read for my other subjects such as Biology. I underline key and important points when I read for these subjects. For example, I underline the meanings, the properties [C10]

I also use similar reading strategies across all my subjects such as summary. For example like in summary we pick out key points right? So similarly in Geography, we do pick out key and important points only so we can remember them well. [C3]

Although the students across the three schools employed summarizing strategy, the students in School C seemed to use them the most compared to those students in School B and A. The employment of such strategy was found in nine out of ten students' descriptions in School C. Four out of the seven students in School B reported the use of these strategies whereas only two students from School A reported to use them.

5.4.2.4 (c) Use of translation (into Malay)

Results on students' strategy use showed that more than half of the students (53%) indicated that they 'rarely' or 'never' translated the text (or sentence) into Malay (see Appendix xxx for full result). Furthermore the strategy of translating into Malay was ranked as the least used when students were asked to describe their reading (see Table 5.3).

Analysis on the data from School B and C found that this strategy was reported in eight of the students' descriptions. This may be because translation was not a strategy that was given much emphasis by the teachers during lessons (See Table 6.2). The students also indicated that they used this strategy to check their understanding of the text and to help them to remember information for examination purposes. This further implied that reading for learning requires the students to 'remember' the content and that one of the ways students learn the content is by employing this strategy.

What I usually do is translate what we read (the ideas) into Malay but not literally...I just confirm what I read by repeating the content in Malay (I usually said to myself... 'Oh that's what it means') [C4]

I usually translate what I read into Malay. For those that is hard to understand, I usually translate them into Malay and then during exam I just translate them back into English when answering questions. [B6]

Although only a few students indicated that they used translation when they read, the think-aloud protocol revealed different results. The students seemed to employ this strategy in their actual reading more than they have reported. Here are some examples from the think-aloud excerpts.

<Er...the topic – platelets and I know that it is {yang selalu dalam darah itu} those that is in our blood. So I know what it is roughly> [C3]

.....Because....[paused for a few seconds]...hm...{boleh Malay?} <Can I use Malay?.{Ani pasal derma darah} and the person {yang kana donor itu inda...badan nya...ia punya} body cells {inda dapat terima darah dari orang, so terjadi} tissue rejection> (It is about when a person who receive the blood transfusion from a donor, and the recipient's body cells could not accept the donated blood and thus tissue rejection occurs) [B1]

5.4.2.4 (d) Use of study skill

The employment of reading strategy such as *mind-mapping* or *concept map* to help with the contents of the reading text was also reported by the students in the two schools. These strategies are examples of study skills and sometime referred to 'graphic organizers' in order to learn. This strategy seemed to be used more by the students in School C than by students in School B.

When the students were using 'mind-mapping' or 'concept-map', they were actually trying to find relationship among text ideas in their effort to remember the content of the text better. This requires students to *go back and forth in the text (thus rereading)* to make connections or to identify a relationship among the ideas found in the text. This seemed to be an effective tool for content-subject reading and since it was taught by their teachers, many of the students used this strategy when they read.

Examples of how these strategies were used by the students in School B and C are given below. The students used this strategy, not just to understand the text better but also

to help them when they did not understand what they have read, when doing summary and for reading academic materials.

If I don't understand, I usually reread them and if still I can't understand, i then use mind map. In my second reading, I usually focus on the middle parts (the content) [C6]

When reading for my subjects, I usually use mind mapping to help me understand better. When I read, it is easier using this strategy because I can summarize what I have read and focus on key and important points. I use this strategy as taught by my content subject teachers and I used this for almost all my subjects. [C4]

I also use mind map to help my reading particularly with content subjects. I also ask myself questions such as why and how when reading for my academic. [B7]

5.4.2.4 (e) Taking notes while reading

Analysis revealed that this strategy was reported to be used only by the students in School C. Three students in School C reported using this strategy but none of the students in the other schools have explicitly reported using the strategy of taking down or writing down notes when they read. This strategy was also used concurrently or simultaneously [C4] with other strategies.

Results also showed that the students employed this strategy of *note taking* mainly to enable them to 'memorize' the contents of the text. This may be because by taking notes or rewriting the notes from the text, students can focus on what they have to do when they read. This includes locating the key points or main details from the passage, especially when reading for their CS. Therefore this strategy was presumably used more frequently for CS than for EL reading tasks.

In other subjects such as Biology, she told us to use mind mapping. For Economic, our teacher uses projector and he tells us to make our own notes. Then after we make our own notes, teachers will question us so that we can summarize the notes that we have made. [C9]

When I try to memorize key points, I rewrite them down and then memorize them. So I reread, rewrite and memorize the key points. [C8]

Section 5.4.1 and 5.4.2 have provided us with an overall picture of how students of different abilities from the three schools approached the various reading texts they encountered in schools. Reading difficulties and how to overcome these difficulties further showed how that students' academic ability can influence the choice of strategies they used in their reading. Two themes, reading for comprehension and reading for learning were the main focus of this study. These will be discussed further in the next chapter when we are looking at what takes place in EL and CS classes.

5.4.3 Summary of the reading strategies used by students in the three schools

Results presented in sections 5.4.1 and 5.4.2 showed that students across the three schools employed similar strategies when they read and also to overcome their reading difficulties. There were, however, differences in how these strategies were employed (the execution) and for what purposes they were used.

The academically high ability students in School A seemed to use more demanding top down cognitive reading strategies when they read compared to the average ability students in School B and C. The students in School B and C, on the other hand, used more strategies at the pre-reading stage by employing less demanding top down cognitive reading strategies.

The students in all three schools seemed to show that they were also able to exhibit the employment of some metacognitive reading strategy such as in planning their reading task, by showing awareness of their reading process and product as well as in monitoring their reading comprehension. However, there are differences in the emphasis of their strategy use; in their planning and in the execution of these strategies.

The students across the three schools also exhibited the employment of a combination of strategies when they read.

Case studies of four students on their actual reading process were also conducted. These were carried out to exemplify the types of strategies use and the context in which this study was operating. Although four case studies were conducted, only two are presented in the next section.

5.5 Findings from two case studies on their strategy use in reading

Two of the four case studies are presented in this section and pseudonyms are used for all cases to maintain anonymity. The other two case studies are provided in Appendix xxxi and xxxii. The focus is on what actually goes on when students read and results are primarily looked at under the following categories:

- Reading strategies students used when they reading (pre-reading, while-reading and post-reading)
- Comprehension difficulty: How they handled it?
- Approach to vocabulary or words.

For each of these cases, a brief profile of each student is also presented in terms of their ability based on their school (see explanation of the schools and classes in section 4.5.1 and 4.5.2). The student's profile will provide more insights into the students in terms of their academic performances, their education background as well as their language background. These students are typical examples of many students in Brunei who are mainly either bilingual (or even multilingual).

Our first case study is Abi.

5.5.1 Case Study -Abi

Profile

Abi was from School A. After obtaining straight 'A's in Primary School Assessment (PSR) in 2005, Abi joined School A in 2006 for his secondary education. At the time of this study, Abi like the rest of the students in this study was just starting upper

secondary level and sat for the BGCE 'O' Level examination in October / November 2010.

In upper secondary level, Abi and the rest of his cohort in School A studied at least seven similar subjects: *Malay Language, English Language, Mathematics, Additional Mathematics, Biology, Physics and Chemistry*, and one or two option subjects of their choice. Abi's option subjects were *Geography and Islamic Religious Knowledge (IRK)*.

Abi did his lower primary Education in a private school and then moved to an Arabic Medium School for his upper primary education. Having attended private school where English language was predominantly the medium of instruction, Abi was therefore exposed to English Language as early as 5-6 years of age. Then he went to Arabic medium school and studied Arabic language for two years before moving to School A for his secondary education after completing his PSR examination in 2005. Having learnt Arabic, his literacy in the language is very basic.

"I studied Arabic for 2 years (back in Primary 5 and 6). But I haven't touch Arabic for almost 5 years now. So I can only understand the basic and speak daily used sentences. But I can't watch an Arabic movie without the subtitles..hahaha.. I can read and translate scripts or sentences every now and then, but with the help of dictionary for some unknown words. I cannot write Arabic, because it is harder than it sounds"

At the time of the study, Abi studied nine subjects during his upper secondary level whereas many of their cohorts only took eight subjects. The rest of the students did not take *IRK* since it was offered as an extra optional subject. Abi obtained 6A's and 3B's In the BGCE 'O' Level examination he sat in 2010. He obtained A* in all his three pure Science subjects. Abi indicated several times during the interview that he was really interested in Science subjects and that has motivated him to excel in these subjects. Abi, like the nine students in his cohort, only managed to obtain a 'B' for his *Malay Language* subject. Two other subjects which Abi obtained 'B' for were *Additional Mathematics* and *Geography*.

Abi's language background was quite similar to the majority of his cohort having *Brunei Malay* as his home language. In many Bruneian students' households, *Brunei Malay* is

widely spoken. The language is also used during informal conversation among friends, classmates and even with teachers outside the classrooms. For Abi, at home he used mostly English with his siblings and a mixture of Brunei Malay and English with his parents, stressing the use of *Brunei Malay* at home when he said the following:

"At home I use mostly English with my siblings,...with my parents... mixed with Brunei Malay, not the Standard Malay"

Standard Malay, being one of the medium of instructions in the Brunei Education system is used during curriculum time in the classrooms, such as in *Malay Language* and *IRK* classes as well as during formal school related events. Abi thus speaks and writes in *Brunei Malay*, *Standard Malay* and *English Language* and presumably is also able to write and read the 'Jawi' transcript particularly for his IRK subject. Abi further indicated that he reads 'Jawi' fluently but finds it difficult to write because of its spelling.

"....there may be some hardship in spellings whether or not to put the 'alif', 'ya', 'wau' (the vowels in jawi)"

Abi's reading strategies

In terms of reading in English, Abi stressed the importance of having an 'interest' in the topic of the text read to enable him to comprehend what he reads. He mentioned this fact several times during the interview and how this, when added to his existing experiences or knowledge also helped ease the reading process, as from his response below:

"I think it is our interest to read on the topic. Yes. What makes it difficult is when you don't have an interest on it or you don't have a clue and you cannot relate it to your life."

In terms of strategy use, Abi exhibited the employment of most strategies presented in the previous section (section 5.5). These strategies were concurrently or simultaneously employed by Abi at various stages of his reading. Abi used '*the title*' first to gain more information about the text and also to gain 'interest' to read further by activating or relating the title to his prior knowledge or experience. In doing so, it can be implied

that Abi made predictions and guesses about the content of text. Abi further asked himself questions about the topic when he looked at the title.

This shows that Abi employed the strategies of *previewing the text* with the help of text features including the title and pictures and then *set a purpose* for his reading (as indicated in Figure 5.1). The latter usually consisted of searching answers for questions set for the reading task. Looking for answers was often one of the reasons of the reading task in the upper secondary classes across the three schools. Actual reading then begins with Abi bringing in more previous or 'outside' knowledge into his reading.

When he reads, Abi also employs almost similar types of strategies as Hana (see Appendix xxxiv). The only difference was Abi seems to exhibit the ability to elaborate more on his strategy use such as what he actually does when he rereads. This is discussed further in the next subsection.

After reading, Abi indicated that he usually relates what he reads back to the title; evaluates what he reads; looks up meanings of words in a dictionary; and completes the reading task such as to answer the questions set by their teachers (see Figure 5.1). The task of 'looking up' meanings in a dictionary only applies when Abi is reading for his EL text which further indicates that he tackles new words differently for different subject areas.

Abi also reported that it was easier to read for his science subjects because what he describes as "*mostly due to my personal interest*". Abi's interests seemed to play an important role for him to excel in his academic study. Abi was more interested in topics from his Science subjects which might further help him to grasp meanings when reading his academic texts.

"I find reading for Science subjects is easier because it is mostly due to my personal interest. I am more interested in topics in my Science subjects."

Abi also felt that his reading ability is just average because he did not do much reading because he did not "*have the time to sit down and do reading*". Abi's reading habit is in

fact similar to most students in this study, where many of them only read when it is time for tests, exams or when reading tasks are assigned as homework. Even the latter is most often not done by the majority of the students.

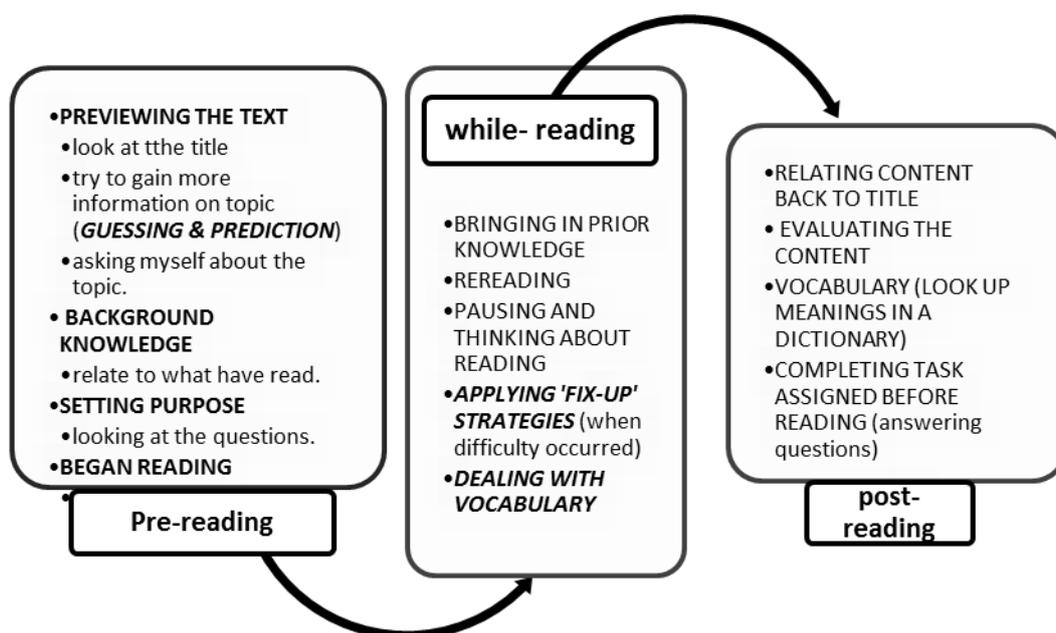


Figure 5.1 Abi's strategies when reading in English.

Although Abi did not do much reading, he felt that the curriculum textbooks, especially the CS distributed to them, are "fairly understandable" for him. This is probably because most often the CS teachers explain the content again during lessons.

"I don't do much reading as sometime I don't have the time to sit down and do reading. But when reading for my academic texts, I find the textbooks are fairly understandable, mostly because teachers are there to explain most of it, especially before we do the reading."

Similar to most of his cohort, Abi also shared what he did when he encountered difficulties in his reading including reading comprehension difficulty and when encountering new or unfamiliar words. These are discussed in the following subsections.

How Abi faced his reading comprehension's difficulty.

Abi also utilizes the three most frequently employed strategies (see Figure 5.1), used by most students, when encountering difficulty in his reading: *relating to previous*

knowledge, visualizing and rereading. 'Rereading' was the most common strategy used by most students in this study across the three schools as shown in Table 5.3.

Although Abi employs the *rereading* strategy when he has difficulty in reading, he further elaborates what he does in his second reading as shown in Figure 5.2. Although many students (95%) reread again if they do not understand the text or a sentence (see Table 5.1), many were not able to verbalize or elaborate on what they did when they reread as Abi did.

When he could not understand what he reads, Abi makes use of the context to help him when he reads the second time and then to find "*words that he can relate*" to the passage and also to visualize himself being "*in the context*" of the text. When asked what he did to make sense of a text Abi's response was as follow:

"For English, In terms of understanding, I will reread the text again. During my second reading, I usually try to find words that I can relate to the passage. For example in a comprehension text, sometimes when you first read it, you have no clue about the text and then you find the situation and you try to be in the situation and read it the second time and feel the situation in which the text is all about. In this sense I usually try to visualize me being in the context of the text I am reading."

In terms of reading to learn or when reading for his content subjects, Abi usually tries to make sense of what he reads in his second reading. Reading to learn for Abi consists of reading to extract main or key ideas according to different categories (see Figure 5.2). These include extracting key concepts on the *characteristics, special features, similarities and differences*.

These results show that Abi integrates both cognitive and metacognitive strategies when he reads by having a purpose and knowing what to look for in his second reading; identifying important ideas; modifying his reading pace by stopping in between his reading to evaluate the text and finally compensating for failure to understand text read. These strategies were exhibited and embedded in the employment of his strategy use as shown in Figures 5.5 and 5.6. It can be hypothesized

here that Abi seems to have the knowledge and awareness of various reading strategies as evident in his strategy use.

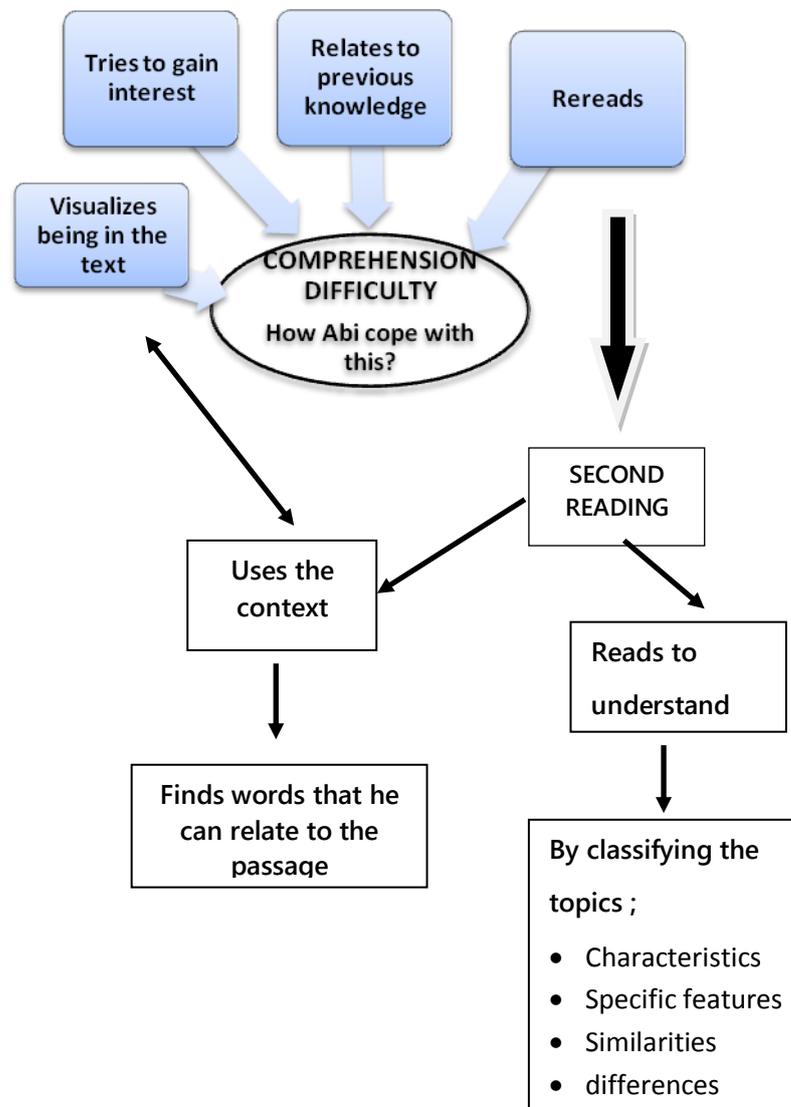


Figure 5.2 Coping with reading comprehension difficulty.

Now we will look at how Abi tackles unfamiliar or new words in his reading.

How vocabulary was approached.

Abi, like most of the students in this study, also employed two strategies in coping with unfamiliar vocabulary (see Table 5.5): *looking them up in a dictionary* and *guessing their meanings*. The only difference was Abi usually writes down the words whenever he

encounters them and he approaches unfamiliar or new words from different subjects (EL and CS) differently. This may have to do with how he views reading for these two subject areas. He indicated that reading for EL and CS are different and thus the way he approaches reading for these two areas are different too.

"In terms of vocabulary or new words that I encounter during reading: For Sciences usually, when there is a hard (or new word), I look it up right away. For English, I look it up after reading."

When he encounters unfamiliar or new words in his CS reading, Abi does not seem to employ the same strategies as he did when facing with the same difficulty in his EL reading. This is probably because words in CS texts mainly consists of subject related terminologies such as for Science subject whereas the words in EL texts require students to know their meanings in order to make sense of the whole text. Figure 5.3 summarizes the steps which Abi takes to make sense of the meanings of new words when reading across the curriculum.

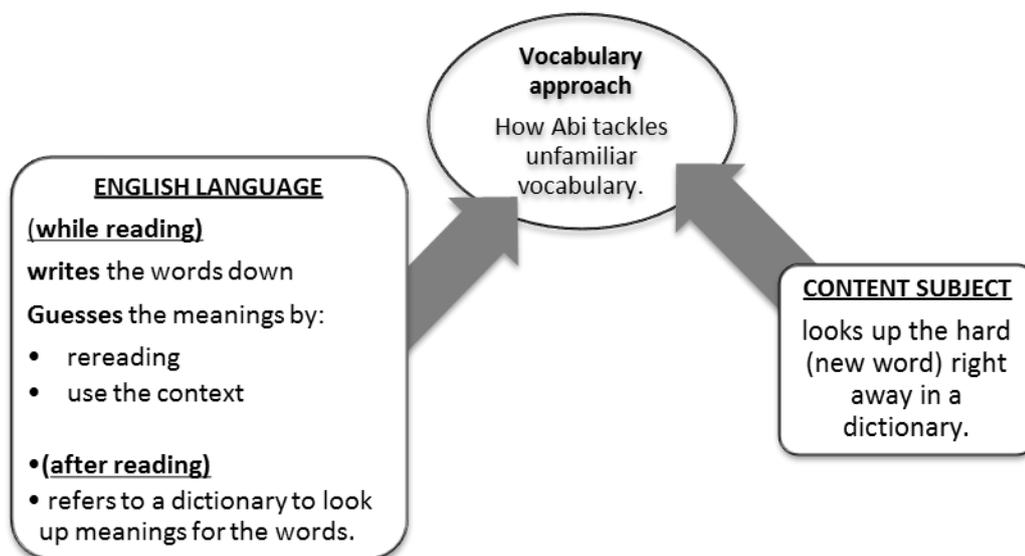


Figure 5.3 How Abi tackled unfamiliar and new words

Although Abi does not have any *"real problem with vocabulary"*, he is aware of the occasional presence of hard or difficult words. He seldom stops in the middle of his reading to *"check out meanings of these words"*. Instead he usually writes them down

and then looks them up after he finishes his reading. This is what he usually does when reading for his EL subject as long as the words do not hinder with the overall comprehension of the text. However if they do, then Abi would guess the meanings by employing the strategies listed in Figure 5.3.

"No real problem with vocabulary. Sometimes there are hard / difficult words, but there is dictionary to help. When reading and there are hard or difficult words, i take a piece of paper and then write them down. I don't stop in the middle of my reading to check out meanings of new words, difficult words and those that I am not familiar with. I usually do this after I finish my reading"

Abi provides us with insight into the employment of reading strategies of students in School A, which consist of high ability students.

Now we will continue with the strategy use of a student from one of the other two schools, which can be categorized as average or below average students when compared to those from School A.

5.5.2 Case Study - Zul

Profile

Zul is a boy from a non-science class in School B. Zul furthered his lower secondary education in School B after he passed his PSR in 2005, in which he obtained 4As (English, Malay, Mathematics and Science) and 1B (General Paper).

Zul, as with the cohorts in School B and C, is typically an average student. In his PMB Examination, Zul managed to obtain 'credits' in six subjects: English (C5), Bahasa Melayu (C5), Islamic Religious Knowledge (B3), Geography (C5) and Integrated Science (C5) and 'passes' in Mathematics (D7), History (D7) and Computer Studies (E8). Based on this exam's result, Zul was streamed into a non-pure science class in the upper secondary level by the school's administration. He studied eight subjects: Bahasa Melayu (BM), English Language, IRK, Geography, Mathematics, Combined Science, Malay Literature and Commercial Studies. Three of these subjects (BM, IRK and Malay Lit) are taught in Malay.

After his upper secondary education, Zul went on to study for his A level (Pre-University level) after completing his Brunei General-Cambridge Certificate of Education Ordinary level (BGCE 'O' Level) Examination in 2010. He obtained six 'O' levels in this exam: Bahasa Melayu (B3), English (C5), IRK (B3), Geography (C6), Commerce (C6) and Malay Lit (C6). Zul only managed to obtain D7 in both his Mathematics and Combined Science.

In terms of his linguistic 'make up', Zul uses both Malay (*Brunei Malay*) and English at home and in his daily conversations with friends and family. He also speaks a little bit of 'Tagalog' at home because his mother is a Muslim Filipino. As with most (Muslim) students in Brunei, Zul too can read and write the Jawi transcript but not Arabic.

"I speak in Both Malay and English in my house and a bit of Tagalog sometimes....hehehe...Don't know Arabic....but I can read and write in Jawi"

As for his reading, Zul felt that his reading ability is 'average' because when he reads he *'just read like normal way..but he understands'*. We now look at Zul's reading strategy use.

Zul's reading strategies

When he responded that he *'just read like normal way'*, Zul meant that he reads according to the format or layout of the reading. When reading in English, Zul also employs similar strategies commonly employed by most of his cohort. These include *'previewing the text'* (drawing attention to the title, pictures and diagram, scanning and skimming), *'activating or relating to prior knowledge'*, *'asking himself questions'*, *'setting purpose for reading'* and *'identifying main points'*.

Zul's reading activity is very straightforward (see Figure 5.4). This is because he does not elaborate on the steps he takes when employing the various reading strategies he mentioned. Zul's reading strategies are, therefore, limited to the employment of basics reading strategies. Zul, however, shares what makes his reading in English easier or difficult. He said that *'topic'*, *'words'* and *'layout of the text'* usually affect his understanding in his reading.

“Reading on familiar topic usually makes it easy. Simpler words, interesting topic and the presence of pictures and diagrams also make it easier. What makes it difficult is when I have to read a very long paragraph. Unfamiliar and new words that I haven’t encountered also make it harder to understand. Reading newspaper to me is easier because the vocabulary is mostly words that I am familiar with and there are not many complicated words.”

Zul also employs similar strategies as Abi at all three stages of his readings (see Figure 5.8). At the pre-reading stage, Zul also employs strategies such as *previewing the text, making use of background knowledge and setting purpose for reading*. But unlike Abi, Zul did not elaborate further on the steps he had taken in the utilization of these strategies.

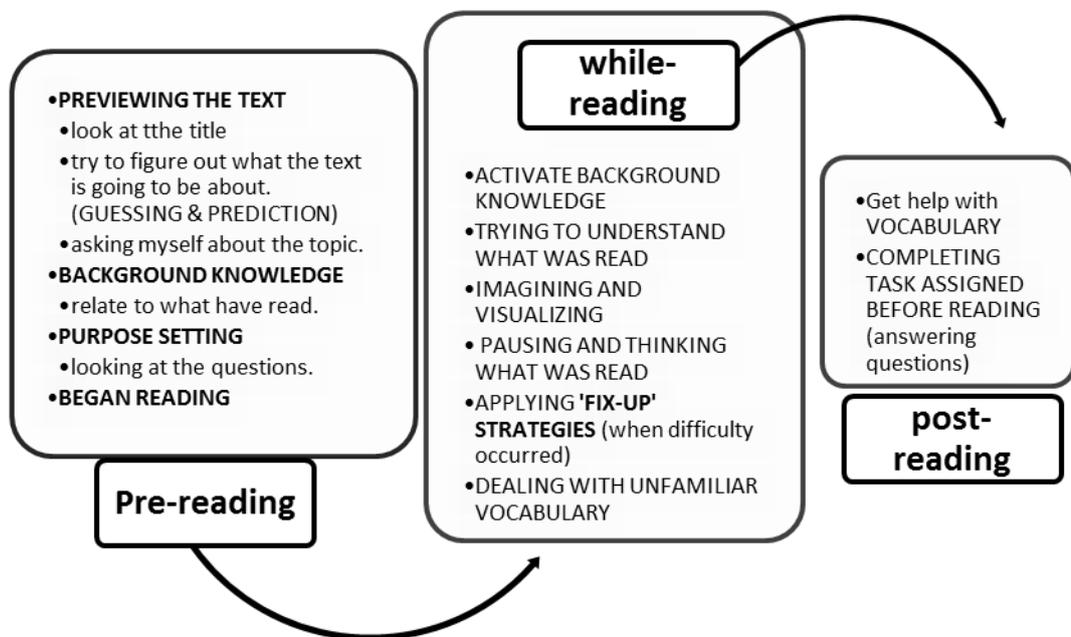


Figure 5.4 Zul’s reading strategy

Zul further indicated that he uses the above procedure when he reads across the curriculum both for his EL subject and his CS. He also stressed that with CS (such as Science and Geography), he tries to understand what he reads. He even elaborates on the differences of how reading is being carried out in EL and CS classrooms. He too uses tips given by his EL teachers when reading on his own for his CS, further confirming the hypothesis that reading strategies are often left to the EL teachers to teach.

"For English, we were given tips like whenever we read, you predict, scan, skim and then read. Other subjects we are told to try to understand what we read. I use the tips given by our English teacher when I read for my other content subjects."

Zul also shared what he usually did he faced difficulty with his reading, both in terms of comprehension and with words. These are discussed in the next subsections.

How Zul faced his reading comprehension's difficulty.

It is evident that Zul's perception of reading difficulty was attributed to vocabulary because he talked about overcoming reading comprehension difficulty by handling vocabulary. Again like many students in his cohort and in School A, Zul also employs the strategy of 'rereading' as a way to 'fix' his reading (comprehension) difficulty. In a response to his general employment of reading strategies when reading in English, he said:

"I just read only. If I understand, it's ok. If not I reread again. In the second reading, I usually focus more on the key points and sometimes I ask myself questions to help me understand better."

Therefore, like Abi, when encountering reading comprehension difficulty, Zul also employs strategies such as 'rereading' and 'asking questions'. Apart from these strategies, Zul also employs other strategies such as 'visualizing' information read, by 'putting himself into the text' and 'thinking about the text'. Zul's strategy of coping with his reading difficulty (as in Figure 5.9) is to employ several strategies concurrently or together just like Abi.

However, unlike Abi, Zul does not seem to indicate any differences in coping with his reading comprehension difficulties for EL and CS (as shown in Figure 5.9).

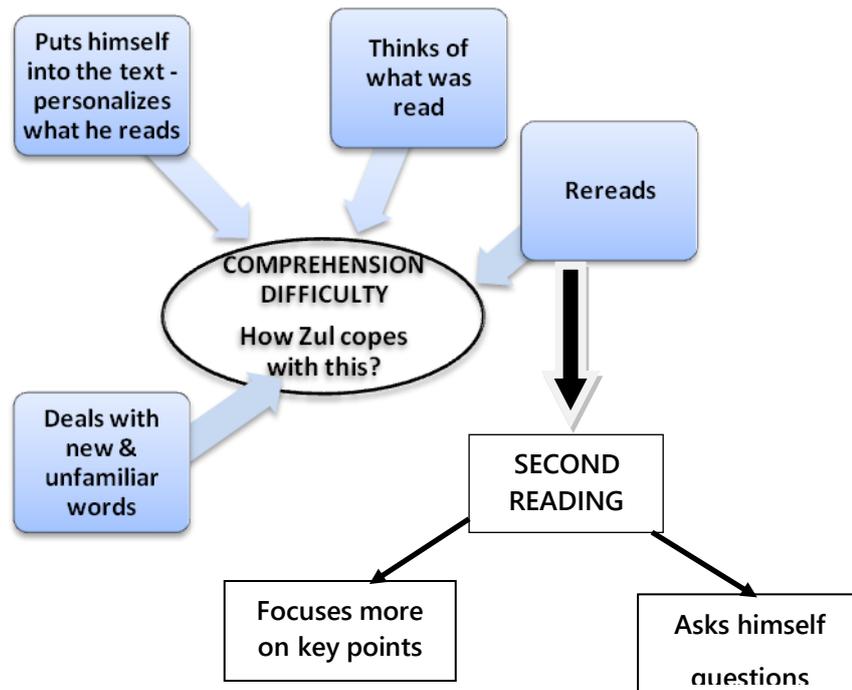


Figure 5.5 Coping with reading comprehension difficulty

Zul further suggested that when reading on his own at home, he will first try to understand what he reads and if he is still unable to make sense of it, then he will seek the help of his sibling (sister).

"When at home, I try to find understand it myself and if I cannot, I get help from my sister. Usually I get them to help me with words only."

This again shows how Zul tends to associate reading with vocabulary and how the presence of new, unfamiliar or difficult words can lead to reading comprehension breaks down. Therefore we will next look at how he deals with vocabulary difficulty.

How vocabulary was approached.

When dealing with vocabulary, Zul was able to indicate various strategies that he usually employs in coping with words that are not familiar to him. Zul indicated that he usually employs the strategy of *guessing and predicting* the meanings of the words.

He exhibited the employment of these strategies in his think-aloud session when he had difficulty with the word 'essential'. He stopped his reading, reread the sentence with the word 'essential' aloud and then substituted the word with the Malay word {perlu = essential}.

"[Any particular words that is difficult for you?] <er..the word essential..>[So what do you think 'essential' means here?] <repeating aloud the sentence '..It is essential to make sure....'..{perlu} (..translating the word to Malay)."

Zul employed the strategy of 'translation' into Malay. Moreover, when Zul used the Malay word, it seems that Zul knew the word 'essential' but needed to confirm it by substituting it with the Malay equivalent, hence enhancing his understanding of the text further. Therefore, not only did Zul guess the meaning of the words but he also used translation.

Comparing Zul's strategy use with that of Abi's, it can be said that both students, despite the gap in their academic abilities seem to employ quite similar strategies when they read and when they encountered difficulty in understanding and in handling unfamiliar words. The only question is how effective they used the specific strategy and for what purposes it is being utilized. The effectiveness in strategy use was not looked at in this study but it can be argued here that Abi seems to be more effective in his strategy use compared to Zul. Comparing both students' strategy use when facing with comprehension difficulties, Abi's elaboration (see Figure 5.2) further indicates he is more effective in his strategy use than Zul. Abi also shows that he is aware of the steps that he usually takes when comprehension fails.

5.6 Summary

In this chapter I have presented findings on which reading strategies were most frequently employed when students read in English based on the questionnaires. Interviews and think-aloud protocols of students further revealed which strategies students utilized the most in monitoring their reading and in coping with unfamiliar vocabulary.

Strategy use of students from the three schools were also compared by presenting the employment of reading strategies from global, problem-solving and support reading strategy groups. It was found that although the students employed all three broad categories of strategies, there were still differences in the types (the 'what') and execution (the 'how') of these strategies across the three schools. They also suggested that that they read differently for different subjects. On overall, more cognitive strategies were said to be employed by the students in the three schools. Moreover metacognitive strategies, though found being employed by the students in the three schools, it seems that these were employed more by students in School A.

Finally two of the four case studies were presented in this thesis. They exemplified the actual strategies used by the students when reading in English. Both case study students show that although they employ similar types of strategies, it can always be argued here that the high ability students read better and effectively than their opposite cohorts. Their elaboration (or lack of elaboration) in strategy use further showed how these students benefits being bilingual (or even multilingual).

Chapter 6

READING INSTRUCTION ACROSS THE CURRICULUM IN THE THREE SCHOOLS: AS PERCEIVED BY STUDENTS

6.1 Introduction

This chapter is the second of two chapters presenting the result. Chapter Five looked at reading strategy use of students across the three schools obtained from the questionnaires, interviews and think-aloud data. It described the similarities and differences of reading strategies used by the students when reading for comprehension and learning across the two types of schools.

Chapter Six, on the other hand will describe what takes place in EL and CS classes in relation to reading. It primarily focuses on how the students perceived the teaching of reading, if any, across the curriculum. The only difference between this chapter and the previous is that Chapter Six also presents data from the teachers. Nonetheless, most of Chapter Six still focuses on the students.

I will first present findings on the types of reading strategies claimed to be used or taught (the use of) by the teachers in upper secondary level classes. Results in section (6.2) are mainly quantitative obtained from twenty one teachers who did the questionnaires in the first stage of this study. The results are presented here to give a base against which to understand the results obtained from the students on reading instruction. Nine of the reading strategies perceived as being 'always' or 'usually' used and vice versa by the teachers are further analyzed and presented in this thesis. Comparison on the employment of these strategies in two different subject areas, i.e. EL and CS was also made. Similarities and differences in the types of reading strategies used or taught the use of these subjects are then presented and discussed.

The rest of Chapter Six then mainly looks at the students' views and perceptions on reading across the curriculum, focusing on what took place in EL and CS classes. Before looking at these two classes, students' overall views of reading for different subject areas are first looked at. This is then followed by general findings on the reading strategies teachers most frequently employed or taught the use of as perceived by the students. These results will also be triangulated with some results obtained from the

classroom teachers' observations. Although data from the observation was not fully analyzed, some results from this data are also presented when needed.

This is then followed by two sections that look at reading strategies used in different subject areas. Results in these sections (6.5 and 6.6) came primarily from the interview's data. What reading instruction takes place in EL and CS classes as perceived by the students were looked at, including the types of reading strategies said to be employed and taught the use of in these classes.

Firstly, teachers' perceptions of the teaching and the employment of reading strategies in their classes across the curriculum are presented. This provides the background to the overall strategy use in the three schools.

6.2 Reading strategies claimed to be taught / employed in the upper secondary level classes.

Results were obtained from the survey questionnaires of twenty one teachers: six English Language (EL) teachers and fifteen Content Subject (CS) teachers teaching upper secondary classes on the survey questionnaire. This section will first present the overall findings on the types of reading strategies these teachers said they employed or which they taught (the use of) in their classes. Comparison was also made on the strategies the teachers said they taught (the use of) or employed for each subject areas, namely EL and CS classes.

6.2.1 Overall findings– Quantitative results on the strategies said to be taught or used by upper secondary schools teachers

The eighteen (reading instructional) strategies (or items) used in the teacher questionnaire (see Appendix viii) were first summarized and ranked according to which were *always* or *usually* employed (or taught the use of) by the teachers. A complete result on all eighteen items is provided in Appendix xxx.

Nine instructional strategies (see Table 6.1) were claimed to be used and taught by more than half of the teachers in the upper secondary level. These strategies include *activating prior knowledge, scanning, skimming, finding main ideas, drawing attention to title, guessing meanings of words, making use of visual elements in the text and predicting the main ideas of the paragraph.*

READING STRATEGIES USED IN CLASSES BY THE TEACHERS – RANKED ACCORDING TO EMPLOYMENT	Percentage of teachers used	Rank
Activating prior knowledge or background knowledge.	90 %	1
Teaching students how to scan information.	88 %	2
Teaching students how to find main ideas.	81 %	3
Drawing students' attention to the title.	76 %	5
Teaching students how to guess the meaning of words.	71 %	6
Teaching the connections of each paragraph.	63 %	7
Teaching students how to skim the passage.	62 %	8
Using visual elements in the text.	57 %	9
Asking students to predict the main idea of each paragraph.	52 %	10

The most employed was *activating prior or background knowledge*. Majority of the teachers (90%) indicated that when conducting a reading activity, they always activate students' background knowledge. *Drawing students' attention to the title* and teaching students *how to guess the meaning of the words* were also said to be used by 76% and 71% of the teachers respectively.

Top down reading strategies such as *scanning, skimming, and finding main ideas* were also employed in the upper secondary level classes. These strategies were reported to be used by 88%, 62% and 81% of the teachers respectively. More than half of the teachers in the study further indicated that they also *asked their students to predict the main idea* of the reading text (52%) and slightly a higher number of teachers (57%) further responded that they also *made use of the visual elements in the text* when they conduct reading instruction in their class.

On the other hand, three of the eighteen instructional strategies listed in the survey were *seldom* or *almost never* being taught or employed by the teachers (see Table 6.2).

These include teaching students *show to use a dictionary, using translation, and teaching students to check comprehension*. More than half of the teachers, i.e. 57% and 52% claimed that they seldom or never taught their students how to use dictionaries and to translate the text into Malay respectively in their classes. It is also worth pointing out here that 38% of the teachers in the study indicated that they *seldom or almost never* taught their student to *check comprehension* when they read. This result may probably be responses from the CS teachers especially when the main purpose of reading in CS was often to get the main points across.

READING STRATEGIES USED IN CLASSES BY THE TEACHERS	Percentage of teachers who seldom or (almost) never employ this	Rank
Teaching students how to use dictionaries.	57 %	1
Translating the text into Malay.	52 %	2
Teaching students to check comprehension	38 %	3

The reading strategies which teachers said they used or taught (the use of) in different subject areas was then compared and the results are presented and discussed in the following section.

Since the teachers in this study were teaching in two different types of school as described in Section 4.5.1, we now will compare the readings strategies used by the teachers from these two types of school: high ability and average ability schools. From Table 4.4, School A is categorized as a high ability school while School B and C are mixed ability schools. Section 6.2.2 will now compare the quantitative result of reading strategies the teachers in the two types of schools said they used or taught in their classes.

6.2.2. Strategies used or taught (the use of) by the teachers from the two types of schools.

In this section, we will compare results in the employment of reading strategies by the teachers from the two types of school: a high ability school (School A) and average ability schools (School B and C). Table 6.3 below presents the quantitative results of the survey

data on the reading strategies teachers 'usually or (almost) always' used in their classes. Following this, we will look at the result of reading strategies teachers 'seldom or (almost) never' used as presented in Table 6.4.

READING STRATEGIES THE TEACHERS SAID THEY 'USUALLY OR (ALMOST) ALWAYS' USED IN THEIR CLASSES		High Ability School	Mixed Ability School
1	Teaching the types of text (e.g. exposition, comparison and contrast)	43%	36%
2	Teaching students how to guess the meaning of words.	72%	71%
3	Teaching students how to scan information.	71%	62%
4	Teaching students how to skim the passage.	57%	64%
5	Teaching students how to summarize.	43%	43%
6	Using visual elements in the text.	57%	57%
7	Translating the text into Malay	0	28%
8	Asking students to read the text aloud.	43%	29%
9	Activating prior knowledge or background knowledge.	72%	100%
10	Drawing students' attention to the title	57%	64%
11	Teaching students how to find main ideas	86%	78%
12	Asking students to monitor reading comprehension constantly	28%	64%
13	Asking students to predict the main idea	28%	64%

Table 6.3 showed that six strategies were 'usually and (almost) always' reported to be used fairly by the same number of teachers in this study across the two school types. Top down and less demanding cognitive strategies such as *scanning, skimming, guessing meanings of words, summarizing* and *making use of the visual elements* (text features) were used by most of the teachers in the two types of schools. More than half of the teachers responded positively to the use of these strategies in their classes. However, less than 50% of the teachers in the two schools responded that they 'usually or always' used the strategy of summarizing. The same percentage of teachers (43%) in both schools types indicated that they also used these strategies.

There were also noticeable differences in the use of seven other reading strategies across the two types of schools (items 7-13 in Table 6.3). Scanning, skimming and guessing were found to be used by teachers in a high ability school (School A) more than those in the

other two schools. For example, 'activating previous knowledge' was found to be used by all the teachers (100%) in School B and C compared to 71% of the teachers in School A who said they used them. None of the teachers in School A indicated that they used the strategy of 'translation' but 28% of the teachers from the mixed ability school also used this in their class.

The strategies presented in Table 6.4, on the other hand, showed that two of the strategies the teachers claimed they 'seldom or almost never' used in their classes were the use of translation and the use of dictionary. The latter is vocabulary related strategy which will be discussed more in later sections. Table 6.4 showed that a higher percentage of the teachers in School A (high ability school) (86%) indicated that they seldom or never use translation compared to only 36% teachers from the mixed ability school. Similarly, 71% of the teachers in School A seldom or almost never teach the use of dictionary to their students.

Table 6.4 Reading Strategies 'seldom' or 'almost never' said to be used or taught (the use of) by the teachers across the two types of schools			
READING STRATEGIES USED IN CLASSES BY THE TEACHERS		High Ability School	Mixed Ability School
1	Translating the text into Malay	86%	36%
2	Teaching students how to use dictionaries.	71%	50%
3	Teaching students to monitor reading comprehension	28%	22%

The results in Table 6.3 and 6.4 suggested that despite teaching students of different educational ability levels in the two types of schools, the teachers seemed to use similar types of reading strategies.

Since the current study focuses on reading for comprehension and reading for learning, comparison was also made on reading strategies the teachers claimed they used in two different subject areas: English Language (EL) and Content Subject (CS) classes.

6.2.3. Strategies used or taught (the use of) by teachers in different subject areas (EL and CS)

Nine of the eighteen strategies listed in the survey were reported being used by both EL and CS teachers and the results on the employment of these strategies are shown in Table 6.5.

The results showed that although the upper secondary level teachers employed these nine similar instructional strategies in their classes, there were still differences in the how and why they were used in different subject areas.

For example, although *activating prior or background knowledge* was always or usually used by the majority of the teachers as shown in Table 6.1, this strategy was used more by the CS teachers (93%) than the EL teachers (when only 83% of the EL teachers indicated using this in their classes).

However, all EL teachers (100%) responded that they usually or always *teach their students how to skim the passage and how to scan for information*. Only 62% and 80% of the CS teachers said they always or usually used these strategies in their classrooms respectively.

Asking students *to monitor their reading* comprehension, on the other hand, was not widely practiced by both the CS and EL teachers in the upper secondary level classes. Only 28% of the teachers responded that they always or usually asked their students to monitor their reading. Results further showed that getting students to monitor their reading was employed more by the EL teachers than the CS teachers. Half of the EL teachers (50%) always or usually employed this strategy whereas 53% of the CS teachers only employed it sometimes. The difference in the employment of this strategy may be due to the types of task and texts used in these subject areas. The texts used for EL classes often require students to comprehend the text in order to complete the given task. The texts to be read by the students in the Content Subject classes, on the other hand, not only require the students to comprehend but also, for the most part, to learn and to recall back the content or information presented in the text provided.

Another two strategies employed more by the EL teachers than the CS teachers were teaching students *how to summarize* and *how to use dictionaries*. Most of the EL teachers (i.e. 83%) usually or always teach their students how to summarize whereas only 27% of the CS teachers did this in their lessons. The difference in the teaching of 'how to summarize' strategy may be greatly influenced by the fact that Brunei's upper secondary classes are more geared towards examination oriented purposes. This is particularly true especially when there is one summary question which the students have to answer in their reading comprehension examination paper.

Teaching students how to use a dictionary was always or usually employed by half of the EL teachers (50%) compared to only 19% of the CS teachers. A higher percentage of CS teachers (67%) even indicated that they seldom or never teach how to use a dictionary in their classes. As with the previous strategies, this again can be attributed to the classroom practices in each subject areas. The English Language lesson often require the students to answer vocabulary questions in their Paper 2 examination which require students to look these words up either in a dictionary or using other vocabulary related strategies, some of which were presented in the previous chapter. New words or terminologies encountered in the reading texts for the Content Subject were often explained by the teachers and that students sometimes were required to 'memorize' or 'know' these words.

Table 6.5 Reading strategies used or taught (the use of) by the teachers across the two types of classes.			
Reading strategies	Overall findings (all teachers)	Comparing results of CS and EL teachers CS teachers N=15 EL teachers N= 6	
		Activating background knowledge	90 %
		EL teachers:	83% always do this in their classes.
How to scan information	88 %	CS teachers	80 % always or usually employ this strategy
		EL teachers:	All (100%) usually or always do this in class
Drawing students' attention to title	76 %	CS teachers	73% always or usually employ this strategy
		EL teachers:	83 % usually or always do this in their classes.
How to skim passage	62 %	CS teachers	62 % usually or always employ this strategy in the class
		EL teachers:	All (100%) usually or always do this in class
How to summarize	43 %	CS teachers	27% usually & always employ this in class 60% sometimes employ this in class
		EL teachers:	83% usually and always employ the strategy in class
Monitor comprehension	28 %	CS teachers	Only 53 % sometimes do this in class
		EL teachers:	50 % always or usually employ this in class
Translating text to Malay	52 % (seldom) 28% (sometimes) 20% (always)	CS teachers	27% said they usually or always do this while 40% sometimes employ this in class.
		EL teachers:	All (100%) seldom or never do this in class
How to use dictionaries	57 % (seldom) 48% (sometime) 19% (always)	CS teachers	19 % said they usually or always do this while 24% sometimes do it.
		EL teachers:	50% always or usually employ this strategy

Apart from activating prior knowledge, translating into Malay is a second instructional strategy that was found to be used more by the CS teachers than by the EL teachers. Unlike EL teachers, 27% of the CS teachers claimed that they usually or always translated the reading texts that they used in their subjects into Malay. Another 40% did this sometimes in their lessons though 33% of the CS teachers responded that they seldom or almost never translated the text to Malay. However, all the EL teachers in the study (100%) responded that they seldom or never *translate a reading text to Malay*.

The differences in how these eight instructional strategies (see Table 6.5), were used and taught by EL and CS teachers have implied that the reading instruction across the curriculum are indeed different. As far as reading is concerned, there are differences in

focus, strategy use and emphasis in reading for different subject areas. Two of the sections in this chapter will compare how reading particularly on the strategies the students thought (or perceived) were being used or taught (the use of) in their CS and EL classes. Any differences or similarities on what happened in these two subject areas in relation to reading are also looked at in sections 6.5 and 6.6.

Before looking at these EL and CS classes, we will first look at how students viewed reading instruction in these two classes.

6.3 Students' views on reading across the curriculum (i.e. reading for EL and CS subjects)

When asked how students approached their reading for different subject areas, a mixture of views emerged from the students across the three schools. We will first summarize the overall view of the twenty seven students interviewed in this study as shown in Figure 6.6.

School	The number of students who approach (and think that) reading for EL and CS subjects are.....			
	Similar	Different	Mixed views	No response...
A	3	2	1	4
B	3	2	-	2
C	2	3	5	-
Total	8	7	6	6

An overall perception of students' views was summarized based on the comments and feedbacks given during the interviews. Six out of the ten students in School A were very expressive with their views. Three of them said that they read for EL and CS in the same way while two reported that they read differently for these subject areas. One student from School A further said his approach to reading for his EL and CS subjects will depend on the content of the texts.

Reading for English and other subjects is more or less the same. I approach them in quite a similar way. It is the same because for one thing, it's all in English. I don't think so there are any differences in reading for these subjects. [A3]

I approach them differently. For Science I look for key words while for English, I read and try to make sense of what I read. [A4]

Three students from School B indicated that reading for EL and CS were the same for them while two reported the opposite. Responses from the students in School C, on the other hand, were quite widespread. Three students approached reading for EL and CS differently while two stated that they read texts for their EL and CS in the same way. The other half of the students in School C had mixed views. They reported that they sometimes read similarly and sometimes differently.

I think I do not read in the same way for Geography and English. For English, I use the title. For Geography, I usually read and then after that I rewrite things like definitions and important points. Basically I know what to look for in Geography based on the teacher's questions and past year examination paper, I know what to focus, like in Geography, How to measure rainfall. For English, we have to deal with different passage every time. [C5]

I think it is the same on how we read for all subjects. First we skim and scan. Then we try to understand what we read clearly. [C9]

I think the same in that I 'just read' them. I usually just read through everything at one go though sometime I do realize that I don't understand a thing that I have read. [C3]

These results showed that, even though students said they read the same way for EL and CS, they were also aware of the differences in the demand for reading in these subject areas. They knew what each reading, either for EL or CS required them to do.

Reading for English doesn't involve any memorizing only has to understand whereas other subjects involve both understanding and memorization. [B6]

The above excerpts from B6 can in fact summarize the differences in what was involved in reading for these two subject areas, EL and CS. The former often requires students to read for comprehension while the latter requires students to read in order to learn the contents in their Subjects. This further requires students to be able to recall back the contents when the time comes, such as in their examination. That is probably why B6 stated that reading in other subjects (i.e. CS) also involve memorization.

The fact that only eight out of twenty six students interviewed (see Table 6.6) indicated that reading for CS and EL are the same, suggested that in general reading for these two subject areas are in fact different. This is evident when the other nineteen students either had mixed opinions or no opinion at all implying that they read differently.

The results suggested that the students acknowledged that there are actually differences in reading for these two subject areas. Not only the reading materials for EL and CS are different in contents but the way students and teachers approached the two texts are greatly influenced by the reading tasks. Reading for EL requires students to read everything whereas reading for CS, such as Geography, requires students to look for specific detail (i.e. the content). This can be illustrated in the example below

No it's not the same. For English, we have to read carefully. English involves just reading and that's why it is easy. Reading for other subjects involves reading for details. Reading for Geography for example is different from reading for English because if you don't read everything for Geography, you still can understand. Reading for English, you have to read line by line carefully and have to understand all. [B1]

What reading strategies were used or said to be taught (the use of) in EL and CS classes as perceived by the students will be further presented in Sections 6.5 and 6.6. Section 6.4 provides an overall finding on what actually goes on in these two classes in terms of reading. The results in Section 6.2 on teachers' perceptions can be compared with the students' perception in Section 6.4. What teachers said they usually do in class can be matched with what the students thought were actually happening in the classrooms.

6.4 Reading strategies used the most as perceived by the students in the classrooms- Overall findings

When the students were asked to reflect on their experiences on the *reading Instruction across the curriculum* throughout their upper secondary learning experiences, the students reported that the reading activities they frequently experienced include reading before class, reading from prepared notes, reading aloud in class, teachers

giving explanation of the given notes, teacher focusing on key points, and also reading for answering questions.

Teachers in School A were said to use strategies including *reading aloud, underlining, highlighting information, thinking about main or key ideas in the text, paraphrasing and summarizing* and *using a dictionary*. The classes in School B and C also provided opportunities for the students to be exposed to, taught and used similar reading strategies as those in School A but with the addition of the *use of translation*.

Apart from the above, other strategies were also used in lessons across the curriculum. Students in School A reported the employment of strategies such as *knowing a purpose* for reading, *previewing the text, using text features, determining what to read closely* and *checking how text content fits purpose* by their teachers. Strategies such as *rereading, guessing meanings of unknown words or phrases, paying close attention to reading and trying to stay focused on reading* were also used in their EL and CS classes.

The strategies used or taught (the use of) in School A were also found in the EL and CS classes in the other two schools. However, analysis revealed that strategies such as *using text features* and vocabulary related strategy such as *guessing meanings of unknown words or phrases* were not widely used or found during lessons in School B and C.

In presenting and interpreting these results, cautiousness is required when making conclusion. This is because data was extracted from what the students remembered as being conducted in classes and thus may not provide a conclusive picture of what actually happened. Nevertheless, these results will provide us with a framework and background on the different ways students tackled their readings of EL and CS texts. By looking at the different types of reading strategies used or taught (the use of) by the teachers or used by the students in EL and CS classes, it is hoped that it will allow us to understand how students read for their academic studies. Hence the reason for making comparison on what goes on in EL and CS classes across the curriculum in the three schools.

The results in section 6.2 of this chapter have shown that the teachers reported not only engaging their students with various reading strategies such as *skimming, scanning, predicting, using text features, summarizing, activating prior knowledge* and *guessing meaning of words*, but also claimed teaching and modeling these strategies in their classes. Some even reported getting their students to monitor their reading in class. In an effort to confirm the above results, students were also asked to reflect back on what went on in their classes as far as reading instruction is concerned. The rest of this chapter will present these results, starting with EL classes.

6.5 What takes place in EL classes?

This section will first look at the quantitative results from the questionnaire on reading strategies the EL teachers reported they used or taught (the use of) in their classes across the three schools. As with previous section, results will be presented in relation to the two types of schools: School A being a high ability school and School B & C being mixed ability schools. Then the section continues with the qualitative results from the students' interview on what reading strategies their EL teachers have used or taught (the use of) to them.

Table 6.7 showed that the EL teachers in all three schools reported the use of five similar reading strategies. There were scanning, skimming, guessing meanings of words, finding main ideas and summarizing. The last three strategies were used by all the teachers (100%) in the high ability school (School A) while only 75% of the teachers in the mixed ability schools reported the use of these strategies in their classes.

Table 6.7 Reading Strategies used or taught (the use of) by the teachers in English Language classes.			
READING STRATEGIES 'USUALLY OR (ALMOST) ALWAYS' USED IN ENGLISH LANGUAGE CLASSES.		High Ability School	Mixed Ability School
1	Asking students to read the text aloud.	50%	25%
2	Activating prior knowledge or background knowledge.	50%	100%
3	Teaching the types of text (e.g. exposition, comparison and contrast)	100%	50%
5	Drawing students' attention to the title.	50%	100%
6	Teaching students how to guess the meaning of words.	100%	75%
7	Teaching students how to scan information.	100%	100%
8	Teaching students how to skim the passage.	100%	100%
9	Teaching students how to find main ideas.	100%	75%
10	Teaching students how to summarize.	100%	75%
11	Asking students to retell the text.	50%	50%
12	Asking students to monitor reading comprehension constantly.	-	75%
13	Asking students to predict the main idea.	-	75%
14	Teaching students how to use dictionaries.	100%	25%
16	Using visual elements in the text.	-	50%

Apart from these, all the EL teachers in the high ability School A in this study reported that they taught their students text structure (item 3) as well as how to use dictionaries (item 14). On the other hand, only 50% and 25% of the teachers respectively in the mixed ability schools reported teaching strategies. The results also indicated that reading aloud by the students can be found more in the EL classes in School A compared to EL classes in the other two schools.

On the other hand, the results also showed that more EL teachers from the mixed ability schools (B and C) reported the use of five strategies (see item 2, 5, 12, 13 & 16 in Table 6.7) more than the EL teachers in the high ability School A. All the EL teachers in the mixed ability schools reported that they usually or almost always activated students' background knowledge and to draw the students' attention to the title in their classes. These two strategies were only reported to be used by half of the EL teachers in School A.

Moreover half of the EL teachers in the mixed ability Schools always use the text features (visual elements in the text) and an even higher percentage (75%) of them in

these school also reported that they usually or (almost) always asked their students to predict main ideas as well as to constantly monitor their reading comprehension.

Consistent with the results in Table 6.2 and Table 6.4, translation and teaching the use of dictionaries were the two strategies which EL teachers across the two types of school claimed that they seldom or almost never employed. The former were almost never used by all EL teachers in this study. Half of the teachers from the mixed ability schools, however, reported that they almost never teach their students how to use dictionaries. The results are illustrated in Table 6.8 below.

Table 6.8 Reading Strategies 'seldom' or 'almost never' said to be used (or taught the use of) by the teachers across the two types of schools			
READING STRATEGIES 'SELDOM OR (ALMOST) NEVER' USED IN ENGLISH LANGUAGE CLASSES.		High Ability School	Mixed Ability School
1	Translating the text into Malay	100%	100%
2	Teaching students how to use dictionaries.	-	50%

The results presented in this chapter showed that the EL classes in both types of schools exhibited the employment of a mixture of top down cognitive reading strategies in their classes. However, the EL teachers in the high ability schools exhibited the use of less type of strategies in their classrooms. This may be because these teachers did not seem to feel that they need to teach them. This is because the students in School A might not have major difficulty with this subject compared to the students in Schools B and C.

Now we will continue by looking closely at the students' responses on the types of reading strategies they recalled their EL teachers had used or taught (the use of) in their classes. In some instances, results from the classroom observation will also be included though analysis on this data was not fully conducted due to the limited time I had had in the completion of this thesis.

The results from the students' qualitative data are presented by looking at the different types of reading strategies the students had reported and recalled being used or taught (the use of) by their EL teachers.

The EL teachers in School B and C were reported to employ reading strategies such as *setting purpose for reading, previewing text before reading, checking how text content fits purpose, determining what to read closely, using context clues, checking understanding* and *predicting and guessing text meaning*. The EL teachers in School C, however, seemed to widely exhibit the employment of the strategies of *checking understanding of the text* and *checking how text content fits purpose* more than the teachers in School B.

Strategies such as *activating and using prior knowledge, setting purpose for reading* and *checking how text content fits the reading purpose* were also said to be used by the EL teachers in School A. It is, however worth noting here that these findings may not necessarily be an accurate description of the actual reading activities that the students had had with their EL teachers. One student mentioned that at the time of the interview, they had a 'new' teacher teaching them English language.

6.5.1. Activating prior knowledge

Consistent with the results obtained from the questionnaire (see Table 6.5), *activating prior knowledge* is a strategy that was 'always' employed by 83% of the EL teachers across the three schools.

EL teachers in School A, for example encouraged students to read widely and to do extra reading as an effort to expand their students' knowledge and experiences which they can bring into the classrooms. A student [A9] described what usually occurred in their EL classes in the example below.

English subject –when given a reading material, usually we discuss about it. It is more on general things like when we are given a topic, we discuss the contents of the text that we are reading and usually we do this while reading. We bring in outside knowledge to further make sense of what we are reading, such as

when we come across unfamiliar or new words / vocabulary, we sometime relate them with our experiences [A9]

The encouragement to do extra reading may be one of the reasons that led some students in School A commented that reading for EL is easier for them than reading for CS. They reported that the topics in EL are usually "open" or "general"

I think reading for my English subject is easier because there are more 'open' topics and we read different topics....the topics are much more widespread compared to other subjects. Like for example Biology, we focus on Biology kind of stuff. [A7]

English is easier...because English is more open and general in terms of topic. [A2]

The students from the mixed ability schools, on the other hand, did not seem to recall that the strategy of using and activating prior knowledge was being used in their EL classes. This probably because the students might not remember it being used during the lessons or it was not used as frequent as those in School A. They, however, recalled their EL teachers using strategies such as *previewing the text before reading, making predictions and checking understanding.*

During English, the teacher usually focuses on reading only, like reading individually. We read and then teacher asks questions.[C6]

From the classroom observation data, the EL teachers in School B and C used students' previous knowledge in their classes though not much actual reading was being observed. This was because the EL lessons observed in the study were consisting of writing, revision and summary lessons. Observation of English Language reading comprehension lessons in this study consisted of students doing their comprehension exercises. Actual reading activities were done before the observation schedule. But nevertheless, the strategy of using background or previous knowledge was found in EL lessons in the examples below.

For example a lesson observed in School C began with a review of the students' knowledge on the types of questions word in the 'O' level exam. The teacher elicited from students what was meant by questions words such as 'describe', 'explain', 'in your

own words', 'briefly state...' and 'list out ..' These are the questions words that were found in the 'O' Level Paper 2 reading comprehension.

Another EL teacher in School B did a follow up summary lesson on the reading passage that was done in the previous lesson. The teacher began the lesson by recalling the content (events) of the story they have done. This was conducted by first directing the students' attention to the title, which was 'Black Mamba' and followed by teacher telling the students what happened in the story.

In another lesson conducted by another EL teacher in School B, the strategy of activating (and using) background knowledge was used in a writing lesson. Although not the focus in this study, the fact that this strategy was used in this lesson suggested that students were indeed exposed to this strategy. In this lesson students were to do a descriptive writing on a topic 'Describe the Scene during a football match at your local stadium', the teacher began by sharing his own experiences playing football with his siblings and girls' cousins before eliciting students' experiences.

6.5.2. Setting a purpose for reading

This strategy was consistently found in the students' description across the three schools. It is said to be frequently employed and found in EL classes.

The results showed that reading in the EL classes was conducted mainly for comprehension and summary lessons. Answering comprehension questions is often the main task of reading during EL lessons. This result was not totally surprising because most reading instruction conducted during EL Lessons, as found in the three schools, often consists of *reading comprehension and summary lessons*. Furthermore it is one of the tasks that students had to 'master' and 'practice' in order to prepare them for the public examination that they will be sitting at the end of their secondary education.

The students in School B and C even indicated that when reading for their EL subject, it is often required to know the comprehension questions prior to the actual reading of the passage. This is to enable students to know which information (or answers) to look

for. It can be hypothesized that the students in the three schools were taught in the EL classes to employ the strategy of *setting a purpose for reading* when they read.

For English, we usually look at the questions and then read on to look for the answers especially when doing exam papers. This is because during exam, if we read first and the underline difficult words, it would take us longer to really understand the passage. So by looking at the questions before reading, we know what to look for in our reading. [C4]

They give us clues on how to read. Like our English teacher told us once that for comprehension topic or questions, we should read the questions first before we read the comprehension passage, so we have purpose for our reading – to answer questions. [A6]

I think for English, our teacher told us that for comprehension, to read the comprehension questions first before reading the passage. So when we read the passage, we know where the answer is...[A3]

6.5.3. Evaluating how text content fits reading purpose

This is another strategy that was said to be employed during EL classes in the three schools. This usually includes steps that the students do in order to achieve their reading purposes. Strategies such as *focusing on a line or a paragraph* in order to locate the answer for the comprehension questions; *to discuss the text paragraph by paragraph*; and *to check understanding by asking students questions about the text* are some of the strategies students reported being employed during EL lessons.

Usually in reading comprehension lesson, we use the comprehension questions to help us to comprehend the passage. We read the passage and also the questions, then the teacher usually asks one of us to read the answers from the text / paragraph, or sometime asks us to find out in which paragraph we can locate the answers such as from which line to which line. Then we read that particular section again to find the answer. [A5]

As presented in the previous chapter (see section 5.5 and 5.6), the above strategies are said to be employed simultaneously or concurrently with other strategies. This was evident in the example from a student [B6] when he reported that their EL teachers told them to use a combination of strategies when they read.

Our English teacher told us to first read the title, make predictions and then try to understand things that are related to the title. [B6]

Analysis has found that during EL lessons, the teachers taught students to *guess meaning of unknown words or phrase; pay closer attention to reading; and to try to stay focused on reading*. These strategies are often used as 'coping strategies' such as when encountering new and unfamiliar words or when text becomes difficult. These strategies are often used with other strategies.

6.5.4. Guessing meaning of unknown words.

One of the strategies, found to be employed quite frequently during EL classes in all three schools is *guessing meanings of unknown words*. The use or the teaching (the use of) of how to guess meanings of unknown words in EL classes is not a surprise since vocabulary is also one of the main questions in the 'O' level examination paper (English Language Paper 2). Furthermore it is seen as the main factor that makes reading in English difficult. There were a lot of instances reported by the students that they are encouraged by their teachers to guess meanings of unknown words or phrases.

Analysis also showed that this strategy was often carried out by executing a wide range of other strategies such as *rereading, making use of contextual use, asking (oneself) question* or even *paying closer attention to reading*. This strategy was often used concurrently with strategy such as *using contextual clues* as shown from examples taken from EL classes in School B and C.

Sometimes I apply what our teachers told or taught us when reading in all subjects. For example, English teacher tells us to use of context to help to get meanings of unfamiliar words, I use this strategy in other subject, such as Biology too. [C9]

English we are to underline the words and then to try to make sense of the meaning by using the context (the words before and after that particular words). [B1]

The observation data had shown that vocabulary related strategy was observed more in the EL classes in School B and C than in School A. The EL lessons observed in School B and C showed that the teachers used a combination of strategies apart from *guessing meanings of the unknown words*. These include using *contextual clues, predicting* and

even analogies. Some EL teachers also focus on the correct pronunciation of the new words found in the reading text.

Two EL teachers in School C emphasized the use of the context when encountering unfamiliar vocabulary. One EL teacher even stressed the importance of context in getting the meaning of the word 'accommodation' which the students did not know from the passage they read in their lesson.

Two EL teachers in School B and C focused on the students' correct pronunciation of the newly acquired words by reading them aloud. One EL teacher even corrected the students' incorrect pronunciation by repeating (or recasting) the word during the read aloud session in his class. The following was extracted from one EL lesson in one of the two mixed ability schools.

*'Say these words aloud – brave and courageous'
'Say this word 'petrified' out five times'*

6.5.5. Rereading Strategy

Rereading is another strategy said to be used or taught (the use of) by the EL teachers in this study. It was used with other strategies such as *reading slowly and carefully* and when *paying close attention to reading*. This is usually the case when students are expected to look for answers for the comprehension questions and when doing summary where the emphasis is often to extract main or key points from the text.

The students also indicated that rereading is said to be the usual practice in EL classes in School B but no elaboration was given by the students on how this was carried out in the classrooms. Their EL teachers told them to reread the text again as illustrated below.

With English, we are to read twice. In paper 2 for English, we are to read the text more than twice. We read the passage twice and then reread again by focusing on each paragraph and then to look for answers and points for summary. [B6]

Yes, our English teacher did give us tips on how to read better. This includes to read twice, skimming and scanning. [B7]

Instructional reading strategies in English Language classes, particularly for comprehension also stressed the need for students to stay focus on their reading. In general the students reported that their EL teachers tend to focus on each line of the passage and to read paragraph by paragraph in order to make understanding of the text easier. Examples of these can be found in the EL classes, particularly in School A as reported by the students.

They (our teacher) just read it out first aloud. Sometime they call us to read it too aloud, mostly individually to ourselves. Then they discuss about the topic, usually paragraph by paragraph...[A3]

Our English teacher...hmm sometimes she asks us to read first then try the comprehension questions. The next class, she'll probably, if it suits her mood, she will go through the passage and tells us....'Ok you have to focus on this line...every line you have to focus in order to understand the passage and to try to answer the questions. To get the right answer, you have to understand each and every line of the passage'. We usually go through the passage together. [A2]

6.5.6. Summarizing technique.

From the students' descriptions, EL teachers in the mixed ability Schools B and C were said to encourage their students to use the strategies of underlining and highlighting. This strategy is often used with difficult or new vocabulary which the students encountered in their reading. It is also used for stressing the importance of key ideas, concepts and main points.

The EL classes in School C were reported to teach the strategies of summarizing and (re)writing notes while reading. These two strategies are said to be employed when the teachers encouraged their students to locate and identify key points or ideas especially when doing summary activities.

When we do summary in English lesson, we were asked to underline the key points and to divide them into sections so it is easier for us to rearrange our summary.[C10]

Only English teacher focuses on reading. He told us to do further reading on the internet outside class. In class, we do things such as skimming, underlining words. For example when doing summary, we were told to draw boxes and also underline the main points. [C2]

A summary lesson conducted by an EL teacher in School B confirmed this. The teacher explicitly wrote on the board the steps in doing summary as illustrated below.

Extract from a summary lesson

Teacher: Now tell me...what should we do for summary?

Students: (in chorus) Summary strategy...

Teacher: What are they?

Students (in chorus). Read and look for points...

Teacher: Yes. Remember these steps you have learnt for summary?

Teacher wrote the following on board:

Step 1 Skim, Scan and Predict

Step 2. Read

Step 3. Key points – Search (in the exam, underline them)

Step 4. Use of connectors – link our ideas.

EL teachers from the high ability School A were also reported to use reading strategies as found in the other two schools but with the inclusion of using reference materials. Using reference materials include the use of dictionary. The former strategy, said to be found in EL classes in School A and C also include strategies such as summarizing, picking out main ideas and restating the information in own words. One student described how their English teachers 'modeled' the strategy of 'locating key points' and 'summarizing by paraphrasing' during lessons.

Our English teacher during comprehension classes, she goes through every paragraph and she takes out the main point, what the paragraph tells you about.... [A7]

The results that summarizing and the use of dictionary reported by the students to be always used by the EL teachers in the high ability school A confirmed what was reported by the teachers in the questionnaire (see Table 6.7). Summarizing was always said to be used or taught by the EL teachers in the high ability school. However, this strategy was said to be used only by 50% of the high ability students in School A (see Table 5.7) indicating that the students might not always used the strategy taught to them when they read on their own.

Results also revealed that the EL classes in School A also exhibited the strategy of reading aloud. Reading aloud is reported as being most frequently carried out when

they had 'reading' lesson. This again confirmed the results in Table 6.7 when 50% of the EL teachers in School A always asked the students to read aloud.

English..... It depends on who teaches us. We have a new teacher teaching us now. Most of them read the reading passage aloud, but nowadays, we seldom do any comprehension. We were often given homework to do. But before, our previous teacher sometimes read the passage and then we go through the text paragraph by paragraph and then we look for difficult words and....[A5]

The strategies presented in this section are reading strategies being reported to be used and exhibited in EL classes across the three schools by the students. There were, however, reading strategies which the teachers reported they used in their classes but were not found in the students' descriptions. A number of reasons may lead to this inconsistency of what the teachers said they did in their classes with what was reported by the students. One of which may be because the students did not recall the strategies being used or because they did not use the strategies when they read and thus did not report them as in the example below.

Our teachers did teach us on how to use mind map / concept map to summarize the content or the important points, but I seldom use this tip in my reading. It doesn't necessarily work for me [A5]

6.6 What takes place in CS classes?

This section now presents results on what took place in the CS classes across the two types of schools in this study. CS texts are different from those used in EL (see section 3.4.1 for discussion on this) in terms of content, the types of text and the task demand. Due to these differences, it is assumed that reading in CS classes, and subsequently reading strategies employed are different compared to those found in EL classes. Content subjects in this study include 'Biology', 'Physics', 'Geography' and even 'History' because these are the subjects the students were studying at the time of this study. However, in this thesis we do not look at reading in various content subjects separately. Instead, the results were collectively made to refer to all content subjects and therefore do not make specific distinction on which strategies were found in a particular content subject. Unless stated, CS refers to subjects other than EL which are

learnt and taught through English language as the medium of instruction in Brunei upper secondary levels.

The majority of the students in School A seemed to acknowledge the differences of reading in these different subject areas (see Table 6.6). Some of them pointed out that reading for CS is easier than reading for EL. This may be related to how they 'see' reading in CS is all about. Reading in CS usually consists of reading from notes, memorizing and looking for key points. Some even said they didn't really need to read because the content will always be explained by the teachers.

I think reading for science subjects (eg Chemistry) are easier to me than English because to me, these subjects make more sense to me. [A5]

But when reading for my academic texts, I find the textbooks are fairly understandable, mostly because teachers are there to explain most of it, especially before we do the reading. [A9]

For Science I look for key words while for English, I read and try to make sense of what I read. [A1]

From these views, there are differences in terms of emphasis on reading strategy use in CS and EL classes. The employment of some of these strategies will be discussed in separate sub-sections below. But first, we will look at the quantitative results on reading strategies the CS teachers said they use or teach (the use of) across the two types of school. The results are presented in Table 6.9.

READING STRATEGIES 'USUALLY OR (ALMOST) ALWAYS' USED IN CONTENT SUBJECT CLASSES.		High Ability School	Mixed Ability School
1	Asking students to read the text aloud.	40%	30%
2	Activating prior knowledge or background knowledge.	80%	100%
3	Teaching the types of text (e.g. exposition, comparison and contrast)	20%	30%
5	Drawing students' attention to the title.	60%	70%
6	Teaching students how to guess the meaning of words.	60%	70%
7	Teaching students how to scan information.	60%	90%
8	Teaching students how to skim the passage.	40%	50%
9	Teaching students how to find main ideas.	40%	80%
10	Teaching students how to summarize.	20%	30%
11	Asking students to retell the text.	20%	40%
12	Asking students to monitor reading comprehension constantly.	-	30%
13	Asking students to predict the main idea	40%	60%
14	Teaching students how to use dictionaries.	-	10%
16	Using visual elements in the text.	80%	60%

Comparing the strategies used and taught (the use of) by the CS teachers across the two types of schools, the types of readings strategies use were quite widespread. A high percentage of teachers from the mixed ability schools B and C reported to always use the strategies of picking out main ideas in their reading. 80% of the CS teachers in these two schools said they taught the students to find main ideas compared to only 40% of the CS teachers in School A. Moreover all the CS teachers (100%) in the mixed ability schools reported that they always activate students' background knowledge in their classes.

Reading for content subject often requires students not just to comprehend but also to learn the content, i.e. for learning. Therefore, it is assumed that the strategies the CS teachers used or taught (the use of) in their classes were mainly top down and demanding cognitive strategies such as extracting main ideas, summarizing and paraphrasing the content or the required information from the reading text. These were confirmed by the results in Table 6.9. The next sections will look at results on the reading strategies the students recalled their CS teachers used and taught in their CS classes. The results are discussed in the next sub sections.

From the qualitative data, the students from the high ability School A on the other hand reported various types of reading strategies being used in their CS classes. These include setting a purpose for reading, using prior knowledge and analyzing and evaluating the information presented in the text. The last strategy type is reported as being the most frequently employed. It includes when teachers explaining more to the students, focusing on important points, elaborating on main points and going through the notes.

For other subjects, such as in biologyThe teacher reads the text aloud, and then asks us questions whether we understand or not. The teacher reads the sentences aloud and then explains more to us [A10]

The students in the mixed ability Schools B and C also recalled the employment of similar types of reading strategies as School A in their CS classes. The CS classes in these Schools B and C, however exhibited the additional use of checking how text content fits purpose; using text features and checking understanding. The last two strategies confirmed findings in Table 6.9 whereby CS teachers in the mixed ability schools reported to always use these strategies in their classes.

6.6.1. Activating Prior knowledge

Bringing outside or previous knowledge into their reading, relating what to be read with the existing knowledge, relating new topic with previous topic were some of the descriptions the students used to describe the activities which their teachers were said to do during CS classes.

For other subjects, teachers will just say like.....'Ok you have to remember this point and then it will connect to other points'....So basically the teachers [suruh] told us to [ingati] remember the points to connect to other points.. So it's an easier way to remember....er..the facts. [A2]

Our History teacher usually at the beginning recalls what we have learned in the previous lesson by asking us questions. We are often encouraged to relate what we learned (new topic) with what happened in the past (those related to the topic).[C4]

One student provided a clearer description on how the strategy of activating prior knowledge was employed in a Geography class as illustrated below:

Usually when anything on Earthquake or volcanoes, we keep up with news updates and theory from reading like how the volcano erupt, its occurrences etc.

In this sense we bring in outside knowledge into our reading to help us understand better. [A9]

Results from the classroom observation found that most of the CS classes also showed the use of this strategy. These include bringing in students' background knowledge and connecting what they learnt with what they have known already. The following are extracts from two CS lessons.

Extract from a Geography lesson on the topic 'Coral Reef' (School A)

The teacher directed the students to refer to their notes and textbook on a list of examples and characteristics of coral reefs.

Teachers: Reads the statement from the notes aloud [This one is located about 100km of Australian coast ranging from a distance of 2000km] 2000km...(stressing it)..Can you imagine how long it that?... How long is the coast of Brunei from Muara to KB? (drawing the map of Brunei on the board).

Extract from a Geography lesson on 'Weather' (School B)

[Drew a mind map diagram on board and wrote 'Weather Instruments']

Teacher: We already know what are the different types of weather instruments used to measure different weather elements. I haven't teach you about these yet, but I want you to know about these all on your own based on the your reading that I expected you did...last week...(showing the students the notes)

Teachers: [Drew the map and then asked the students] Now name me one weather instrument that you know?

Student A: Six's thermometer

Teacher: Six's thermometer.....Is that correct? Does it exist?....

The extracts above confirmed what the students have reported that their CS teachers not only activated their students' previous knowledge but also tried to connect their students' existing knowledge with the content of their lessons as in the example below:

Extract from a Physics lesson on 'Energy' (School B)

[The teacher introduced the topic on 'electricity energy' by asking questions that require them to activate their previous knowledge]

Teacher: [wrote the title on board] How do we get our energy from? The students gave one word answer and the teacher asked the question again.

Teacher: In the present day, where do we get sources of our energy from?

6.6.2. Setting a purpose for reading.

Reading in CS classes, was reported primarily to locate and to find main points for a particular topic. The end product of reading for CS is often to be able to answer questions with facts of the topic being learnt. This is confirmed when often only the main points were 'read aloud' and key ideas from the texts were elaborated in the classes. The emphasis in these classes is to extract 'main points' or 'important parts' as reported by the students in the examples below.

For science subjects, the teacher just read aloud the important parts usually. The less important they just read through. They just focus mainly on the important parts and explain in more detail. [A3]

For those kinds of subjects, they do not really get into..... ..er.....paragraph by paragraph, they just grab the main points and they will elaborate on them. [A2]

We don't usually do actual reading during content subject lessons. The teachers usually explain the key points of the lessons or notes on board with the help of mind map. [B7]

The extract from the lessons in the previous section seemed to confirm that CS teachers often emphasized on the information that the students were supposed to learn. This was evident when the teacher read out from the textbook (Geography lessons on Coral Reef) examples and characteristics on the various types of coral reefs and focused on these in the class.

As reading in CS is most often consists of picking out key ideas and main points of a particular topic to be learnt, the activities in CS classes are therefore governed by this purpose. Some of these activities include teachers 'explaining back the contents of the notes or texts during lessons', 'getting students to read before class' and also 'asking questions' based on the texts. These were found in the extracts from the classroom observation in the previous section and were also reported by the students from School B and C as shown below.

Our Chemistry teacher, for example, asked us to read the questions and look for clues.[C10]

In other subjects such as Science, we are to understand (not much reading). They just explain the notes again in class on board. Teachers usually just explain what in the notes again in class and students usually read the notes given to them [B6]

For other subjects, such as Geography, in class the teacher explains what's in the notes using a projector. The notes are usually given in the class right before the lesson, so we don't actually read the notes given as the teacher explains it to us. The teacher puts on the projector the same notes that are given to us when he/she explains them to us. [C5]

Findings revealed that strategies such as making use of text features such as pictures and checking understanding were reported being used in CS classes in the mixed ability schools. One example of how reading is carried out in CS is where the students were encouraged to summarize what they have read and to rephrase them in their own words. The teachers also asked questions to check the students' understanding.

For Economic, our teacher uses projector and he tells us to make our own notes. Then after we make our own notes, he will question us so that we can summarize the notes that we have made. [C9]

6.6.3. Using text features

CS classes also said to exhibit the utilization of *using text features* such as diagrams or pictures to facilitate understanding of the text and to learn its content. Results showed that students were encouraged or taught to make use of the pictures, as reported by two students below:

For other subjects like Geography, we make use of the diagrams to help us understand the explanation better. They also told us to focus on key points [C1]

Our Chemistry teacher, for example, asked us to read the questions and look for clues. For example, if there is a picture, we look at the picture carefully then look at the question, comparing them and trying to understand what the questions want. Mostly the answer is in the question. [C10]

6.6.4. Rereading Strategy

The students in this study reported that *rereading* was consistently being used in CS classes across the two types of schools. The high ability students in School A further indicated that apart from rereading, *visualizing information from the text* was also

employed by the CS teachers in School A. Examples of how the teachers used the strategy of *visualizing information from the text* in class are illustrated below:

In class the teacher usually goes through the notes with us.....They read it aloud and when they reach the important parts, they explain further and sometimes they draw diagrams on board. [A1]

For content subjects – Usually our teachers read the text or notes and then they explain the content to us like they draw on the whiteboard for those that need drawing to explain the content, especially those that they think important. [A5]

Several more strategies were reported to be widely used in CS classes. These include strategies such as reading aloud, highlighting information in the text, use of translation, paraphrasing and summarizing. In addition to these, CS classes in School A also exhibited the strategy of writing down notes while reading. The findings here showed that both bottom up strategies (e.g. reading aloud, highlighting and translation) were used in combination with top down strategies (e.g. paraphrasing and summarizing).

Reading aloud also appeared to be frequently used by the CS teachers when they had reading materials to deliver or used in their lessons. This was found to be used more by the CS teachers than the EL teachers based on the classroom observation particularly when reading out the notes they have distributed to the students. Many of the students also recalled that most of the reading aloud was done by the teachers for the students. There are, however, instances when the students were also required to read aloud in class as indicated by the students in School A below.

.....while with other subject teachers...They read the notes out aloud to the whole class, that's all because the notes are fairly straight forward. [A6]

The teachers usually do the reading...[A8].

For content subjects – Usually our teachers read the text or notes and then they explain the content to usespecially those that they think important. [A5]

They just read it out first aloud. Sometime they call us to read it too aloud, mostly individually to ourselves. Then they discuss about the topic, usually paragraph by paragraph. [A3]

Similar results were also found in the CS classes in the mixed ability schools B and C. CS teachers in these schools used reading aloud with other strategies such as summarizing the key points and checking understanding.

In class, the teacher first read the notes (out aloud) and then she summarized the whole story (notes) to enable us to understand it. Then she asked us questions or whether we understand or not the notes. [C4]

From the above excerpt, actual reading did not often happen in CS classes apart from reading aloud the texts or notes given to the students. One factor that can be attributed to this result is because actual reading seldom happens since the teachers tend to get the students to do the reading task before the actual lessons. During curriculum time in the class, the lessons usually consisted of teachers checking students' understanding of the text read by explaining the notes again and by focusing on the key points or concepts.

CS lessons in School B and C for example, predominantly consisted of teachers' tendency to paraphrase the notes in simpler sentences and words during explanation and to summarize the key ideas and the main points to be learnt. Occasionally students were also encouraged and asked to summarize and rephrase the texts in class.

They always ask us to read and ask us to understand what we read and then we must explain or summarize the content. [C6]

For content subjects, the teachers give the main points and also the words used in the given notes are usually simple and easier words. I don't usually read from the textbooks, only from the notes as it is easy to understand. The same apply with Geography. [B7]

For other subjects such as Combined Science, we are told to read and think about it on our own. What I do is I made up own words to summarize what I have understood from my reading. [C2]

In other subjects such as Biology, she told us to use mind mapping. For Economic, our teacher uses projector and he tells us to make our own notes. Then after we make our own notes, he will us question so that we can summarize the notes that we have made. [C9].

Other reading strategies reported being used by the teachers across the three schools include highlighting and underlining the information in the text. The students indicated

that they were often required to 'highlight' the main points and ideas from the notes given to them in order for them to remember better as well as for better understanding of the topic.

Other subject teachers just ask us to read and to remember things that are important for specific topics. We usually can tell which points are important in a particular topic by referring to the title and also from our discussion during lessons. Our teacher usually asks us to highlight these important points. [A7]

Content subjects, we were told to highlight words / ideas. [C7]

Most of our science subjects' teachers told us to highlight important words (scientific words as in Biology). [C9]

Reading activities found in CS classes also include activities when the students are encouraged or taught how to transfer the information and the content of the text in the form of graphic such as 'concept map', 'mind-mapping' or 'using abbreviations'. In order to do this, the students are required to read carefully and to find relationship among the ideas in the text in order to present it in graphic forms.

The teachers usually do the reading....They actually summarized the notes...and in terms of tips, to read better....mostly geography. She gave abbreviations to remember all the points. Based on that we remember what we read. [A8]

Our teachers did teach us on how to use mind map / concept map to summarize the content or the important points...but I seldom use this tip in my reading. It doesn't necessarily work for me. [A5]

We were taught to use mind map to help with our reading for study for subjects such as Biology and Geography....[B1]

We don't usually do actual reading during content subject lessons. The teachers usually explain the key points of the lessons or notes on board with the help of mind map. [B7]

Students were also encouraged to write down notes while reading for their CS. These are useful in identifying key points or concepts which the students are required to remember and learn the content presented in their CS textbook.

Reading for content subjects – Like for science subjects, when reading you have to write down the key points from the notes to help us understand. We usually use mind map to do this. [C6]

One CS teacher emphasized the importance of remembering the names of the different types of coral reefs in a Geography lesson to show how the students can learn and remember their characteristics as in the extract below.

Extract from a Geography lesson on the topic 'Coral Reef' (School A)

The teacher discussed the different types of coral reefs from their notes and textbook.

Teachers: ..Fringing Reef (wrote this on the board) Now...What is fringing? It means attached to the land (and underlined the phrase 'attached to') What's another word we could use?

Students: Connect to...

Teacher: Yes...like this white board is attached to the wall...so fringing reef are those that are attached to the land... Next is Barrier reef. What's barrier?

Students: ...blocking...

Teacher: Yes like if the way is blocked, so you have to go around the building to get here.....

Teacher: [continued with the rest of the types of coral reefs] Now to recap.....just remember the names and from the names you know how they occurred and their characteristics. .

Finally the strategy of translation was also said to be used in CS classes in the three schools. This strategy is often used when encountering difficult words.

.....our previous teacher sometimes read the passage and then we go through the text paragraph by paragraph and then we look for difficult words and translate to easier words [A5]

This result is consistent with the teachers' responses in the use of translation in CS classes. Table 6.4 has shown that 27% and 40% of the CS teachers indicated that they 'usually' and 'sometimes' used this strategy in their classes. An example of how Malay was reported to be used during class in School B is shown in the example below:

Other subjects, the teachers sometime explain the topic in Malay to us so we can understand better. But we do have to read before teachers explain them in class....in other words, we read the notes first then in class teacher explains back to us. [C3]

6.7 Summary

In this second chapter of the findings, I primarily looked at what goes on in the classrooms across the curriculum both from the perspectives of the teachers and the students, though the emphasis was mainly on the latter. In the first part of this chapter, we have shown that the teachers in general used nine strategies and less on three in their classes (Table 6.1 and 6.2 respectively). There were differences on the emphasis these strategies were used not only between the two subject areas (EL and CS) but also across the two types of schools (high ability school A and mixed ability schools B and C).

We then used these quantitative results to look at the other side of the context – the students' perspectives. Students' views on reading across the curriculum in the second part of this chapter suggested that though there were some who approached reading for EL and CS in the same way, more than half of them seemed to think differently. This was shown in Table 6.6. Then we continued to look for confirmation from the students, through the interviews whether the strategies the teachers 'said' they employed were actually exhibited in their classrooms as reported by the students. Results from the classroom observation were also used to confirm them.

A large part of this chapter was devoted to look at what takes place in the EL and CS classes. It was found that there were differences in the emphasis these strategies were used. Although strategies for comprehension, summarizing and vocabulary related strategies were used in both subject areas, vocabulary related strategy seemed to be used more in EL than CS. In addition to these, CS classes also used strategies for learning, memorization and in remembering the content. These include the use of study skill such as mind map, underlining, highlighting and focusing on the content to be learnt.

Chapter 7

DISCUSSIONS OF THE FINDINGS

7.1 Introduction

The previous two chapters presented findings of the study by looking at reading strategy use of the students and what goes on in two subject classes across the curriculum. This chapter discusses the results in relation to the research questions. Comparisons were also made between the findings of this study and those of previous studies.

To begin with, key findings on strategy use of upper secondary students are first discussed. This is followed by discussion on the problems and difficulties the students in this study faced in their reading. Reading strategies used for comprehension and for learning are then discussed in response to research questions two and three. Then the utilization of reading strategies at the pre-, while- and post-reading stages of the reading process from the case studies of students follow. Finally in response to research question 4, strategies the students used to overcome comprehension and vocabulary difficulties which the students often encountered in their reading are also summarized and discussed. Finally a section on the limitations of the study is presented while at the same time further exploitation of the data collected in this study is also discussed.

In discussing the findings, I will relate them to the research questions the study sets to answer which are again restated below:

Research question 1 (RQ1)

What reading strategies do upper secondary students use when reading in English both for English language and content subjects?

- (a) What problems and difficulties do students of different academic ability groups seem to encounter when they read?
- (b) What strategies are most frequently or least frequently used by the students of different academic groups from the three schools.

Research Question 2 (RQ2)

What strategies do students use when reading for comprehension?

- (a) What takes place in the English Language classroom as far as reading is concerned?
- (b) How is vocabulary explained and dealt with in English Language lesson?

Research Question 3 (RQ3)

What strategies do students use when reading for learning?

- (a) What takes place in the content subject classroom as far as reading is concerned?
- (b) How is vocabulary explained and dealt with in Content Subject classes?

Research Question 4 (RQ4)

How do students of different academic ability groups overcome the difficulties they encounter in their reading?

- (a) What strategies do students used the most when they faced difficulties when reading for comprehension and learning?
- (b) What strategies are used when the students encountered difficulties with vocabulary.

The following section will first discuss the findings of the study pertinent to RQ1.

7.2 Reading strategy use of upper secondary students

The first research question addresses students' employment of reading strategies and their strategy use when reading for comprehension and for learning. RQ1 also explored the least and most frequent strategies being used and 'how' they are executed. It also looked at the factors that contributed to problems and difficulties in reading.

What the findings shows, I believe, is that reading strategy use is associated with individual choice, beliefs and also motivational factors. However, this study did not explore these factors extensively although aware that they may have a great impact on

students' reading. In this discussion chapter and in the previous chapters of the findings, where appropriate, I have included how these factors contribute to students' strategy use.

The results in Chapters Five showed that although similar types of strategies were used by the students in this study, there were still differences in the execution of these strategies by the students in the two types of schools. Before looking at the reading strategy use of these students, we will first look at the problems and difficulties the students have when they read.

Majority of the students in the study attributed their reading difficulties, among others, with vocabulary which can affect their comprehension and consequently learning. The average and moderate ability students in school B and C emphasized that vocabulary and understanding were two main problems they always faced in their reading. The high ability students, on the other hand, were able to indicate additional factors which can affect their reading including pronunciation, lack of interest and unfamiliarity with the topic.

Vocabulary related difficulty has always been a factor that many teachers said their students had that leads to failure to comprehend and in learning the content of their academic subjects. The teachers in studies such as Hamidah (2002), Sara (2009), Rosmawijah (2009), Sallimah (2007) and Nicol (2008) reported vocabulary as a barrier for comprehension as well as students lacking understanding in what they read. The result in this study not only reaffirms the findings from previous local studies but also shows us that the students themselves were aware of this problem, acknowledge them and were able to employ various strategies to overcome them. The result from the students' perception that vocabulary is ranked the top factor contributing to reading difficulties further confirmed Nicol's (2008) statement that 'vocabulary is one of the areas Bruneian students need to be working on', particularly for English Language. This has an implication in the teaching methods across the curriculum especially in content literacy.

This study identified other factors that students felt can further contribute to their reading difficulties (see Table 5.2). The teachers might not have considered these factors, especially content subject teachers because of their tendency to assign their students to read the prepared notes and chapters from textbook outside the classroom prior to the lesson. In doing this, students were faced with a whole lot of reading difficulties, which they were not directly taught on how to overcome them. The English Language teachers in Nicol's survey study (2004) added poor reading skills as another problem that students had with the English reading comprehension examination 'O' level paper 2. This factor was also indirectly stated in content subjects (e.g. Sarifah, 2005 and Rosmawijah, 2009) where the teachers reported that students lack reading skills to comprehend and to learn. However, from the students' perspectives in this study and in the previous studies (Rahmawati, 2001 and Keasberry, 2007) many were quite positive with their reading ability by rating that their reading abilities were either good or average (see Section 5.3). This conflicting result may be because the students see the ability of reading as the ability to decode and 'simply read' without taking into account the aspect of comprehension and learning.

Unfamiliar topic is another difficulty students faced both when reading for comprehension in EL classes and learning in CS classes. Topic familiarity is particularly necessary for content subject because it affects students' needs to read further and effectively. Most of us prefer to feel comfortable with the material we read and we often feel comfortable reading text we are familiar with. Therefore it was not a surprise when familiarity on the topic makes a reader feel more confident with reading making it more manageable to comprehend. This has led itself to the importance of background knowledge and experience or 'schema theory' (Rumelhart, 1980) This is even more important when reading for learning because many research studies have demonstrated how inappropriate or missing schemata can influence learning from reading (Anderson, 1984). Therefore unfamiliar topic or content and lack of schema in reading can become what Alvermann & Phelps (1994) called barriers to new learning in the content reading. The findings of the current study showed that the students, especially the average ability ones always or almost always use their previous knowledge when reading for their content subjects. The students in this study have also

demonstrated the ability to employ various strategies to overcome both comprehension and vocabulary related difficulties.

To answer research question 1b, the results in chapter 5 are again looked at. Although the students seemed to use similar types of reading strategies, there were differences in terms of execution and emphasis on the strategies used. Quantitative and qualitative results showed that the strategies most frequently used by the upper secondary students in this study were mainly top down than bottom up strategies such as previewing the text, scanning, skimming, guessing, predicting, rereading as well as activating previous knowledge. With respect to reading to learn, students further showed additional employment of other top down and more demanding cognitive strategies such as the summarizing, identifying key ideas, visualizing, questioning oneself and using study skills such as mind map and concept map.

As this study looked at three schools; one of which being a school for high ability while the other two were average or mixed ability schools, there were variations in the strategy use among the students across the two types of schools. Both high ability students in School A and average ability students of Schools B and C did not entirely differ in the types of strategies they used when reading. They, however, differed in how specific strategies were utilized and how these were used in different subject areas.

In terms of the types of strategies being used, the high ability students in School A did not seem to use many reading strategies as presented in Section 5.4.1. In fact Section 5.4.2 showed that the average and moderate ability students in Schools B & C used slightly more types of strategies than the students from School A, particularly in overcoming reading difficulties. It can be argued here that the high ability students in this study may not have any difficulties with their reading as much as their counterparts and thus did not seem to recall the use of other strategies when they read.

Furthermore, although the results seemed to indicate that the average ability students in the two schools seemed to monitor their reading more than their counterpart, it was further found that they were not always using them effectively. The students in Schools B and C were not as effective, in their strategy use, as the high ability students because

they seemed to lack what was referred to in the literature as 'regulation of cognition' (Baker & Brown, 1984) especially in evaluating strategies (Pressley & Afflerbach, 1995).

In this respect, although not exhaustively tested, this study has found that high ability students tend to be slightly high metacognitive strategy users who are also happened to be successful students. These students subsequently excelled in their academic subjects across the curriculum in their public examination (as shown in Appendix xxxvi). The average ability students (and presumably so did the low ability students) seemed to be of medium 'metacognitive' strategy user although they might not use them effectively, as being shown by the case study in section 5.5.2. However, as this study only focuses on students' strategy use in reading in the classroom settings, therefore it is more descriptive than evaluative and hopes to provide information about what goes on in the two subject areas. This leads us to the second and third research questions.

Apart from the differences in the students' strategy use across ability, this study further found that, there were also differences in strategy use for reading across two different subject areas, particularly for English Language and Content Subjects. These are discussed in the next sections.

7.3 Reading Across the curriculum

The second and third research questions look at reading across the curriculum. From the students' perspective, reading instruction and reading strategy use across the two subject areas found the following.

Chapter 6 showed that both EL and CS classes in the three schools exhibited the employment of a combination of reading strategies with some degree of variations in the types and emphasis in their usage. The teachers in the study were said to utilize some reading strategies and even encouraged their students to use them. However, to some extent many of these strategies were utilized (and not necessarily taught) by the teachers especially the content subject teachers, without them realizing it.

Although I was not able to examine and evaluate the teaching aspects of 'reading to learn' in greater detail as initially proposed within the confines of this research, findings showed that students' strategy use was largely influenced by how reading activities were carried out in the classrooms classroom practices. It was also found that the students, apart from employing strategies that were 'told' by their teachers, were also able to monitor their reading particularly when comprehension breaks down and when encountering difficult vocabulary.

In terms of types of reading strategies used, the emphasis placed on these types of reading strategies was different in the two types of classes. Connecting prior knowledge was frequently used and consistently employed by the teachers in this study. Reading instruction across the curriculum acknowledges the importance of connecting prior knowledge to any reading activity as hypothesized at the beginning of this study. The finding in the main study supports findings from the preliminary study and from the literature that connecting prior knowledge to text (Roller & Matambo 1992) or schemata (Hudson 1982) helps to enhance reading. Even the students in this study viewed this as important to comprehend the text better (as in Table 5.1).

7.3.1. Reading Comprehension in English Language Classroom

English language teachers, based from experience, were trained to teach students to use comprehension strategies before, during and after reading to increase comprehension. But reflecting on this, I felt that just teaching these strategies in class is not enough. Students should be given the opportunities to learn to effectively employ the strategies. This can be achieved by teachers modeling 'how to' and explaining 'when' and 'why' to use them.

EL classes exhibited the following top down reading strategies more than the CS classes. These are *skimming, scanning for information and summarizing*. These findings on the employment of basic reading strategies in EL classes were similar as those found in previous studies (Hjh Zulyana, 2009 and the preliminary study in 2008) in the local context and from other researches (e.g. Ness 2007, Majdi Abdullah et.al., 2009). The activities in the EL classes were limited in scope and that the most heavily used

strategies to support comprehension were, among other things, having students to write summaries of the text.

Quantitative results from the teachers' questionnaire showed that overall only 29% of the teachers in the study said they asked their students to read aloud and that this strategy was used by the EL teachers. EL teachers in the high ability School A seemed to use this strategy more than those in the average ability schools B and C. Studies in the field of L2 reading have provided us insights into which models of reading to draw upon in describing reading process (Rumelhart, 1977; Wolff, 1987; Grabe & Stoller, 2002). The EL teachers in this study, as shown in Chapter 6, seemed to adopt top-down approach in their reading comprehension lessons by emphasizing on strategies including the use of prior knowledge, previewing the text, summarizing, paraphrasing and checking (or monitoring) comprehension. There were also reported being used by the students when they themselves read. Apart from these strategies, the qualitative data showed that the students also employed strategies such as asking questions, reading aloud as well as rereading. The last strategy was also used to overcome their reading difficulties.

The emphasis on reading instruction in the content subject leads to the notion of reading to learn (Vacca & Vacca, 1999; Grabe & Stoller, 2002). Reading (comprehension) strategies students should be taught and which they can employ to help with their reading (Palincsar & Brown, 1984; Faizah et.al.,2008) helped in the interpretation of the results in this study. Studies of comprehension strategy have further lead to the implication that teachers and researches can help students improve their reading skills through strategy instruction (Duke & Pearson, 2002). Central in this study is the notion that being able to understand what they are reading at the secondary level requires students to have sophisticated comprehension abilities that require continuing instruction. Thus reading instruction is necessary across the curriculum and not just for English Language subjects.

7.3.2. Reading for learning in Content Subject Classrooms

Prior to this study, it was foreseen that CS teachers did not teach reading strategies to their students. This is because, for many content subject teachers (especially at the secondary level), literacy competencies such as reading are skills they expected their students to have in place prior coming to secondary school (Perna & Mahurt, 2009) and should have developed more once reaching upper secondary level. From this viewpoint, students were to have learned how to read in primary schools so a focus on reading in secondary content classrooms should not be necessary. It seems that many secondary CS teachers as those in Brunei have not yet embraced the idea of bringing reading instruction into their content area (Moje, 2006 in Perna & Mahurt 2009). In this respect, this study found that in terms of reading instruction, CS teachers in particular still do not think that teaching reading is needed by the students. This was evident when students reported that their CS teachers do not often 'teach' them reading strategies. Teachers only read the text aloud, explained the content and focused on the prepared notes. This was the main reading approaches being conducted in the CS classes as reported by the students (see Section 6.6 for detail). It can be summarized and concluded here that although the CS teachers did not explicitly teach reading strategies in their classes, they however exhibited the employment of reading strategies for learning. These include getting students to extract and identify key content of their subjects and the use of study skills. In the former, strategies such as highlighting, summarizing and paraphrasing the content were often used by the students while the latter include the use of abbreviations, mnemonic and use of graphic organizers such as mind-map and concept map. .

The CS teachers in this study did not seem to indicate that the students require explicit teaching on their reading in class because they assumed that the students already 'know it all' on reading. This evidence was found from the teachers' interview data and the classroom observation collected in the preliminary and in the first stage of the study. Although the data was not extensively analyzed and presented in this thesis, it helps in the interpretation of the result and in explaining why most of the strategies the CS teachers said they used and not necessarily teach were mainly less demanding top down strategies such as skimming and scanning. The CS teachers might not be aware of

the reading strategies for learning that they could use in their classes and instead used the strategies that they usually used when they themselves read.

Although there were instances of other top down reading strategies being used by the teachers and the students in this study such as using background knowledge and summarizing, these were not fully exploited in order to help with the learning of the content. The students seemed to indicate that they employed this strategy when they read for their content subjects by further employing several bottom up reading strategies such as highlighting, identifying or marking key points or words, rereading and even translating. In this sense, when reading for learning both top down and bottom up reading approaches were seen to be used, though not necessarily effectively, for learning by the upper secondary students in this study. These strategies were also used by students reading in L1 (Malay) (Yahya & Noradinah, 2012).

The students in Yahya & Noradinah's 2012 study, when they read focused more on marking activities, checking, seeking help, writing summaries and providing definitions. The study also found that the students were seen to give less attention to strategies that are based on cognitive strengths such as using mind maps, summarizing, and constructing questions. In contrast, the students in the current study, when they read further reported to use cognitive strategies which were used less by the students in Yahya & Noradinah's (2012) study. One reason to this differences in result might be because due to the fact that the texts in the Yahya & Noradinah's (2012) study were in Malay whereas in this study it was in English. Reading in the latter language might require students to make use of their cognitive thinking more when reading in order to make sense of the content and to comprehend.

Summarizing the content of the lesson and giving modified notes to the students was another common practice of the CS classes. Based on the students' interview and the observation data, the CS teachers did not explicitly teach the students how to summarize so as to enable them to apply this when they read on their own. This is one of the differences on how the same reading strategy was used in both subject areas differently. This strategy was given greater emphasis in the EL classes and was taught

explicitly the 'how' whereas in the CS classes the product of this strategy was given and it was often being 'told' to use. Telling or asking students to summarize what they read made it difficult for the students to read to learn for their CS especially when the students will most often have to read textbooks which were beyond their level as indicated by Burns & Charleston (1997) and Yong (2010).

As stated earlier, there were differences in the emphasis of different types of reading strategies across the two subject areas. For example, using background knowledge and also the use of translation were further found to be employed more in the content subject classes than in English Language classes (as shown in Table 6.5). This supports the statement that 'content area teachers can equip their students with strategies that will help them access and use their background knowledge, text feature knowledge, and general knowledge gained from the word or common sense knowledge' (Bell & Lee 2005). The content subject teachers in this study often employed activating prior knowledge by reviewing previous lessons and recalling related topic.

Results also indicated that that strategy taught and learnt in one subject area (e.g. EL) can be transferred to other subject areas (e.g. CS). This leads to further implication that teachers can draw findings from the current study on which strategies students seemed to find suitable and effective for them to employ when they read and which teachers could provide instructional support in their classes.

The results in the students' strategy use across the two types of classes showed that the students not only need explicit instruction on reading strategies for comprehension in the upper secondary but also reading strategies for learning in the content subjects class. Students need to be trained or showed explicitly in their strategy use so as to enable them to use the strategies effectively. It has been shown that strategy instruction can be beneficial for the students when reading to learn. Studies of comprehension strategy lead to the implication that teachers and researches can help students improve their reading skills through strategy instruction (Duke & Pearson, 2002). Central in this study is the notion that being able to understand what they are reading at the secondary level requires students to have sophisticated comprehension

abilities which require continuing instruction. Thus reading instruction is necessary across the curriculum and not just for English Language subjects.

Moreover, the results from this study may also contribute to the area of English for Specific Purpose (ESP) or English for Academic Purposes (EAP). At this stage, relationship between EAP, study skills and ESP will not be examined or outlined. But the current study acknowledged how these areas can be used for the discussion of the results. ESP has grown to become one of the most prominent areas of EFL teaching today and that it can be beneficial for ESL learners learning content in English as in the case of Brunei. In this study, we take the view that 'ESP is an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning' (Hutchinson et.al, 1987:19). Taking this view on board, there might be the need for collaboration between the teachers across the curriculum to take into account of this ESP/EAP approaches, such as in reading instruction. The study further acknowledged the importance of a strategic repertoire in the academic has led L1 and L2 reading pedagogy to emphasize instruction as a means of helping L2 (ESL) learners in ESP/EAP settings to learn the reading strategies that they will need for successful interaction with academic texts (Carrell & Carson, 1997). This is especially needed by the Bruneian students to help them with their academic learning especially more for the pre-U and university levels.

This study has also looked at the case studies of four students as presented in Section 5.5 where the results are further discussed in the next chapter in relation to the three stages of reading process.

7.4 Utilization of strategies at various stages of reading

It can be concluded that the students in School A, as exemplified by Abi (see section 5.5.1), being high ability student, seemed to exploit slightly more top down and cognitively more demanding strategies than their cohorts in School B and C and thus have better reading comprehensions skills and consequently able to learn new content effectively. They seemed to portray qualities of successful readers. In this respect, the

findings are similar to those found by other investigators that successful readers use more reading strategies than less successful ones (Alsheikh, 2011; Block 1992).

This study further shows that different ability groups of students elaboration on their strategy use at the pre-reading stage were different. As shown in Section 5.4.1.1 and 5.4.2.1 previewing the text was used by the students across the two types of schools. However, the average ability students in Schools B and C were found to use more strategies at the pre-reading stage than those in School A. They also used both top down and bottom up strategies when they previewed their texts. This maybe because the students were consciously selecting the strategies to be used whereas the students in School A might be unconsciously using the strategies and therefore did not seem to think that they were using them. This is even evident when the students were to think of the strategies they used when reading for learning.

In terms of strategy use, the results further show that high ability students tend to be high strategy users too. In this discussion, the term is used to refer to students, such as Abi and Hana, who seem to exhibit the use of more types of reading strategies than their counterparts, such as Zul and Arisah. These four students, as the rest of their cohorts, were also matched in terms of their abilities based on their academic performances in the BGCE 'O' level exam results (see Appendix xxxiv). However, the exam results were used solely to reaffirm the students' ability as detailed in section 4.5.3 (see also Table 4.3). Abi is an academically high ability student while Zul is academically an average and moderate ability student.

A detailed and closer analysis was made on four students Abi (section 5.5.1), Zul (section 5.5.2), Hana (Appendix xxxi) and Arisyah (Appendix xxxii) to investigate the actual execution of strategies when reading and found the following. Despite the differences in their academic abilities, the students utilized similar types of strategies and actual execution of these strategies varied between them as elaborated in Chapter 5 (Section 5.5).

High ability students (i.e. Hana and Abi) were able to elaborate clearly how and why they used the strategy they used whereas average students (i.e. Arisyah and Zul) simply reported using certain strategies but did not elaborate further. The results here corroborated previous findings that high ability students not only employed more strategies than their counterparts, but monitor their reading and subsequently become successful readers. A positive relationship between metacognitive strategies and reading comprehension (Block, 1992; Carrell, 1989; Pressley & Afflerbach, 1995) could possibly explain why the students in School A performed better in their examinations not only for English Language but for most of the content subjects they have studied (see Appendix xxxiii for overall results of the students in this study). The students in School A are probably more successful and strategic readers.

The study has also shown that high ability students, such as Abi and Hana have further presented evidence that bilingual (and probably multilingual) tend to be more strategic in their strategy use. Moreover, as both Abi and Hana have learnt a third language, Arabic in School, their strategy use seems to be more elaborative and effective. In this respect, it can therefore be hypothesized that being bilingual (or multilingual), students are more likely to have the advantages of being more strategic in their L2 academic reading.

As evident from the case studies, I was able to draw two conclusions in relation to strategy use. Firstly, it can be hypothesized, as shown in the previous paragraph that being bilingual (or multilingual) can be an advantage to students in terms of processing information when reading in English. The strategy use of three of the four case studies (Abi, Zul and Hana) seemed to provide a slight support on this. The three students know a third language and thus it seems that their strategy use are more strategic compared to those of Arisah's (who only knows Malay and English). Even the strategy use of Arisah and Zul, both of mixed abilities (although Arisah can be considered as a high ability student than Zul) were different. Zul still seems to be more effective in his strategy use than Arisah. These findings confirm what was already found in the literature that knowing two or more languages truly gives an advantage to bilinguals (Bialystok, 2011). Although Arisyah outperformed Zul (see Appendix xxxiv) in the 'O'

level exam, Zul still managed to get through his 'O' level. Although it was not looked at in the current study, it can be argued that Zul seems to be a better and strategic reader compared to Arisah in their strategy use (as presented in section 5.5.2 and Appendix xxxii).

However, since the evidence for this was slight, it is not considered as one of the main findings of the study. But it certainly worth pursuing another time if reading in three languages has an impact more than reading in two languages.

Several other studies have also manifested that bilinguals' ability was greater than their monolingual peers in reading comprehension (e.g. Sheorey & Mokhtari, 2001; Upton 1997). Results in the current study thus corroborated the findings of prior research (e.g. Feng & Mokhtari, 1998; Mokhtari & Reichard, 2004), which found that bilingual and multilingual readers used more strategies when reading in a second or third language. Although the current study did not compare students' strategy use in their L1 and L2 reading, the results seemed to suggest that being L2 readers (reading in English in this study) students employed more strategies when reading to learn (in both EL and CS). This is because they are reading texts which are written in English, their second or possibly third language. Besides confirming findings of previous research, my study further found that when comparing strategy use when reading in English across different subject areas, transfer of strategies can occur across the curriculum as reported by the students when they said *'Our English teacher told us.....Science teachers don't usually give tips to read better.....I usually use the strategy or reading tips when reading for other subject'* and *'For English, we were given tips like.....Other subjects we were told to try to understand what we read. I use the tips given by Our English teacher when I read for other content subjects'*.

The study, although with slight evidence, seems to suggest that formal instruction in additional language seemed to further enhance students' information processing process thus adding to the existing advantages of being bilingual (or multilingual) as far as reading in English is concerned. Although both Abi and Zul (see section 5.5.1 and 5.5.2 respectively) know three languages, Abi received formal instruction in all three

languages (Malay, English and Arabic) in schools while Zul received formal instruction only in Malay and English (Tagalog is only used at home for Zul). Having received formal education through Malay, English and Arabic medium of instruction and learning the three languages as subjects in school might explain why Abi seems to be more strategic and effective in his strategy use when reading in English than Zul. From this, it can be hypothesized that receiving formal instruction in two or more languages in school could benefit students. Further research on this aspect is needed to reaffirm this because the evidences from this study were only minimal and not conclusive. Since my study is more concern with strategy use when reading in English, the above interpretation only throw partial light of how the results occurred as they did and therefore require further research for validation.

A study looking at reading instruction in the Bruneian context can be carried out. It could also be a direction for another study to show if what the students are taught reading in other languages could further introduce them to strategies which could be transferred to reading in English.

Apart from the above, it can be assumed that some other factors or drives may come into play when students read, especially being L2 readers. To gain insights into the execution of strategies, the case study students were also analyzed in their strategy use at the three stages of the reading process.

7.4.1 Pre-reading stage

Schema theory research (e.g. Hudson, 1982; Roller & Matambo 1992) provides strong evidence for the effectiveness of pre-reading activities in providing the outline for reading the text. The importance of activation of prior knowledge of a topic before reading help comprehension has been established in the literature (Carrell & Eisterhold, 1983; Grabe, 1991). Therefore, it was not a surprise that 'to activate prior knowledge' was one of the pre-reading activities being given emphasis the most as reported by the teachers and the students in this study. Both findings from students strategy use (Chapter Five) and from reading in different classes (Chapter 6) supported this (see Sections 5.2, 6.2, 6.5.1 and 6.6.1 for detail). All case study students also reported that

this is one of the strategies they often employed when they read for both EL and CS texts.

Reading strategies students employed at this stage were top down and less demanding cognitive strategies and three were consistently employed by all the case study students: *previewing the text*; *using background knowledge* and *setting a purpose for reading*. As the case study students were able to show some conscious planning in their reading, it can be implied that upper secondary students might already use their metacognition in their reading. This could be related to age because by the time the students reached upper secondary level, they have matured and possess the ability to employ metacognitive reading strategies when reading in English. As found in a study with lower secondary students (Rahmawati 2001), students can be taught to use their metacognition in reading. A small scale study (Rahmawati 2007) with three upper secondary English Languages classes found that by allowing students to reflect on their reading process and strategy employment (with SORS) at an early stage of their upper secondary education. It was also found that their awareness and strategy use had become more effective and conducive to reading performance (as measured from their success rate in O level exam for English Language subject). Therefore, the results here seemed to show that students were also employing their metacognition when reading across different subject areas based on their strategy use. Although the study did not use the same instrument (e.g. SORS) to measure students' awareness on the employment of reading strategies, their reported strategy use seems to provide us with insights into their awareness level.

7.4.2 While-reading stage

I believe that the while-reading stage is the most important (possibly crucial) stage of the reading process because this is the stage when students need to comprehend or make sense of what they read as well as to learn the content. It was assumed that at this stage, a lot of activities were expected to take place including what students usually do to grasp meaning from the written text; what the students do when difficulties in reading occurred and how students tackled vocabulary issues. It was thought that this is the stage where reading and 'meaning making' actually took place and consequently a

lot can be seen in this stage. Two main themes emerged when discussing reading strategy use in this stage: what students do when faced with reading (comprehension) difficulty and how students approached difficulties in vocabulary.

Chapter 5 (Sections 5.4.1 & 5.4.2) also showed that students of different ability differed in their approaches in their strategy use. Both average ability students, Zul (Section 5.5.2) and Arisah (Appendix xxxii), indicated that when they read they will try to understand what was read but gave no further elaboration. On the other hand, Abi (Section 5.5.1) and Hana (Appendix xxxi) managed to elaborate more on what they often do while reading (see chapter 5 for elaboration). Hana and Abi seemed to be able to talk more about the various strategies they could employ than Zul and Arisah. It can be argued here that both Abi and Hana were conscious of their reading strategy use and therefore employed more metacognitive strategies. They both have the capabilities of having high metacognitive awareness or metacognition of reading strategies (Yang, 2006) than Zul and Arisah. Even though all four cases utilized similar types of strategies, Hana and Abi were seen to be more successful than the other two because they exhibited planning in what they do when they read. Both Hana and Abi also performed well compared to Zul and Arisah in the 'O' level examination as shown in Appendix xxxiv.

7.4.3 Post-reading stage

One common activity the four students reported they employed at this stage was to complete the task assigned for their reading which is often to answer the questions to be checked by their teachers. This implied that the teachers did not explicitly teach students how to find the main idea but rather 'mentioned' the skills and then tested whether the students could find the main idea on their own or not, as indicated by previous study (e.g. Hjh Zulyana, 2009). However, it can be argued that students read and interpret the text and illustrate the relationship between questions and their answers by using activities such as summarizing, question and answers and drawing conclusions as proposed by Karakas (2002). This argument was supported in the present study because students actually employ some of these activities in their reading. Hana and Abi from School A, for example, specifically mentioned that they

often evaluate the content and see how it fits to the title and the purpose of their reading.

Another activity employed by the students at this stage was to go back to any difficult or new words that they have encountered in their reading. This is when they referred or looked up the meaning of these words in a dictionary which they don't usually do while reading. Again this showed students seemed to have an awareness of what appropriate strategies to employ for a smooth reading.

7.5 Other factors contributing to reading strategy use of Bruneian secondary students

Given that students seemed to be monitoring their progress sufficiently well to detect comprehension problems (as found in sections 5.4.1.2 and 5.4.2.2), they are also able to employ different strategies to overcome them which varies depending on the reading goal. Therefore from this standpoint, generally students are able to monitor their reading despite not receiving direct instruction in this aspect as implied by the students and also as reported by the teachers (see Table 6.4). However the effectiveness of this strategy use was not looked at in detail in this study but enough to indicate that students have with them the capability of monitoring their reading by employing a range of strategies when they read their academic texts in English.

The students were seen as able to identify problems and consequently applied strategies to solve those problems. They employed a combination of strategies whenever they encountered problems or difficulties with their reading. The students' ability to employ appropriate strategies both in monitoring their comprehension and to 'fix' their reading indicates that the students are actually strategic and good readers. This was especially prevalent in the strategy use of students from School A, though students in the other two schools do exhibit them as well.

Students may already possess the necessary repertoire of strategies at their disposal from reading in their 'strong' language (i.e. Malay) which they employed when reading in English. From this view, a profile of a bi-literate reader is offered. Students in this study are bilingual individuals who are also bi-literate readers and able to read in Malay and English Languages. Being bi-literate readers in Malay, English, and also in Arabic for some, the students are able to read successfully in these languages and would engage in appropriate reading behaviours to enhance reading comprehension and to read effectively. A more detailed study of reading strategies use in three different languages would confirm this.

It is also possible that the students in this study were more advanced in their level of control over linguistic processing. Bialystok (1988) claims that bilinguals 'have the experience of two linguistic systems that label the same conceptual system, and the arbitrary relation between forms and meanings is more readily apparent' (p 200 cited in Kolic-Vehovec & Bajsanski 2007) and therefore the constant management of two competing languages enhances regulation functions (Bialystok, 2001). These bilingual or multilingual individuals, already having the advantages of being more advanced in their level of control over linguistic processing, were also found to benefit more with explicit strategy instruction such as teaching them metacognitive reading strategies (Sheorey & Mokhtari, 2001; Zhang, 2001; Salataci and Akyel, 2002).

The current study also found that students from School A, consisting mostly of high ability students, were also motivated and seemed to monitor their comprehension more 'efficiently' and 'effectively' than their counterparts in the other two schools. The students in School A were more motivated to excel in their academic because they have greater chances to receive scholarships to further their pre-university study abroad. Although the types of strategies employed by these groups of students did not differ greatly, the frequency in the use of strategies and the elaboration does vary among the students. This variation in the strategy use between students of different ability groups confirmed what was found in previous research. Monitoring during reading differs in students with high and low perceived proficiency in the second language. The bilingual students who are more proficient in second-language use have better monitoring skills

and reading comprehension than less proficient students (Kolic-Vehovec & Bajsanski 2007). This claim is further supported by the current study when both Abi and Hana excelled in their English Language exam paper (see Appendix xxxiv) which further related to them being high strategy user and possibly contribute to their ability to report and elaborate more on their strategy use.

Differences also existed among the students in terms of their strategy preferences. Overall, the study showed that the students were high frequency users of top down cognitive reading strategies as found in the literature (e.g. Lee-Thompson, 2008). The result of the findings on the high use of cognitive strategies in reading English texts is not surprising as Oxford (1990) claimed that the cognitive strategies are typically found to be the most popular strategies with language learners and that, as shown in the current study, a similar pattern seemed to be emerging from the content subjects learners as well.

Students who monitored their reading previewed the text before reading, setting a purpose for reading and so on tend to be better readers. Oxford (1990) stated that learners who are more aware and more advanced seem to use better strategies. This study showed that despite differences in ability, the students in general utilized a wide range of metacognitive strategies as well as cognitive strategies when they read for different subject areas. Most students, particularly those in School A reported that they were able to monitor and regulate their reading through the utilization of both cognitive and metacognitive strategies even without direct and explicit training in them during their secondary level education. These students can be guided to become strategic readers to prepare them for a lifelong learning that goes beyond their secondary education. This again shows the urgency of improving the students' metacognitive reading strategies by direct strategy instruction as pointed out by Pieronek (1997) and Rahmawati (2001) for the Bruneian context.

The students in this study have knowledge about various reading strategies that they have utilized implying that the students may be strategic readers. However, the

knowledge itself cannot guarantee that students will read strategically and effectively, because they need to know the strategies and be willing to use them.

7.6 Students' strategy use in relation to vocabulary

In general, vocabulary or diction (such as pronunciation) was considered vital by the students as in this study. The most frequently used (cognitive) reading strategies were, *ways of understanding the text through strategies such as imagining, rereading, guessing meanings of words and sentences, as well as the use of dictionary.* The concern shown on vocabulary in this study indicated the importance of knowing vocabulary in getting meaning from a text. Second language / foreign language readers frequently say that they need more vocabulary so that they can understand the meaning of sentences (Aebersold, J.A. & Mary Lee Field, 2006) which was also the general feeling of the majority of students in this study.

L2 vocabulary was reported by the students as a significant predictor of L2 reading comprehension and consequently for content learning. This was the general assumption that the students in this study seem to have, that knowing more words in English helps with their reading. Referring to a dictionary was top in the list as a strategy to cope with unknown words (see Table 5.5), despite being not widely used by the teachers in the classrooms (see Table 6.5). It indicates that students were still influenced with the traditional approach to vocabulary learning. Handling vocabulary is different across ability and subject areas as found in the steps taken by the two case study students to overcome vocabulary difficulty (see Section 5.5.1 and 5.5.2 for comparison).

The case studies (see Section 5.5) showed that strategies concerning vocabulary often occur at two stages of reading: while and post reading stages. Their approaches in handling unknown words were also different for different subject areas. Aside from this, the case study students viewed the role of vocabulary in EL and CS reading quite differently too.

When analyzing students' ways of coping with difficulty in comprehending a text in chapter 5, there were differences in the students' views on the role of vocabulary. The high achievers students, Hana and Abi, did not indicate dealing with vocabulary as ways to compensate for reading difficulty. Zul and Arisah, however indicated that one of the steps that they usually take to overcome reading difficulty was to deal with unknown vocabulary. These differences may be due to two reasons. One is possibly due to the influence of students' proficiency levels. Abi and Hana who have a good command of English Language might have greater vocabulary knowledge than the other two students. They were both considered to be proficient in English Language which was further confirmed by their performance in the exam as presented in Appendix xxxiv. The other reason probably has to do with their confidence levels. The students might not have any vocabulary issue in reading, but Zul and Arisah probably view that to be able to comprehend and learned from a particular reading text, they need to know every word in the text, hence the need to deal with new or unknown words.

Most of the students have indicated that, which has been confirmed in the actual strategy use by the case study students, unknown vocabulary was most often dealt with during the 'while-reading' stage. Although some students indicated that they skim and scan for words at the 'pre-reading' stage, most students explicitly indicated that they deal with unfamiliar vocabulary at the 'while-reading' stage. This finding seems to be the opposite of what most teachers and researches would agree that 'knowing vocabulary before reading and having vocabulary knowledge that is well developed is much better for fluent and successful reading in the L2' (Alessi & Dwyer, 2008. p.246). The students in this study seemed to see the advantages of picking out unknown words while they read as it allows them more control because they can just select the vocabulary which they do not know which is pertinent in comprehending the text they read.

The students in this study were also aware of the differences in what is needed when reading for different subjects, particularly EL and CS. This study has looked at reading to learn aspect being conducted in the classes and students employment of reading

strategies when reading their academic materials. As far as vocabulary is concerned, although not the main focus of the study, it has emerged as one of the areas that worth discussing especially in relation to vocabulary learning and teaching in the setting of the current study: the bilingual setting across the curriculum in upper secondary classes. It is my personal assumption that vocabulary learning in EL classes aims to build up students' vocabulary through reading whereas this was not entirely the case for CS classes. With this viewpoint, the study agrees with Laufer & Yano's (2001) claim that 'the surest way to gradually reduce the load of unfamiliar vocabulary is to keep on learning new words, which is demanding and a never ending process' (p.550). The vocabulary learning in CS classes, on the other hand merely focus on 'getting to know' the terminologies relevant for a particular topic that they need to learn. In this respect, vocabulary instruction in EL is more strategic than those in other subject areas.

As discussed earlier, students employed strategies in relation to vocabulary mostly while they read. One of the four case study students, i.e. Abi further states that he did not employ similar strategies (see Figure 5.7) when encountering unknown words in his content subjects. Most often, for Abi, unknown word in the content subject is 'looked up right away in a dictionary'. There seemed to be a consensus agreement among the students in this study that words (especially terminologies) in content subjects are vital and they need to know what these terminologies meant right away in order to be able to learn the content of the subject better.

7.7 Limitations of the study

This study in essence is primarily carried out to present results on the students' strategy use in an effort to describe what usually happen in the two types of classes when reading for both comprehension and learning. There are a number of aspects and limitations of the study that need to be highlighted. This section will first discuss the limitation of the current study. Then it will look at ways in which I can exploit the data that I have collected for this study.

I would like first to point out the limitation of the reading texts used in the think-aloud sessions. It was felt that the texts did not allow students, particularly the high ability students to fully employ their reading strategies. This happens probably because the texts used were shorter and too easy for the high ability students. The reading texts (see Appendices xvii, xviii & xviii) were mostly shorter and simplified as they were all taken from the curriculum textbooks supplied by the CDD, Ministry of Education. Using the texts from the textbooks which the students are using in the actual classroom situations allows me to (hopefully) elicit what normally takes place in the classrooms. However, it also presents limitations to the study, especially when the students have already read the texts. Students did the think-aloud protocols again when they were in upper secondary 5 (Year 11). I have minimized the potential of memorization on the students' strategy use during this stage by using texts taken from textbooks in upper secondary 4. It is very unlikely that they will memorize the text after a year since they last read the texts.

Another limitation is in the methods of collecting data. In an attempt to use multiple methodologies for triangulation purpose, data was collected through questionnaire, observations, interviews and think aloud procedures. The use of multiple methodologies has led to the enormous amount of data collected that needs to be transcribed, coded, analyzed and interpreted. It was not possible to analyze all the data gathered in the study. The classroom observations and the think aloud data did not yield enough data needed for the study's purpose. In the observation, there were a few teachers who seemed to be reluctant being observed. For example, some EL teachers changed their reading lessons to writing during the agreed scheduled observation. Some were observed conducting reading lessons but actual reading either has taken place in an earlier lesson or did not take place at all. Moreover, there were just not many reading took place in the content subjects lesson. The classroom observation protocol was also not fully piloted and tested.

The interview had to be done twice because the first interview questions for the students were not enough to capture data on their reading strategy use for learning. The think-aloud was also done twice to enable to session to be conducted with a

descriptive text whereby the first stage only used narrative text. However, think aloud session did not exhibit enough thinking aloud because most often the students only read aloud. Limitation with regards to the text was also noted at the beginning of this section.

The study was further subject to several other limitations which include time constraints, training for the think-aloud protocol, quality of the recording and also in the analysis of the data. The amount of time needed to collect the various data and to carry out the analysis and the final write up of the thesis was a serious constraint. The fact that two stages of data collection has reduced the allocation of time in choosing, transcribing and analyzing the data.

Training for the think-aloud protocol was necessary for students in order for them to be able to verbalise their thoughts. Therefore the students had to be trained to think aloud and more modeling should have done. Students had to be asked with probing questions such as 'How did you manage to extract information from the text?', 'what did you do first?', 'Why did you sigh just now?' etc. when they did not do any thinking aloud which might affect the results. This is because they might simply answer the questions with what was expected from them and not necessarily what they have done. Most students' responses were short and mainly one word answers and some average ability students found it difficult to express themselves. Although Malay was encouraged, they still find it difficult to express themselves.

As this study initially wants to look at reading instruction (at both teaching and learning aspects), I have collected data from classroom observations, interviews of teachers and students. This has provided further potential in looking at the data, which was, however, not the focus of the current study. Further exploitation of the data collected from the teachers in the first stage of the study (see Sections 4.5.2 & 4.7.1), could be in the following directions:

- a. Do students change over time? Having collected data from the same batch of students at two different stages, a longitudinal study can be carried out

that could look at students' progression in their strategy use and awareness. Analysis on students' employment of strategies after a year gap (from 2009 to 2010) might allow the study to look at maturity aspects.

- b. To look at individual differences in strategy use of the students. Variables such as motivation, learning styles and strategy preferences could also be compared.
- c. To look at variables such as gender is also another potential direction to exploit the existing data.

The above list can become potential research questions that could be asked which I can actually start answering with the source of data that I have. However, my thesis only tries to explore what takes place in content subject and English Language classes on reading to learn setting. Therefore, the focus of the current study is primarily on the strategy use of students when reading in English in order to process the information from the textbooks used in their academic learning.

7.8 Summary

The results presented in Chapter 5 and 6 and discussed in this chapter showed that the key findings of this study in relation to the research questions can be summarized under two main areas: students reading strategy use (RQ1& RQ4) and reading instruction across the curriculum (RQ2 & RQ3).

In relation to students strategy use, it was found that students across the two types of schools employed similar types of top down and bottom up reading strategies across the two subject areas. High ability students employed more top down and cognitively demanding strategies than their counterparts and that they often used these strategies simultaneously or concurrently at one time. Although the types of strategies employed by the students did not differ greatly, the frequency in the use of strategies and the elaboration vary as discussed in section 7.2, 7.3, 7.4 and 7.6 in this chapter. This leads to

the implication on enhancing students' strategy use when reading in L2 which will be presented in the next chapter. In relation to attending to reading difficulties, most students applied bottom up rereading strategies.

In relation to reading instruction in two subject areas, this study found that students seemed to have a general conception that reading for CS and EL is essentially different, but this conception is not explicitly confirmed by the practices they received in the classrooms. Aside from the above, this study could offer some insights into how we could view the teaching and most importantly the learning environment of students in a bilingual or even multilingual setting. The students learning subjects in English (e.g. EL and CS) seemed to be able to transfer their knowledge in strategy use across the curriculum. They were in essence strategic learners that need to be nurtured more. More training, however, is needed for most teachers in bringing reading instruction into content classes.

Chapter 8

CONCLUSIONS

8.1 Introduction

I started out from the premise that reading is an important aspect in both language learning and content learning. This study looked at both cognitive and metacognitive aspects in students' thinking and learning in providing theoretical grounds for understanding students' strategy use in reading in a second language (e.g. English). It also explored reading instruction across the two subject areas in upper secondary classes in reading to learn setting.

In this chapter I have two main purposes. Firstly, I drew together the key areas of interests (themes) discussed in Chapter 7 and then I identified pedagogical implications and where appropriate, I make recommendations and also point out the areas where I believe that this study has contributed to the existing evidence base. I will also try to include avenues for future research which I think this study can contribute.

8.2 Reading to learn in the Brunei classrooms

Students' strategy use has shown that they employed both top down and bottom up reading strategies when they read in order to learn the information required in their content classes especially. Reading to learn, as reading for comprehension is seen involve the employment of both top down and bottom up approaches. This study also shows that the majority of students are able to monitor and manage their reading such as being aware that they do actually preview the text, have a purpose on mind about the text and use the text features.

As suggested in the literature on metacognition and reading (Baker & Brown, 1984; Jimenez et.al., 1996; Mokhtari & Reichard, 2004) metacognitive awareness play a critical role in a reading process. Although the current study did not directly measure students' awareness on the employment of reading strategies such as using SORS (Mokhtari & Sheorey, 2002), it can be implied that students' awareness and strategy preferences and employment can be attributed to their ability. This study has found

that the high achievers students can easily identify themselves with a variety of reading strategies. Instances of higher level usage strategies are rereading, previewing the text, activating prior knowledge, which mainly come from global reading strategies, were employed by the majority of the students. The students, especially the mixed ability students mainly employed support reading strategies and also problem solving reading strategies.

On the basis of the findings in the current study, a number of implications are drawn and presented in the next section.

8.3 Pedagogical implications and Recommendations

The practical implications of this study are significant for content area teachers, resource teachers, administrators, and professional development planners in the field of reading instruction. In essence, this study has contributed to the existing wider knowledge on reading, particularly in second language (as well as multilingual) setting especially in the area of reading to learn. This study has shown how high achievers students can also be high strategy users and tend to succeed in their exam especially in their academic subjects. The different approaches in reading instruction in different subject areas from the students' perspectives lead to several pedagogical implications and recommendations that are beneficial for students in the reading to learn settings.

Emerging from this study is that idea that content subject teachers should collaborate with language teaches to address the issue of reading. Teachers need to realize that now it is time for them to teach students to 'read to learn'. The content subject teachers involved in this study employed and taught some of the reading strategies in their lessons, sometime even to the point of without realizing it. It might be that the content subject teachers are probably teaching their students strategies which they themselves use for reading which lead to further implication on proper teacher training. In this respect, it allows this study to make recommendation for teacher training. This is to equip teachers with a repertoire of strategies which

they can choose, so that they would be able to find strategies that would best meet both their instructional and student needs. Moreover, teachers should be trained to model these strategies to the students. In this respect, there is an implication in the language teaching by incorporating the ideas of ESP/EAP approaches especially at the university level. Opportunity is needed for the students to be exposed to learn or acquire specific skills needed for their academic success. These could be introduced early at the pre-university level so as to help students to meet their specific need to learn from reading their course books. As found in the current study, the upper secondary students are only using top down and less demanding cognitive strategies when they read in their secondary level. And if these students managed to proceed to the pre-university level and if they are to succeed in their academic learning, then they ESP/EAP might play its role here.

Besides giving training for teachers and to increase teachers' awareness on reading strategies, this study also offered useful insights into which strategies students find effective when reading their academic texts. The study has provided evidence that students read differently for different subjects. Students in this study exhibited the characteristics of strategic readers and were able to find ways to complete the task given to them in the classrooms without having to do actual reading. However, since many of the students tend to replicate what was 'told' of them to use in the classrooms when they read on their own, then the current practices in relation of reading should be improved or reviewed. There is the need to move away from the passive, non-interactive style of teaching in the secondary and probably in the primary schools as well as.

The students in this study seemed to show that they were able to indicate what strategy they use when they read. However, this alone is not enough because 'simply knowing what strategy to use is not sufficient' (Karbalaie, 2010). They need to be able to plan and organize them effectively. Investigation in students' actual strategy use showed that students, especially the high ability students, showed their capabilities in orchestration of strategies. This finding allows us to recommend teachers to work on this potential by providing more support for students. It is my

belief that average and low ability students might benefit more from this. Support in strategy use especially in reading to learn from the textbooks can be given to the students to help students to be able to learn content and be able to extract them whenever it was needed as in the exam. Study skills might be the solution to this, especially when these were used by the students in the study but not quite effectively because explicit and continuous training and support on this was lacking.

Awareness on reading to learn and the various reading strategies that content subject teachers can use to help their students, especially the average ability students to tackle their academic learning is also needed. Furthermore, as shown in the study, reading for English and reading for the content subjects are different and thus the strategy needed to read in the two types of classes are also different. Therefore teachers need to help their students differently. Moreover, in upper secondary level, as in the case of Brunei classes, where the focus is more for academic success and that students might find it a bit too late to be taught 'new' or 'different' reading strategies, teachers may start to work on the strategies the students found useful for them. In this respect, this study is beneficial in providing students with a set of strategies that they found work for them rather than imposing them with strategies that teachers think work for them. Teachers now have at least partial insights into strategies that work from the students' perspectives.

8.4 What's next? Future direction

This study can be a starting point to build on the reading strategies that 'work' from the students' perspectives. The findings served as evidential data from which other comparative studies could develop or as pointed out in section 7.7 what other potential directions this study can be carried forward.

Looking back, this study did not initially specify any reading strategies to be explored. It simply tries to explore what strategies students employ when reading in English. Looking ahead, more research is needed to investigate why certain

strategies are used or not by the students in the L2 reading contexts (i.e. reading in English).

Individuals learning styles may further demonstrate which strategies are implemented during the reading process. This study has shown that students differed in 'how' they employed reading strategy. This not only can be attributed to students' ability but also on their learning styles. Perhaps future research could examine the interaction between metacognitive reading strategies and learning styles on L2 students. Moreover, future research with larger sample than the current study might look at reading strategies students used when reading for specific content subject, such as Science or Geography in order to obtain a clearer picture of the set of strategies that students found workable for them for specific subjects.

There is a clear need to investigate empirically the role of teaching 'important' strategies and studying their impact on students' reading comprehension. Future research might take into account the strategies that students found useful to them (as in this study) and training on these strategies will be given to students of different abilities. Then correlation of their usages with students' achievements in a reading comprehension test can be made to find the link between strategy use and success. This could be in the form of providing students with guidance and training on how to effectively employ the strategies that were frequently used by students in this study and then compare their strategy use with their academic performances.

A final area of related research would be to examine the types of strategies that students employed at tertiary level, pre-university or even at university level. A study looking at how students mature in their strategy use at post-secondary education may be a follow up of this study. It could also look at how much transfer has occurred in students strategy use from upper secondary reading to pre-university and eventually university level reading.

8.5 Final word - conclusion

As some students continue to struggle with the demands of content subject reading, especially at the end of their secondary education, it becomes the responsibility of teachers of all subject areas to find ways to assist them. Teachers can help students tackle their academic texts and improve their comprehension by explicitly teaching students how to employ appropriate reading strategies. This study wishes to offer teachers, especially content subject teachers with the strategies that students find useful (or not) for them. Therefore teachers could start off in guiding their students to use these strategies effectively to access meanings from their content subject texts.

Moreover, professional development sessions on the topic of reading need to be offered to CS teachers and not only to EL teachers. It is possible that some CS teachers are not addressing the issue of reading because they are unaware that they should be, or perhaps they do not know how they can help their students become better readers. Some teachers might be concerned that the use of reading strategies in their classrooms might take away from their teaching of the content material. This perception on reading instruction in their content subjects needs to be changed. Content subject teachers need to be shown that content can be amalgamated with reading strategies without the content suffering.

Last but not least, this research are seen to benefit students and teachers in the future, especially in the L2 context and in the reading to learn setting because we now have a better understanding of the process of reading and strategy use in different subject areas. Subsequently, the study has various recommendations for changes to teacher education and in-service work.

Finally I end this thesis with a question that I felt might be addressed by secondary teachers, especially content subject teachers. *Do content teachers have to deal with the issue of reading (including the teaching of reading strategy)?* A starting point to

respond to this is... *If your students are expected to read in your class (or subject areas), the answer is probably yes....*

Appendices

Appendix i: BGCE O LEVEL EXAM 2005 – 2009

STUDENTS ACHIEVING CREDIT (GRADE A – C) In English medium subjects in government schools in Brunei Darussalam

Year Subjects	2005	2006	2007	2008	2009
Total students taking	4558	5661	6253	6051	5498
English	15.3%	15.6%	20.6%	24.0%	23.7%
Total students taking	847	1023	999	982	1205
History	43.3%	40.5%	40.4%	40.0%	39.2%
Total students taking	3403	4460	4778	4659	4751
Geography	53.4%	47.0%	41.3%	36.5%	37.8%
Total students taking	874	973	1106	1271	1256
Physics	80.9%	82.0%	86.3%	86.8%	86.0%
Total students taking	963	1045	1086	1348	1305
Biology	58.9%	62.4%	69.3%	72.0%	76.7%
Total students taking	1012	1089	1162	1391	1313
Chemistry	72.0%	65.4%	76.4%	71.6%	78.6%
Total students taking	3026	4183	4701	4270	4475
Combined science	38.3%	34.5%	28.1%	21.3%	21.5%

STUDENTS ACHIEVING CREDIT (GRADES A – C) In English medium subjects in THE THREE schools involved in the study in Brunei Darussalam IN BGCE 'O' LEVEL EXAM 2008

SCHOOLS SUBJECTS	A	B	C
No. of students taking ENGLISH	230	330	217
	86.5%	11.82%	32.26%
No. of students taking GEOGRAPHY	59	158	185
	100%	61.39%	41.62%
No. of students taking BIOLOGY	230	90	43
	92.17%	66.67%	95.35%
No. of students taking PHYSICS	230	63	59
	95.22%	90.48%	89.83%
No. of students taking COMBINED SCIENCE		230	148
		23.91%	30.41%
No. of students taking CHEMISTRY	230	89	59
	91.74%	67.42%	69.49%

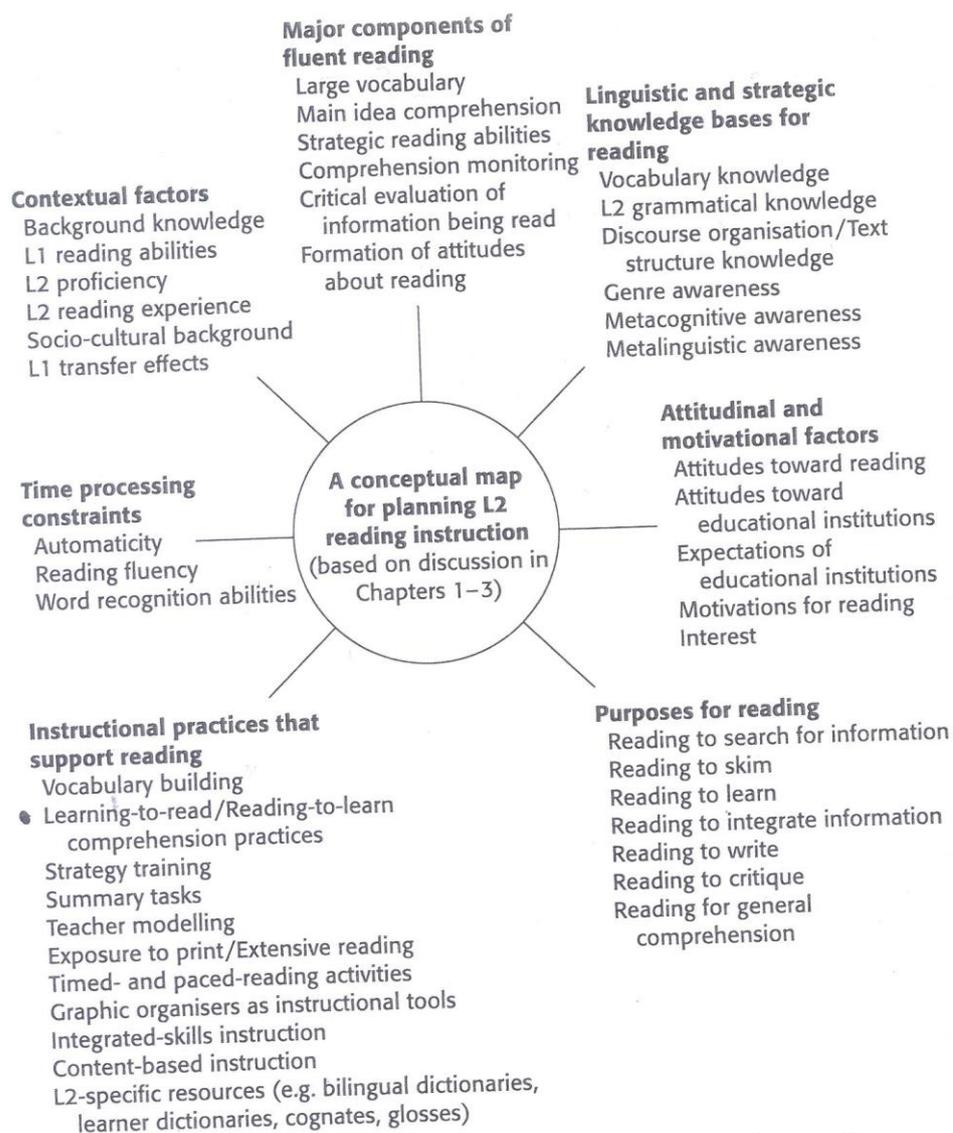


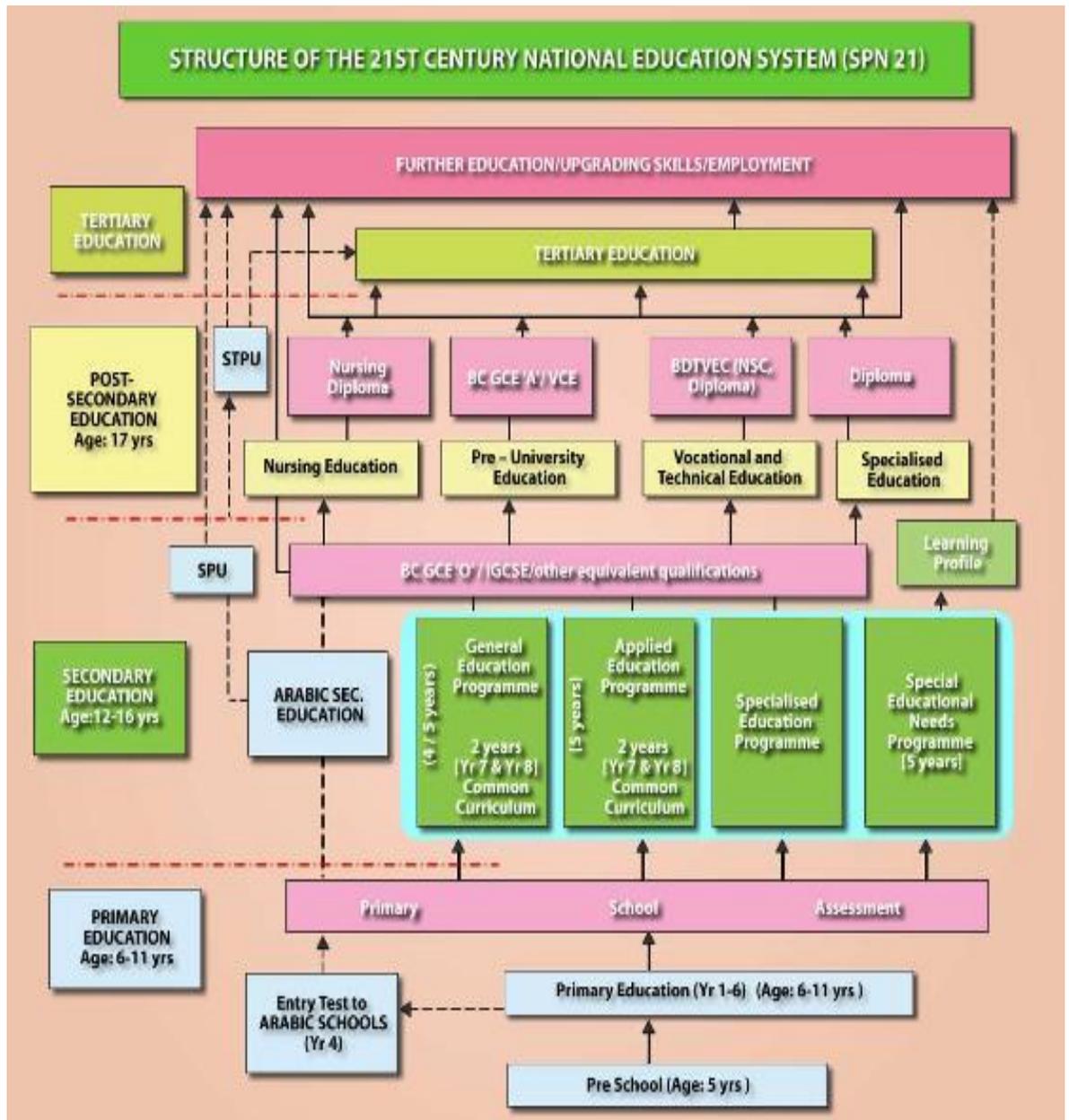
Figure 3.5 A conceptual map for planning L2 reading instruction (based on discussion in Chapters 1-3)

Appendix iii: Instructional dilemmas for L2 reading (Grabe & Stoller, 2002)

- A large vocabulary is critical not only for reading but also for all L2 skills, for academic performance and for related background knowledge. Yet the means for developing a large vocabulary are not consistently developed in L2 reading instruction, nor is the issue typically given a high priority in L2 instructional contexts.
- Reading fluency probably requires that a reader know 95 per cent or more of the words encountered in most texts, but this is a difficult criterion to meet in many L2 contexts.
- Discourse knowledge is important for reading but few teachers are prepared to teach students how to make use of discourse information to build comprehension. Moreover, few reading curricula focus on text structure and discourse organisation as consistent components of instruction.
- ✓ ① Reading strategies and strategy instruction are often discussed and presented in textbooks as independent entities. Yet, the goal of reading instruction is not to teach individual reading strategies but rather to develop strategic readers.
- ✓ ② There is little exploration in L2 reading research of the transition from learning-to-read to reading-to-learn, yet this transition is expected to occur in many L2 contexts.
- The integration of language abilities is essential for advanced L2 reading in academic settings, yet it is commonly downplayed in favour of administratively more manageable reading classes and separate writing classes.
- Motivation is now generally viewed as important for learning but we lack a keen understanding of the relationships between motivation, attitudes, interest and attributions and their effects on L2 reading abilities.
- Students learn to read by reading a lot, yet reading a lot is not the emphasis of most reading curricula.

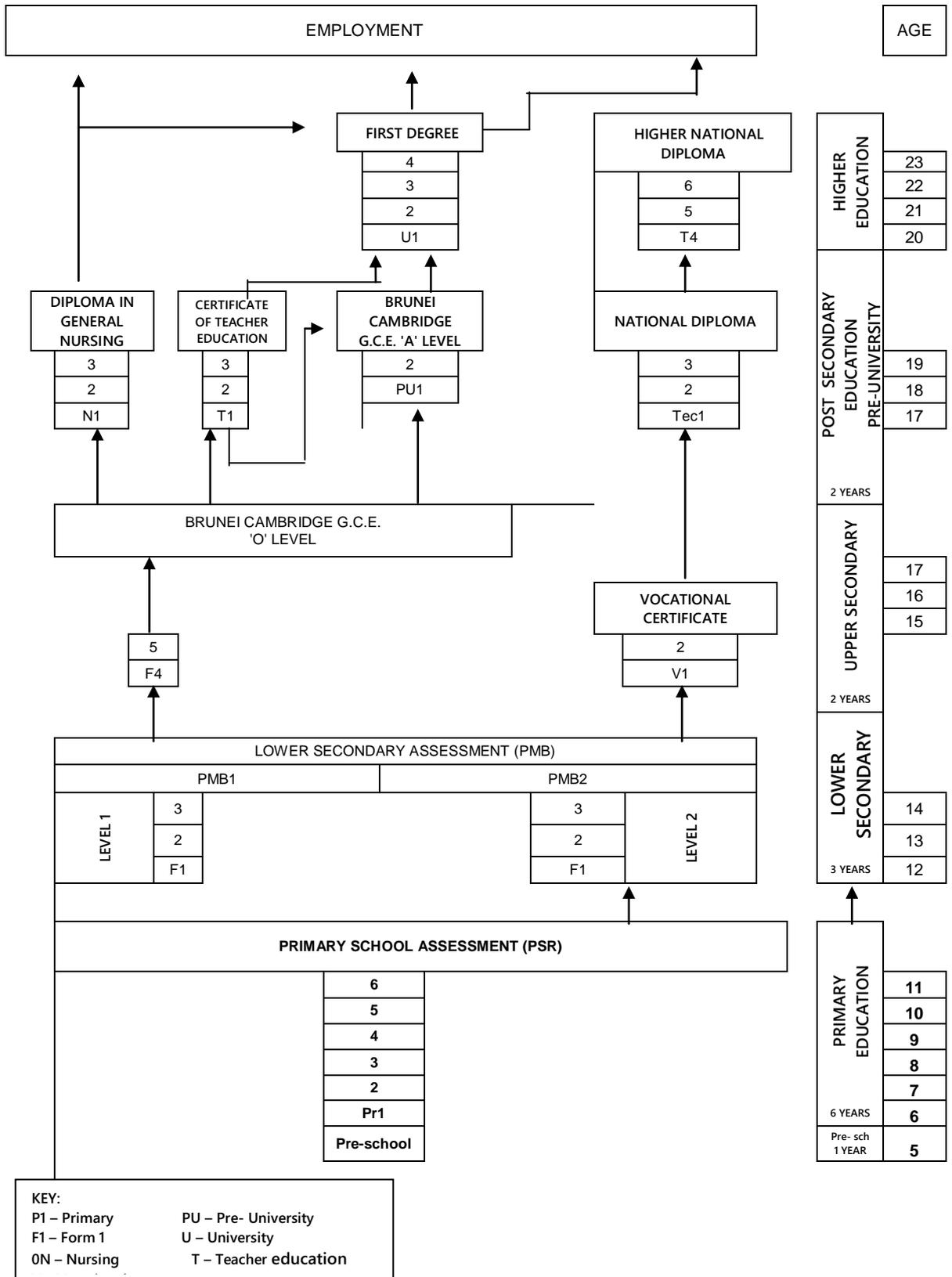
Figure 3.3 Instructional dilemmas for L2 reading

Appendix iv: Structure of the Brunei 21st Century National Education System (SPN21)



Appendix v: Outline of the Education System of Brunei Darussalam (before SPN21)

Outline of the Education System of Brunei Darussalam (<http://www.moe.edu.bn>)



Appendix vi: Implementation stages of the New National Education System (Brunei)



IMPLEMENTATION STAGES OF THE NEW NATIONAL EDUCATION SYSTEM										
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
YEAR 1	EXI	EXI	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21
YEAR 1	EXI	EXI	EXI	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21
YEAR 1	EXI	EXI	EXI	EXI	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21
YEAR 1	EXI	EXI	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21
YEAR 5	EXI	EXI	EXI	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21
YEAR 8	EXI ⁺	EXI ⁺	EXI ⁺	**EXI ⁺	*SPN-21 ⁺	SPN-21 ⁺				
YEAR 7	EXI	INT	INT	INT	INT	SPN-21	SPN-21	SPN-21	SPN-21	SPN-21
YEAR 8	EXI	EXI	INT	INT	INT	INT	SPN-21	SPN-21	SPN-21	SPN-21
YEAR 9	EXI ⁺	EXI ⁺	EXI ⁺	INT	INT	INT	INT	SPN-21	SPN-21	SPN-21
YEAR 10	EXI	EXI	EXI	EXI	INT ⁺	INT ⁺	INT ⁺	INT ⁺	***SPN-21	***SPN-21
YEAR 11	EXI ⁺	EXI ⁺	EXI ⁺	EXI ⁺	EXI ⁺	INT ⁺	INT ⁺	INT ⁺	INT ⁺	***SPN-21

LEGEND

+ QUALITY AND STANDARD OF PSR EXAM

** NEGOTIATIONS WITH CAMBRIDGE - BOCSE + PSR EXAM BASED ON SPN 21 CURRICULUM

*** BRUNEI DARUSSALAM CERTIFICATE SECONDARY EDUCATION (BOCSE)

EXI EXISTING SYSTEM

INT INTERM STAGE

SPN-21 NATIONAL EDUCATION SYSTEM (SPN21)

Appendix vii: Letter to Director of School to conduct the exploratory study



School of Humanities | Modern Languages

Professor Clare Mar-Molinero, Head

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29 July 2008

Hajah Aishah bte Haji Muhd Husain
Director of Schools
Ministry of Education
Negara Brunei Darussalam

Dear Hajah Aishah bte Haji Muhd Husain

I am writing on behalf of my research student, Rahmawati Haji Bolhassan, to request your permission for her to carry out research (mainly classroom observation but also talking to teachers and pupils) in the following three schools:

Maktab Sains Paduka Seri Begawan Sultan, Jalan Muara.
Sekolah Menengah Sayyidina Abu Bakar, Lambak Kanan, Berakas
Sekolah Menengah Pengiran Anak Putri Hajah Masna, Lambak Kanan, Berakas.

This preliminary investigative study will take place in August/ September 2008 and it will be very helpful to Mrs Rahmawati Haji Bolhassan in gathering information and data for her MPhil/ PhD degree in Applied Linguistics at the University of Southampton. The provisional topic of her research is "Reading across the Curriculum in Brunei Secondary Schools".

Thank you very much for your assistance in this. It would be very helpful if you could reply directly to Mrs Rahmawati Haji Bolhassan.

Yours sincerely

A handwritten signature in cursive script that reads 'George Blue'.

George M Blue
Research Supervisor

READING ACROSS THE CURRICULUM IN SECONDARY SCHOOLS IN BRUNEI: A CASE STUDY

Dear All,

My name is Rahmawati Hj Bolhassan, an education officer working with the Ministry of Education and currently I am doing research at the University of Southampton, United Kingdom. I have taught English Language since 1986 in various secondary schools in the Belait District and in the Brunei/Muara District. My interests include students' attitudes and perceptions towards English Language learning and teaching; reading instruction and students' reading strategies in the English language classroom as well as reading instruction across the curriculum.

I am currently conducting research on reading across the curriculum, investigating the teaching of reading in both English language and content subject classes in secondary schools in Brunei. I am also looking at students' reading habits outside the classroom and how well students deal with the content of their reading. This research is intended to shed some light on students' reading behaviour as well as how far students' reading skills and strategies have an impact on their studies, not only in English language but also across the curriculum. It is also hoped that the findings of this research will benefit students and teachers in the future to have a better understanding of the process of reading among students.

One of the instruments is the questionnaire enclosed and I would like to express my gratitude in advance for your cooperation in completing it.

Thank You

Rahmawati Haji Bolhassan
MPhil/PhD (Modern Language)
School of Humanities (Modern Language)
University of Southampton
United Kingdom.
rhb2x07@soton.ac.uk

Subject taught: _____ School: _____

Employment of reading strategies in your classroom.

How often do you employ the following activities in your lessons?

Please check the frequency of each item used in your classes.

	Never or Almost never	Seldom	Sometimes	Usually	Always or Almost always
1. Asking students to read the text aloud.					
2. Translating the text into Malay.					
3. Activating prior knowledge or background knowledge.					
4. Teaching the connections of each paragraph.					
5. Teaching the types of text (e.g. exposition, comparison and contrast)					
6. Drawing students' attention to the title.					
7. Teaching students how to guess the meaning of words.					
8. Teaching students how to scan information.					
9. Teaching students how to skim the passage.					
10. Teaching students how to find main ideas.					
11. Teaching students how to summarize.					
12. Asking students to retell the text.					
13. Asking students to monitor reading comprehension constantly.					
14. Asking students to predict the main idea of the following paragraph.					
15. Teaching students how to use dictionaries.					
16. Using visual elements in the text.					

READING ACROSS THE CURRICULUM IN SECONDARY SCHOOLS IN BRUNEI: A CASE STUDY

Dear All,

My name is Rahmawati Hj Bolhassan, an education officer working with the Ministry of Education and currently I am doing research at the University of Southampton, United Kingdom. I have taught English Language since 1986 in various secondary schools in the Belait District and in the Brunei/Muara District. My interests include students' attitudes and perceptions towards English Language learning and teaching; reading instruction and students' reading strategies in the English language classroom as well as reading instruction across the curriculum.

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One of the instruments is the questionnaire enclosed and I would like to express my gratitude in advance for your cooperation in completing it.

Thank You

Rahmawati Haji Bolhassan
MPhil/PhD (Modern Language)
School of Humanities (Modern Language)
University of Southampton
United Kingdom.
rhb2x07@soton.ac.uk.

Initial reading Strategies - Self Review

Listed below are actions which you may take when reading in English. For each one tick the column which is most appropriate		Never	Rarely	Sometimes	Frequently	Always
1.	I try to work out the meanings as I read					
2.	I like to know something about the topic in advance.					
3.	I use the title to try to imagine what the article might be about.					
4.	If there are pictures I use them to try to guess how they relate to the article.					
5.	First I read the comprehension questions and then I look for the answers when I read.					
6.	I skim the whole article to get the general idea of what it is all about.					
7.	I read the text through twice.					
8.	I read the first line of every paragraph to get the gist.					
9.	I ignore the words I don't know and continue reading.					
10.	I read every word and look up the ones I don't know in a dictionary or word list.					
11.	I try to guess at the meaning of the words I don't know.					
12.	After reading, I say or write the main ideas in my own words.					
13.	When I encounter an unknown word I try					
	a. to mark it					
	b. to guess its meaning by breaking it into parts.					
	c. to guess its meaning by using context clues.					
	d. to infer its meaning by using the clues from the questions					
14.	During the reading process, I try.....					
	a. To infer the meaning of an unknown word from the immediate sentence.					
	b. To translate the whole sentence into Malay.					
	c. To identify key words in the sentence.					
	d. To substitute a word in the sentence to help me understand the meaning of the sentence.					
	e. To make an inference about the sentence I am reading.					
	f. To question myself whether I understand the meaning of the sentence I have read.					
	g. To use grammar rules to understand the meaning of the sentence I have read.					
	h. To measure the importance of the sentence I have read.					
	i. To associate something else with the sentence I have read.					
j. To mark the sentences that I do not understand.						

15.	When I read a passage, I try...					
	a. To translate a word into Malay.					
	b. To predict what I am going to read.					
	c. To check if my inference is correct.					
	d. To summarize what I read.					
	e. To integrate information from different parts of the passage.					
	f. To use what I already know to help me understand the passage.					
	g. To identify the important and the less important parts of the passage.					
	h. To mark key points in the passage.					
	i. To remember where key points are in the passage.					
	j. To skip confusing parts of the passage, eg time or people's names					
	k. To ask myself questions about what I have read.					
	l. To relate it to my personal experience.					
	m. To respond to the content of the passage with my personal opinions.					
	n. To have a picture in my mind about what I am reading.					
	o. To have the questions/ task assigned in my mind.					
16.	During the reading process.....					
	a. I am aware when I do not understand the meaning of a word.					
	b. I am aware when I understand a part of the passage.					
	c. I am aware when I do not understand a part of the passage.					
	d. I know when I am not concentrating.					
	e. I am aware of the difficulty of the passage.					
	f. I know my weaknesses in reading.					
17.	When I read a sentence, I think whether it is related to the questions/task assigned.					
18.	When I read a sentence, I notice whether it is related to the questions/task assigned to me					
19.	When I read a paragraph, I try to refer to the previous paragraph to better understand what I read.					
20.	When I do not understand a part of the paragraph, I try to get clues from the questions or task assigned to help me understand it.					
21.	When I do not understand the paragraph, I try to reread it.					

Appendix x: Students Interview Questions (Stage 1)

Introduction:

Start by informal introduction and the purpose of the study.

- i. What subject do you take? Science, Arts or Commerce?
- ii. What language aspect do you find difficult in your study? Writing, reading, listening or speaking? In which subject do you have difficulty with (e.g. writing, reading, listening or speaking)?
- iii. (explain that the interview will tend to focus on reading aspect in their study)

Interview question:

1. (a) What reading materials do you like to read? Which one do you often read (magazine, novels, online)?
(b) Which reading materials do you read for pleasure – in English or Malay?
(c) How much reading do you do? What sort of reading material do you normally read? Textbook, articles related to your subject? etc?
(d) What was the last text that you read?
2. (a) What sort of reading activities / tasks do you usually do during lesson?
(b) In your view, what is involved in reading for your subject? What is your main purpose of reading for your study/subject...e.g. English, Geography, Science etc...?
(c) In which subject do you find difficult to cope with in terms of reading? Do you find reading for English is easy than reading for your other subjects?
3. (a) What reading materials do you normally use in your lesson....
 - i. From textbooks?
 - ii. Additional printed materials (prepared by the teacher?)
 - iii. From online?
(b) How often do you use the above materials in class?
4. (a) Do you read texts for your lesson silently or aloud?
(c) Who normally reads the text aloud, the students or your teacher?
(d) How do you usually feel when you are asked to read aloud in class?
(e) Where do you normally do the reading task? In the class or at home; before, during or after each lesson?
5. (a) What kind of reading tasks do you find interesting in your class/subject?
(b) Which topics do you usually find interesting?
6. (a) Do you often have difficulties / problems in your reading for your subject?
(b) How do you know that you have difficulties / problems with your reading?
(c) What do you usually do when this happens?
7. (a) Does your subject teacher teach you how to read for your subject?
(b) Do you find reading on your own (or in class) for your subject enjoyable?
(c) Do you think that your subject teacher should / needs to teach reading in your subject?
8. What language does your teacher usually use in explaining the content of the lesson? English or Malay?
 - (a) How often is Malay used in class?
 - (b) When is Malay use? To explain meaning? Vocabulary? Etc?
9. Is there any thing that you would like to say or add which we haven't covered which you think important to do with reading?

'The Earth Rocked Like a Boat'

"I first heard a rumble like a thousand buffaloes, and then a bang," says 50-year-old Leilabhai Kamble, who was asleep in bed when the killer quake struck. "The earth seemed to be rocking. It was like it was going on for two hours," she said. "It was as if we were in a boat."

"Then I opened my eyes and saw the tin roof of the house falling on top of me. I blacked out," said Kamble, now in a Latur hospital with serious spinal injuries following India's most deadly quake in more than half a century. "I regained consciousness after about three hours. I found water streaming down my face and people trying to pull me out from under fallen stones, wood and corrugated sheeting."

Kamble narrowly escaped death in the series of tremors early on Thursday morning, the biggest of which registered 6.4 on the Richter scale. Her husband and son were out on the farm for the night and survived. Her husband's brother, wife and three children, sleeping together in the same room, all died. "They were crushed by huge boulders," she said. "My only thought now is to arrange a funeral for them, but I only have the clothes I have on."

4 Babu Madhav More, a 35-year-old grocer, had spent the four previous days celebrating India's festival for the Hindu elephant-headed god Ganesh, and came home only two hours before the quake struck. "Not wanting to disturb my wife and wanting to get the first good night's sleep in several days, I decided to sleep

outside," he said. It was a decision that may have saved his life.

5 "I had just slept a little under two hours when I was suddenly awakened by a thud. I heard my wife yelling something at me about our four-year-old son. "Save your child, save your child," she screamed. I lay in the bed for at least three minutes, thinking that a snake had bitten someone. Then I saw that the house had completely caved in on one side," he said.

6 "I rushed to the door that was barely standing in its wooden frame, and first helped my wife who was lying unconscious on the floor near a wooden beam that had hit her after she had cried for help. My wife was bleeding from the forehead, but my son was safe on the cot, along with his brother."

7 He carried his wife and his two sons and ran into the open field nearby. Then he waited through a series of terrifying aftershocks. "Those two hours seemed like two days, until somebody finally came to us. I kept on saying to myself that I must not let fear overcome me. I was taken with my family to the hospital in Latur still in blood-soaked clothes."

8 Babu More now sits on the floor of the hospital alongside his mother, who was hit by a large boulder. "The tragedy has made me more conscious of God. If it were not for Ganesh I would have been inside the house and not able to save my family," he said.

Adapted from the *Borneo Bulletin*

Appendix xii: Observation Schedules – August to September 2008

Schools Involved:

1. Paduka Seri Begawan Science College (MS)
2. Sayyidina Abu Bakar Secondary School (SMSAB)
3. Pengiran Anak Puteri Hajah Masnah Secondary School (SM PAPHM)

Dates/ Week	Monday	Tuesday	Wednesday	Thursday	Saturday
Week 1 18/8/08 – 24/8/08			Meeting with the Deputy Principal and HODs at SM PAPHM.	Meeting with SMSAB's Deputy Principal	Meeting with Principal of MS
Week 2 25/8/08 – 31/8/08	<ul style="list-style-type: none"> - Meeting with teachers to be observed at MS - Arranged schedules for observations with the teachers concerned 	<ul style="list-style-type: none"> - Appointment to meet the teachers to be observed at SMSAB - Meeting was cancelled as the DP had forgotten to arrange the meeting with the teachers concerned 	<ul style="list-style-type: none"> - Meeting with the teachers and HODs at SM PAPHM. - Observations had to be done in second week of September due to Test week early September. 	<p>Observation 1 - MS History – Form 5I 9.30 – 10.30</p> <p><i>'O' Level Past Year Paper Practice.</i></p>	<p>Observation 2 – MS Geography - Form 4A 8.00 – 8.30</p> <p>Observation 3 – MS Physics – Form 4O 10.30 – 11.00 (cancelled)</p>
Week 3 1/9/08 – 6/9/08	PUBLIC HOLIDAY Beginning of the fasting month	<p>Observation 4- MS English Literature – Form 5H 9.00 – 10.00am</p> <p>Observation 5 – MS English Literature – Form 4E 10.30 – 11.30am</p>	<p>Observation 6 – MS Physics - Form 4O 9.00 – 10.00</p> <p>Observation 7 – MS History – Form 5I 10.30 – 11.30</p>	- Rescheduled meeting with teachers to be observed at SMSAB 9.30 am	<p>Observation 8 – MS Geography – Form 4A 8.00 – 9.00 am</p> <p>Observation 9 – MS Geography – Form 4P 10.30 – 11.30</p>
Week 4 8/9/08 – 14/9/08	Planned to observe lessons at SMSAB (to be arranged after the meeting on 4 th Sept.)	<p>Observation 1 – SMPAPHM English Language – Form 4A Period 1 -2</p> <p>Observation 2 – SMPAPHM English Language – Form 4B Period 3-4</p>	<p>Observation 3 – SMPAPHM History – Form 4D Period 4 & 5</p> <p>Observation 4 – SMPAPHM Geography – Form 5D Period 6 & 7</p>	<p>Observation 5 – SMPAPHM History – Form 5C Period 6 & 7</p>	Plan to arrange observations at SMSAB – scheduled to be arranged during meeting on 4 th Sept.
Week 5 15/8/08 -21/8/08	Planned to observe more lessons at SMSAB (to be arranged after the meeting on 4 th Sept.)	Planned to observe more lessons at SMSAB (to be arranged during the meeting on 4 th Sept.)	Planned to observe more lessons at SMSAB (to be arranged in the meeting on 4 th Sept.)	<p>Third Term School Holidays 18th September to 5th October 2008</p>	
Week 6 22/8/08 – 28/9/08	<p>THIRD TERM SCHOOL HOLIDAYS (inclusive of fasting and Hari Raya's holidays) 18th September – 5th October 2008</p>				

Appendix xiii: Classroom Observation Protocol

BACKGROUND INFORMATION

School: _____ Teacher's name: _____

Subject taught _____ Start time _____ End Time: _____

Date of Observation _____ Form Class: _____

Topic: _____

List of things that could be observed during the lessons

A. Teacher Emphasis: Information Processing Climate.	Observed	Comments / detail
1). Teacher uses a cognitive processing term with the children (classify, verify, hypothesize, elaborate)		
2). Teacher refers to the structure of the written work. [look at the comparison paragraphs. Notice how the argument develops, etc..]		
3). Teacher refers to the author (writer, specific name or the title)		
4). Teacher models his/her 'inner thoughts' while reading or talking to students.		
5). Teacher activates reading strategies (skimming for words, reading a paragraph slowly and carefully for meaning construction or for identifying main point / idea)		
6). Teacher relates an unknown word to students' background or schema (what have we agreed to do when we read instructions?)		
7). Teacher creates variable size groups as needed (pairs, small groups, breaks out from larger group instruction)		
8). Specific pre-reading questions(s) have been planned prior to class (evidence from teacher's notes).		
9). Teacher extends students' background knowledge or schema related to topic (develops vocabulary knowledge)		
10). Teacher uses specific techniques to elicit student prior knowledge (KWL etc...)		
11). Teacher initiates, builds, or refers to a strategy for assimilating information from the text.		
12) Teacher allows appropriate WAIT TIME when asking higher level question		
13). Teacher uses appropriate WAIT TIME after student has answered a higher level question for clarification or elaboration		
14). Teacher asks students to verify response from the text by citing specific references		
15). Other (as appropriate for reading instruction)		

B. Students Response / Emphasis: Information Processing Climate.	Observed	Comments / detail
1). Preceding, during, or after a passage/text, the students (orally or written) ask question(s) about the passage / text.		
2). Student elaborates on own response (prompted by teacher)		
3). Student elaborates on own responses (not prompted by teacher)		
4). Student elaborates on another student's response (prompted by teacher)		
5). Student elaborates on another student's response (not prompted by teacher)		
6). Student uses processes / strategies in some visible way when engaged in reading (KWL, learning log, etc...)		
7). Student refers to text to prove a point or elaborate on an idea.		
8). Student use various reading strategies (skim, scan, reread) to accomplish a set purpose.		
9). Student uses and/or adjusts prior knowledge/opinion to predict a point or elaborate an idea.		
10) Student uses more than one source of information for a given task.		
11). Student revisits / rereads passage or portion of passage to further extract information.		
12). Other (as appropriate for reading instruction).		

C. Others	Observed	Comments / detail
1). Some graphic referring to a theme / topic is visible		
2). The physical environment is/has been changed to support reading instruction, and there is evidence of a wide variety of reading instruction (paired reading, special bulletin board, reading corner etc...)		
3). Graphic on strategy (strategies) is visible (visual map, mind mapping, enlargement of chart etc)		
4). Vocabulary has been captured (charted, webbed, drawn etc)		
5). Actual reading occurs (sustained silent, paired, repeating the teacher, oral reading, etc...)		
6). A student's production on a current or past topic/work is visible (drawing, map, project, etc)		
7). More than one type of age appropriate written material is available in the environment on current topic or theme (book, magazine, news release, cartoon, internet material etc..)		
8). There is evidence in the environment that the teacher is making an effort to motivationally enhance reading (bulletin board, author's history etc..)		
9). More than one form of reading instruction is evident in lesson (paired, teacher reading, student reading aloud, teacher and student reading together).		
10) Teacher responds to incorrect response or lack of response in a strategic positive manner (rephrase the question, provide hints)		
11). Intellectual risk taking is encouraged (I know you don't know but what is your best guess? Can you come up with an example?)		
12). Individual risk taking occurs. (My hypothesis is....; I am just making a wild guess...; I missed that idea; Please go over that again.)		
13). Teacher openly shares what he/she has learned from the current theme/topic or activity.		
14). Other (as appropriate for reading instruction)		

Appendix xiv: Teacher's Interview Questions

Introduction

- i. How long have you been teaching in this school? What subject do you teach? Do you think your students enjoy learning the subject or do they learn the subject because it's compulsory?
- ii. What language aspect do you usually find your students have difficulty with in your subject?
- iii. (explain that the interview will tend to focus on reading aspect in their lesson)

Interview questions:

1. (a) Do you like conducting reading tasks in your lesson? Do you think your subject requires students to read a lot?
(b) Do you think that reading is crucial in learning a language (or for your subject)?
 - i. How much reading are students expected to do for your subjects?
 - ii. Do you think without reading, students can pass the subject?
2. (a) What sort of reading activities / tasks do you normally prepare or do for your lesson?
 - i. What do you normally focus on in your reading lesson? Comprehension or content?
 - ii. How do you tackle vocabulary issues in your reading?
 - iii. What areas / skills do your students need to improve for your subjects?(b) In your view, what is meant by reading for your subject? What is the main purpose of reading for subject?
3. (a) What reading materials do you use in your subject...
 - i. From textbooks?
 - ii. Additional printed materials (prepared by the teacher?)
 - iii. From online?(b) **How often do you use the above materials?**
4. (a) Do you personally read the text aloud in your lesson? How often do you do this?
(b) Do the students read the text aloud or silently?
(c) Do you ask students to do their reading at home? Or before, during or after each lesson?
5. (a) What kind of reading tasks do the students find interesting in your class/subject?
(b) Which topics do students find interesting?
(c) What sort of materials do they like to read? Do your students like to read?
6. (a) Do your students have difficulties with their reading in your subject?
(b) What do you usually do when they do not understand their reading task?
(c) How do you measure whether students have difficulties in reading for your lesson?
7. (a) How much do you think your students read? Why do you think so?
(b) How do you get students to read for your subjects?
(c) What are the ways your students can be motivated to read (more)?
8. Do you use Malay or English in explaining the content of your lesson? How often do you use Malay? When do you use each language?
9. Is there any thing that you would like to say or add which we haven't covered which you think important to do with students' reading?

**Appendix xv: Summary of the findings from the exploratory study conducted in Brunei
(August to October 2008)**

Observations.

A total of 12 observations were conducted (4 Science, 4 Geography, 3 History and 1 English lesson).
The following were observed during the above sessions.

<p>Science Lessons 4 lessons, 4 teachers</p>	<ol style="list-style-type: none"> 1. Notes (prepared by the teachers) were given beforehand for students to read before the actual lesson. Notes are usually the summary of a given topic. 2. Two out of four teachers read the notes aloud and explained them in depth to students. 3. Two out of four teachers used Malay during lesson, usually to explain terminology used and to further clarified the main points. 4. Three lessons were teacher centred with the teacher did all the talking. 5. Only one lesson, the students were on task (did some reading and doing the exercise) 6. Often too much info was given during lesson leading to a lot of teacher explanation and limited student participation. 7. Only one teacher each learning skill explicitly, how to read instructions in their exam question. 8. Students prior knowledge were used and sought for before and during lesson.
<p>Geography Lessons 4 lessons, 3 teachers</p>	<ol style="list-style-type: none"> 1. Explicit learning skills were taught – map reading skill, identifying key words, high - lighting main points. 2. Use of Malay – for giving instruction, provide meaning or translation of terminology or concept. Two out of three teachers used Malay in their lesson. 3. One teacher didn't use any Malay but often the students responded to her questions in Malay. 4. Reading strategies were also observed during lessons – note taking, highlighting main points, underlining and rewriting notes from the board. 5. Two out of three teachers allowed students to discuss among themselves. 6. Two out of three teachers used past year O level exam paper for their lesson. 7. One teacher gave reading assignment with aspect of the lesson students need to focus. 8. Students' previous lessons (prior knowledge) were also asked.
<p>History Lessons 3 lessons 2 teachers</p>	<ol style="list-style-type: none"> 1. Students are requires to read a lot in this subject. 2. Both teachers gave reading assignment for students to read before lessons, but did the reading as well in class. – Purposes of the lessons were explained before lessons. 3. Use of Malay – only occasionally during lessons 4. Terminology / vocabulary were explained rather than being translated. 5. One teacher – used OHP and read the text aloud to student. 6. One teacher wrote the main points on the board and selected student to re-explain them in their own words using the points written on board.
<p>English Lesson</p>	<ol style="list-style-type: none"> 1. No reading occurred during the lesson. 2. Students did a drawing activity by listening to the teacher's instruction.

Interviews sessions

A total of 9 interview sessions were conducted (6 students and 3 teachers)

Teachers' responses included:

1. All three indicated either two or more language skills (including reading) could be a factor causing difficulties on the students' part in their subjects.
2. Not sure what reading task meant. But agreed that students are required to read a lot in their lessons.
3. See reading as a way to get information from the textbook for new topic and to prepare students to gain knowledge of a new topic.
4. Reading materials used by teachers is often from textbook as well as notes prepared by the teachers.
5. Reading aloud is sometime being practised in class. It was usually done by the teacher – due to pronunciation factor and to save time. And is usually done in lower secondary level.
6. Reading tasks students seem to be interested in – completing worksheet, presentation as well as question and answer session.
7. One teacher indicated that students like to read notes with animation and those that contain graphic and pictures.
8. Difficulties in reading – attributed to vocabulary / terminology used; the wording of questions and overall understanding of the vast information from their textbooks
9. Strategies used if students have difficulty in reading – **re explain** the content / reinforce content.
10. How they measure the reading of their students – from hw, test and by questioning and answering.
11. Use of language? – Both can be used in class but Malay is used for explaining new vocabulary.

Students' responses:

1. None of the students interviewed said they have difficulties in reading. Most said writing and speaking are skills that they have difficulties in.
2. Reading activities that are usually done in class include note-taking, analysing content. Question and answer and teacher explaining the content of the lesson.
3. One student did read for his subject for the sake of test only, the rest read for academic purposes – to gain knowledge and for new topic.
4. Reading materials used are usually from textbook but sometime from prepared and summarized notes from their teachers.
5. Most students indicated that reading should be done at home (except of two) before the lesson. One student preferred to read after each new topic.
6. Reading aloud – seldom.
7. Difficulties they encounter with their reading – **vocabulary**.
8. Reading strategies they used when comprehension failed – **reread** back what they have read, **consulting a dictionary** for new words and **asking the teacher**.
9. Choice of languages – Either Malay and English. Students indicated that, though Malay should be used to reinforce content and explaining vocabulary. One student even suggested that English can be made simpler when explaining content.

Appendix xvi: Students Interview questions (Stage 2)

Areas of focus	Interview questions (guidelines)
<p>How do students read in English?</p>	<ol style="list-style-type: none"> 1. How do you rate your reading ability in English? Why? 2. What aspects / areas of reading do you find easy/difficult when reading in English? <ul style="list-style-type: none"> - What helps in your reading? What hinders in your reading? Why? - What are the things that you find easy in your reading? What do you find difficult in your reading in English?
<p>How do students read to learn?</p>	<ol style="list-style-type: none"> 1. Can you remember your teachers focusing on reading in class? Was it your English teacher? Science teacher? What did they do? 2. Did you teacher ever give you any tips on how to read better? Do you remember what are they? 3. Do you find it easy to read text for your English subject? Science subject? Geography? Why? 4. When you read a text that you find difficult to understand, how do you go about making sense of it? 5. If you have a set of text for homework or class work and you find it difficult to read, what do you do?
<p>How do students approach various texts?</p>	<ol style="list-style-type: none"> 1. Before you start to read, what kinds of plans/steps do you make to help you read better? <ul style="list-style-type: none"> - What sort of things do you usually do first when you are given a text to read in the class or at home? 2. What about reading for your other subject? Science or Geography? How do you read them? Why? 3. What is easy about reading for English, Science or Geography? What is difficult about them? 4. If you encounter any difficulties with your reading for your subject (for example for English subject or for biology). What do you do?
<p>Reading for English subject and content subject (eg Biology or Geography)?</p>	<ol style="list-style-type: none"> 1. Do you find reading for English subject is easy then reading for other subject (or vice versa)? Why? Why is reading for Biology difficult (or easier) than for English? 2. Do you read text for biology, geography in a similar way to the ones in English subject? Can you give examples? 3. What is different in the way you read for these subjects? What is similar? 4. What is easier? What is difficult and what is the same in your reading for these subjects? 5. What did your English teacher tells (teach) you about reading? What about your Science teacher? 6. To help you the most in reading texts that you have to do for school, what would you like to have? What sort of things you wish to have to help you with your reading? 7. What sort of things would you like to have to help with your reading in English across all subjects?

Fit or fat?

The problem

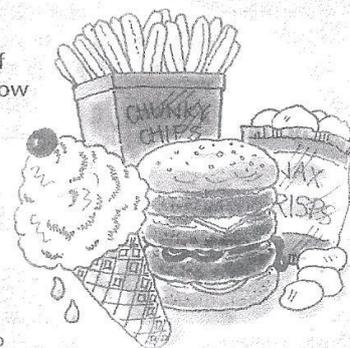
7 Ten-year old Chan Kam-wai from Hong Kong weighs 56 kg. He struggles to breathe each time he climbs the stairs. Lee Mei-ling from Singapore is only six years old, but weighs nearly 28 kg. She loves chocolate, ice-cream and French fries. In Bangkok, Thanapat Pitaksit, at 17, stands 1.7 metres tall and weighs 105 kg. "The doctor gave me medicine to make me less hungry, but I stopped when it made me feel sick," he says. 5

8 Kam-wai, Mei-ling and Thanapat share a problem which is now common among Asia's younger generation. Data from Singapore's School Health Service shows that the level of obesity among students more than doubled to 12.2% in the decade to 1990. Hong Kong shows a similar rise: a survey conducted in 1993 found that 13.4% of boys and 10.5% of girls aged between six and eighteen were obese, compared with 5% thirty years earlier. Thailand and Taiwan, too, are losing count of the kilos. 10

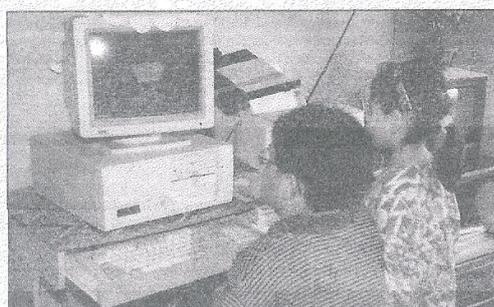
3 Besides looking good, there are medical reasons for maintaining a healthy weight. Doctors say that overweight children have a higher chance of health problems – painful knee-joints, hypertension, diabetes and respiratory ailments. And if they grow into overweight adults, they have a higher risk of heart disease. 15

The causes

4 So what are the causes of this problem? Firstly, many children are spoiled with too much of the wrong kind of food. "In the past, people had four or more children. Now they have one or two, so they tend to pamper their kids," says a Hong Kong paediatrician. "The easiest way is to give them 'quality' food. Parents think that feeding them well is showing their love." Dr Chwang Leh-chii from Taipei's Veteran's Hospital, says that children and teenagers are consuming more meat and soft drinks. That is very different from the traditional diet of vegetables and rice and a little meat. "They like big pieces of fried meat with a soft drink. Now about 40% to 45% of their calories come from fat," says Chwang.



5 The second cause can be seen in the clear relationship between obesity and indoor play. According to Dr Masahiki Okuni, who in 1995 conducted a study on the fitness level of Japanese children: "Children become overweight because they don't move, and eventually they don't want to move because they're overweight." There is a growing number of five-year-olds who prefer point-and-click games to old-fashioned hide-and-seek. "My daughters spend their time either watching TV or in front of the computer playing video games," complains Vicki See, a Hong Kong mother of two. 30



6 Kindergarten teacher Margaret Lai blames Hong Kong's high-rise apartments and congested streets for the lack of interest in outdoor sports and exercise. She points out that many parents are happy to have their children stay at home and watch TV for safety reasons. University lecturer Suwanna Sathanand says there are more shopping malls than parks in Bangkok, and city pollution makes sports and outdoor activities less attractive. 40 45

Tissue Rejection

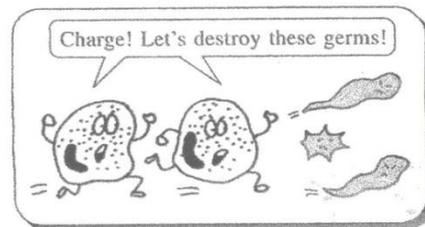
Sometimes during surgical operations, patients may lose too much blood. Hence, they need a blood transfusion. During a blood transfusion, another person's blood is introduced into the patient. The person who supplies the blood is the **donor** and the person who receives the blood is the **recipient**.



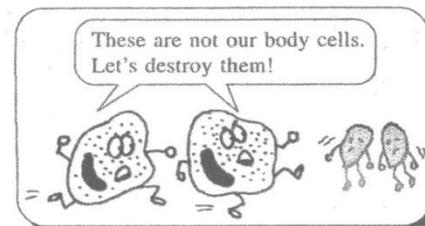
It is essential to make sure that the blood given to the recipient is of the correct type. Both the blood group of the donor and the blood group of the recipient should either be the same or compatible, that is, they match each other. Otherwise, the blood cells introduced will be "rejected" or destroyed by the recipient's body and the recipient will die.

A recipient's natural defence to destroy blood cells that are not compatible is an example of **tissue rejection**. In such a case, the blood cells are considered "foreign", that is, not belonging to the body. Rejection of anything "foreign" is, in fact, a normal protective action taken by the body.

Usually when germs enter the body, white blood cells in the blood will recognize and destroy them. This is one way the white blood cells protect the body against foreign organisms.



In a similar way, the white blood cells recognize a tissue or an organ that is transplanted into a person as "foreign". Hence to protect the body against anything that is "foreign", white blood cells will attack and destroy the transplant.



Platelets

Platelets help in the clotting of blood.

When the skin is cut and bleeding occurs, the platelets clump together at the wound. The platelets and damaged cells of the skin then produce a substance which converts **fibrinogen** to **fibrin**. Fibrinogen is a protein that is present in plasma. Fibrin is a network of threads that forms across the wound. Red blood cells are trapped in this network to form a solid mass called a **blood clot**. The clot prevents further loss of blood and stops germs from getting into the wound. Later the clot dries up to form a **scab** which will drop off once the cut skin is healed.

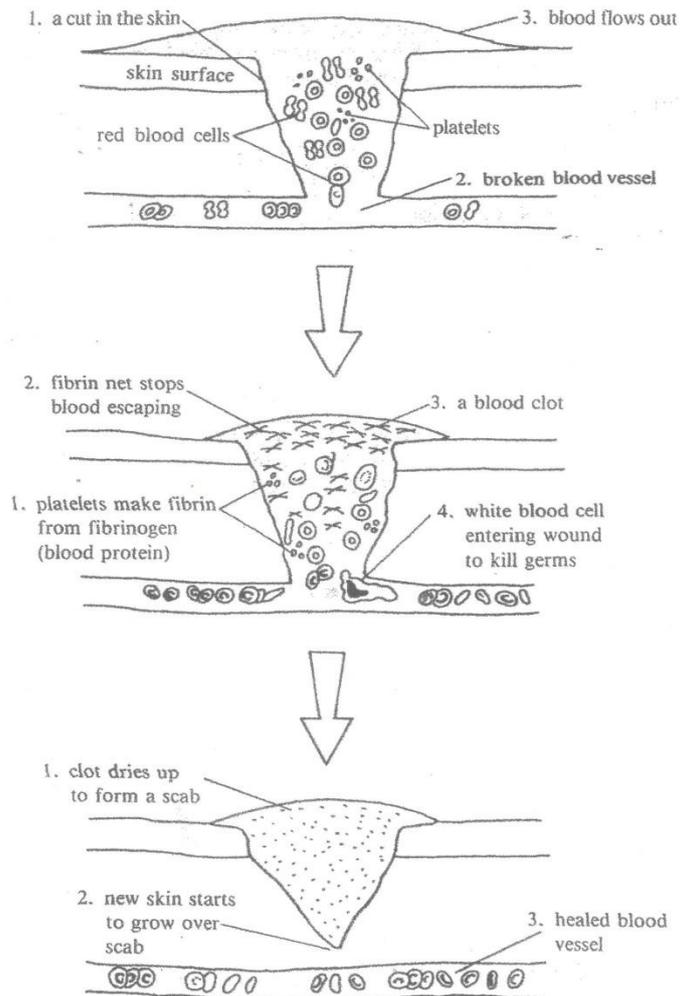


Fig. 10.5 The clotting of blood — a blood clot is made up of red blood cells and fibrin

INFORMATION FOR TEACHERS

Title of the research: **READING ACROSS THE CURRICULUM IN SECONDARY SCHOOLS IN BRUNEI: A CASE STUDY**

Researcher Name: Rahmawati binti Haji Bolhassan

Ethics reference: RGO Ref- 6027

Please read this information carefully before taking part in this research.

Information about the researcher

As an Education Officer with the Ministry of Education, Brunei Darussalam, I have been teaching at various secondary schools since 1989 and currently I am doing research at the University of Southampton, United Kingdom. I first taught Mathematics (after my teacher training) and then English Language (after my degree). My interest in research started with a study on students' attitudes and perceptions towards English Language and after teaching English for several years, I began to look at reading instruction in Brunei English language classrooms. After conducting research on students' reading strategies in the English language classroom for my postgraduate degree, I further developed an interest to look at reading instruction across the curriculum.

I am hoping that this research will shed some light on students' reading behaviour as well as how far students' reading skills and strategies have an impact on their studies, not only in English language but also across the curriculum. It is also hoped that the findings of this research will benefit students and teachers in the future to have a better understanding of the process of reading among students.

Information about the study:

I am investigating the teaching of reading across the curriculum including English language classes in secondary schools in Brunei. I am also looking at students' reading habits outside the classroom and how well students deal with the content of their reading.

The study will consist of classroom observations, interview, completing a questionnaire and participating in an individual 'think-aloud' session in which recording and videotaping participants' responses and activities will also take place. In this research, participants' names will not be identified and the information gathered will remain confidential and will only be used for research purposes.

As a participant in this study, you may be involved in the procedures above and, with your cooperation throughout the study, the findings will benefit students and teachers in the future to have a better understanding of the process of reading among students.

I very much hope you will be prepared to take part in the study. However, if you do not wish to participate, please write and inform the Principal of the school.

Finally, if you have any concern or complaint about the research, you can contact the University's Research Governance Manager, Corporate Services, University of Southampton, Highfield Campus, Southampton, SO17 1BJ. (Tel: +44238059(2)8849 or email: Ld7@soton.ac.uk)

Thank You.

INFORMATION FOR STUDENTS

Title of the research: **READING ACROSS THE CURRICULUM IN SECONDARY SCHOOLS IN BRUNEI: A CASE STUDY**

Researcher Name: Rahmawati binti Haji Bolhassan

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Your parents or guardian have also been informed about this study and students whose parents express the wish to opt out will not be included in the interview or 'think-aloud' session. Furthermore, if you yourself do not wish to take part in the interview or 'think-aloud' session, you may decline to do so. You may also withdraw from the study at any stage.

As a participant in this study, you may be involved in the procedures above and, with your cooperation throughout the study, the findings will benefit students and teachers in the future to have a better understanding of the process of reading among students.

Finally, if you have any concern or complaint about the research, you can contact the University's Research Governance Manager, Corporate Services, University of Southampton, Highfield Campus, Southampton, SO17 1BJ. (Tel: +44238059(2)8849 or email: Ld7@soton.ac.uk)

Thank You

CONSENT FORM FOR PARENTS / GUARDIAN

Title of the research :READING ACROSS THE CURRICULUM IN SECONDARY SCHOOLS IN BRUNEI : A CASE STUDY

Researcher Name: Rahmawati binti Haji Bolhassan

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The study will consist of classroom observations, interview, completing a questionnaire and participating in an individual 'think-aloud' session in which recording and videotaping participants' responses and activities will also take place. In this research, participants' names will not be identified and the information gathered will remain confidential and will only be used for research purposes.

The classroom observation will involve all students in the classroom and it will not be focusing on any individual students. In addition to observation in the classroom, I will also be asking them questions on what they do when they are reading in the interview and 'think-aloud' sessions. For this, I will be selecting students, in conjunction with the teacher, to take part in these two sessions.

As a parent or guardian, you do not have to let your child to participate in the interview and 'think-aloud' sessions. If you do not want your child to participate in these sessions, please complete the form attached and return it to the class teacher concerned at the beginning of the research or at any point of the research.

Finally, if you have any concern or complaint about the research, you can contact the University's Research Governance Manager, Corporate Services, University of Southampton, Highfield Campus, Southampton, SO17 1BJ. (Tel: +44238059(2)8849 or email: Ld7@soton.ac.uk)

Thank You.

cc.

Principal Maktab Sains Paduka Seri Begawan Sultan, Jalan Muara.

Principal Sekolah Menengah Sayyidina Abu Bakar, Lambak Kanan, Berakas

Principal Sekolah Menengah Pengiran Anak Putri Hajah Masna, Lambak Kanan, Berakas

Principal Sekolah Menengah Sultan Syarif Ali, Salambigar.

CONSENT FORM FOR PARENTS / GUARDIAN

Title of the research :READING ACROSS THE CURRICULUM IN SECONDARY SCHOOLS IN
BRUNEI : A CASE STUDY

Please INITIAL the box ONLY when you decide for your child to opt out from the study.

I DO NOT give my consent for my child to participate in the interview session.

I DO NOT give my consent for my child to participate in the 'think-aloud' session.

Name of Participant (student's name)

Name of Parent / Guardian

Signature of Parent / Guardian

Date.....

Appendix xxiii: Letter to Director of School to conduct the Main study.

17 June 2009

Hajah Aishah bte Haji Muhd Husain
Director of Schools
Ministry of Education
Negara Brunei Darussalam

Dear Hajah Aishah bte Haji Muhd Husain

I am writing on behalf of my research student, Rahmawati Haji Bolhassan, to request your permission for her to carry out research (classroom observation, interviews with teachers and pupils and 'think aloud' reading sessions) in the following four schools:

Maktab Sains Paduka Seri Begawan Sultan, Jalan Muara.
Sekolah Menengah Sayyidina Abu Bakar, Lambak Kanan, Berakas
Sekolah Menengah Pengiran Anak Putri Hajah Masna, Lambak Kanan, Berakas
Sekolah Menengah Sultan Syarif Ali, Mentiri.

This investigative study will take place in July – September 2009 and it will be very helpful to Mrs Rahmawati Haji Bolhassan in gathering information and data for her MPhil/ PhD degree in Applied Linguistics at the University of Southampton. The topic of her research is "Reading across the Curriculum in Brunei Secondary Schools".

Thank you very much for your assistance in this. It would be very helpful if you could reply directly to Mrs Rahmawati Haji Bolhassan.

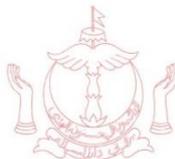
Yours sincerely



George M Blue
Research Supervisor

Appendix xxiv: Approval letter from the Department of School

TELEPHONE : 2230513/511
FACSIMILE : 2230515



جباڤن سڪولہ
ڪمٽين فنڊيقان
نكارا بروني دارالسلام

JABATAN SEKOLAH-SEKOLAH
KEMENTERIAN PENDIDIKAN BB3510
NEGARA BRUNEI DARUSSALAM

Rujukan Kami :
Our Reference KP/DS/19:3

DEPARTMENT OF SCHOOLS
MINISTRY OF EDUCATION BB3510
BRUNEI DARUSSALAM
Tarikh : 28 Jamadilakhir 1430
22 Jun 2009

Yang Mulia,
George M Blue
Research Supervisor
University of Southampton
School of Humanities

Tuan,

MEMOHON KEBENARAN MENJALANKAN KAJIAN

Dengan hormat surat Tuan bertarikh 17 Jun 2009 mengenai perkara di atas adalah dirujuk.

Sukacita dimaklumkan bahawa Jabatan Sekolah-Sekolah tiada halangan bagi **Dayang Rahmawati binti Haji Bolhassan** yang sedang mengikuti program MPhil / PhD Degree di Universiti Southampton untuk menjalankan kajian dan penyelidikan di **sekolah-sekolah menengah** seperti yang dipohonkan.

Walau bagaimanapun, sebelum memulakan penyelidikan, Dayang Rahmawati hendaklah berunding dengan Pengetua untuk mengelak gangguan pada pihak sekolah. Dengan salinan surat ini Pengetua adalah diminta memberikan kerjasama kepada Dayang Rahmawati untuk menjalankan kajian tersebut.

Wassalam.

[AWG HJ MUHD MASA MASDI BIN MUHD SA'IDUN]
b.p. Pengarah Sekolah-Sekolah

s.k.: Pengarah Perancangan, Perkembangan dan Penyelidikan
Pemangku Penolong Pengarah [Menengah]
Pengetua Maktab Sains Paduka Seri Begawan Sultan
Pengetua Sekolah Menengah Sayyidina Abu Bakar, Lambak Kanan
Pengetua Sekolah Menengah Pengiran Anak Puteri Hajah Masna
Pengetua Sekolah Menengah Sultan Sharif Ali

/k5

Think aloud tasks – procedure:

The study will follow the model referred as concurrent verbal reports (Pressley & Hilden, 2004). Students are urged to report what they are thinking as they read.

Instructions to participants need to be general (Pressley & Hilden 2004) such as 'Please think aloud as you read....Tell me what you are thinking as you read the text'. 'You are expected to use English when you think aloud as you read....but you may use Malay as well or both'

Procedure:

1. Before the actual recording to take place, 30 minutes of the lesson will be used for modelling and practice of the think aloud procedure.
2. Teacher/researcher will show students how to think aloud by modelling it in class.
3. Then get students to practise it with their friends (in pairs).
4. The researcher then selects 10 students from the whole class to participate in the actual study. At this stage, students have the choice not to be involved in the session.

INTERVIEW QUESTIONS:

Purpose: to provide more information about what kinds of strategies are used by the students as a complementary procedure to the 'think aloud' reports.

The questions range from general to specific such as:

1. Do you think in Malay?
2. Do you translate? Why? How?
3. What confused you?
4. How did you understand this word?
5. What steps did you follow before verbalizing?

Appendix xxvi: General Findings on The Reading Strategies students used when reading in English

	From 2009 questionnaire data (N= 161 students)	From 2010 questionnaire data (N= 30 students)
<p>Most frequently Used <i>(strategies students used sometimes, frequently and / or always in their reading)</i></p>	<ol style="list-style-type: none"> 91% of the students indicated that they try to work out the meanings as they read 37% of the students indicated that they <i>always</i> use the title to try to imagine what the article / text might be about. On the whole 74% said they do this in their reading. 88% students indicated that they try to guess how pictures or illustration relate to the article / passage. 34% seemed to <i>always</i> do this when they read. 91% of the students try to guess the meaning of words that they don't know. 91 % use what they already know to help them understand the passage. 91 % of the students indicated that they always have a picture in their mind about what they are reading. And almost of the students (46%) said they <i>always</i> do this when they read. 93% of the students indicated that they are aware when they do not understand the meaning of a word during the reading process. 92 % indicated that they are aware when they do not understand a part of the passage when they read. 88% indicated that they know when they are not concentrating when they are reading. Almost half of the 161 students (47%) indicated that they <i>always</i> aware of this when it happens. 93% of the respondents indicated that they know and aware of the difficulty of the passage. 98% reread the paragraph that they don't understand. More than half of the respondents (57%) said they <i>always</i> do this when they read. 	<ol style="list-style-type: none"> 94% of the students try to work out the meanings as they read. 93% use the title to try to imagine what the text might be about. Nearly half of the sample (43%) said they <i>always</i> do this when they read. 93% students indicated that they try to guess how pictures or illustration relate to the article / passage. More than half (53%) said they <i>always</i> do this when they read. 97% of the students try to guess the meaning of words that they don't know. 40% of the sample <i>always</i> does this when they read. 97 % use what they already know to help them understand the passage 97 % of the students indicated that they always have a picture in their mind about what they are reading. And majority of the students (73 %) said they <i>always</i> do this when they read. All students (100%) indicated that they are aware when they do not understand the meaning of a word during the reading process. All students (100%) indicated that they are aware when they do not understand a part of the passage All students (100%) indicated that they know when they are not concentrating. 97 % of the respondents indicated that they know and aware of the difficulty of the passage. 93% reread the paragraph that they don't understand. More than half of the respondents (54%) said they <i>always</i> do this when they read. 100% reread a sentence when they don't understand what it means. 77% of the respondents <i>always</i> do this in their reading. 97% like to know something about the topic in advance. 87% said they guess the meanings of unknown words by using context clues. 40%

	<p>12. 95% reread a sentence when they don't understand what it means. 52% of the respondents <i>always</i> do this in their reading.</p>	<p>of the students said they do this <i>always</i>.</p> <p>15. When students encounter unknown words, 93% of the respondents said they will try to infer the meanings by using the clues from the questions.</p> <p>16. During the reading process, 93% of the students indicated that they try to identify key words in the sentence.</p> <p>17. During the reading process, 93% of the students indicated that they also try to make an inference about the sentence they are reading.</p> <p>18. When reading, 93% of the students also indicated that they check if their inference is correct.</p> <p>13. All students (100%) indicated that they are aware when they understand a part of the passage.</p> <p>14. 97 % of the students know their weaknesses in reading</p> <p>15. 93% try to refer to the previous paragraph to better understand what they read and almost half of the students (53%) indicated that they <i>always</i> do this when they read.</p> <p>16.</p>
<p>Summary of the reading strategies frequently used in both data</p>	<ol style="list-style-type: none"> 1. Students try to work out the meanings as they read. 2. Students use the title to try to imagine what the article / text might be about. 3. Students try to guess how pictures or illustration relate to the article / passage 4. Students try to guess the meaning of words that they don't know. 5. Students use what they already know to help them understand the passage 6. Students always have a picture in their mind about what they are reading. 7. Students are aware when they do not understand the meaning of a word during the reading process. 8. Students are aware when they do not understand a part of the passage when they read. 9. Students know when they are not concentrating when reading 10. Students know and aware of the difficulty of the passage. 11. Students reread the paragraph that they don't understand. 12. Students reread a sentence when they don't understand what it means 	

	From 2009 questionnaire data (N= 161 students)	From 2010 questionnaire data (N= 30 students)
<p>Least Frequently used</p> <p><i>(Strategies students used rarely and /or never in their reading)</i></p>	<ol style="list-style-type: none"> 1. More than half of the students (52%) indicated that they don't break the (unknown) words into parts to guess the meanings. 2. 51% rarely or never translate the whole sentence into Malay during the reading process. 3. Nearly half of the students (41%) rarely or never translate words into Malay. 4. Nearly half (47%) responded that they rarely or never ask themselves questions about what they have read. 	<ol style="list-style-type: none"> 1. 47% rarely or never translate the whole sentence into Malay during the reading process. 2. Nearly half of the students (47%) rarely or never translate words into Malay.
<p>Summary of the reading strategies rarely used in both data</p>	<ol style="list-style-type: none"> 1. Translate whole sentence into Malay during reading. 2. Translate words into Malay. 	

Appendix xxvii: Categorization of codes

Difficulties and problems	Attitudes	Reading across the curriculum	Reading strategies /
<p>Because i have a few miss pronunciation</p> <p>Words affect my reading actually</p> <p>Difficult and unfamiliar vocabulary makes it difficult to comprehend and vice versa.</p> <p>Also layout matters like font size, lengthy text, unfamiliar vocabulary.</p> <p>Well when reading a novel, if i am into it already and then there are some parts of it confusing, it can be difficult. For example, in that story book, there are five people. At first it talks about this person and then later on it talks about another different people. The change in focus on various characters can be difficult to follow.</p> <p>I guess terminologies used in these subjects that differentiate the difficulties in reading for these subjects.</p> <p>words and meanings (?) of sentences can cause difficulty in my reading.</p> <p>I sometime stutter.</p> <p>I might get stuck with complicated words and i sometime might read a bit too quick. When i do this, i miss something sometimes and might not understand the passage.</p> <p>I don't like reading long texts</p> <p>What makes it difficult is for me the unfamiliar words. Long and complex sentences in a long paragraph also add to the difficulty in understanding of what i am reading.</p> <p>The change in focus on various characters can be difficult to follow.</p>	<p>I think it's average because reading for my current subjects (Form Five) is very different from reading for Form One subjects.</p> <p>Ah...slightly okay because sometimes it is hard to understand what i read. If I can't think of what I have read, then I won't be able to understand it.</p> <p>If it is novel it is easy but if it is for studies....like physics, it is very hard to understand.</p> <p>can be difficult as well. For one thing, the passage is sometime very long, even up to two pages.</p> <p>Then there are the questions, though a few but to find the right points is another thing.</p> <p>We have to find the points and we read and read and then we must underline or circle points (or answers) from the passage, and sometime what we underline or circle, we think there are correct but then they are not. Sometime the passage can be tricky..</p> <p>I personally read the notes only when it is time for examination.</p> <p>Reading newspaper to me is easier because the vocabulary used are mostly words that i am familiar and there are not many complicated words.</p>	<p>Furthermore the reading texts, we have to read for our English comprehension section (especially paper 2), are very difficult.</p> <p>Often when doing correction with our comprehension, we still find it difficult to understand the reading texts.</p> <p>words used in combined science text, some are difficult and new words.</p> <p>With English text / passages, I look at the questions and then I look at the title.</p> <p>Sometime the meanings make it hard to understand like for example...Speed is 2.5...bla bla bla..and it is hard to understand because it involves algebraic expressions and calculations.</p> <p>For content subjects, it is easier to read those subjects that i like..</p> <p>With teachers sometimes, they can be strict and some are lacking sense of humour.</p> <p>They just explain the notes again in class on board. Teachers usually just explain what in the notes again in class and students do usually read the notes given to them.</p> <p>They would read the passage aloud first and then.... Er..but sometimes they ask us to read the passage on our own aloud..</p> <p>Science teachers, any tips from them on how to read better?] No just read only....at least for Bio while for Physics...practices. It's Bio that we need to read a lot. [what sort of practices you mean for Physics?].Hm..practices for using the formula and...Yes that's it..[so read and then practice?].Yes.</p> <p>Content subjects such as Science are easier because lots of pictures and diagrams.</p>	<p>Try to reread the sentence and apply my own words.[So basically you do rereading]</p> <p>First I read the title and then I read the first paragraph. And then if I don't understand, I read twice.</p> <p>I mark and then i write notes to highlight the important points.</p> <p>No i don't often translate because i find it different when we translate, so i try to make sense of it with the help of the rest of the text.</p> <p>I sometime highlight key points</p> <p>Sometimes I scan and skim the pages to get the feeling of whether it's going to be an interesting read or not.</p> <p>If not i reread again. In the second reading, i usually focus more on the key points and sometimes i ask myself questions to help me understand better.</p> <p>I usually read and then I put myself into the text (that I am doing what's inside the 'story' or text). I try to personalize what I read.</p> <p>The teachers usually explain the key points of the lessons or notes on board with the help of mind map.</p> <p>I try to imagine the situation and sometime I try to relate it to my own experience but not often.</p> <p>Topics that are familiar or that i have some background knowledge of, are easier than those that I haven't.</p> <p>imagine the story by picturing myself as the main character and imagine that i am in their shoe.</p>

Appendix xxviii : Descriptions of codes used for analysis with NVIVO

Code category	Smaller Codes	Description	Examples
1. Reading ability – RA (perceived)	a. RA Avg (reading ability average)	Those who indicate that they have problems or difficulties with certain words, understanding or pronunciation with their readings or those who indicate that they don't do much reading	<i>It's 50/50; It's okay; I have difficulty with pronouncing words sometimes; I don't read often</i>
	b. RA Gd (Reading ability good)	Those who indicate that they have no problems at all with their readings. They understand their reading well.	<i>No problem; I can understand most of what i read;</i>
2. Reading strategies used..... (RdgStr)	a. Title (Rdgstr –Title)	When title is used to help with meaning making or to comprehend the text. Also if students do read (and do anything with the title) at all or simply look at it	<i>I look at the title;</i>
	b. Predicting (RdgStr-Predict)	When students predict what the text is going to be about using other 'clues' from the text such as the title, the pictures, etc.	<i>I look at the title and helps me to know what the passage is going to be on;</i>
	c. Guessing (RdgStr-Guess)	When students guess what the text is going to be about using 'clues' from the text such as the title, the pictures, words, questions etc	<i>I guess the meaning of the words that i don't know to help with my understanding;</i>
	d. Illustration in the text (RdgStr-Pict)	Pictures or any illustrations are used to help with their reading. It could mean students either look at the pictures at any stage of their reading or whether or not the illustration helps with their reading process	<i>The pictures look interesting; They add more or extra information; It helps me understand the text better, etc...</i>
	e. Purpose setting (RdgStr -+Purpose)	Why do reading take place – for test; reading comprehension lesson; for answering questions; reading for new topic;	<i>I only read when there is a test; ead when teacher asked us to read;</i>
	f. Read the questions (RdgStr -RdQs)	Read the given / assigned questions before or after the reading task.	<i>I read the questions and then read to find the answers;</i>
	g. RdgStr- Skim	Skimming for key words; important points etc	<i>I first skim the passage...;</i>
	h. RdgStr -Scan	Scanning for key words; important points etc...	<i>I scan the text first.; ...scan for important points...;</i>
	i. Mind Mapping (RdgStr -MindMap)	Use of specific reading strategies during reading	<i>We use mind map; we use graphic map; etc...</i>
	j. Translate to Malay (RdgStr-Mal)	When Malay is used to make sense what is being read / taught. It may include translating ideas, sentences or words.	<i>I translate them into Malay;</i>
	k. Reread (RdgStr -RRd)	Reading for the second time or for the third time to understand the text better or to repair comprehension or for clarification purposes	<i>If i don't understand, i reread the text again; I usually read more than once to help me understand the text;</i>
l. Transfer of strategy (RdgStr -Transfer)	Strategies being used / taught/ learnt from other subject (eg English language) and used in reading for other subjects (eg. Geography; Science) and vice versa.	<i>I used these strategies when i read my geography's textbook too; i</i>	
3. Reading strategies or for monitoring ... (MReg...)	a. Asking oneself questions (MReg-AskQs)	When readers ask themselves questions about the text or to help them monitor their understanding	<i>...I ask myself questions to help me understand better;</i>
	b. Visualizing / imagining (MReg-Visual)	Using own imagination to imagine or to visualize what was in the text / reading passage. This include forming mental picture, putting oneself into character etc	<i>I try to imagine the situation; I put myself into the text; Imagine the story by picturing myself as the main character;</i>
	c. Background knowledge (MReg – Bkgrd Knwldg)	Relating what is read with what has already known (background knowledge or previous experiences)	<i>I try to personalize what i read; I try to relate it to my own experience</i>
	d. Summarizing (MReg-Summarizing)	Identifying the main key points or key words of the text read as a way to make sense of the text or to understand the passage.	<i>I highlight key points; Teacher summarizes the notes; We focus on key words</i>
4. Contributing Factors / Difficulties / problems in reading [PROB]	a. Words (PROB-Wrd)	When words (difficult, unfamiliar, new or specific terminologies) are seen as a factor that can lead to difficulty in comprehending the text or simpler words that make it easier to read a certain text.	<i>Words affect my reading actually; Complicated words;</i>
	b. Unfamiliar Topic (PROB-UnTp)	Topic of interest or familiar can make it easy to understand the text and vice versa	<i>What makes it difficult in comprehending text in English, well sometimes it depends on the topic</i>
	c. Lengthy / long text (PROB -longTxt)	Lengthy and long text seen as a factor that can make comprehension difficulty. This include when the text consists of all text without any graphic / pictures.	<i>English is more difficult due to long texts, new words</i>
	d. Pronunciation of words (PROB – Pron)	Some indicate pronunciation of new or unfamiliar or certain words can cause difficulty in their reading process.	<i>Well pronunciation often makes it difficult to read..</i>
	e. Sentence complexity (PROB-SentCmpx)	Long and complex sentences used in the reading text do contribute to the difficulty with the reading process	
	f. Layout (PROB-layout)	Font size; font types and presences of pictures that might help (or hinder) understanding of the text	<i>Pictures do help</i>
	g. Motivation / interest (PROB –Intrst)	Factors such as interesting topic; motivated to read and other things / reason that lead them to want to read.	<i>What makes it difficult is when you don't have an interest on it</i>
	h. Incorrect points (PROB -WrgPts)	When the points or answer that students thought are correct are actually not. This also include confusing text, misunderstood concepts etc	

Code category	Smaller Codes	Description	Examples
5. What helps with reading in English.. What makes it easy to read text in English. HELP (Help techniques)	a. HELP Concentrate	To have conditions that allows them to concentrate in their reading	<i>I prefer to read alone, for concentration purpose; I prefer reading on my own because i can concentrate better</i>
	b. HELP Int	When interest in the subject or topic helps with the reading. Also when motivated to read.	<i>I find reading for Science subjects is easier because it is mostly due to my personal interest</i>
	c. HELP Topic	The topics in the text help them to understand better or make it easy to read	<i>Topic also important, familiar topic makes it easy while</i>
	d. HELP Text type	The text type or genre helps with reading.	
	e. HELP Visual	When pictures or illustration help with reading. Or when students say that by visualizing when they read helps with their reading	<i>Diagrams and pictures, especially related to the text do help with my reading in order for me to understand what I am reading</i>
	f. HELP Dict	Use of dictionary is helpful with the reading process	<i>Reading at this level needs to have a dictionary by my side</i>
	g. HELP Vocab	Easy vocabulary or the use of familiar words make it easy to read in English	<i>'easy and simple' vocabulary make it easy to understand</i>
	h. HELP frm others	Get help from teachers, siblings, parents or friends when having difficulty in their reading	
6. General Reading activities across the curriculum (in both language and content subject) used in the class while reading. [RAC] (reading across the curriculum)	a. Reading aloud in class (RAC-RdAld)	Activity whereby teacher read aloud or students read aloud in class	<i>They just read it out first aloud. Sometime they call us to read it too aloud,</i>
	b. Highlighting key points / words (RAC-KeyPts)	When students are to highlight or mark the key points / main ideas or key words during their reading in both language lesson or content subject lessons	<i>Most of our science subjects' teachers told us to highlight important words (scientific words as in Biology).</i>
	c. Reading the notes (RAC-Notes)	When reading from the notes provided by the teachers are the main activities being conducted during class especially in content subjects classroom	<i>we usually read the notes given to them</i>
	d. Comprehension (RAC-CpQs)	In English subject, doing reading comprehension consisting of answering questions for the given reading text is conducted.	<i>We also do comprehension and also for composition as well in class such as narrative text.</i>
	e. Explanation content (RAC-ExpCont)	Often in content subject classroom when teachers explain the notes that they have provided for their students.	<i>Then they discuss about the topic, usually paragraph by paragraph;in class teacher explains back to us...;</i>
	f. Individual reading (RAC-OwnRdg)	Individual reading on students' parts	<i>we are to told to read book. We read books on our own; We do reading in class sometimes when the teacher is busy marking</i>
7. Vocabulary issues and how they are tackled during reading an English text or textbook across the curriculum [Vcb]	a. Use of context (VcbContxt)	Making use of the context to look for meanings of unfamiliar words.	<i>I usually guess their meanings by rereading the sentence where the words are again. I use the context to help me</i>
	b. Dictionary (VcbDict)	Using dictionary to find meaning of the new or unfamiliar words	<i>What I usually do is I mark the words first and then later I check them in the dictionary.</i>
	c. Guessing meaning (VcbGuess)	Guessing the meaning of unfamiliar or new words	<i>If it is hard, I am ok because I like challenges but I won't get the dictionary to....I will just guess what it is...</i>
	d. Translate (VcbTrnslte)	Direct translation to Malay of the unfamiliar words	<i>When I encounter difficulties, say words, I sometimes relate it to another sentence. I make my own sentence I guess, such as substitute it with an easier sentence.</i>
	e. Ignore unfamiliar words (VcbIgnore)	Ignore the unfamiliar / difficult / new words and keep on reading	
	f. VcbAsk	When dealing with difficult words, either asking from teachers or from friends or siblings	

Code category	Smaller Codes	Description	Examples
8. Reading in English Language class [EngCls]	a. Reading aloud in class (EngCls-RdAld)	Activity whereby teacher reads or the students are asked to read aloud in class during lesson /reading activity	<i>Our English teacher asked us to read aloud so we can practice our pronunciation; In English, we are to encourage to read aloud</i>
	b. Explanation of content (EngCls-ExpCont)	When the teachers explain the notes that they have provided for their students during lesson.	<i>Our English teacher during comprehension classes, she goes through every paragraph</i>
	c. Answering question (EngCls--AnsQs)	Reading comprehension consisting of answering questions for the given reading text is conducted.	<i>They give us clues on how to read; we should read the questions first before we read the comprehension passage</i>
	d. Accuracy (EngCls-Acc)	Reading activity that focuses more on accuracy such as grammar / sentence construction etc.	<i>English is more to accuracy; read the passage aloud in class and in that way it is easier for them to spot the mistakes that we did</i>
	e. EngCls-Easy	Reading for English subject is easier when compared to other content subject.	<i>Reading for English is easier than reading for my other subjects</i>
	f. Extra reading (EngCls-Xtra)	Reading more outside the classroom is encourage. This include reading novel, newspaper and reading on the net.	<i>He told us to do further reading on the internet outside class; Our English teacher just encourages us to read more and to speak more in English.</i>
	g. Make own notes (EngCls-Own Notes)	Reading the text or textbook and then students make their own notes / make summary from what they read.	
	h. EngCls Material	Materials used in English lessons by the teachers during class or by the students	<i>Our English teacher gives us articles to read; For English, we have to deal with different passage every time</i>
	i. EngCls Own Rdg	Reading in English class which is done by students on their own during lessons.	<i>When doing comprehension for example, our English teacher gives us the reading passage, we read then</i>
9. Reading in Content subject class [NonEngCls]	a. Reading aloud in class (NonEngCls-RdAld)	Activity whereby teacher reads or the students are asked to read aloud in class during lesson /reading activity.	<i>They read the notes out aloud to the whole class</i>
	b. Explanation of content (NonEngCls-ExpCont)	When the teachers explain the notes that they have provided for their students during lesson.	<i>For other subjects, such as Geography, in class the teacher explains what's in the notes using a projector; In class the teacher usually goes through the notes with us</i>
	c. Answering question (NonEngCls-AnsQs)	Reading is mainly done to answer the questions set for the text in content class.	<i>Our Chemistry teacher, for example, ask us to read the questions and look for clues.</i>
	d. Accuracy (NonEngCls-Acc)	Reading activity that focuses more on accuracy such as grammar / sentence construction etc.	
	e. NonEngCls-Easy	Reading for content subject is easier when compared to reading for English subject.	<i>I find reading for Science subjects is easier</i>
	f. Extra reading (NonEngCls-Xtra)	Reading more outside the classroom is encourage. This include reading novel, newspaper and reading on the net.	
	g. Make own notes (NonEngCls-Own Notes)	Reading the text or textbook and then students make their own notes / make summary from what they read.	
	h. NonEngCls Material	Materials used in lessons by the teachers during class or by the students	<i>Other subjects such as Geography, we usually just read the notes given to us in class.</i>
	i. NonEngCls – Own Rdg	Reading in class which is done by students on their own during lessons.	<i>Other subject teachers just ask us to read</i>

Appendix xxix: Overall result of the questionnaires from students in the second stage (2010) of the study.

Actions students may take when reading in English.		2010	
		Positive (using the strategies sometimes, usually or always)	Negative (using the strategies seldom or never)
1.	I try to work out the meanings as I read	93	7
2.	I like to know something about the topic in advance.	97	3
3.	I use the title to try to imagine what the article might be about.	93	7
4.	If there are pictures I use them to try to guess how they relate to the article.	93	7
5.	First I read the comprehension questions and then I look for the answers when I read.	77	23
6.	I skim the whole article to get the general idea of what it is all about.	83	17
7.	I read the text through twice.	83	17
8.	I read the first line of every paragraph to get the gist.	83	17
9.	I ignore the words I don't know and continue reading.	77	23
10.	I read every word and look up the ones I don't know in a dictionary or word list.	63	34
11.	I try to guess at the meaning of the words I don't know.	97	3
12.	After reading, I say or write the main ideas in my own words.	63	34
13.	When I encounter an unknown word I try		
	a. to mark it	63	34
	b. to guess its meaning by breaking it into parts.	73	27
	c. to guess its meaning by using context clues.	87	13
	d. to infer its meaning by using the clues from the questions	93	7
14.	During the reading process, I try.....		
	a. To infer the meaning of an unknown word from the immediate sentence.	90	10
	b. To translate the whole sentence into Malay.	53	47
	c. To identify key words in the sentence.	93	7
	d. To substitute a word in the sentence to help me understand the meaning of the sentence.	90	10
	e. To make an inference about the sentence I am reading.	93	7
	f. To question myself whether I understand the meaning of the sentence I have read.	87	13
	g. To use grammar rules to understand the meaning of the sentence I have read.	70	30
	h. To measure the importance of the sentence I have read.	83	17
	i. To associate something else with the sentence I have read.	80	20
	j. To mark the sentences that I do not understand.	63	37

15.	When I read a passage, I try....		
	a. To translate a word into Malay.	53	47
	b. To predict what I am going to read.	87	13
	c. To check if my inference is correct.	93	7
	d. To summarize what I read.	70	30
	e. To integrate information from different parts of the passage.	87	13
	f. To use what I already know to help me understand the passage.	97	3
	g. To identify the important and the less important parts of the passage.	80	20
	h. To mark key points in the passage.	80	20
	m. To remember where key points are in the passage.	87	13
	n. To skip confusing parts of the passage, eg time or people's names	67	33
	o. To ask myself questions about what I have read.	70	30
	p. To relate it to my personal experience.	80	20
	q. To respond to the content of the passage with my personal opinions.	73	27
r. To have a picture in my mind about what I am reading.	97	3	
s. To have the questions/ task assigned in my mind.	80	20	
16.	During the reading process.....		
	a. I am aware when I do not understand the meaning of a word.	100	0
	b. I am aware when I understand a part of the passage.	100	0
	c. I am aware when I do not understand a part of the passage.	100	0
	d. I know when I am not concentrating.	100	0
	e. I am aware of the difficulty of the passage.	97	3
f. I know my weaknesses in reading.	97	3	
17.	When I read a sentence, I think whether it is related to the questions/task assigned.	97	3
18.	When I read a sentence, I notice whether it is related to the questions/task assigned to me	90	10
19.	When I read a paragraph, I try to refer to the previous paragraph to better understand what I read.	93	7
20.	When I do not understand a part of the paragraph, I try to get clues from the questions or task assigned to help me understand it.	90	10
21.	When I do not understand the paragraph, I try to reread it.	93	7

Appendix xxx: Overall result of the questionnaires from teachers across the curriculum in the employment of reading strategies in their classes. (N= 21 teachers)

	Seldom or (almost) never	Sometimes	Usually or (almost) always
1. Teaching vocabulary	6 %	19 %	77 %
2. Asking students to read the text aloud.	29 %	42 %	29 %
3. Translating the text into Malay.	52 %	28 %	20 %
4. Activating prior knowledge or background knowledge.	5 %	5 %	90 %
5. Teaching the connections of each paragraph.	23 %	14 %	63 %
6. Teaching the types of text (e.g. exposition, comparison and contrast)	48 %	14 %	38 %
7. Drawing students' attention to the title.	5 %	19 %	76 %
8. Teaching students how to guess the meaning of words.	5 %	24 %	71 %
9. Teaching students how to scan information.	5 %	10 %	88 %
10. Teaching students how to skim the passage.	19 %	19 %	62 %
11. Teaching students how to find main ideas.	0 %	19 %	81 %
12. Teaching students how to summarize.	10 %	48 %	42 %
13. Asking students to retell the text.	24 %	38 %	38 %
14. Asking students to monitor reading comprehension constantly.	24 %	48 %	28 %
15. Asking students to predict the main idea of the following paragraph.	24 %	24 %	52 %
16. Teaching students to check comprehension	38 %	43 %	19 %
17. Teaching students how to use dictionaries.	57 %	24 %	19 %
18. Using visual elements in the text.	10 %	33 %	57 %

Appendix xxxi: Case Study - Hana

Student's Profile

The first case study is a girl from School A named Hana. She is typically a bright student in her cohort, who obtained grades 'A' in five subjects in the PSR examination which Hana took in 2005. These subjects were *Bahasa Melayu (Malay Language)*, *English Language*, *Mathematics*, *Science* and *General Paper* which allowed her to enroll in School A.

At the time of the study, Hana was in her upper secondary level, taking nine 'O' level subjects: *Bahasa Melayu (Malay Language)*, *English Language*, *Mathematics*, *Additional Mathematics*, *Biology*, *Physics*, *Chemistry*, *Principle of Account* and *Islamic Religious Knowledge (IRK)*. All these subjects, except for the *Malay Language* and *IRK*, are taught in English as the medium of instruction. When the 'O' level examination results were released in March 2011, Hana obtained grade 'B's for her *Malay Language*, *Additional Mathematics*, *Chemistry* and *IRK* and 'A's for the rest including A* for her *English Language* and *Biology*. Hana is an exceptionally bright student like most of her cohort in School A compared to those in schools B and C.

Hana began her primary education by attending a privately funded school which, like many private institutions (non-government schools), use English language as the medium of instruction. She stayed in private school up to Primary 4 before moving to an Arabic medium School for her Primary 5 and 6 education after getting through the selection examination set by the Religious Education Department of the Ministry of Religious Affairs. Having attended Arabic school for two years, Hana understands and is able to read and write in Arabic but could not really speak the language. Hana is thus a multi-lingual student who understands, reads and writes in at least three languages: *Bahasa Melayu (Standard Malay)*, *English Language* and *Arabic* which she acquired and studied in School(s). She also speaks *Bahasa Melayu*, *English* and *Brunei Malay* of which the last two are used in Hana's everyday household communication.

"I speak mixed Brunei Malay and English with my parents and English with my brothers and sister"

In terms of her language use and linguistic background, Hana was born with *Brunei Malay* as her home language and thus it is predominantly spoken at home (and also with a mixture of English Language). As with many students in Brunei secondary schools, she only spoke, learned and was exposed to *Bahasa Melayu (i.e. the Standard Malay)* at school, particularly during Malay Language and IRK classes and from the textbooks. On the other hand, English Language, though might not be 'exclusively' spoken and used outside the classrooms, Hana like many of her cohort, seems to use the language more than the standard Malay in her everyday communication. This was evident from her 'conversation' with her friends especially in the social network such as facebook or twitter. Hana like the majority of the students in School A, could speak and write *Brunei Malay*, *Standard Malay* and *English Language* and also able to write and read the 'Jawi' transcript as required in the IRK subject.

Hana like most students in her cohort in School A and those in the other two schools were already preparing herself for the *Brunei-Cambridge General Certificate of Education Ordinary level (BCGCE 'O' level)* when this research commenced. They sat this examination at the end of their secondary education in

October/November 2010. Hana is also a highly motivated student who strives towards academic excellence to achieve good grades in the exam. Hana's reading strategy use, how she monitored her comprehension by applying 'fix-up' strategies and how she dealt with any unfamiliar vocabulary are discussed in the sections below.

Hana's reading strategies.

As with most of her cohort (see chapter 6), Hana has exhibited the employment of various types of strategies from the three strategy groups (see chapter 6 for detail). This section will report Hana's sequences of strategy use.

Hana approaches texts from English Language and Content Subjects (particularly Science subjects) differently though by focusing on key points for CS whereas for EL, she realizes the important of comprehension (i.e. "*making sense of what I read*").

"I approach them differently. For Science I look for key words while for English, I read and try to make sense of what I read."

Hana's strategy use, such as when reading for her English Language was in accordance with the three stages of reading activities: *pre-reading*, *while-reading* and *post-reading* (Ur 1996). This may be due to the reading activities commonly conducted during the English Language lessons.

Detailed analysis on Hana's reading strategy use shows that she employed various strategies which were clearly sequenced as illustrated in Figure 5.1. The figure shows the strategies that Hana utilized when she read. Hana's strategies were typical of those employed by many of her cohort (see Chapter 6). She first *previewed the text* by directing her attention to the *title* and/or *pictures* and then made *predictions* or *guesses* about the text. While looking at the title, she made use of her *prior knowledge* to help her employ 'predict and guess'.

The strategies of drawing attention to title (*previewing the text*), *predicting and guessing text meanings* and *using prior knowledge*, from the 'Global Reading Strategies' group, appeared to be utilized during the pre-reading stage before Hana began her actual reading. The sequence for these strategies was clearly evident in Hana's reading which also seemed to be found in most of the students' strategy use in her group. At the same time, Hana also indicated that she knew what the reading was for, hence *setting a purpose* for her reading.

During the 'while-reading' stage, Hana began her actual reading while at the same time she tried to confirm her predictions or guesses. Hana also employed other strategies including *checking understanding* and *confirming predictions*. Depending on the purpose, she also *paid close attention to her reading* by again referring to the pictures or diagrams in the text. This showed that Hana is monitoring her reading. At this stage, Hana, like most students in the study which will be discussed in the next chapter, employed various strategies concurrently or simultaneously in her reading.

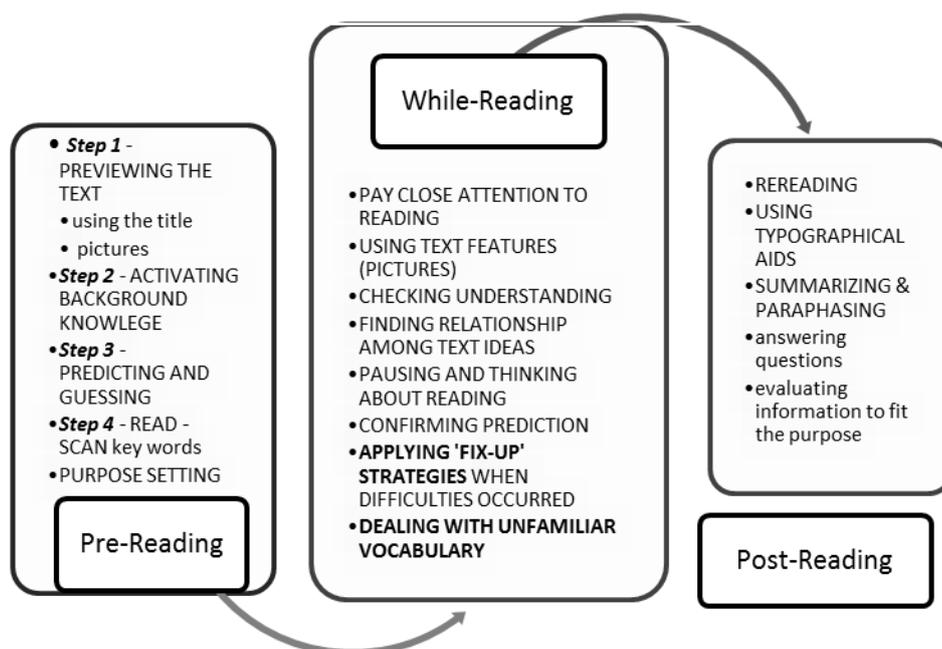


Figure 5.11 Sequence of Hana's reading strategy use.

Based on her descriptions, Hana also employed problem-solving strategies such as *reading slowly and carefully* and *pausing and thinking about reading*. This showed that, although not clearly indicated and found in the overall strategy use by students in her cohort, students knew what strategies to employ to compensate their reading difficulty. Furthermore when Hana was confirming her predictions, she was actually *analyzing and evaluating the text*. These strategies were concurrently or simultaneously employed as found in Hana's reading activity.

After completing the reading task, she employed the strategy '*rereading*' in an effort to make sense of the unfamiliar words that she scanned during her reading (and which she also 'marked'). This occurred during the post-reading stage. Apart from that she also confirmed her prediction by *summarizing* and/or even *paraphrasing* what she had read. Although these strategies were employed at this stage, Hana also employed them while reading particularly when faced with difficulty in understanding or when encountering unfamiliar words, which will be discussed separately in another section.

Although generally she employed the above strategies, Hana's approach in reading for different subjects was not the same. She was able to clearly indicate which strategies she employed when reading for her English Language while for her content subjects, she just '*read through the notes*'.

"For Bio, I read through all the notes. And from the key points that the teacher points out in class, I reread them again several times. Yes.....For English I look at the topic, guess the contents and then read the passage and mark parts that I don't understand."

Hana's reading for her content subjects mostly consisted of 'reading in advance' before the teachers explained the content or main concepts in class and 'further' reading by focusing on key points presented

during lessons in class. It seems that Hana’s employment of strategies when reading in English was greatly influenced by what goes on in her classes, particularly from her EL classes. She seems to exhibit many of the strategies from the EL classes by using the tips given by her EL teacher including strategies found during her pre-reading stage as well as when encountering unknown vocabulary. In fact, Hana’s reading strategy as in figure 5.1 shows how she actually read in English, presumably used more for reading EL texts than CS.

Hana also showed that she employed appropriate strategies when she encountered any reading problem as illustrated during the ‘while-reading’ stage (see figure 5.1). These include handling difficulties in both comprehension and vocabulary. A separate section for each of these will discuss on these two areas of concerns.

How Hana dealt with reading comprehension difficulties.

Hana applied compensatory or ‘fix-up’ strategies when she faced difficulty in her reading. Similar to most of her cohort in School A, Hana indicated that she did not have any major difficulty when reading in English because she perceived herself as being a good reader. However, when faced with comprehension difficulty, she was also able to clearly outline what she usually did. Her strategies are summarized in figure 5.2:

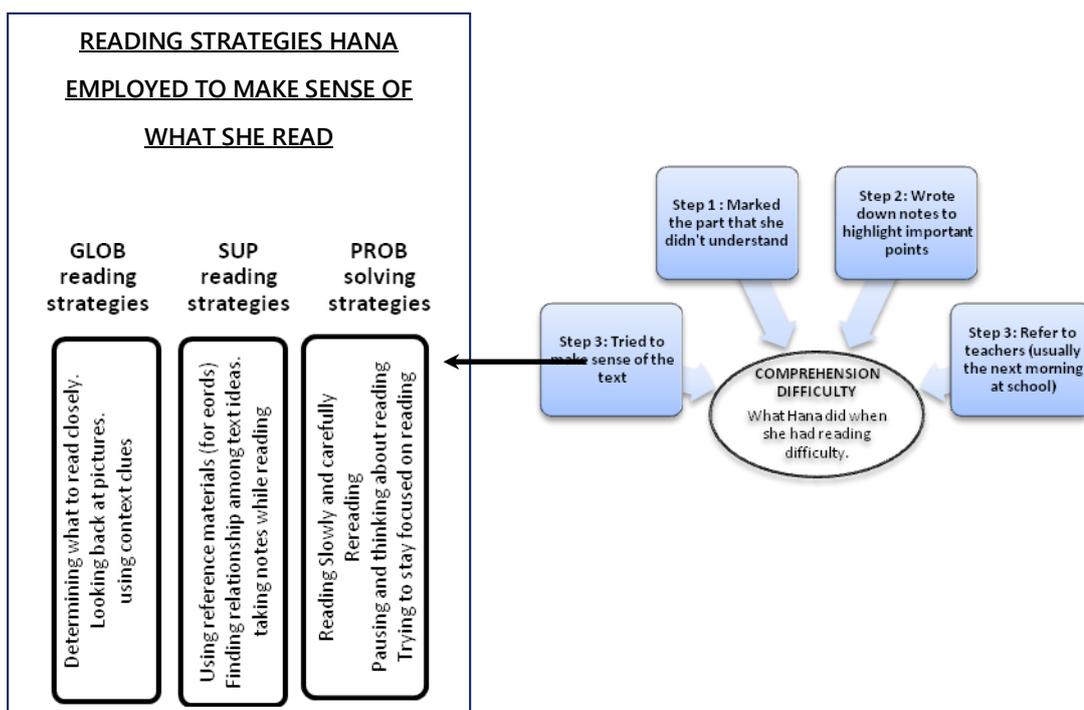


Figure 5.12 Steps taken to compensate reading (comprehension) difficulty

Analysis of these results shows that Hana’s approach to coping with reading difficulty was different depending on the subject area. When she had difficulty reading for her content subjects, especially when reading on her own, she first marked the concerned part, wrote down notes of important points and then referred the part that she had marked to her teachers at school. On the other hand, when reading for her English Language, she tried to make sense (or to understand) the text she read. When this occurred, she

employed various types of strategies from the three strategy groups as shown in Figure 5.2. This further provided evidence that like the rest of her cohort, Hana approached texts for various subjects differently.

There was one thing that was quite significant with Hana’s compensatory strategy approach. She, unlike some of her cohort, specified that she did not often use the strategy of translating from English to Malay because she was aware of the problem of misinterpretation and translation. She said that “....I *don’t often translate because I find it different when we translate, so I try to make sense of it with the help of the rest of the text*”.

Besides applying various ‘fixing’ strategies for comprehension difficulty, Hana also shared how she handled difficult vocabulary which she encountered during her reading.

How vocabulary was approached.

Similar to many of her cohort, Hana indicated that vocabulary used and found in any particular reading text was one of the main factors that can contribute to the difficulty and vice versa of a reading text. Hana’s approaches when she encountered difficult vocabulary are presented and summarized in the following figure:

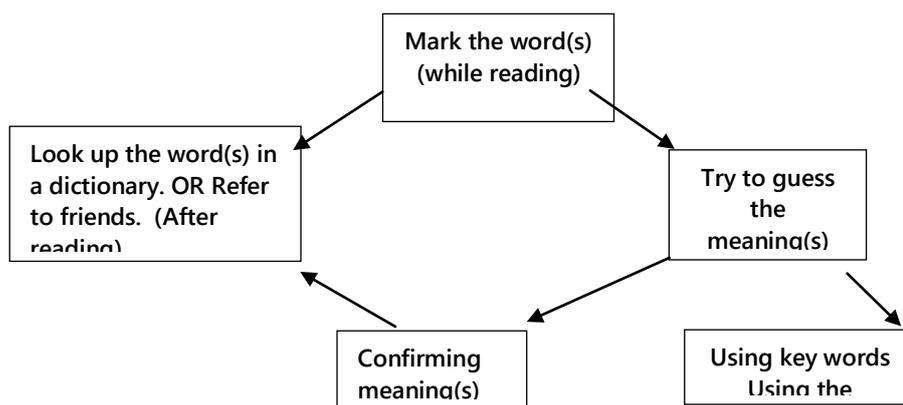


Figure 5.13 Steps taken when encountering unfamiliar or new word(s)

When she encountered difficult words, Hana utilized two strategies which were also frequently employed by almost all students in this study (see Table 5.6). These strategies were ‘*using a dictionary*’ to look up word meaning(s) and ‘*guessing*’. Hana usually marked all unfamiliar words that she encountered and after she finished reading, she looked up their meanings in a dictionary (if her friends were unable to help her with the meanings). Sometimes, she also tried to guess the meaning(s) with the help of the context and the key words in the text while she read. Then she reconfirmed her guesses by referring to a dictionary.

Apart from the above, Hana also made use of typographical aids (for example bold words) in her reading. She indicated that she often scanned these words through and then after she finished her reading, she went back to these words because she “*guessed these words were new words being introduced.*” Furthermore she was also aware why certain words were given specific emphasis such as in bold or placed in inverted commas.

Appendix xxxii: Case Study - Arisah

Student's Profile

The last case study is Arisah, a girl from School C. Arisah is considered to be a high ability student in her school. She was streamed into a Science stream class taking Pure Science subjects for her upper secondary education after completing her lower secondary education. She was channeled into the Science Stream class based on her Lower Secondary Examination (PMB) which Arisah sat in 2008. In this exam, Arisah obtained distinctions for English Language (A2), IRK (A1), History (A2) and Commercial Studies (A2) and credits for Bahasa Melayu (B3), Geography (B4), Mathematics (B4) and Science (C5).

Having obtained good results in her PMB Arisah was placed in a Science stream class by the school's administration. Arisah, as with majority of science stream students in School B and C who considered the 'top of the cream' among their cohorts in the upper secondary level and were often predicted to excel or at least manage to obtain five or six credits in their BGCE 'O' level examination. They were also predicted to be able to proceed to pursue their A level for their Pre-University education.

When the 'O' level results were released earlier in 2011, Arisah, did not do as well as Hana and Abi from School A, but managed to get through all her Pure Science subjects. She obtained a total of eight 'O' levels in the BGCE 'O' Level Examination which she and the rest of her cohort took in 2010. She obtained 'B's for her Bahasa Melayu (B3), English (B3) and Mathematics (B4) and C's for Biology (C6), Chemistry (C6), Physics (C6), Economic (C5) and Principle of Account (C6).

Linguistically, Arisah too was able to speak in at least three languages, two of which are the languages of education: Bahasa Melayu (Standard Malay) and English Language as well as Brunei Malay, the home language. As with the previous three case studies (Hana, Abi and Zul), Arisah too used a mixture of English and Brunei Malay at home in her every day and daily communication with her parents and siblings. Similarly, Arisah like most Muslim Bruneian students is also able to write and read basic 'Jawi' transcripts but not Arabic. This is mainly because they receive Religious Islamic Education's that uses Jawi in their curriculum.

Furthermore, Arisah studied IRK as a subject in her lower secondary education. As with the three previous students, Arisah's reading activity and process are looked at in greater depth by focusing on her strategy use. These include what steps she took when she read; which strategies she employed; what she did when she did not understand what she was reading (that is when comprehension 'breaks down') as well as a brief description on how she handled unfamiliar or difficult words

Arisah's reading strategies

Arisah rated her ability to read in English as being average and acknowledged that she too sometimes faced difficulty in her reading.

“Ah...my reading ability (in English) is slightly okay because sometimes it is hard to understand what I read. It is hard because sometimes it is difficult to understand the meaning....Well meaning of the whole sentence and sometime meaning of words.”

In terms of reading for different subjects, Arisah indicated that reading for her academic subjects can be difficult. She agreed with Abi that having an interest can facilitate her reading. She said that it was easier to read for those subjects that she liked and that reading for EL and CS involved different focuses. Arisah also seemed to associate reading for English Language with ‘grammar’ and ‘verbs’ while for Content Subject (such as Science), it was more reading for ‘main points’.

“In English, we concentrate more on grammar and verbs but in for Science we don’t concentrate on these, we concentrate on main points of the contents.”

As with Hana, Abi and Zul, Arisah utilized almost similar strategies at different stages of her reading. What differentiates her from the other three was that Arisah was not as articulate as the rest in discussing her strategy use while reading. At the pre-reading stage, Arisah too exhibited the utilization of similar strategies to the previous three students (see figure 5.10). These strategies include *previewing the text* by drawing her attention to the title, scanning and skimming; *making use of her background or prior knowledge*. While reading, she tried to make sense of the text by *monitoring her reading* (trying to understand what was read) and *employing appropriate problem-solving strategies* when facing difficulty in her reading.

Although she knew what to focus on when reading for different subjects, Arisah often approached her reading by following a sequence of (reading) strategies. These include reading the title, reading the first paragraph and predicting what the text will be about with the help of the title. It is also evident from the excerpt below that Arisah was able to use **words** in making sense of the words which at the same time help her to guess and predict what she was going to read.

“First I read the title and then I read the first paragraph. And then if I don’t understand, I read twice. When I read the title first, for example, like Physics just now we were studying about ‘radioactive’. The words ‘radio’, ‘active’ right? So it is about chemical that is poisonous and dangerous.”

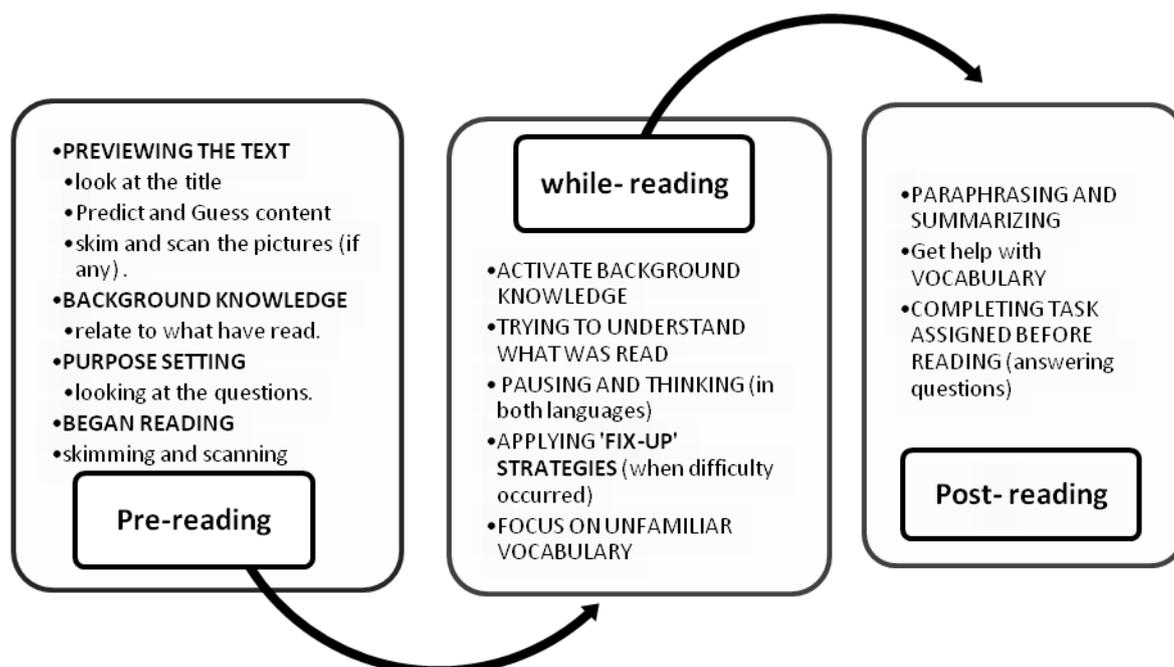


Figure 5.14 Sequence of strategy use in Arisah's reading activity

Arisah, like Zul, also seemed to link words and vocabulary in determining the difficulty (or vice versa) of reading in English.

How Arisah faced reading comprehension difficulties.

As shown in Arisah's descriptions of her reading strategies in the previous subsection, Arisah knew what strategies to employ to 'fix' her difficulty in reading. Some of these strategies include 'rereading'; 'trying to relate the content' with the illustration (or diagrams) found in the text; 'pausing and thinking about the content'; 'activating and bringing in previous knowledge' and 'focusing on key points / ideas.'

The employment of the above mentioned strategies by do not often occurred in a linear way. Some of the strategies were employed to help in making sense of the text (such as monitoring) which she used at the pre-reading but also used at the while-reading stage (often to 'fix' reading comprehension difficulty). Arisah's employment of 'fix-up' strategies is presented and summarized in Figure 5.11.

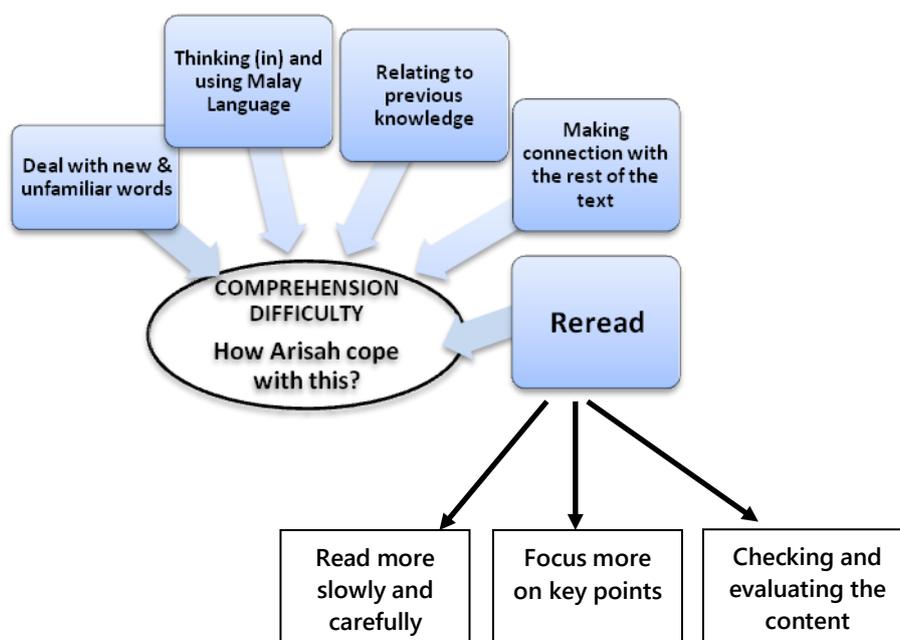


Figure 5.15 Arisah's coping strategy when facing with reading difficulty

As with most students in her cohort in the study, Arisah too used 'rereading' as one of the strategies to cope with her difficulty in reading. When she reread, she usually read more slowly and carefully, focusing on key ideas and looking for the answers to questions set for that reading task. Even though Arisah did not specifically mention the employment of all the strategies in Figure 7.11, her reading activity during the think aloud protocol showed that she actually utilized them, especially the use of Malay. Arisah used both Brunei Malay and English to make sense of what she read and to help with getting meanings of new words found in her reading as found during her think-aloud session.

Arisah also paused and sometimes stopped in between her reading to activate her prior knowledge and to relate what she read with what she had learned before. In this sense she was monitoring her reading by activating and making use of her previous knowledge and at the same time, trying to make connections between the content and the illustrations found in the text. However, she sometime felt that pictures in the text did not really help her. She said that pictures did not really help her much with her reading because sometimes she found "it (picture) annoying."

How vocabulary was approached.

Four strategies can be identified as used by Arisah when she encountered new or unfamiliar words (or vocabulary) in her reading. These include *using the context*, *substitution*, *translation* and *guessing* the meanings of words.

"When I encounter difficulties, say words, I sometimes relate it to another sentence. I make my own sentence I guess, such as substitute it with an easier sentence. Sometimes I use translation but often we can just think about it or guess what it means."

She too employed almost similar strategies as the three previous students. As shown earlier, Arisah too showed the evidence of having an awareness of using cognates not only to predict or guess the content of the text to be read but also to help her extract meanings from words.

Arisah also utilized strategies as directed or taught by her teachers across the curriculum. These include highlighting the key words (for content subject) and to use the context (for English Language) to get meanings of unfamiliar words.

“For our science subjects’ we were told us to highlight important words (scientific words as in Biology). For English, if there is a word that we don’t understand in a sentence, we should read another sentence so that we can understand that sentence. We can use the context in order to get the meaning of any words that we are not familiar with.”

Apart from *using the context* and *guessing the meanings* of words, Arisah also employed the strategy of *referring to a dictionary* and *getting outside help* (from friends or siblings) to tackle unfamiliar and new words.

“I use dictionary to help me. Sometimes I ask my brother. For example, at first I don’t know what ‘suspicious’ means and then I asked my brother and he demonstrated what it means.”

Appendix xxxiii: Profiles of the students in the three schools and their exam results in the BGCE 'O' Level examination in 2010.

Students	Gender	How they rate their reading ability	Language background (First language)	Grades obtained in the O level exam 2010 in different subjects (School A)									
				English	Malay	Maths	A.Maths	Biology	Physics	Chemistry	Geography	POA	IRK
A1	F	Good	Malay	A*	B3	A	B3	A*	A	B3		A	B3
A2	F	Average	Malay	A2	B3	A1	B3	B3	A2	A2	B3		
A3	F	Good	Chinese	A2	C5	A*	B3	A*	A2	A2		A*	
A4	M	Good	Malay	A2	C5	B3	C5	B3	B3	C5	B3		
A5	M	Average	Malay	A2	B3	A*	A2	A*	A*	A*		A*	
A6	M	Good	Chinese	B3	B3	A1	B3	A2	A2	A2		A2	
A7	M	Good	Malay	B4	B3	A2	B3	A2	B3	A2	B3		
A8	M	Poor	Malay	B3	B3	A2	B3	A2	A*	A2	A2		
A9	M	Average	Malay	A2	B3	A2	B3	A*	A*	A*	B3		A2
A10	M	Average	Malay	B4	B3	A2	B3	B3	A2	B3		C5	

Students	Gender	How they rate their reading ability	Language background	Grades obtained in the O level exam 2010 in different subjects (School B)														
				English	Malay	Maths	A.Maths	Biology	Physics	Chemistry	Combined Science	Geography	Computer	Commerce	IRK	Sastera (Malay Lit)		
B1	F	Average	Malay	D	B	D	U	D	E	D								
B2	F	Average	Malay	D	B	B	C	C	B	C		C						
B3	M	Good	Malay	C	E	U					D	C				B	E	
B4	M	Average	Malay	C5	B3	D7					D7	C6			C6	B3	C6	
B5	M	Average	Malay	U	D7	B4					B4	C5			D7	C5	D7	
B6	F	Average	Malay	E8	B4	C6					C5	C6			D7	B3	B3	
B7	F	Average	Malay	E8	C6	B4					C5	D7			B4	C5	E8	

Students	Gender	How they rate their reading ability	Language background	Grades obtained in the O level exam 2010 in different subjects (School C)															
				English	Malay	Maths	A.Maths	Biology	Physics	Chemistry	Combined Science	Geography	History	POA	Commerce	Economic	D&T	IRK	
C1	M	Average	Malay	E	C	E					D	E			U			B	
C2	M	Average	Malay	D	C	D					D	C			U	D			
C3	F	Average	Malay	D	C	E					D	E			U	C			B
C4	F	Good	Malay	C	B	C					D		A	C	B				B
C5	F	Average	Malay	E	B	E					D	C			U	C			B
C6	M	Good	Malay	E	C	B	C	D	C	D								A	
C7	M	Good	Malay	A*	C	C		B	B	E							C	B	
C8	M	Good	Malay	C	E	A	B	C	B	C				D					
C9	F	Average	Malay	B	B	B		C	C	C				C			C		
C10	F	Good	Malay	C	C	C		C	C	C							U	B	

Appendix xxxiv: Profiles of the case study students and their exam results in the BGCE 'O' Level examination in 2010.

Case Study students	Ability	Case study students: profiles and academic performances in the 'O' level exam 2010 in different subjects														
		English	Malay	Maths	A.Maths	Biology	Physics	Chemistry	Combined Science	Geography	History	POA	Computer	Commerce	Others (Please specify)	
															IRK	Malay Lit
Hana	High	A*	B3	A	B3	A*	A	B3				A			B3	
Abi	High	A2	B3	A2	B3	A*	A*	A*		B3					A2	
Zul	Average	C5	B3	D7					D7	C6				C6	B3	C6
Arisah	Average	B	B	B		C	C	C				C			C	

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