



**The relationship between reading strategy use and
reading proficiency of Vietnamese students in the
UK**

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British Council ELT Master's Dissertation Awards: Commendation

ABSTRACT

This study was an attempt to figure out the frequencies of reading strategies used by Vietnamese students for their academic study in the UK. More importantly, it sought to clarify the correlation between reading strategy use and reading competence, as well as the differences between higher-proficiency readers and lower-proficiency readers in terms of strategy utilization. The study made use of quantitative data from two questionnaires with 85 Vietnamese EFL learners studying at British universities, and qualitative data from semi-structured interviews with 3 high scorers and 3 low scorers chosen from the sample. The research findings revealed that the Vietnamese student-subjects were medium strategy users, and there was no statistically significant association between overall strategy use and reading comprehension. However, an insightful investigation of 28 individual strategies, based on correlational analysis and independent t-tests, suggested that some ‘top-down’ strategies dealing with global meaning were applied more often at higher levels of proficiency, while ‘bottom-up’, analytical strategies and support strategies tended to be used more frequently at lower levels of proficiency. The study also pointed out that strategy was not the only determinant of reading comprehension, and recommended other factors like vocabulary, grammar and background knowledge be considered in later researches on reading.

LIST OF ABBREVIATIONS

EFL	English as a Foreign Language
Cog	Cognitive strategies
d	Effect size of independent t-test
IELTS	International English Language Testing System
M	Mean value
Met	Metacognitive strategies
MH	Mean value of higher-proficiency readers
ML	Mean value of lower-proficiency readers
N	Number of participants
p	p-value
MARSI	Metacognitive Awareness of Reading Strategies Inventory
r	Pearson correlation
SD	Standard deviation
SILL	Strategy Inventory for Language Learning
SORS	Survey of Reading Strategies
Sup	Support strategies
UK	United Kingdom

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INTRODUCTION

1. Background

Reading, as a receptive skill, has long been regarded as a prerequisite for foreign language acquisition (Aebersold and Field, 1997) since it functions as an essential source of input for other skills to develop. Reading also plays a vital role in academic development, particularly when learners have to work over a huge amount of foreign language materials for their own specialist subjects (McDonough and Shaw, 2013). This crucial importance, according to Grabe (1991), has stimulated a noticeable growth in the number of researches on foreign language reading in academic contexts.

However, the mental process of reading is still a source of controversy as it privately happens in the mind with very little observable action (Alderson, 2000). Researches have sought to clarify this process by investigating a wide range of reading strategies applied by foreign language readers, yet both theoretical and empirical studies tend to show conflicting perspectives and findings. On one hand, reading strategies were argued to be significantly correlated to reading comprehension (Oxford and Ehrman, 1995; Dreyer and Oxford, 1996; Zare and Othman, 2013, etc.). But on the other hand, other researchers like Anderson (1991), Baker and Boonkit (2004), Yukselir (2014), etc. established that high-proficiency and low-proficiency readers reported using more or less the same range of strategies at nearly similar frequencies. Such a diversity of research findings is actually an impetus for this study, which sought to examine the extent to which reading strategies are actually affected by reading proficiency.

2. Purpose of the study

This study aimed to clarify the relationship between reading strategies and reading proficiency levels of Vietnamese students attending full-time academic study in the UK. I was really motivated to choose this topic for two main reasons. The strongest motivation is my belief that reading has an essential role to play in English for Academic Purposes, an argument previously supported by Aebersold and Field (1997), Sengupta (2002), McDonough and Shaw (2003), etc. That is to say, it is an indispensable language skill for international students who have to read various academic materials for their study at universities. Besides, reading anxiety, which is undoubtedly a common problem among EFL learners, has been argued to pose negative impacts on their process of foreign language acquisition (Horwitz et al, 1986; MacIntyre, 1995; Young 2000; etc.). This is

also the case for Vietnamese students who have to adapt themselves to an entirely English-driven academic environment at British universities. The dissertation is also among the very few in-depth researches on Vietnamese students' reading comprehension skills, hence a closer look at the relationship between reading strategies and reading proficiency may have some implications for Vietnamese learners to improve their English reading in academic contexts.

Three major research questions were carefully investigated:

1. Which reading strategies were used by Vietnamese students in the UK when they read English academic materials?
2. Did the reading proficiency levels of Vietnamese students in the UK affect their reading strategy use when they read English academic materials?
3. Were there any differences between Vietnamese higher-proficiency students and lower-proficiency students in terms of reading strategy use in their academic study?

3. Structure of the study

The whole study consists of five major chapters. A brief introduction is presented to provide an overview of the topic and address the key research questions. This is followed by a critical review of relevant theoretical and empirical literature, and an explanation of research methodologies of the study. Next, the results are presented and discussed in relation to the research questions and other sources of literature, accompanied with a summary of note-worthy limitations. The study concludes by highlighting the key findings and suggesting some implications for future researches on reading strategies.

LITERATURE REVIEW

This chapter aims to provide a comprehensive outlook on two major aspects of my study: reading comprehension and reading strategies. Reading comprehension will be discussed in the first part, with a critical review on various definitions, models and purposes of reading in general and the factors influencing foreign language reading. Meanwhile, the second part clarifies different concepts and taxonomies of reading strategies, and summarizes a wide range of empirical researches on the relationship between reading strategies and reading comprehension proficiency.

1. Reading comprehension

1.1. Definitions of reading

Although the term ‘reading’ has been understood in various ways by different linguists, historical studies on how to define reading can be summarized into two main periods.

The first period started in the 1940s, when structural linguists like Bloomfield (1942) and Fries (1962) regarded reading as the action of identifying language signs, i.e. matching sound images with their corresponding visual images. They highly emphasized the importance of teaching students how to spell and pronounce language symbols, which was referred to as ‘oral reading’ (Taylor and Nosbush, 1983:234) or ‘reading aloud’ (Nuttall, 1996:2). However, Nuttall argued that although this activity is a common experience in many language classrooms, it is only beneficial for early readers and ‘does not last long’ (2). To some extent, the views of Bloomfield and Fries only touched on the linguistic surface of reading but failed to look into its nature.

The second period began in the 1960s when many psycholinguists stressed the importance of ‘silent reading’ (Saenger, 1997:2). Despite some minor differences between various concepts of silent reading in this period, Stauffer (1969) established that many of those definitions regarded ‘comprehension’ as an invariably central purpose of reading. For instance, Artley (1961:1) described reading as ‘the art of reconstructing from the printed page the writer’s ideas, feelings, moods, and sensory expression’. Likewise, Carroll (1970:3) expressed a similar perspective by regarding ‘the essential skill in reading as getting meaning from a printed or written message.’ In other words, reading is far more than a mechanical process of recognizing language symbols – in fact, it is ‘the transfer of a message from writer to reader’ (Nuttall, 1996:3). Nuttall called this process ‘reading for

meaning' or 'reading comprehension' (3), and went further to argue that whatever the message may be (a fact, a feeling or an idea), the meaning it delivers is considered the most practical reason for reading in reality.

In summary, reading can be divided into two main types: oral reading and silent reading. Since the 1960s, the latter has been widely supported by most practitioners and researchers whose attention was shifted away from basic word recognition skills towards more advanced comprehension skills. In my research, the focus is clearly placed on silent reading because all the subjects are EFL students who undoubtedly have to improve their English reading skills to fulfil particular academic tasks rather than learning pronunciation. That is to say, the term 'reading' in this paper only refers to reading for meaning, or reading comprehension in an academic context.

1.2. The purposes of reading comprehension

According to McDonough and Shaw (2013), many current researches have emphasized the importance of identifying specific purposes while reading, as the reading process will vary if learners have different objectives in mind. To improve learners' motivation in reading foreign languages, reading should be treated as a purposeful activity in which learners are clearly aware of what to do (Nuttall, 1996).

Brown (2004) classifies reading into three types in terms of reading purposes: academic reading, job-related reading and personal reading. This paper only deals with academic reading, which is defined as 'purposeful and critical reading of a range of lengthy academic texts for completing the study of specific major subject areas' (Sengupta, 2002:3). According to Huckin and Flower (1990), the primary task in academic reading is to grasp the message that the writer tries to deliver through the texts, while Carrell and Carson (1997) argued that academic reading involves synthesizing academic materials from a diversity of sources. Based on these perspectives, Sengupta (2002) established that academic reading is a complex and multi-level process as it requires three components: a combination of both extensive reading and intensive reading, a synthesis of materials from various sources, and an active involvement in finding authorial intentions and purposes. It is also worthwhile to clarify the concepts of intensive reading and extensive reading: while intensive reading merely involves the completion of comprehension and language-focused tasks in one single text, extensive reading requires learners to work with a certain number of texts written within a restricted lexicon (Macalister, 2010). It is widely accepted that both reading approaches should be combined as they complement each other in the

teaching of reading foreign languages (Carrell and Carson, 1997; Loucky, 2005; Eskey, 2005; Macalister, 2010).

The argument of Sengupta (2002) brings a comprehensive outlook on the nature of academic reading, which is closely relevant to my research context. Firstly, this paper focuses on EFL students who are attending specific academic majors at British universities. Evidently, they have to read a wide range of materials and synthesize the key information for specific academic tasks like preparing for school lectures, completing module assignments or writing dissertations. Secondly, although their reading experience tends to be much closer to extensive reading, the role of intensive reading cannot be denied since it could help learners gain a certain background of grammar and vocabulary as well as practising word recognition skills and some basic reading strategies like skimming or scanning.

1.3. Models of reading comprehension

Historically, reading comprehension has long been considered a process where readers interact with the texts to construct meaning. Barnett (1989) stated that this process can be illustrated by three different reading models, namely bottom-up model, top-down model and interactive model.

The bottom-up model, as described by Gough (1972), is a process in which small chunks of texts are decoded, analyzed and added together to gradually construct meaning. A similar model was proposed by LaBerge and Samuels (1974) and Chall (1996), the former even arguing that meaning can be achieved as a natural consequence of decoding words. This argument tends to be inconclusive, as although decoding is fundamental to further comprehension of the texts, it does not necessarily guarantee that meaning can ultimately be grasped. Regarded as a lower-level reading process, the bottom-up model has been widely criticized for two main reasons. Firstly, the model is entirely text-driven and the readers are simply passive recipients of the information provided (Paris and Hamilton, 2009). Secondly, meaning can only be constructed separately at word or sentence level, which hinders the process of achieving overall meaning (Nuttall, 1996). The reading speed is also significantly reduced when readers have to focus on every single word and try to understand every single detail.

In contrast, the top-down model emphasizes the use of schemata in processing the information of the texts (Cook, 1997). Schema (plural schemata) is defined as a mental

structure of all the particular experiences a reader has, which can grow and change throughout his life (Nuttall, 1996:7). When the reader interacts with the texts, his schema is activated and leads him to predict what might happen, and whether he successfully comprehends the message depends on the extent to which his schema is relevant to the writer's. This concept-driven model was also advocated by other authors like Kolers (1972), Smith (1973) or Goodman (1976), emphasizing the active role of readers in approaching meaning. With the activation of schemata, the readers can interact with the texts by making and confirming predictions, asking oneself questions, evaluating the text information, etc. instead of just absorbing the contents passively. However, this model tends to undervalue the importance of word recognition and decoding in the reading process. According to Carrell and Eskey (1988), if readers do not pay enough attention to words or sentences in the text, they will find it harder to confirm the hypotheses already made. Furthermore, this model may not be appropriate for less fluent readers who lack certain background knowledge to generate predictions (Stanovich, 1980).

The interactive model, as indicated by its name, was then proposed to balance the pros and cons of both bottom-up and top-down models. This model suggests that readers should use bottom-up and top-down strategies as two complementary approaches in facilitating comprehension. Nuttall (1996) viewed 'bottom-up' as the action of 'a scientist with a magnifying glass examining the ecology of a transect' (17), and 'top-down' as 'an eagle's eye view of the landscape' (16). These metaphors vividly illustrate the nature of both reading models: while 'bottom-up' draws readers' attention to small details through decoding letters and words, analyzing sentence structures or scrutinizing the lexis and syntax; 'top-down' help readers draw an overview of the text based on their background knowledge and past experiences. The combination of 'an eagle's eye view' and 'a magnifying glass' is obviously effective for any reader in constructing meaning from the texts. This viewpoint was also supported by Stanovich (1980) and Rumelhart (1994), who established that readers should make use of multiple sources of knowledge simultaneously to generate the best interpretation of the text input. Whether the knowledge is at lexical, semantic or syntactic level, they can be utilized in both bottom-up and top-down modes. In general, the interactive model has been widely accepted by many other linguists like Carrell and Eskey (1988), Barnett (1988), McCarthy and Carter (1994), Day and Bamford (1998); Nunan (1999), McDonough and Shaw (2003), etc. According to Block (1992), the debate between 'bottom-up' and 'top-down' has come to an end, as most researchers have

now agreed that the two models function as two complementary processes to aid comprehension. My paper also applies the interactive model to analyze the reading comprehension process of EFL learners, investigating both bottom-up and top-down strategies applied by Vietnamese students in reading English academic materials.

1.4. Factors influencing reading comprehension

A research on EFL readers cannot be thorough without considering the various factors that influence foreign language reading. According to Aebersold and Field (1997:23), although the reading process is ‘unobservable’, a closer look at these factors can be provided by several studies on foreign language reading since the 1990s.

One of the most comprehensive taxonomy of those factors was proposed by Scarcella and Oxford (1992), who discussed four dimensions based on the communicative competence framework of Canale and Swain (1980). They are grammatical competence (the knowledge of foreign language grammar), sociolinguistic competence (the ability to use a foreign language properly in different social contexts), discourse competence (the understanding of patterns in written and spoken language) and strategic competence (the ability to apply appropriate reading strategies to read efficiently). Aebersold and Field (1997:23) also summarized several previous researches on this aspect (Alderson, 1984; Grabe, 1991; Scarcella and Oxford, 1992) to suggest a more detailed classification covering six major groups of factors. However, the authors also agreed that foreign language proficiency (corresponding to grammatical, sociolinguistic and discourse competences) and strategy training have certain impacts on foreign language reading. Additionally, they also stressed the role of schemata in reading, including formal schemata (the understanding of text types) and content schemata (background knowledge). Meanwhile, Ur (1996) listed ten factors affecting foreign language reading by comparing the characteristics of efficient and inefficient readers. Besides strategies and background knowledge, they also mentioned the impacts of purpose and motivation, vocabulary and concentration while reading.

Although different theorists have different ways of classifying these factors, they all stressed the significant role of strategy training in reading comprehension. This is also the core of this paper, which investigates the relationship between reading strategies and reading comprehension proficiency of EFL students in the UK. To some extent, however, other areas like motivation, schemata, grammar, vocabulary and attention while reading will also be considered as they have certain effects on strategic competence.

2. Reading strategies

As the previous part has drawn a broad picture of reading comprehension, this part will review different concepts and taxonomies of reading strategies as well as the relationship between comprehension and strategy use from an empirical perspective.

2.1. Definitions of reading strategies

Although there have been various definitions of language learning strategies, the source of literature on ‘reading strategies’ itself has been rather limited. According to Paris et al. (1983:293), reading strategies are ‘skills under consideration’ which closely depend on specific reading contexts as well as readers’ awareness, control and intention. A strategic reader is described to have three sources of knowledge: declarative knowledge (what the strategies are), procedural knowledge (how to use the strategies), and conditional knowledge (when and why to use the strategies). Block (1986:465) established that reading strategies indicate ‘how readers conceive a task, what textual cues they attend to, how they make sense of what they read, and what they do when they do not understand’. Barnett (1988) defined reading strategies as the mental operations conducted by readers when they purposely read a text for comprehension. Although different researchers have different ways of conceptualizing ‘reading strategies’, there seems to be several similarities among their perspectives: they all agreed that reading strategies are conscious action taken by readers to enhance reading comprehension.

The importance of reading strategies in developing learners’ reading proficiency has been supported by various empirical researches, which will be discussed later in this paper. However, the concept of reading strategies has also been regarded as ambiguous (Wenden, 1991; Ellis, 1994; Dörnyei, 2005). Hall (2011:148) argued that it is sometimes difficult to distinguish a learning strategy from ‘an immediate coping technique’, and strategies can also be applied automatically even though they are commonly conceptualized as conscious actions. More precisely, they lie ‘somewhere on a continuum between fully deliberate and fully automatic’ (Griffiths, 2008:86). A strategic reader should be flexible and adaptable to different reading circumstances, and select the appropriate strategy in a particular context to aid their comprehension.

2.2. Classification of reading strategies

Historically, there have been numerous comprehensive, multi-levelled and theoretically motivated frameworks of classifying language learning strategies in general, for instance,

the ones by Oxford (1990), Cohen (1990), O'Malley and Chamot (1990), Wenden (1991), etc. However, none of them are specific to foreign language reading skills. In fact, there have not been so many taxonomies of reading strategies in particular.

Analyzing think-aloud protocols, Block (1986) classified reading strategies as general strategies (comprehension-gathering and comprehension-monitoring) and local strategies (understanding specific language units). Meanwhile, Anderson (1991:463) proposed a detailed classification of reading strategies including five major groups: supervising strategies, support strategies, paraphrase strategies, coherence strategies and test-taking strategies. The framework consists of 47 items, yet the majority of them are intensive reading strategies normally applied in test-taking, and some are even overlapped. Mokhtari and Reichard (2000) suggested a reading strategy questionnaire called MARSIS (Metacognitive Awareness of Reading Strategies Inventory) to measure learners' strategy use while reading academic materials. They divided reading strategies into three sub-groups: global strategies (orienting towards global analysis of the texts), problem-solving strategies (aiming at solving problems when the text becomes difficult), and support strategies (using reference materials, note-taking and other practical strategies). This categorization bears some resemblances to the taxonomy of Block (1986) mentioned above. Both frameworks include global strategies and local/problem-solving strategies, while the subgroup of support strategies was added by Mokhtari and Reichard.

Based on MARSIS's factor analyses and theoretical framework, Sheorey and Mokhtari (2001) adjusted MARSIS into a new version of survey called SORS (Survey of Reading Strategies) with three categories of reading strategies: metacognitive strategies, cognitive strategies and support strategies. This is one of the very few comprehensive taxonomies of reading strategies with clear descriptions of each category, thus will be selected as the classification framework in this paper.

Specifically, Sheorey and Mokhtari (2001:436) defined metacognitive reading strategies as purposeful, carefully planned action employed by readers to monitor or manage their reading (for example, setting goals before reading, skimming the text to preview its length and structure, etc.). This definition is rather close to what was previously stated by O'Malley and Chamot (1990:44), who described metacognitive strategies as executive actions that involve planning, monitoring or evaluating one's learning process. Similarly, Oxford (1990:136) established that metacognitive strategies entail three major tasks: centering one's learning, arranging and planning one's learning, and evaluating one's

learning. Although these definitions are not entirely the same, all the authors agreed that metacognitive strategies involve some elements of planning and monitoring one's study.

Cognitive reading strategies are defined as the localized techniques utilized by readers while working directly with the text, especially when it becomes difficult (Sheorey and Mokhtari, 2001:436). Some typical examples are changing reading speed, inferring from context, re-reading for better comprehension, etc. This definition is very similar to the concept of problem-solving strategies suggested by Mokhtari and Reichard (2000), as previously mentioned. Likewise, O'Malley and Chamot (1990:44) also argued that cognitive strategies 'operate directly on incoming information, manipulating it in ways that enhance learning'. That is to say, one typical characteristic of this group of strategies is to deal directly with the problems arising while reading.

Support strategies refer to the use of basic support mechanisms to aid comprehension. This category had not been mentioned in any previous taxonomy of language learning strategies by Oxford (1990), Cohen (1990), O'Malley and Chamot (1990), etc. It was coined by Mokhtari and Reichard (2000) in MARSIS and also appeared in the classification framework of Sheorey and Mokhtari (2001). Both researches conceptualized support strategies as applying support mechanisms like using dictionaries, taking notes, summarizing, underlining key words, etc. to improve reading comprehension.

A clear classification of reading strategies is really beneficial, especially when this research sought to measure the effects of different subgroups of strategies on reading comprehension. However, it should be noted that sometimes the distinctions between two categories are not very clear-cut (Cohen, 1998). This means that a specific strategy may reflect the characteristics of more than one category, and does not entirely belong to any particular group. Such ambiguity is inevitable in many literature-based taxonomies, thus should be taken into account in the step of analyzing data for this study.

2.3. A review of empirical studies on the relationship between reading strategies and reading comprehension

This paper centres on the relationship between reading strategy use and reading comprehension, which is still a source of controversy in many linguistic studies. From the theoretical perspective, strategies and proficiency are argued to have a reciprocal relationship: strategies are widely regarded as having significant impacts on language proficiency, while learners at different reading levels also choose to apply different

patterns of strategies (Oxford, 1990; O'Malley and Chamot, 1990; Wenden, 1991; Cohen, 1998, etc.). From the practical perspective, however, empirical studies on reading strategy use showed an abundance of conflicting findings about its association with effective reading. The pool of researches on this topic can be divided into two main groups: task-free researches and task-based researches, both of which will be discussed as follows.

2.3.1. Task-free researches

As a matter of fact, the majority of studies on reading strategy use and reading proficiency are 'task-free', which means that they simply employed self-report reading strategy questionnaires or some other research methodologies without requiring the participants to do any reading task. One of the most popular sample questionnaires in use is SILL (Strategy Inventory for Language Learning) designed by Oxford (1990). This questionnaire aims to measure students' reported frequencies of using different reading strategies in different academic contexts. The findings of those studies, however, significantly varied.

Many task-free studies showed a statistically significant association between reading strategy use and reading comprehension. More particularly, they all suggested positive relationships between the two variables, ranging from mild to strong. For instance, Oxford and Ehrman (1995) found a correlation of 0.61 between the frequencies of strategy use and the reading proficiency levels of adult EFL learners in the United States. Meanwhile, Dreyer and Oxford (1996) reported a 0.73 correlation between the English scores and the patterns of strategy use by tertiary ESL students in South Africa. Some of the very recent studies also showed very strong relationships between strategy use and reading proficiency, namely 0.92 (Zare, 2013) and 0.89 (Zare and Othman, 2013). The correlation coefficient in all the four studies exceeded 0.5, indicating 'large' associations (Cohen, 1992). Lower correlations were recorded in many other researches, for instance, 0.39 in Iran (Zare-ee, 2007), 0.35 in Thailand (Mullins, 1992), 0.30 in Japan (Watanabe, 1990), 0.26 in South Korea (Park, 1994), etc. Although the results can only be rated as 'small' (0.26) and medium (0.30, 0.35 and 0.39), they are still statistically significant. This means that higher-proficiency readers reported using more strategies than lower-proficiency readers, at higher frequencies.

However, one notable limitation of those researches is that they just measured the association between reading comprehension scores and the mean frequency of all the reported strategies. Many other studies looking into individual strategies or particular

subgroups of strategies revealed that the relationship between strategy use and reading proficiency was not always positive or statistically significant (Oxford et al, 2004). The research by Chen (1990) showed that more efficient readers actually reported using fewer strategies than less efficient readers. This may happen because when a learner employs a strategy repetitively, it can become an automatic, unconscious action and is no longer considered a strategy (Cohen, 1998). Furthermore, a strategy is neither good nor bad before it is applied in a particular context (Ehrman et al, 2003), thus some strategies may not be as necessary for efficient readers as for inefficient readers. Besides, many other researchers have concluded that strategy use and reading comprehension were not significantly correlated. Anderson (1991) pointed out that the readers in his research tended to apply nearly the same reading strategies regardless of their language proficiency. Likewise, Baker and Boonkit (2004) argued that although efficient and inefficient readers can differ in terms of strategy use, the difference is not statistically significant. The same result was confirmed by Yukselir (2014). These findings were consistent with the arguments of Vann and Abraham (1990) and Cohen (1998): the total number or frequency of strategy use does not necessarily indicate the success of a language task. This is not only a question of ‘how many’ or ‘how often’ but also ‘how well’, something that is not easily taught or learnt (Hall, 2011:152). That is to say, a reader should know which strategies to apply in a particular task as well as how to apply it successfully in practice.

2.3.2. Task-based researches

Although task-free researches have provided numerous worthwhile findings, task-based strategy assessment is gaining an increasing role in measuring the association between reading strategy use and reading proficiency (Oxford et al, 2004). One notable drawback of task-free studies is that when the participants respond to a questionnaire without actually doing a reading task, they may over-report or under-report their frequencies of strategy use due to memory problems or other issues (Cohen, 1998). By contrast, task-based researches emphasize the meaning of ‘task’. Oxford et al (2004:6) synthesized five widely accepted definitions of ‘task’: ‘task’ as duty, ‘task’ as segment or work plan that is part of curriculum and teaching, ‘task’ as behavioural framework distinct from activity, ‘task’ as meaningful communication activity, and ‘task’ as accuracy-oriented activity.

Generally, the reading tasks normally used in recent task-based researches are rather to similar to intensive reading exercises. For example, the studies by Ikeda and Takeuchi (2000), Oxford et al (2004) and Fazilatfar (2010) employed two reading passages of

different lengths and levels of difficulty, each followed by five multiple choice questions. The data collection process went through three main stages: the respondents were asked to complete the same strategy questionnaire under 'No Task' condition (without any reading task), 'Easy Task' condition (after finishing a 30-minute 'easy' reading task) and 'Difficult Task' condition (after finishing a 30-minute 'difficult' reading task). According to Oxford et al (2004), task conditions are among the most influential factors on task performance, thus these studies sought to compare the differences between students' responses with and without the presence of a task, and at different levels of task difficulty.

Ikeda and Takeuchi (2000) pointed out that all the subjects in their study, regardless of reading proficiency levels, reported significantly more frequent use of strategies in 'No Task' condition than in both 'Easy Task' and 'Difficult Task' conditions. Furthermore, higher-proficiency readers tended to use analytical strategies (breaking words into parts, dividing sentences grammatically, etc.) significantly more in 'Difficult Task' condition, while lower-proficiency readers were more likely to have analyzed the text only at lexical level, not grammatical or discourse levels. Meanwhile, the study by Oxford et al (2004) revealed that inefficient readers tended to use more strategies when the task became more difficult, while efficient readers reported using fewer strategies in 'Difficult Task' and 'Easy Task' conditions than in 'No Task' condition. However, unlike the findings of Ikeda and Takeuchi (2000), higher-proficiency readers in Oxford et al (2004) tended towards 'top-down', global strategies whereas lower-proficiency readers applied more 'bottom-up', analytical strategies in 'Difficult Task' condition. Although the two studies showed rather different results, they both confirmed Cohen's (1990) contention that the respondents may under-report or over-report their frequency of reading strategy use in task-free condition. Besides, both studies investigated the relationship of reading proficiency with both overall strategy use and individual strategy use, thus achieving several worthwhile findings about learners' selection of different groups of reading strategies.

In fact, there is still a dearth of studies on task-based strategy assessment until recently, and some limitations of this type of research should be taken into account. Firstly, most of the tasks employed in previous studies were intensive reading exercises with short texts and only five multiple-choice questions, which did not actually require readers to apply too many strategies. Secondly, the sample size of some studies was rather small (for example, Oxford's study only investigated 36 EFL students) and the number of higher-proficiency and lower-proficiency participants were unbalanced (Fazilatfar's research involved 22

‘poor’ readers versus only 14 ‘good’ readers). These shortcomings may hinder the production of statistically significant results.

In brief, both task-free research and task-based research have certain pros and cons to be considered. This paper is a task-free research as it looks into EFL learners’ choices of strategies for academic reading, which requires much more extensive reading than intensive reading, and thus cannot be illustrated by only some short reading tasks with comprehension questions. However, this study will carefully analyze the relationship between reading comprehension proficiency and the frequency of overall strategy use, specific category of strategy use and individual strategy use to provide a comprehensive outlook on the topic.

METHODOLOGY

In fact, the majority of previous studies on strategy and comprehension relied on quantitative reading strategy questionnaires, while only a few researches applied qualitative methods like think-aloud protocol (Block, 1986), case studies (Anderson, 1991), retrospective interviews (Zare-ee, 2007), etc. To address the stated research questions, this paper employed mixed methods combining quantitative and qualitative approaches to allow for greater accuracy (Denzin, 1978). In particular, quantitative data was collected through a self-report Reading Strategy Questionnaire based on the sample surveys of Oxford et al (2004) and Sheorey and Mokhtari (2001), accompanied by a short Reading Difficulty Questionnaire. Meanwhile, qualitative data was gathered via semi-structured interviews with my self-designed questions. Although quantitative analysis is still the centre of this study, some qualitative analysis should be conducted to support the quantitative evidence and triangulate the pool of research data. This chapter will discuss two research methodologies to be applied in my study, regarding participants, instrument and the procedures of data collection and data analysis.

1. Questionnaires

Questionnaire has long been regarded as a typical quantitative research method. According to Dörnyei (2007:24), quantitative research primarily relies on numerical data that is then analyzed by statistical approaches. On one hand, quantitative method provides accurate measurement and reliable data that can be replicated and generalized to other contexts (Dörnyei, 2007:34). On the other hand, this method is criticized for its over-simplicity, decontextualization, and failure in capturing the meaning that participants attach to their lives and circumstances (Brannen, 2005:7).

As previously stated, the majority of empirical researches on strategy and comprehension employed self-report reading strategy questionnaires. This is evidently an effective instrument to measure the relationship between learners' reading scores and their frequencies of strategy use, thus will be the focus of this research. The pros and cons of this method will be discussed later in this part.

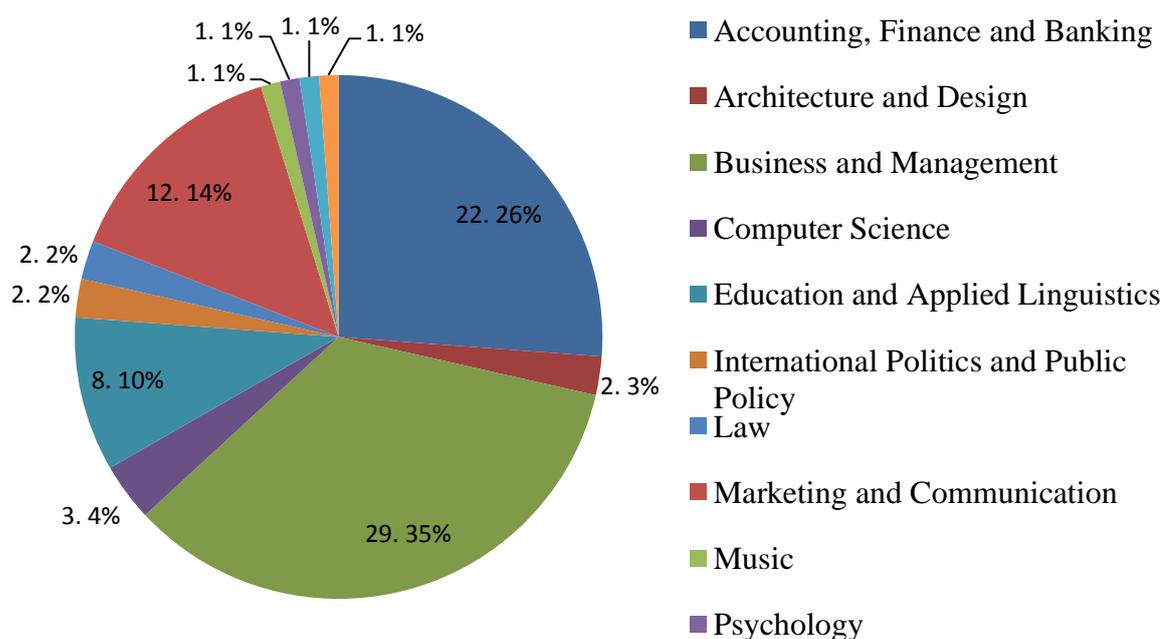
1.1. Participants

The participants in this research were 85 Vietnamese students currently attending full-time academic study in 27 universities in the UK, at both undergraduate and postgraduate

levels. Every student reported having learnt English as a compulsory subject for at least 7 years in Vietnam. Furthermore, as part of the entry requirements to British universities, they had to submit valid certificates of International English Language Testing System (IELTS), namely an overall score of at least 6.0 for undergraduate study and 6.5 for postgraduate study. Any student who failed to fulfil the minimum language threshold was required to take pre-sessional English programs before the academic year, which enabled them to pursue the courses without any language restrictions. Regarding the reading skill, the participants reported having scored from 5.0 to 9.0 on Reading in their latest IELTS results, the mean score being 7.01. The students scoring from 8.0 to 9.0 were rated as ‘higher-proficiency’ readers (31 students), while those gaining from 5.0 to 6.0 were sorted as ‘lower-proficiency’ readers (31 students). This classification relied on the official IELTS band descriptor (9.0 = ‘expert user’, 8.0 = ‘very good user’, 6.0 = ‘competent user’, 5.0 = ‘modest user’, see Appendix A).

Another notable characteristic is that the participants’ profiles greatly varied in terms of age, gender and academic background. There were 53 female students (62.35%) and 32 male students (37.65%), aged from 18 to 32 with the median age of 24. They were currently attending different levels of study, namely Foundation (7.8%), Bachelor’s (5.6%), Pre-master (2.3%) and Master’s (70.8%). The range of academic majors was relatively large, including 12 different groups of subjects:

Figure 1. The proportions of participants by academic majors



In this step, I attempted to improve the representativeness of the sample by trying to raise the number of participants and finding subjects from diverse demographic and academic backgrounds. This also helped enhance the external validity of the research, namely ‘the generalizability of the results beyond the observed sample’ (Dörnyei, 2007:50). Firstly, a sample size of 85 students can be considered good enough to produce meaningful results for correlational research (the minimum requirement is 30), and a balance of 31 ‘higher-proficiency’ readers versus 31 ‘low-proficiency’ readers is sufficiently useful for comparative procedures (the minimum requirement is 15 each) (Dörnyei, 2007:99). Secondly, a group varying in age, gender, level of study, academic major and language proficiency is more likely to represent the diversity of Vietnamese university students in the UK. However, the extent of generalization may be reduced due to the imbalance between female and male subjects and the dominance of postgraduate participants in the sample. Such limitations are sometimes inevitable due to the constraints of time and resources in reality, but should be described in sufficient detail when the results are reported and analyzed (Kemper et al, 2003).

1.2. Instrument

1.2.1. Reading Strategy Questionnaire

The questionnaire employed in this study consists of 28 items (see Appendix B), 25 of which were taken from Oxford et al (2004) and the other 3 were suggested by Sheorey and Mokhtari (2001). The participants were asked to read each statement and rate their frequency of using the corresponding strategy on a Likert scale ranging from 1 (almost never) to 5 (almost always). The items were structured into three stages: before reading, while reading and after reading like in Oxford et al (2004). In fact, Oxford’s Reading Strategy Questionnaire consists of 35 items, but several of them are more specific to test-taking strategies when students are required to do a short reading exercise with multiple choice questions (for example, focusing on verb tenses, subjects, or objects; checking what each pronoun refers to, etc.). These items were thus omitted since my study only investigates purposeful academic reading at British universities. Furthermore, 3 strategies from Survey of Reading Strategies (Sheorey and Mokhtari, 2001) were added: ‘Setting purpose for reading’ was reworded into ‘I set the goals before reading.’, ‘Determining what to read’ was paraphrased as ‘I determine what to read closely and what to ignore.’, and ‘Taking notes’ was modified into ‘I take notes while reading’. These three items,

which are typical of purposeful reading, tend to complement the range of strategies proposed by Oxford et al (2004).

For clearer analysis, the 28 items were categorized into three groups: metacognitive strategies, cognitive strategies and support strategies (see Appendix E). The internal reliability of the questionnaire was 0.74 as indicated by Cronbach's alpha coefficient of internal consistency. This is commonly considered a reasonable indicator, as the coefficient alpha should exceed 0.70 to ensure dependable measurement of cognitive activities (Guilford, 1956; Nunnally, 1978; George and Mallery, 2003; Dörnyei, 2007). Concerning external reliability, this questionnaire tends to be replicable as it primarily relies on the sample Reading Strategy Questionnaire by Oxford et al (2004), which has been employed in several previous researches like Baker and Boonkit (2004), Uzuncakmak (2005), Mollaei and Fazilatfar (2005), Fazilatfar (2010), etc. Last but not least, internal validity can be recognized as all the items in the questionnaire were synthesized from the sample surveys of experts in the field, which were designed based on comprehensive reviews of literature on reading strategies as well as various previous empirical researches on the topic.

1.2.2. Reading Difficulty Questionnaire

Besides the Reading Strategy Questionnaire, this study also utilized a short Reading Difficulty Questionnaire (see Appendix B) which aimed to check whether students had any reading difficulties other than lack of strategy training. As previously stated, strategy training is not the only factor bearing a significant relationship with reading comprehension, and many empirical researches have pointed out that efficient readers and inefficient readers tended to apply more or less the same range of strategies at nearly similar frequencies (Anderson, 1991; Baker and Boonkit, 2004; Yukselir, 2014; etc.). Therefore, a short survey of reading difficulties would complement the findings of the Reading Strategy Questionnaire.

This survey consists of three main questions: whether students had any difficulties while reading academic texts, what kinds of difficulties they encountered, and what their biggest problem was. In the second and the third questions, respondents were asked to choose among a list of five reading difficulties (lack of interest, lack of background knowledge, lack of concentration, lack of vocabulary and lack of grammatical knowledge), and could report any other difficulty in the box "Others". The reliability and validity of this questionnaire were improved in two ways. Firstly, these five items were proposed based on

my personal language teaching experience as well as a variety of literature on factors influencing reading comprehension (Scarcella and Oxford, 1992; Ur, 1996; Aebersold and Field, 1997; etc.). Furthermore, there was space for participants to mention any other sources of difficulties they might encounter, so that they would not feel imposed to choose only among the five options. This tends to raise the objectivity and diversity of the collected pool of data.

1.3. Data collection procedures

For ethical concerns, there were no vulnerable subjects in this study as all the participants were 18 years old or over. Before taking part in the questionnaire, each subject was given a participant information form (see Appendix C) briefly explaining the purposes of the research and the tasks they were expected to do. This aimed to ensure that they were well aware of any risk or discomfort likely to arise during the study. Furthermore, they were assured that their personal details would be kept confidential and all the data would be anonymized with a view to finding group patterns, not individual patterns. Besides, as their participation would be voluntary, the subjects were guaranteed the right to withdraw whenever they felt uncomfortable. After that, each participant was asked to sign a consent form (see Appendix D) indicating their agreement to participate in the questionnaire.

The data collection process went through three steps. Firstly, participants were asked to fill out a Background Information Sheet (see Appendix B) including demographic details like age, gender, academic major and level of study. They were also asked to self-report the number of years they had been learning English and their most recent IELTS scores on the Reading Skill. Secondly, the subjects went on to the Reading Difficulty Questionnaire, reporting their difficulties in academic reading (if any) based on the three questions as previously mentioned. Thirdly, they were asked to complete the Reading Strategy Questionnaire with 28 questions: participants read each item and circle the number indicating their frequency of strategy use on a five-point Likert scale (1 as ‘almost never’ to 5 as ‘almost always’).

1.4. Data analysis procedures

To answer Research Question 1 (*‘Which reading strategies were used by Vietnamese students in the UK when they read academic materials?’*), I used descriptive statistical procedures to calculate the mean frequencies of students using all strategies and each category of strategies; the proportions of metacognitive, cognitive and support strategies by

level of use; and the five most/least popular strategies used by Vietnamese students. The 'level of use' was rated based on the scale of SILL (Oxford, 1990), which categorized a score of 1.0 – 2.4 as 'low'; 2.5 – 3.4 as 'medium' and 3.5 – 5.0 as 'high'.

As for Research Question 2 (*'Did the reading proficiency levels of Vietnamese students in the UK affect their reading strategy use when they read academic materials?'*), Pearson's product-moment correlation coefficient was computed to measure the linear relationship between the frequencies of strategy use and the IELTS reading scores of 85 students. Correlational analysis is among the most popular statistical tests for investigating the association between two variables (Dörnyei, 2007). The value of a correlation coefficient (denoted as r) ranges from -1 to +1, that is to say, it can be positive, negative or equal to zero. Dörnyei (2007:223) emphasized that the negative sign of a negative correlation only indicates the direction, not the strength, which means 'the coefficients of $r = 0.6$ and $r = -0.6$ are equally strong'. To evaluate the strength of correlations, this study employed both p-value and effect size analyses using Statistical Package for the Social Sciences (SPSS). In particular, a correlation coefficient is considered statistically significant if the p-value is lower than 0.05 or 0.01 (Larson-Hall, 2010). However, Larson-Hall also stressed that even though a correlation is statistical, researchers should also consider the effect size to see the magnitude of the relationship (163). According to Cohen (1992:157), a correlation of 0.1 – 0.29 is regarded as 'small', 0.3 – 0.49 as 'medium', and 0.5 and over as 'large' (the classification is the same for negative values).

Research Question 3 (*'Were there any differences between Vietnamese higher-proficiency students and lower-proficiency students in terms of reading strategy use in their academic study?'*) was clarified using independent t-tests to compare the differences between the mean frequencies of strategies used by two independent groups: higher-proficiency readers (31 subjects scoring 8.0–9.0) and lower-proficiency readers (31 subjects scoring 5.0–6.0). In this step, the 'intermediate' group (students scoring 6.5–7.5) was excluded in order to identify exactly where significant differences lay. This kind of 'post-hoc test' was also conducted in the study of Oxford et al (2004) to measure the differences between two groups of subjects.

First, as part of an independent t-test, a Levene's test must be conducted to determine if the two groups had equal or different levels of variances (Larson-Hall, 2010). If the p-value of Levene's test is greater than the significance level (normally 0.05), we can assume equal variances, otherwise the two samples are considered to have different variances. Next, the

t-test should be considered in terms of both p-value and effect size (Dörnyei, 2007). One noteworthy problem is that if we make multiple comparisons with the same dataset and still apply a 0.05 or 0.01 level of significance, the results may be subject to Type I errors, namely accepting an effect that is not present (Hsu, 1996). However, if we use a revised p-value (for example, dividing the level of significance by the number of comparisons, as suggested in Bonferroni correction), the results may stand the risk of Type II errors, i.e. rejecting an effecting that is present (Gelman et al, 2012). Thus it is essential to consider the effect sizes of t-tests to determine the magnitude of difference as well. This study employed the effect size formula by Rosnow and Rosenthal (1996) which was developed from the Cohen's *d* (Cohen, 1992): the effect size indicator (*d*) is the difference between the mean values of the two groups divided by the pooled standard deviation (i.e. the square root of the average of the squared standard deviations). According to Cohen (1992:157), a value of *d* is rated as 'small' if it is 0.2 – 0.49, 'medium' if it is 0.5 – 0.79, and 'large' if it is 0.8 and over.

Last but not least, the proportions of students reporting different reading difficulties were synthesized from the Reading Difficulty Questionnaire to help explain the findings from the Reading Strategy Questionnaire.

2. Interviews

Historically, interview has been one of the most widely used qualitative research methods. Dörnyei (2007:24) emphasized that qualitative research principally employs open-ended, non-numerical data that is normally analyzed by non-statistical approaches. This method is particularly useful for interpreting and providing insights into complex phenomena and allowing for flexibility when things go wrong (Dörnyei, 2007:39). However, its largest shortcomings are the lack of generalizability due to limited sample size (Duff, 2006) and the dearth of standardized analytical instruments and procedures (Seale et al, 2004). Considering the pros and cons of qualitative approach, this methodology tends to complement the above-mentioned merits and limitations of quantitative approach.

After collecting and analyzing the responses of the questionnaires, I decided to choose 6 out of the 85 participants for semi-structured interviews to gather some additional qualitative data. The purpose of this step was to get more insight into individual reading behaviour and to check whether the qualitative data in the interviews support the findings of the questionnaires. Although this study relied significantly on quantitative approaches,

these interviews also played a role in providing more in-depth qualitative data and clarifying any surprising findings in the questionnaires.

2.1. Participants

Initially, 6 out of the 85 participants of the surveys were chosen for semi-structured interviews. There were 3 lower-proficiency readers who scored between 5.0 and 6.0, and 3 higher-proficiency readers who scored from 8.0 to 9.0. All of the subjects reported having learnt English as an academic subject in Vietnam for at least 7 years, and started full-time academic study in the UK in September 2014 or January 2015. This enabled a detailed comparison between the two groups of readers in terms of reading strategy use and reading difficulties.

Although the sample size was small, I tried to provide a diverse range of data and increase the generalizability of the results by selecting participants of various demographic and academic backgrounds. My interviews included 3 male students and 3 female students aged from 21 to 25 who were studying in 6 different academic majors: Architecture, Business, Finance and Banking, Mass Communication, TESOL and Real Estate. They also came from 6 different British universities and were currently attending different levels of study, namely Foundation, Pre-master's and Master's. Such diversities may be beneficial since the main purpose of qualitative research sampling is 'find individuals who can provide rich and varied insights into the phenomenon under investigation' (Dörnyei, 2007:126).

2.2. Instrument

This study utilized one-to-one semi-structured interviews, which is the most popular interview type conducted in applied linguistics research (Dörnyei, 2007:136). This method offers a compromise between structured interviews and unstructured interviews: although it relies on a set of prepared guiding questions, it still allows for flexibility by encouraging interviewees to elaborate on certain issues or develop the answers in unexpected directions that may open up new interesting areas (Heigham and Croker, 2009). Accordingly, this study relied on an interview guide with four self-designed questions as follows:

1. What is your purpose of reading an academic text in English, for example, a book or an article?
2. How do you read an academic text in English?

3. Can you describe any difficulties you meet while reading academic texts in English? Which one do you find the most problematic?
4. What do you do to solve each of these reading problems?

This guide consists of four broad, open-ended questions covering two key aspects: reading strategy use and reading difficulties. The first question investigates students' various purposes in English academic reading, whereas the second question focuses on the specific actions or processes taken to fulfil these goals. Meanwhile, the third and the fourth questions examine students' personal reading difficulties and the solutions they may take to tackle these problems. Internal validity can be recognized, as these questions tend to be suitable for illustrating such complex cognitive processes, and further questions can be raised to get more insight into some particular aspect. In terms of reliability, the interview guide is replicable as the four questions were clearly worded and open-ended, which means there are no ambiguous or leading questions.

2.3. Data collection and analysis procedures

Initially, all the participants were informed of the purpose and procedures of the interviews and asked to sign the consent forms (see Appendix D). They were also made aware that the interviews would be recorded and transcribed for later analysis, and they could withdraw from the study whenever they felt uncomfortable.

The flow of questions and responses were based on the interview guide, as previously mentioned, but the interviewees could expand their answers and more specific questions were asked to clarify any interesting piece of information arising during the interviews (following-up). Most of the questions were open-ended so that the interviews developed as naturally as possible, but some close-ended questions were also included to confirm the information whenever the participants' responses seemed lengthy or ambiguous (checking). According to Heigham and Croker (2009:190), following-up and checking are two useful techniques for exploring new topics brought up during interviews.

After the interviews, the recorded responses were transcribed and analyzed by a summary comparing higher-proficiency readers and lower-proficiency readers in terms of reading strategy use and reading difficulties. The similarities and differences of subjects in the same group were also taken into account. This step sought more insights into students' cognitive processes of reading and check if the qualitative data was consistent with the quantitative data. The data of 6 interviewees was analyzed collectively to figure out any similarities or differences between the reading behaviour of two groups of subjects.

As for ethical concerns, the recordings were stored in password-protected devices and treated with full confidentiality. The data was analyzed anonymously and proper pseudonyms were used in the transcripts. Besides, all the recordings will be destroyed after the dissertation has been marked and collected.

DATA ANALYSIS AND DISCUSSION

This chapter analyzes and discusses two sets of results corresponding to two phases of data collection. The first section summarizes the key findings from quantitative analysis of the questionnaires, which is the central part of the whole study. This clarifies the answers to three stated research questions on 85 Vietnamese students' reading strategy use, supported by a brief analysis of their difficulties while reading English academic materials. The second section describes and gives comments on the qualitative data from the semi-structured interviews with 6 student-subjects, which aimed to triangulate the overall pool of data and help confirm the results of the questionnaires.

1. Analysis and discussion of the questionnaires

1.1. Which reading strategies were used by Vietnamese students in the UK when they read English academic materials?

This research question examines the range of strategies applied by 85 Vietnamese students while reading academic materials for their study in the UK. Their average frequencies of using 28 individual reading strategies are summarized in Appendix E.

1.1.1. Students' mean frequencies of using all strategies and each category of strategies

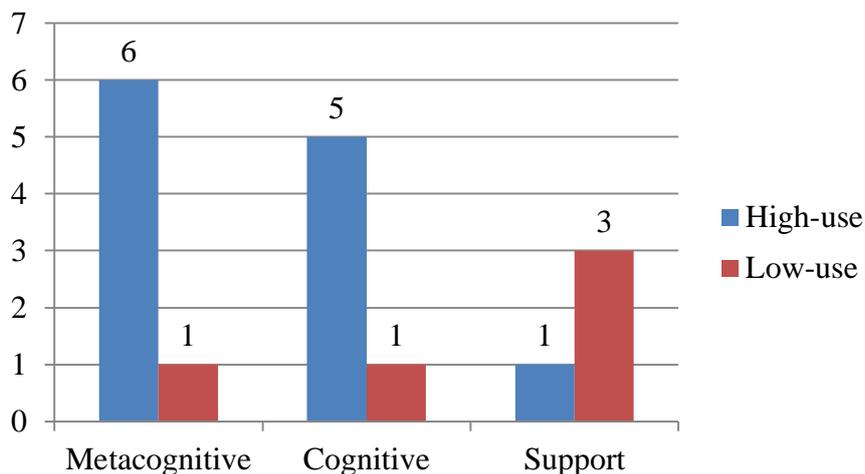
Table 1. Students' mean frequencies of using all strategies and each category of strategies

	Mean frequency	Level of use
Overall reading strategies	M = 3.23	Medium
Metacognitive reading strategies	M = 3.21	Medium
Cognitive reading strategies	M = 3.33	Medium
Support reading strategies	M = 2.78	Medium

On the whole, students' average frequency of overall strategy use was at medium level (M=3.23), with the mean values of individual strategies ranging from a high of 4.00 to a low of 1.78 (see Appendix E). There were 12 out of 28 strategies (42.86%) falling into 'high use' group (mean of 3.5 or above), 11 strategies (39.29%) showing 'medium use' (means ranging from 2.50 to 3.49) and the other 5 strategies (17.85%) indicating 'low use' (means below 2.5).

Students' mean frequencies of using three categories of strategies were also rated at medium level each. However, they showed a clear preference for cognitive strategies (M=3.33, on the borderline of 'high use') and metacognitive strategies (M=3.21) but tended to use support strategies less frequently (M=2.78, verging on 'low use').

Figure 2. The number of strategies by levels of use and categories



Specifically, 5 out of 12 'high-use' strategies (41.67%) fell into cognitive group (see Figure 2). These strategies were related to adjusting reading speed or using schemata and context clues to support comprehension (see Appendix E). Similarly, 6 metacognitive strategies (50%), which enabled readers to gain an overview of the texts or figure out the key information, were also reported to be used at high level. Meanwhile, only 1 support strategy (*Underlining key words*, 8.33%) was rated as 'high-use'. By contrast, 3 out of 5 'low-use' strategies (60%) belonged to support category, versus merely 1 metacognitive strategy (20%) and 1 cognitive strategy (20%) rated as 'low-use'. Notably, however, all of them were 'bottom-up' techniques that focus on details rather than holistic meaning.

1.1.2. The most and the least frequently used strategies

Among the 5 most frequently used strategies (see Table 2), there were at least 3 'top-down' items: *Figuring out the main idea of each paragraph* was reported as the most popular strategy used by the student-subjects (M=4.00), closely followed by *Guessing words from context clues* (M=3.98) and *Using the title to predict contents* (M=3.95). They are all considered sophisticated strategies stimulating the active role of readers in achieving the holistic meaning (Oxford et al, 2004). Another interesting point is that most of the commonest strategies belonged to metacognitive category: besides *Figuring out the main idea of each paragraph* and *Using the title to predict contents*, two strategies *Paying*

attention to linking words (M=3.91) and *Setting goals before reading* (M=3.89) also contain certain elements of metacognition. While the former is useful for constructing meaning at cross-sentence or cross-paragraph levels, the latter is a planning strategy that is typical of purposeful reading and determines the whole process (Sengupta, 2002).

Table 2. Top 5 most frequently and least frequently used strategies

Five most frequently used strategies			Five least frequently used strategies		
Strategies	Type	Mean	Strategies	Type	Mean
Figuring out the main idea of each paragraph	Met	4.00	Reading aloud the entire text	Sup	1.78
Guessing words from context clues	Cog	3.98	Translating each sentence into Vietnamese	Cog	1.88
Using the title to predict contents	Met	3.95	Reading aloud difficult parts	Sup	2.04
Paying attention to linking words	Met	3.91	Focusing on every word	Met	2.08
Setting goals before reading	Met	3.89	Dividing a sentence grammatically	Sup	2.27

By contrast, all of the 5 least frequently used strategies were more or less ‘bottom-up’ in nature. There were 3 support strategies that relied on acoustic or analytic mechanism to grasp the meaning of difficult words or sentences. Specifically, *Reading aloud the entire text* was the least common strategy in use (M=1.78), while *Reading aloud difficult parts* (M=2.04) and *Dividing a sentence grammatically* (M=2.27) were also rated at ‘low-use’ level. Similarly, the other 2 strategies (*Translating each sentence into Vietnamese*, M=1.88; *Focusing on every word*, M=2.08) tended towards details at word or sentence level, which were typical of less proficient foreign language readers (Barnett, 1988).

1.1.3. Summary

Although the mean frequency of overall strategy use was at medium level only, the participants tended to use several ‘top-down’ strategies at high frequency and ‘bottom-up’ strategies at low frequency. Furthermore, they reported using cognitive strategies most

frequently, followed by metacognitive strategies and support strategies. While most of the cognitive strategies and metacognitive strategies were rated at ‘high’ or ‘medium’ use, 3 support strategies (nearly 50%) were reported as ‘low’ use and only 1 belonged to ‘high-use’ group.

1.2. Did the reading proficiency levels of Vietnamese students in the UK affect their reading strategy use when they read English academic materials?

This research question investigates the effects of Vietnamese students’ reading proficiency (measured by IELTS reading scores) on their frequencies of reading strategy use in academic contexts. The correlations between reported IELTS reading scores and students’ frequencies of using 28 individual strategies are presented in Appendix F.

1.2.1. Correlations between reading proficiency and students’ mean frequencies of using all strategies and each category of strategies

Table 3. Correlations between reading proficiency and overall strategy use

Strategies	Pearson correlation	p-value
Overall reading strategies	-.111	.310
Metacognitive reading strategies	.156	.154
Cognitive reading strategies	-.005	.963
Support reading strategies	-.392**	.000

On the whole, there was a weak correlation between students’ reading scores and their average frequencies of overall strategy use ($r = -.111$, $p = .310$). The correlation also had a negative value, indicating that the use of reading strategies slightly decreased as proficiency increased.

Interestingly, only metacognitive strategies showed a positive association with reading efficiency, but the effect size was rather weak ($r = .156$, $p = .154$). Meanwhile, there was barely any relationship between cognitive strategies and reported reading scores ($r = -.005$, $p = .963$). Support strategies was the only group to bear a statistically significant correlation with reading proficiency ($r = -.392$, $p = .000$), but the effect size was only rated as ‘medium’ (Cohen, 1992:157). Moreover, the negative sign suggests that support

strategies became less necessary when proficiency increased, which seems consistent with a previous finding in Sheorey and Mokhtari (2001).

These results did not provide sufficient evidence to support the relationship between reading proficiency and reading strategies in general. However, a closer look at each individual strategy is worthwhile since different strategies may vary in types of correlations and levels of significance with reading competence.

1.2.2. Correlations between reading proficiency and students' mean frequencies of using individual strategies

Overall, there were 14 out of 28 strategies showing statistically significant associations with reading proficiency, including 6 positive correlations and 8 negative correlations. This supports Ehrman's (2003) argument that a strategy is neither good nor bad unless it is considered in a specific context. This also helps explain why it is essential to consider each strategy on its own, since the overall mean value does not reflect the directions and effect sizes of the correlations between individual strategies and reading comprehension.

1.2.2.1. Significantly positive correlations: 4 metacognitive and 2 cognitive

Table 4. Positive correlations between reading proficiency and individual strategy use

Cate- gories	Strategies	Pearson correlation		P- value
Met	Setting goals before reading	.546**	Large	.000
Met	Determining what to read and skipping irrelevant details	.316**	Medium	.003
Met	Using the title to predict contents	.307**	Medium	.004
Met	Considering text type	.242*	Small	.026
Cog	Understanding without translating	.367**	Medium	.001
Cog	Guessing words from context clues	.291**	Small	.007

Overall, most of the listed strategies belonged to metacognitive group, indicating that metacognitive strategies were applied at significantly higher frequencies when proficiency increased. This finding is plausible because *Setting goals before reading*, *Using the title to*

predict contents and *Considering text type* are useful pre-reading strategies that help learners get an overview of the texts and clearly determine what to do next. Meanwhile, *Determining what to read and skipping irrelevant details* reflects the ability to pay selective attention while reading, when learners only seek for key information and ignore unimportant parts to improve reading speed. Interestingly, although metacognitive strategies were not as popular with the student-subjects as cognitive strategies (see Table 1), some of them were used much more frequently at higher levels of proficiency.

Likewise, the two cognitive strategies on the list are also typical of more efficient readers. In particular, *Understanding without translating* indicates the ability to think in English that considerably enhances the reading speed. Similarly, *Guessing words from context clues* is a characteristic of intelligent reading (Clarke and Nation, 1980) where learners make use of context clues to infer the meaning of unknown words instead of using a dictionary. Another notable point is that although cognitive strategies were proven to have virtually no association with reading comprehension (Table 3), some specific strategies actually showed significantly positive correlations with reading proficiency.

Although there was statistical evidence to support the relationship between strategy use and reading competence, it should be noted that the effect sizes of some correlations were rather weak. Only one strong correlation was reported, namely *Setting goals before reading* ($r = .546$, $p = .000$). This result is reasonable since having a clear goal in mind is undoubtedly a typical feature of purposeful academic reading (Spack, 1993). However, the remaining 5 strategies only showed moderate and weak correlations, with effect sizes ranging from .242 to .367.

1.2.2.2. Significantly negative correlations: 1 metacognitive, 2 cognitive and 5 support

Overall, most of the listed strategies fell into support category, indicating that the use of support strategies significantly decreased when proficiency increased (see Table 5). This finding, which is consistent with one of the claims in section 1.2.1, tends to make sense because support strategies are normally applied at lower levels of proficiency when readers must rely on phonic or analytical mechanisms to aid comprehension (Sheorey and Mokhtari, 2001). In particular, the two reading aloud strategies (*Reading aloud the entire text* and *Reading aloud difficult parts*) are characteristic of poor readers who have to use acoustic support to deal with difficult words or sentences (Oxford et al, 2004). Likewise, *Dividing a sentence grammatically* is an analytical strategy normally utilized by lower-proficiency readers when they encounter lengthy, complicated grammatical structures.

Marking topic sentences of each paragraph and *Summarizing* also seem typical of less efficient readers, as fluent readers may figure out the main ideas and memorize the key information more easily, thus finding no need to mark every topic sentence or write a summary.

Table 5. Negative correlations between reading proficiency and individual strategy use

Cate- gories	Strategies	Pearson correlation		p- value
Met	Focusing on every word	-.505**	Large	.000
Cog	Translating each sentence into Vietnamese	-.576**	Large	.000
Cog	Skipping sentences	-.228*	Small	.036
Sup	Reading aloud the entire text	-.501**	Large	.000
Sup	Summarizing	-.281**	Small	.009
Sup	Reading aloud difficult parts	-.274*	Small	.011
Sup	Dividing a sentence grammatically	-.223*	Small	.041
Sup	Marking topic sentences of each paragraph	-.215*	Small	.048

The metacognitive strategy *Focusing on every word* is undoubtedly a feature of inefficient readers who have to rely on word-for-word decoding and lack the ability to read for general meaning (Sengupta, 2002). Likewise, the cognitive strategy *Translating each sentence into Vietnamese* also indicates the inability to think in English, when readers have to filter the texts through their first language and only approach meaning at sentence level. *Skipping sentences* was also utilized more frequently at lower levels of proficiency, probably because inefficient readers tend to give up more easily while efficient readers may try to understand or have no problem understanding a more complex sentence, thus do not need to skip it (Oxford et al, 2004).

Also noticeably, the majority of these negative correlations were weak, with effect sizes ranging from -.215 to -.281. Only 3 correlations could be rated as strong and statistically significant at 0.01 level, including *Translating each sentence into Vietnamese* ($r = -.576$, $p = .000$), *Focusing on every word* ($r = -.505$, $p = .000$), and *Reading aloud the entire text* (r

= -.501, $p = .000$). This result is reasonable since all those three strategies are characteristic of inefficient readers and significantly reduces overall reading speed.

1.2.3. Summary

Although overall strategy use was proven to have virtually no relationship with reading proficiency, statistically significant correlations were reported for 14 out the 28 strategies. However, it should be acknowledged that most of these correlations were rated as ‘medium’ (moderate) and ‘small’ (weak), while only 4 correlations could be rated as ‘large’ (strong).

Besides, there were 6 strategies showing significantly positive associations with reading competence, 4 of which contained metacognitive, ‘top-down’ components that deal with holistic meaning, while the other 2 were cognitive strategies that helped enhance the reading speed by thinking directly in English and making use of context clues. Conversely, 8 items were reported to be used much less frequently when proficiency levels increased, most of which were support strategies that employed acoustic or analytic mechanisms to aid comprehension, or ‘bottom-up’ strategies that focused on details rather than grasping the global meaning (except for *Summarizing*).

1.3. Were there any differences between Vietnamese higher-proficiency students and lower-proficiency students in terms of reading strategy use in their academic study?

This research question explores proficiency-related differences in students’ frequencies of using 28 individual reading strategies. Two groups of participants were taken into consideration: the lower-proficiency group (scoring 5.0–6.0, $N=31$) and the higher-proficiency group (scoring 8.0–9.0, $N=31$). In this part, the ‘intermediate’ group (scoring 6.5–7.5) was excluded to identify exactly where significant differences lay, in other words, whether or not higher-proficiency readers and lower-proficiency readers really differed in terms of strategy use. Overall, there were 12 strategies preferred by higher-proficiency readers and 11 strategies applied more frequently by lower-proficiency readers, which will be carefully analyzed as follows.

1.3.1. Strategies preferred by higher-proficiency readers

Overall, there were 12 strategies utilized more frequently by higher-proficiency readers, the majority of which fell into cognitive and metacognitive groups (see Table 6). They were mostly applied at ‘high-use’ level by more efficient readers (mean frequencies

ranging from 3.61 to 4.32, except for *Taking notes*) and primarily at ‘medium-use’ level by less efficient readers (mean frequencies ranging from 2.97 to 3.81).

Table 6. Strategies used more frequently by higher-proficiency readers

Strategies		High		Low		Effect size (d)		p-value
		M	SD	M	SD			
Setting goals before reading	Met	4.32	0.80	3.23	0.99	1.22	Large	.000
Understanding without translating	Cog	4.16	0.97	3.32	0.91	0.89	Large	.001
Using the title to predict contents	Met	4.19	0.95	3.52	1.06	0.67	Medium	.010
Considering text type	Met	3.77	0.99	2.97	1.14	0.67	Medium	.004
Determining what to read and skipping irrelevant details	Met	3.74	0.67	3.26	0.89	0.65	Medium	.012
Guessing words from context clues	Cog	4.16	0.78	3.61	0.95	0.63	Medium	.016
Taking notes	Sup	3.23	1.28	2.65	1.25	0.46	Small	.077
Figuring out the main idea of each paragraph	Met	4.16	1.00	3.81	0.75	0.40	Small	.120
Understanding the implicit meaning	Met	3.65	0.79	3.36	0.75	0.37	Small	.146
Linking the content to prior knowledge	Cog	3.77	0.92	3.45	1.03	0.33	Small	.198
Guessing words from prior knowledge	Cog	3.61	0.80	3.36	0.88	0.31	Small	.232
Changing reading speed	Cog	4.07	0.81	3.81	1.08	0.27	Small	.292

Besides, these strategies were either planning strategies in pre-reading stage or sophisticated ‘top-down’ strategies in while-reading stage that dealt with holistic meaning and enhanced the active role of readers by making use of formal schemata (context clues, structures of different text types, etc.) and content schemata (background knowledge) (Carrell, 1987:461). However, large effect sizes were reported for only 2 strategies, while the other 10 strategies only showed ‘medium’ or ‘small’ differences (see Table 6). This supports a previous finding in Research Question 2 that several cognitive and metacognitive strategies bore significantly positive relationships with reading proficiency, but most of the correlations were merely moderate or weak (see Table 4). Each group of strategies will be discussed in more depth as follows.

1.3.1.1. Strategies with large effect sizes

Overall, higher-proficiency readers reported using *Setting goals before reading* ($d = 1.22$, $p = .000$, $N=31$) and *Understanding without translating* ($d = 0.89$, $p = .000$, $N=31$) at noticeably higher frequencies levels than lower-proficiency readers. Both strategies showed statistically significant results at 0.001 level, indicating very strong differences between two groups of students. This finding is plausible because *Setting goals before reading* is a core planning strategy normally applied by efficient readers in purposeful academic reading (Sengupta, 2002). Likewise, *Understanding without translating* is typical of fluent readers who tended to have richer background of English vocabulary and grammar, thus found no need to filter the texts through their first language (Oxford et al, 2004).

1.3.1.2. Strategies with medium effect sizes

Medium effect sizes were reported for 3 metacognitive strategies and 1 cognitive strategy (ranging from 0.63 to 0.67), reflecting ‘moderate’ differences between two groups of readers. They only showed statistically significant results at 0.05 level, and were proved to have ‘medium’ or ‘small’ positive correlations with reading proficiency (see Table 4). However, it should be acknowledged that those strategies play certain roles in constructing meaning and are normally applied more often by efficient readers. It can be inferred that higher-proficiency readers tried to get an overview of the texts by *using the title to predict contents* ($d = 0.67$, $p = .010$, $N=31$) and *considering text type* ($d = 0.67$, $p = .004$, $N=31$). Then they sought for key information by *determining what to read and skipping irrelevant details* ($d = 0.65$, $p = .012$, $N=31$), and tried to *guess words from context clues* ($d = 0.63$, $p = .016$, $N=31$) instead of using a dictionary whenever they came across some unknown

words. In this way, learners became more active in constructing meaning and improving their reading speed, which is a typical feature of efficient readers (Nuttall, 1996).

1.3.1.3. Strategies with small effect sizes

There were 6 strategies employed slightly more often by higher-proficiency readers, with effect sizes ranging from 0.27 to 0.46 (see Table 6). None of them showed statistically significant results at 0.05 level, but a certain degree of differences still existed, though it was only rated as ‘small’ (Cohen, 1992:157). On one hand, it should be acknowledged that those strategies are beneficial for reading comprehension, as they help stimulate the active roles of readers in grasping the overall meaning of the texts. Some previous empirical studies even pointed out that *Figuring out the main idea of each paragraph*, *Linking the content to prior knowledge* and *Changing reading speed* were utilized considerably more often by efficient readers (Sheoreya and Mokhtari, 2001; Oxford et al, 2004). But on the other hand, using a strategy successfully does not only depend on ‘how often’ but also ‘how well’. For instance, a lower-proficiency reader might try to use his schemata to guess uncommon words or predict the content of the text, but he still failed to arrive at meaning as his background knowledge was not good enough. Likewise, he might attempt to summarize the main idea or comprehend the implicit meaning of each paragraph, but did not succeed due to lack of vocabulary or grammatical knowledge. This result supports the argument of Anderson (1991: 468) that ‘strategic reading is not only a matter of knowing what strategy to use, but also the reader must know how to use a strategy successfully and orchestrate its use with other strategies.’

1.3.2. Strategies preferred by lower-proficiency readers

By and large, there were 11 strategies employed more frequently by less efficient readers (see Table 7). They were reported to be applied mostly at ‘medium-use’ level by lower-proficiency readers (average frequencies ranging from 2.45 to 3.39), and primarily in the vicinity of ‘low-use’ level by higher-proficiency readers (average frequencies ranging from 1.15 to 3.00). This result is understandable since most of the listed items were support strategies depending on auditory and analytical mechanism, or ‘bottom-up’ strategies focusing on separate words and sentences rather than the global meaning. Considering the effect sizes, only 3 strategies were employed at significantly higher frequencies by lower-proficiency readers (d exceeded 0.8), whereas the other 8 items only showed ‘medium’ or ‘small’ differences (d stood within 0.5 – 0.79 and 0.2 – 0.49, respectively). Each group of strategies will be discussed in more detail as below.

Table 7. Strategies used more frequently by lower-proficiency readers

Strategies		Low		High		Effect size (d)		p-value
		M	SD	M	SD			
Translating each sentence into Vietnamese	Cog	2.58	1.26	1.15	0.44	1.52	Large	.000
Reading aloud the entire text	Sup	2.45	1.12	1.26	0.58	1.34	Large	.000
Focusing on every word	Met	2.87	1.26	1.65	0.55	1.26	Large	.000
Reading aloud difficult parts	Sup	2.52	1.09	1.74	1.09	0.71	Medium	.007
Summarizing	Sup	3.19	1.17	2.48	1.06	0.64	Medium	.015
Marking topic sentences of each paragraph	Sup	3.36	1.17	2.71	1.13	0.56	Medium	.031
Skipping sentences	Cog	3.36	1.11	2.71	1.27	0.54	Medium	.037
Dividing a sentence grammatically	Sup	2.61	1.12	2.03	1.11	0.52	Medium	.044
Breaking words into parts	Cog	3.32	0.83	2.94	1.18	0.38	Small	.141
Predicting what comes next	Met	3.09	1.14	2.68	1.17	0.36	Small	.157
Reading from the first to the last paragraph	Met	3.39	1.17	3.00	1.24	0.32	Small	.211

1.3.2.1. Strategies with large effect sizes

Overall, only 3 strategies were applied noticeably more often by lower-proficiency readers, all of which showed statistically significant results at 0.0001 level. While *Translating each sentence into Vietnamese* and *Focusing on every word* are both ‘bottom-up’ and detail-focused strategies, *Reading aloud the entire text* is a support strategy typically applied by poor readers as previously mentioned. The largest effect size was recorded for *Translating each sentence into Vietnamese* ($d = 1.52$, $p = .000$, $N=31$), which undoubtedly reduces

reading speed as readers must translate the whole text into their first language instead of thinking and constructing meaning directly in English. In contrast with *Understanding without translating*, this cognitive strategy is characteristic of poor readers (Oxford et al, 2004). Likewise, *Focusing on every word* ($d = 1.26$, $p = .000$, $N=31$) is a ‘bottom-up’ metacognitive strategy normally chosen by low-proficiency readers who have to decode every single word, contrasting to the ‘top-down’ strategy *Determining what to read and skipping irrelevant details*. Similarly, the support strategy *Reading aloud the entire text* ($d = 1.34$, $p = .000$, $N=31$) tends to be typical of ‘beginner’ readers who still maintain the habit of reading aloud and have not get used to silent reading.

1.3.2.2. Strategies with medium effect sizes

Medium effect sizes were recorded for 4 support strategies and 1 cognitive strategy (ranging from 0.52 to 0.71, see Table 7). These strategies only showed statistically significant results at 0.05 level, indicating ‘moderate’ differences between two groups of subjects. In particular, *Reading aloud difficult parts* ($d = 0.71$, $p = .007$, $N=31$), *Marking topic sentences of each paragraph* ($d = 0.56$, $p = .031$, $N=31$) and *Dividing a sentence grammatically* ($d = 0.52$, $p = .044$, $N=31$) are three support strategies normally utilized at low levels of reading proficiency, as previously discussed in section 1.2.2.2. Similarly, *Skipping sentences* ($d = 0.54$, $p = .037$, $N=31$) is also more typical of inefficient readers who may give up more easily when coming across a lengthy, complicated sentence. Meanwhile, *Summarizing* ($d = 0.64$, $p = .015$, $N=31$) may contain some ‘top-down’ components that help learners sum up the main ideas of the whole text. However, it may be less necessary for good readers who can easily figure out the overall meaning and memorize the key information.

1.3.2.3. Strategies with small effect sizes

There were 4 strategies reported to be used slightly more often by lower-proficiency readers (see Table 7), none of which showed statistically significant results at 0.05 level. Nevertheless, a certain magnitude of difference can still be recognized, as their effect sizes ranged from 0.32 to 0.46 and were regarded as ‘small’ by Cohen (1992:157). In particular, *Breaking words into parts* ($d = 0.38$, $p = .141$, $N=31$), as previously discussed in Oxford et al (2004), is normally more popular with inefficient readers who have to analyze long, uncommon words by dividing them into parts, while efficient readers may recognize the words more quickly thanks to richer English vocabulary. Meanwhile, *Reading from the first to the last paragraph* ($d = 0.32$, $p = .211$, $N=31$) is also more typical of low-

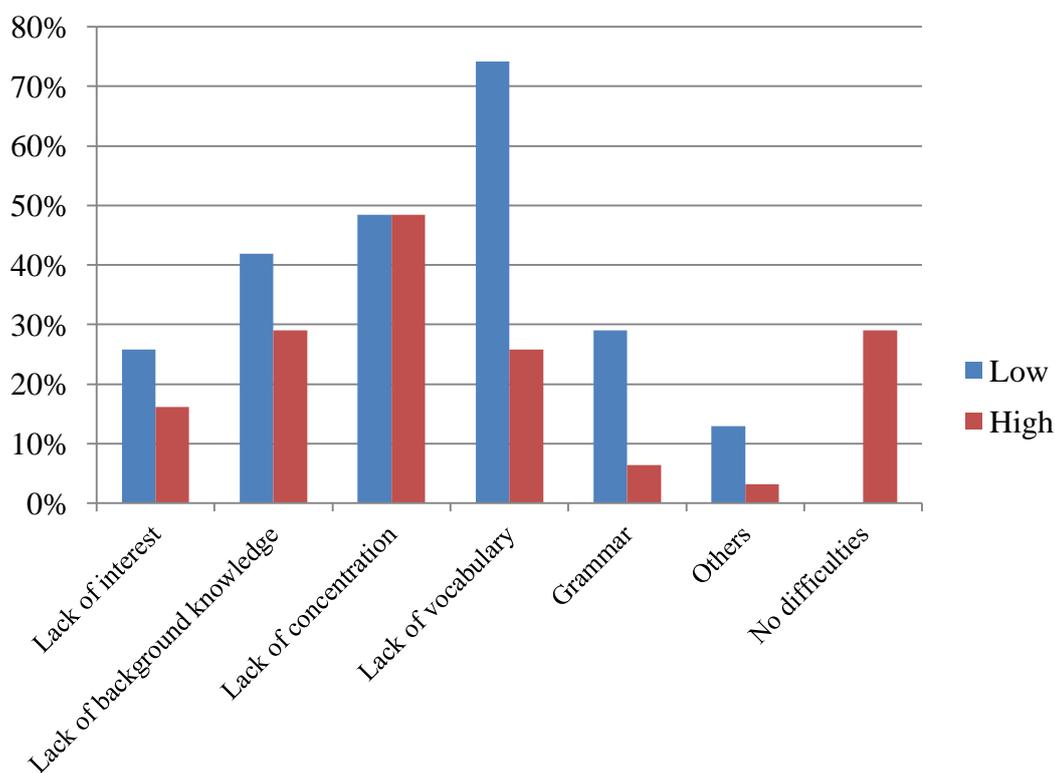
proficiency readers, since high-proficiency readers normally just focus on important parts and skip irrelevant paragraphs. *Predicting what comes next* ($d = 0.36$, $p = .157$, $N=31$), despite containing some elements of ‘top-down’ prediction, is not really necessary for good readers who normally take a look at the structure of the texts before reading, thus find less need to predict what may come afterwards.

1.3.3. Summary

While higher-proficiency readers tended towards ‘top-down’ strategies that were planning-related and focused on global meaning, lower-proficiency readers made more frequent use of ‘bottom-up’ strategies that were detail-focused or somehow relied on auditory and analytical support. Although the two groups of subjects were reported to differ in the frequencies of using 23 individual strategies, significant differences were recognized for 5 strategies only whereas the effect sizes for the other 18 items were only medium or small. This indicates that strategy awareness and training may not be the only contributor to reading proficiency. A more detailed analysis of other factors influencing English reading comprehension will be presented in the following part.

1.4. Results of Reading Difficulty Questionnaire

Figure 3. Reading difficulties of lower-proficiency and higher-proficiency students



To justify some earlier findings, a short reading difficulty questionnaire was conducted with the 31 lower-proficiency students and 31 higher-proficiency students in Research Question 3 (see Figure 3). Overall, every lower-proficiency reader reported at least one reading difficulty, while 29.03% of the higher-proficiency readers stated that they had no problem in academic reading. It is evident that ‘lack of vocabulary’ was the most common reading difficulty with less efficient students (chosen by 74.19% of low-proficiency group and rated as the biggest challenge by 45.16%). Meanwhile, ‘lack of concentration’ was the most popular issue among more efficient learners (reported by 48.39% and rated as the largest reading difficulty by 41.94%).

Interestingly, there were consistently more lower-proficiency readers than higher-proficiency readers reporting 5 out of 6 categories of reading problems. The most significant gaps could be seen in ‘lack of vocabulary’ and ‘grammar’, in particular, the former was reported by 74.19% of inefficient learners versus merely 25.81% of efficient learners, and the latter was encountered by 29.03% against 6.45%, respectively. Similarly, ‘lack of interest’, ‘lack of background knowledge’ and the ‘other difficulties’ were also chosen by more lower-proficiency students than higher-proficiency students. These results help confirm that the subjects actually had various reading difficulties other than lack of strategy awareness and training. Furthermore, inefficient readers tended to be inferior to efficient readers in terms of lexical and grammatical knowledge, academic background knowledge and motivation. This explains why low-proficiency readers tended to be less successful although they applied some strategies at somehow the same frequencies as high-proficiency readers. For instance, they reported using *Guessing words from context clues* (M=3.61), *Figuring out the main idea of each paragraph* (M=3.81) and *Linking the content to prior knowledge* (M=3.45) mostly at ‘high-use’ level, but these strategies might not work without sufficient understanding of vocabulary, grammatical structures and background knowledge on the topics.

2. Analysis and discussion of the interviews

This part summarizes the main findings of semi-structured interviews with 6 Vietnamese students who had participated in the questionnaires. There were 3 lower-proficiency students (scoring 5.0–6.0) and 3 higher-proficiency students (scoring 8.0–9.0), all of whom were currently attending full-time academic study at 6 different universities in the UK. The profiles of 6 interviewees accompanied by the transcripts are presented in Appendix H. Corresponding to the questions in the interview guide (see section 2.2.2), this part will

analyze and discuss the qualitative data on the purposes, strategies and difficulties of 6 participants in English academic reading.

2.1. Students' purposes of reading English academic materials

On the whole, all the 6 interviewees reported having some general goals before reading, mostly to fulfill essay-based assessment and to prepare for lectures at university. However, all the 3 high scorers stressed the importance of reading in broadening their background knowledge, for instance, to get insight into some particular topics (Student D) and to learn from the text structure (Student E). Meanwhile, the 3 low scorers tended to focus on the academic tasks only. For example, Student A and Student C stated that they only read academic texts on the tutors' requirements or for compulsory assignments at university, but they themselves were not really interested in reading. That is to say, although the two groups might have the same objectives before reading, the high scorers tended to have a stronger motivation for enriching their academic knowledge besides fulfilling the assessments. This might have some certain influences on their selection of reading strategies, which will be analyzed as follows.

2.2. Students' use of strategies in reading English academic materials

2.2.1. Reading strategies used by lower-proficiency readers

Overall, the three low scorers (Student A, Student B and Student C) tended to apply rather different strategies while reading English academic texts, yet some similarities could still be recognized. Firstly, they all depended on support strategies like using dictionary and underlining key words to aid comprehension. Secondly, although they utilized some cognitive and metacognitive strategies that might be useful for academic reading, they did not seem to make the best of those strategies in practice.

2.2.1.1. Metacognitive strategies and cognitive strategies

In the pre-reading stage, Student C (see section 4, Appendix H) reported doing nothing to prepare for the reading task, while the other two normally read the Introduction or skimmed the Table of contents of a book or an article to visualize what the text was about. However, neither of them sought to understand the organization of the text before reading. This might make it harder to approach holistic meaning, reflect back on some previous arguments or build connections between different pieces of information in the texts.

In the next step, the three students utilized rather different strategies to synthesize information from academic materials. Student A (see section 2, Appendix H) chose some important parts to focus on, but he tended to read word by word and sometimes had to translate some sentences into Vietnamese. Although he was well aware of the importance of reading for general meaning, he could not improve his reading speed due to lack of vocabulary. Student B (see section 3, Appendix H) started reading quickly from the first paragraph and would slow down to focus on the parts containing relevant information for her assignments. She also tried to identify if a paragraph belonged to the part of Introduction, Body or Conclusion, which might have been unnecessary if she had considered the text structure in advance. Meanwhile, Student C, who often read electronic copies of articles, just used the searching tool to locate key words and concentrated on the relevant paragraphs. He explained that he only needed some specific pieces of information to cite as reference in his essays, feeling no need to figure out the main ideas or understand the text organization. Nevertheless, this technique may only be helpful for some particular assignments but will not work if students really want to broaden their academic knowledge or get more insight into any specific topics.

2.2.1.2. Support strategies

To make it easier for later revision, all the three participants reported underlining or highlighting key words while reading. Student B also stated that she sometimes took notes to summarize several key points in the texts, yet the other two rarely did so despite acknowledging the role of note-taking in their academic reading. Besides, all the subjects relied on bilingual dictionaries whenever they encountered some uncommon words. Student A had to use a dictionary from time to time as he met too many unknown words in an academic text, though sometimes he might try to guess. On the other hand, both Student B and Student C only looked up the words they found important. Student B also tried to guess the meaning of new words based on context clues, but she was not successful sometimes owing to lack of grammatical knowledge. Meanwhile, Student C rarely tried to guess and just consulted a bilingual dictionary immediately.

2.2.2. Reading strategies used by higher-proficiency readers

Unlike lower-proficiency readers, the three higher-proficiency readers (Student D, Student E and Student F) applied more or less the same range of strategies in reading English academic materials. Generally, they tended towards ‘top-down’ metacognitive and cognitive strategies that focused on global meaning and significantly improved the reading

speed. They also utilized two support strategies, namely underlining key words and taking notes while reading.

2.2.2.1. *Metacognitive strategies*

In the pre-reading stage, all the subjects tried to understand the text structure by looking at the table of contents, reading through the headings and sub-headings, or skimming the Introduction or Abstract. This may help them gain an overview of the text to clearly decide which part to focus on and build the links between different sections if necessary. Student E (see section 6, Appendix H) even explained that figuring out the text organization was really helpful for her in structuring the outline of her academic essays. In brief, those planning strategies indicated that the students actually had a clear goal in mind. This supports an earlier finding that *Setting goals before reading* is a typical strategy of efficient readers ($r = .546$, reflecting a strong correlation with reading proficiency; $d = 1.22$, showing a considerable difference compared with inefficient readers).

Besides, those three high scorers used roughly the same strategies to synthesize information from the texts. They did not read the whole book or article but chose to concentrate on only the key parts containing interesting or important information. Furthermore, they all skimmed the relevant sections to figure out the main ideas before reading specific information carefully. These strategies were rather ‘top-down’ in nature as they tended towards global meaning and stimulated the active roles of learners in constructing comprehension. This is consistent with some statistical evidence in the questionnaire, as *Determining what to read and skipping irrelevant details* also had a ‘medium’ correlation with reading proficiency ($r = .316$).

2.2.2.2. *Cognitive strategies*

Besides changing reading speed, all the high scorers utilized two other cognitive strategies to deal with uncommon words in the texts: guessing from context clues or skipping unknown words. In particular, they normally skipped a word if it did not impede the flow of comprehension, and tried to guess the meaning based on context clues if the word sounded important. Unlike the low scorers, they seldom used dictionaries to look up new words. Student D (see section 5, Appendix H) stated that he only consulted a dictionary if the word had so much to contribute to meaning, but this was very rare because normally he could understand almost everything in the texts. Likewise, Student E believed that her vocabulary was good enough for reading without any interruptions, while Student F

usually skipped the unknown words if she had already understood the main content of the paragraph, and argued that word-for-word reading was not a good strategy for efficient comprehension.

2.2.2.3. Support strategies

Last but not least, all the interviewees reported underlining or highlighting key words and taking notes while reading. As previously stated, underlining key words is a useful technique to help students review their old lessons more easily. Similarly, taking notes is an effective strategy for memorizing key points when learners have to synthesize information from a large number of academic materials, as stated by Student D and Student E. Student F also emphasized that taking notes helped her save a great deal of time when she wanted to review a book, as she already had the notes and did not need to read the book again.

2.2.3. Comparison

In summary, there were certain similarities and differences between higher-proficiency and lower-proficiency subjects in terms of reading strategy use.

On one hand, the most noticeable similarity is that both groups often underlined or highlighted key words while reading. According to earlier quantitative evidence, *Underlining key words* was applied at 'high-use' level by both lower-proficiency readers ($M=3.77$) and higher-proficiency readers ($M=3.58$). Besides, 5 out of 6 interviewees reported skimming the text before reading to get an overview of the content. There was virtually no difference between the frequencies at which this strategy was applied by the two groups ($ML=3.61$, $MH=3.68$, see Appendix G). Yet low scorers normally just read the Introduction or Table of contents to figure out what the topic was, whereas high scorers frequently sought to understand the structure of the whole text at first. Likewise, all the participants chose to focus on important parts containing relevant information ($MH=3.74$, $ML=3.26$), but while high-proficiency students tried to figure out the main ideas, low-proficiency students either read word by word or just skimmed for specific details. Briefly, these results support the argument of Hall (2011) that strategy training is a matter of not only 'how much' or 'how often' but also 'how well'.

On the other hand, the two groups reacted rather differently when coming across uncommon words in academic materials. Inefficient readers often used bilingual dictionaries from time to time and rarely tried to guess the meaning. Meanwhile, efficient

readers seldom consulted a dictionary but sought to infer the general meaning of the words based on context clues, or simply skipped the words if they did not contribute much to overall comprehension. This finding is plausible since some previous statistical results have proved that *Guessing words from context clues* ($r = .291, p = .007$) and *Skipping irrelevant details* ($r = .316, p = .003$) were utilized more frequently at higher levels of proficiency. Last but not least, all the high scorers reported taking notes frequently in academic reading to summarize key information and make it more convenient for later revision. By contrast, the low scorers rarely took notes despite acknowledging that the strategy was helpful for their academic study.

2.3. Students' difficulties in reading English academic materials

Overall, 5 out of 6 interviewees reported at least one difficulty while reading English academic texts, including lack of vocabulary, complex grammar structures, lack of concentration, lack of background knowledge and lack of motivation. Interestingly, all the 3 low scorers (Student A, Student B and Student C) rated 'lack of vocabulary' as their largest difficulty while reading, followed by 'complicated grammar structures'. However, 1 high scorer (Student F) reported having no problem in reading English academic materials, while the other 2 (Student D and Student E) regarded 'lack of concentration' as their biggest challenge. Student D also added that sometimes he might find the texts slightly more difficult if he did not have enough background knowledge of an unfamiliar topic, but this problem could be solved by practising more frequently to broaden one's understanding. Besides, no high scorers reported any difficulty related to lexical or grammatical knowledge.

In brief, these responses helped confirm some previous results in the Reading Difficulty Questionnaire: firstly, learners may have various reading problems apart from lack of strategy awareness and training; and secondly, high scorers tended to have richer backgrounds of English vocabulary and grammar than low scorers, which somehow made them more successful readers.

2.4. Summary

On the whole, efficient readers tended towards 'top-down', global metacognitive strategies and cognitive strategies, while inefficient readers reported using more support strategies. Besides, although the latter showed certain awareness of metacognitive and cognitive techniques, they relied significantly more on 'bottom-up', detail-focused strategies than the

former did. This finding is consistent with some previous results of the Reading Strategy Questionnaire (see section 1.3.3). Besides, it should be noted that although strategy awareness and training might have some significant relationships with reading proficiency, it was not the only component of reading competence. To some extent it was also affected by some other determinants like lexical and grammatical knowledge. Therefore, to keep things in perspective, other factors like vocabulary, grammar, concentration, schemata and motivation should be taken into consideration as well.

3. Limitations of the study

Although this study employed mixed methods to balance the pros and cons of both quantitative and qualitative approaches, there are four main limitations to be considered.

Firstly, the study followed Sheorey and Mokhtari's (2001) taxonomy of reading strategies, but it is rather difficult to categorize one specific strategy into exactly one subgroup. In fact, a strategy may contain the characteristics of more than one category, and it is usually impossible to draw a solid line between cognitive and metacognitive strategies (Cohen, 1998:12). For instance, the item *Changing reading speed* was sorted as 'a metacognitive, planning-related strategy' by Oxford et al (2004:26), but as a cognitive strategy by Sheorey and Mokhtari (2001:438). That is to say, the classification of 28 reading strategies in this research should be interpreted with caution, as such ambiguity is nearly inevitable in any literature-based taxonomy frameworks.

Secondly, this research may be subject to the risk of biased results, as the surveyed sample was female-dominated (with 53 females versus 32 males), and most of the participants (70.8%) were postgraduate EFL learners. Although I had tried to seek student-subjects of both genders and various levels of education, it was impossible to obtain a perfectly balanced sample due to time constraint and the limited number of students willing to participate. This shortcoming might reduce the generalizability of the whole sample, thus should be thoughtfully considered (Kemper et al, 2003).

Thirdly, the last question in the interview guide ('What do you do to solve these reading problems?') did not seem to elicit as many useful responses as expected. Although it provided some interesting qualitative data about the solutions to several reading difficulties (like lack of concentration or insufficient background knowledge), these results did not contribute much to clarifying the three research questions or confirming the findings in quantitative analysis.

Finally, the most noticeable limitation lay in the design of the Reading Strategy Questionnaire. One notable problem is that this task-free survey might lead students to under-rate or over-rate their frequencies of reading strategy use when no specific task was included (Cohen, 1998). Besides, the quantitative analysis was based on self-reported IELTS reading scores, which could not be officially checked or confirmed due to ethical issues. Also, the IELTS reading score is by no means a perfect indicator of reading proficiency, since the IELTS reading test is closer to intensive reading while academic reading in practice is more similar to extensive reading. However, it might be the best choice for my research at that moment, because measuring the outcome of extensive reading in reality is very challenging, and IELTS is at least an international standardized language test that may be more reliable than the self-designed reading tasks in some previous studies. Last but not least, the range of items in the questionnaire should be reviewed for higher internal reliability, as a Cronbach's alpha of 0.74 is only considered as 'acceptable' (Dörnyei, 2007). For instance, the results of the interviews indicate that the item *Using a dictionary* can be added to the stock of strategies for correlational analysis and independent t-tests. This additional quantitative data can then be compared with the figures for *Guessing words from context clues* and *Skipping irrelevant details* to see if contrasts actually exist.

CONCLUSION

Despite some limitations, the results of two questionnaires and six semi-structured interviews arrived at four major findings that helped clarify the three research questions.

Firstly, the mean frequencies of Vietnamese students using all strategies and each category of strategies were reported at moderate level only. Besides, the participants tended to apply cognitive strategies and metacognitive strategies more frequently than support strategies.

Secondly, although overall strategy use was proven to have a negligible relationship with reading proficiency, statistically significant correlations were reported for 14 individual strategies. In particular, 6 strategies were applied more often as proficiency increased, all of which were global, 'top-down' metacognitive strategies and cognitive strategies. Meanwhile, 8 strategies were utilized more frequently at lower levels of proficiency, most of which were mechanical support strategies or other 'bottom-up', detail-focused strategies. It should also be noted that only 4 correlations could be rated as strong, while the other 10 associations were merely moderate and weak.

Thirdly, higher-proficiency readers reported using 23 individual strategies at different levels of frequencies as compared with lower-proficiency readers. While the former preferred 'top-down' strategies that were planning-related and focused on holistic meaning, the latter tended towards support strategies and analytical 'bottom-up' strategies. However, it should be acknowledged that significant differences were recognized for 5 strategies only, while the effect sizes for the other 18 items were just 'medium' or 'small'. Besides, inefficient readers also showed awareness of some 'top-down' strategies like skimming the text before reading or locating important parts to read, but did not seem to apply them as successfully as efficient readers in practice.

Fourthly, 70.97% of the student-subjects reported at least one reading difficulty apart from lack of strategy training and awareness. While poor vocabulary tended to be the biggest challenge for most low scorers, nearly 50% of high scorers rated lack of concentration as their largest difficulty in academic reading. Also, there seemed to be a noticeable gap between higher-proficiency readers and lower-proficiency readers, especially in terms of lexical and grammatical knowledge. These helped confirm that strategy awareness and training was not the only determinant of reading comprehension proficiency, that is to say, other factors like vocabulary, grammar, concentration, schemata and motivation should be thoughtfully kept in mind as well.

All things considered, there are several implications that may be note-worthy. First, this study underscored the need to triangulate the pool of data by combining quantitative analysis with qualitative analysis. In fact, most of the results from semi-structured interviews helped confirm the previous findings of two questionnaires and explain in more depth the flow of steps applied by students to construct meaning and the rationale behind their selection of particular reading strategies. Second, the study also emphasized the merits of investigating individual strategies to produce the most insightful results, as previously suggested by Oxford et al (2004). A careful analysis of 28 individual reading strategies had provided several valuable findings about the tendencies in which strategies were chosen by efficient readers and inefficient readers (indicated by the directions of correlations and independent t-tests) and the strengths of the relationships (indicated by the effect sizes). Third, considering multiple comparison problem, it is beneficial to consider the effect sizes besides the p-values in measuring the impacts of reading proficiency on reading strategy use. For instance, although the independent t-tests showed 14 statistically significant results at 0.05 level, the effect sizes revealed only 5 strategies indicating strong differences between efficient readers and inefficient readers. Fourth, this study also supported Hall's (2011) argument that strategy training is not only a matter of 'how many' and 'how often' but also 'how well'. This may be constructive for students in practising reading and for teachers in designing reading lessons and materials, stressing the importance of applying appropriate strategies where necessary rather than trying to use as many strategies as possible. Finally, the dissertation is among the very few in-depth researches on Vietnamese students' reading comprehension skills, thus it provides beneficial guidance for those who are currently studying or planning to study in entirely English-based academic environments at British universities. By pointing out a range of strategies typically used by high-proficiency readers, the study may bring some note-worthy advice for low-proficiency readers in planning and solving difficulties while reading academic materials. The results of Reading Difficulties Questionnaire also reveal that strategy awareness is not the only contributor to reading proficiency, and students should have concrete grammatical and lexical foundation as well as certain background knowledge to maximize the efficiency of the selected strategies. Also, thoughtful consideration of these determinants can be beneficial for future researches on reading strategy.

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APPENDIX A: IELTS BAND DESCRIPTOR

Band 9	Expert user (has fully operational command of the language: appropriate, accurate and fluent with complete understanding)
Band 8	Very good user (has fully operational command of the language with only occasional unsystematic inaccuracies and inappropriacies. Misunderstandings may occur in unfamiliar situations. Handles complex detailed argumentation well)
Band 7	Good user (has operational command of the language, though with occasional inaccuracies, inappropriacies and misunderstandings in some situations. Generally handles complex language well and understands detailed reasoning)
Band 6	Competent user (has generally effective command of the language despite some inaccuracies, inappropriacies and misunderstandings. Can use and understand fairly complex language, particularly in familiar situations)
Band 5	Modest user (has partial command of the language, coping with overall meaning in most situations, though is likely to make many mistakes. Should be able to handle basic communication in own field)
Band 4	Limited user (basic competence is limited to familiar situations. Has frequent problems in understanding and expression. Is not able to use complex language)
Band 3	Extremely limited user (conveys and understands only general meaning in very familiar situations. Frequent breakdowns in communication occur)
Band 2	Intermittent user (no real communication is possible except for the most basic information using isolated words or short formulae in familiar situations and to meet immediate needs. Has great difficulty understanding spoken and written English)
Band 1	Non-user (essentially has no ability to use the language beyond possibly a few isolated words)

APPENDIX B: SAMPLE QUESTIONNAIRE

PART A: BACKGROUND INFORMATION SHEET

Age:

Gender:

Major:

Level of study:

How many years have you been studying English?

What was your most recent IELTS score on Reading Skill?

PART B: READING DIFFICULTY QUESTIONNAIRE

1. Do you have any difficulties while reading academic materials in English?

_____ Yes (If yes, go to the next question)

_____ No (If no, go to Part C)

2. Direction: Show your reading difficulties by checking the appropriate box(es).

_____ 1. I have no particular interest in reading.

_____ 2. I lack background knowledge to understand the content of the texts.

_____ 3. I find it hard to concentrate while reading.

_____ 4. The texts contain many new words and I have to use a dictionary from time to time.

_____ 5. The grammar structures in the texts are difficult for me to understand.

_____ 6. Others (specify in the blank below)

3. Among these difficulties (1-6), which one do you find the most problematic? You can choose MORE THAN ONE factors.

PART C: READING STRATEGY QUESTIONNAIRE

Direction: Show how often you use the strategy when reading, by checking the appropriate box (1 means “almost never” while 5 means “almost always”). It is important to answer in terms of how well each statement describes you, NOT in terms of what you think you should do, or what other people do. THIS IS NOT A TEST. There are no right or wrong

responses to these statements. The score you obtain will not affect your grade. Not everyone needs the same kind of strategies, so a 'low' score does not mean you are a bad learner.

Before I read a text,

1. I set the goals before reading.

Almost never 1 2 3 4 5 Almost always

2. I use the title to help predict the contents.

Almost never 1 2 3 4 5 Almost always

3. I consider what type of text it is, such as a newspaper article, a scientific paper, or a novel.

Almost never 1 2 3 4 5 Almost always

4. I skim it first, and later I read for details.

Almost never 1 2 3 4 5 Almost always

While I am reading a text,

5. I pay attention to the beginning and the end of each paragraph.

Almost never 1 2 3 4 5 Almost always

6. I try to understand the meaning of every word in a text.

Almost never 1 2 3 4 5 Almost always

7. I translate each sentence into my native language.

Almost never 1 2 3 4 5 Almost always

8. I start reading from the first paragraph and read all the way through to the last paragraph.

Almost never 1 2 3 4 5 Almost always

9. I change reading speed depending on the difficulty of a text.

Almost never 0 1 2 3 4 5 Almost always

10. I read aloud the difficult parts of a text.

Almost never 1 2 3 4 5 Almost always

11. I link the content with what I already know.

Almost never 1 2 3 4 5 Almost always

12. I try to understand the meaning of an unknown word by dividing it into parts.

Almost never 1 2 3 4 5 Almost always

13. If I don't understand something such as a word or phrase, I guess its meaning using clues from the text.

Almost never 1 2 3 4 5 Almost always

14. If I don't understand something such as a word or phrase, I guess its meaning using information I know about the topic.

Almost never 1 2 3 4 5 Almost always

15. I underline or highlight important parts.

Almost never 1 2 3 4 5 Almost always

16. I read aloud the entire text.

Almost never 1 2 3 4 5 Almost always

17. I make a picture in my mind about what the text is saying.

Almost never 1 2 3 4 5 Almost always

18. I try to understand the meaning without translating the text into my native language.

Almost never 1 2 3 4 5 Almost always

19. I use slashes to divide a sentence grammatically.

Almost never 1 2 3 4 5 Almost always

20. When I cannot understand a sentence even if I know every word, I skip that sentence.

Almost never 1 2 3 4 5 Almost always

21. I predict what will come next.

Almost never 1 2 3 4 5 Almost always

22. I pay attention to linking words such as "however" and "besides" so that I can understand the structure.

Almost never 1 2 3 4 5 Almost always

23. I take notes while reading.

Almost never 1 2 3 4 5 Almost always

24. I try to figure out the main idea of each paragraph.

Almost never 1 2 3 4 5 Almost always

25. I determine what to read closely and what to ignore.

Almost never 1 2 3 4 5 Almost always

26. I attempt to understand the implicit meaning of the given text.

Almost never 1 2 3 4 5 Almost always

27. I mark the topic sentences of every paragraph.

Almost never 1 2 3 4 5 Almost always

After I read a text,

28. I summarize it in my own words.

Almost never 1 2 3 4 5 Almost always

Thank you very much for your support.

APPENDIX C: PARTICIPANT INFORMATION FORM

School of Arts and Social Sciences – Research Ethics Framework
Research Information – for participants

**To be completed by the researcher and supplied to participants.
The researcher must ensure the participant has ample time to read all of the information before asking them to sign the Participant Consent form (ASS-RE4)**

Name of project

The relationship between reading strategy use and reading proficiency of Vietnamese students in the UK

Research Organisation

-

Researcher's name

-

Who is funding the research?

The research is self-funded.

What is the purpose of the research?

This research investigates the relationship between Vietnamese students' reading strategy use and their English reading proficiency levels.

What will happen to the results of the research study?

Any of the responses you give may be quoted and used for data analysis in my dissertation. However, all the data will be kept anonymous, thus it will be impossible to trace back to you about anything you provide in the questionnaire. The finished dissertation will be seen by staff at the university who will mark my work, and a copy will be held in the university library.

Why have you been chosen?

You have been chosen because you are a Vietnamese student currently attending full-time academic study at a British university, i.e. the target subject of my research.

What will you have to do if you agree to take part?

I would like you to do a questionnaire about reading difficulties and reading strategies, which consists of around 31 multiple choice questions. The survey will take you about 10 minutes.

Will your taking part in this research be kept confidential?

I guarantee that your taking part in this research will be kept confidential. You have the right to withdraw your consent at any time before or during the questionnaire. You also have the right not to answer any question you feel uncomfortable with.

Who can you contact for further information about this research contact?

Who should you contact if you wish to make a complaint or report an incident concerning this research?

You will be given a copy of this Information Sheet and a copy of the Participant Consent Form

APPENDIX D: SAMPLE CONSENT FORM

**School of Arts and Social Sciences – Research Ethics Framework
Participant Consent Form**

To be completed by both participant and researcher before research commences

Name of project

The relationship between reading proficiency and reading strategies of Vietnamese students in the UK

Organisation(s) initiating research

-

Researcher's name

-

Research Organisation

-

Participant's name

-

I confirm that I have been supplied with and have read and understood an Information Sheet (ASS-RE5) for the research project and have had time to decide whether or not I want to participate.

I understand that my taking part is voluntary and that I am free to withdraw at any time, without giving a reason.

I agree with X University recording and processing this information about me.

I understand that this information will only be used for the purposes set out in the information sheet.

I have been told that any data generated by the research will be securely managed and disposed of in accordance with X University's guidelines.

I am aware that all tapes and documents will remain confidential with only the research team having access to them.

My consent is conditional upon the University complying with its duties and obligations under the Data Protection Act.

Signature of Participant (even if below 18 years old)

-

Date

17/5/2015

Signature of Parent/Guardian/Representative

(if participant is under 18 years old)

-

Date

I can confirm that I have explained the nature of the research to the above named participant and have given adequate time to answer any questions concerning it.

Signature of Researcher

-

Date

15/05/2015

APPENDIX E

Students' average frequencies of using 28 reading strategies

Categories	Strategies	Mean frequency	Level of use
Metacognitive	Setting goals before reading	3.84	High
Metacognitive	Using the title to predict contents	3.95	High
Metacognitive	Considering text type	3.36	Medium
Metacognitive	Skimming the text before reading for details	3.66	High
Metacognitive	Paying attention to the beginning and the end of each paragraph	3.82	High
Metacognitive	Focusing on every word	2.08	Low
Metacognitive	Reading from the first to the last paragraph	3.20	Medium
Metacognitive	Making a picture of the information	3.31	Medium
Metacognitive	Predicting what comes next	2.84	Medium
Metacognitive	Paying attention to linking words	3.91	High
Metacognitive	Figuring out the main idea of each paragraph	4.00	High
Metacognitive	Determining what to read and skipping irrelevant details	3.47	Medium
Metacognitive	Understanding the implicit meaning	3.47	Medium
Cognitive	Translating each sentence into Vietnamese	1.88	Low
Cognitive	Changing reading speed	3.81	High
Cognitive	Linking the content to prior knowledge	3.58	High
Cognitive	Breaking words into parts	3.08	Medium
Cognitive	Guessing words from context clues	3.98	High

Cognitive	Guessing words from prior knowledge	3.54	High
Cognitive	Understanding without translating	3.78	High
Cognitive	Skipping sentences	3.02	Medium
Support	Reading aloud difficult parts	2.04	Low
Support	Underlining key words	3.75	High
Support	Reading aloud the entire text	1.78	Low
Support	Dividing a sentence grammatically	2.27	Low
Support	Taking notes	3.04	Medium
Support	Marking topic sentences of each paragraph	3.13	Medium
Support	Summarizing the text	2.95	Medium
Overall reading strategies		3.23	Medium
Metacognitive reading strategies		3.21	Medium
Cognitive reading strategies		3.33	Medium
Support reading strategies		2.71	Medium

APPENDIX F

Correlations between reported reading scores and frequencies of reading strategy use

Categories	Strategies	Pearson correlation	p-value	Number
Metacognitive	Setting goals before reading	.546**	.000	85
Metacognitive	Using the title to predict contents	.307**	.004	85
Metacognitive	Considering text type	.242*	.026	85
Metacognitive	Skimming the text before reading for details	-.013	.904	85
Metacognitive	Paying attention to the beginning and the end of each paragraph	.002	.988	85
Metacognitive	Focusing on every word	-.505**	.000	85
Metacognitive	Reading from the first to the last paragraph	-.134	.222	85
Metacognitive	Making a picture of the information	-.023	.832	85
Metacognitive	Predicting what comes next	-.166	.129	85
Metacognitive	Paying attention to linking words	.088	.423	85
Metacognitive	Figuring out the main idea of each paragraph	.164	.134	85
Metacognitive	Determining what to read and skipping irrelevant details	.316**	.003	85
Metacognitive	Understanding the implicit meaning	.182	.096	85
Cognitive	Translating each sentence into Vietnamese	-.576**	.000	85
Cognitive	Changing reading speed	.097	.379	85
Cognitive	Linking the content to prior knowledge	.126	.252	85
Cognitive	Breaking words into parts	-.108	.327	85

Cognitive	Guessing words from context clues	.291**	.007	85
Cognitive	Guessing words from prior knowledge	.128	.245	85
Cognitive	Understanding without translating	.367**	.001	85
Cognitive	Skipping sentences	-.228*	.036	85
Support	Reading aloud difficult parts	-.274**	.011	85
Support	Dividing a sentence grammatically	-.223*	.041	85
Support	Taking notes	.175	.109	85
Support	Underlining key words	-.101	.360	85
Support	Reading aloud the entire text	-.501**	.000	85
Support	Marking topic sentences of each paragraph	-.215*	.048	85
Support	Summarizing the text	-.281**	.009	85

APPENDIX G

Strategies		Low		High		d	p-value
		M	SD	M	SD		
Setting goals before reading	Met	3.23	0.99	4.32	0.80	1.22	.000
Using the title to predict contents	Met	3.52	1.06	4.19	0.95	0.67	.010
Considering text type	Met	2.97	1.14	3.77	0.99	0.67	.004
Skimming the text before reading for details	Met	3.61	1.17	3.68	1.30	0.05	.838
Paying attention to the beginning and the end of each paragraph	Met	3.74	0.99	3.65	1.17	0.09	.727
Focusing on every word	Met	2.87	1.26	1.65	0.55	1.26	.000
Reading from the first to the last paragraph	Met	3.39	1.17	3.00	1.24	0.32	.211
Making a picture of the information	Met	3.48	1.18	3.52	1.31	0.03	.919
Predicting what comes next	Met	3.09	1.14	2.68	1.17	0.36	.157
Paying attention to linking words	Met	3.90	0.98	4.00	1.00	0.09	.701
Figuring out the main idea of each paragraph	Met	3.81	0.75	4.16	1.00	0.40	.120
Determining what to read and skipping irrelevant details	Met	3.26	0.89	3.74	0.67	0.65	.012
Understanding the implicit meaning	Met	3.36	0.75	3.65	0.79	0.37	.146
Translating each sentence into Vietnamese	Cog	2.58	1.26	1.15	0.44	1.52	.000
Changing reading speed	Cog	3.81	1.08	4.07	0.81	0.27	.292
Linking the content to prior knowledge	Cog	3.45	1.03	3.77	0.92	0.33	.198

Breaking words into parts	Cog	3.32	0.83	2.94	1.18	0.38	.141
Guessing words from context clues	Cog	3.61	0.95	4.16	0.78	0.63	.016
Guessing words from prior knowledge	Cog	3.36	0.88	3.61	0.80	0.31	.232
Understanding without translating	Cog	3.32	0.91	4.16	0.97	0.89	.001
Skipping sentences	Cog	3.36	1.11	2.71	1.27	0.54	.037
Dividing a sentence grammatically	Sup	2.61	1.12	2.03	1.11	0.52	.044
Reading aloud difficult parts	Sup	2.52	1.09	1.74	1.09	0.71	.007
Taking notes	Sup	2.65	1.25	3.23	1.28	0.46	.077
Underlining key words	Sup	3.77	1.26	3.58	1.43	0.14	.574
Reading aloud the entire text	Sup	2.45	1.12	1.26	0.58	1.34	.000
Marking topic sentences of each paragraph	Sup	3.36	1.17	2.71	1.13	0.56	.031
Summarizing the text	Sup	3.19	1.17	2.48	1.06	0.64	.015

APPENDIX H: INTERVIEW TRANSCRIPTS

1. The profiles of 6 interviewees

	Reading score	Age	Gender	Major	Level of study	Name of institution
Lower-proficiency Readers	5.0	21	Male	Architecture	Foundation	Newcastle University
	5.5	23	Female	Business	Pre-master's	Nottingham Trent University
	6.0	24	Male	International Banking and Finance	MSc	University of Southampton
Higher-proficiency readers	8.0	25	Male	Mass Communication	MSc	Bournemouth University
	8.5	24	Female	TESOL	MA	Northumbria University
	9.0	24	Female	Real Estate	MSc	University of Reading

2. Interview with Student A

I = Interviewer, P = Participant

I: Ok, so now I have some questions for you about the way you do academic reading at your university. I may have...four main questions, and it may take about 10 minutes. Are you ready?

P: Yes I am...

I: Ok. So for the first question...What is your purpose of reading an academic text in English, I mean, a book or an article?

P: Well...I only read academic text when my teachers, um, require me to do. Like, they often require me to read some chapters in a book...or some other materials before lecture at school. And, um, I also have to do some assignment or project...so I have to read to find information for my work, sorry, works...

I: Yep, lovely. So can you explain how you read the text...

P: Um I'm sorry, how I...

I: I mean, can you explain how you read an academic text in English? For example, the way you read for overall meaning...or the way you find information in the text?

P: Ah ah, well...actually I have much difficulty in reading academic, because they are very bored...At first I can't understand anything because there are many, many new words...so I have to use dictionary always, and it is very time-consuming. I don't like reading, and I often read very slowly...sometimes I must translate some parts into Vietnamese to understand it.

I: Oh, so you mean that you have to look up all the new words in the dictionary?

P: Yes, I think most of the words. Because I don't know much words, so if I don't use a dictionary, I think it's difficult to understand the content...

I: Yeah, so do you have to read the whole text? I mean, all the book or all the article?

P: Oh, no! Normally I just read the parts that is important...or contains the information that I want, then I read it and underline the key words...Before I read a book or an article, I often read the menu and the introduction...and...

I: I'm sorry, you mean the table of contents?

P: Yeah yeah! The table of contents, and the introduction. It help me to know what the text about, and I can find the parts I want to read. My tutor at the university tell me to do it, and I think it's very useful.

I: Oh, you mean your Foundation course at university?

P: Yes.

I: Wow...so how do they teach you the reading skill?

P: Well...they teach me like...mostly skimming and scanning, and they told me I should try to get the main idea. Yes, reading to get information, and understand the overall meaning...not kind of details...And, yes, that's it!

I: Lovely! Skimming, scanning, getting the main idea...

P: Yes!

I: Oh, so how do you think these strategies help improve your reading skill?

P: Well, actually...I think they are useful, but I don't really get it! The teachers just say I should do this, and do that...but we need times for practice. For me, I know that the main idea is very important...I try to get the main idea, but as I say there are many new words, and they make me afraid. So I have to read slowly and...for me it's very boring.

I: Yep, thank you. So now, another question...can you describe any difficulties you meet while reading English academic materials?

P: When reading...I don't understand the words, new vocabulary. Maybe the sentence structure very, like complex...And...I don't like reading. I can't stay in one place and just read. Yes, that's it!

I: Yeah, so you have kind of three difficulties...the vocabulary, the grammar, and the motivation while reading...

P: Yeah yeah, exactly!

I: Ok, so which one do you feel the most problematic?

P: Vocabulary! Well you know...I have to use a Vietnamese-English dictionary, and it takes a lot of time.

I: So what do you do to solve your problem?

P: Well, trying to translate the words, not every word, but the words that I met usually...And usually before reading, I have to know the topics and find out any new vocabulary that is related to them...

I: Oh, so hard-working! And how often do you practise reading?

P: Oh, only when I have things to do. I don't usually spend a lot of time for practising.

I: Yep...got it. So I think that's all for today, and thank you very much for your kind support. If I have any further question, I'll contact you later...

P: Sure. You're welcome.

3. Interview with Student B

I: Ok, now I have some questions for you about the way you do academic reading at university. So you are attending a Pre-master's course at Nottingham Trent University?

P: Yes!

I: Do you have to read a lot of academic materials?

P: Oh, yes. My tutors require me to read a lot, and then we have to work in groups to present about a topic...and I also have to read, um, to get some information for my essays...

I: Oh so you mean, you often have to read to, um, prepare for presentation in class and find information for you assignment?

P: Yes, exactly.

I: Yeah, so...can you explain how you read the text?

P: Well, firstly I will read the Introduction...that help me guess what the text is about, and the main issues...Then I will read quickly, but I don't read the whole text...When I meet some important parts, I will slow down and read more carefully, and underline the key words...

I: Oh, how can you decide which part is important?

P: Well, normally the paragraph that have the information I need for my assignment...or some information that I think interesting. Um, normally if the book has a table of contents, I will read it...and see which part I need. But if not, I just read each paragraph quickly to find the information I need.

I: Oh, you mean...you only look for specific information?

P: Yes, normally. When I have to write assignment, I just read the article to find some ideas...and support my essay. But I don't read the whole article.

I: Yep, but you've also mentioned that...you have to do a lot of reading for presentation in class, right?

P: Yes!

I: So, how can you summarize information from such a huge number of texts?

P: Well, I think I do the same. I read the Introduction or the Table of contents first... then I read from the first paragraph. Um, I just read quickly, and when I see something interesting, I will read it more carefully...and sometimes I take notes. And when I read, I try to understand, like...for example, if this part is Introduction, Body or Conclusion. This help me understand the content better.

I: Yep, so what do you do when you come across some unknown words?

P: Well, I think I'll try to guess it...but sometimes the sentence is very long and complicated, and more hard to guess the word. Then I will use a dictionary to find the meaning...

I: Oh, do you have to look up every new word?

P: No. I only use the dictionary if the word is important...some key words. Otherwise I will try to guess...but sometimes I don't guess very well...Maybe because the sentence has many new words, and the structure is very complex too. So I must use a dictionary to translate the words to Vietnamese.

I: Yeah I got it. So it's ok for the first question. Next question...can you describe any difficulties you meet in reading a book or an article in English?

P: Yes I have...the most difficult thing is the new words. Because in some academic article or book, there are lots of new words...they not only makes me cannot understand that article or book, but also make me feel afraid to do reading...that's it.

I: So do you have any other difficulties?

P: Sorry?

I: Do you have any other difficulties, apart from the new words?

P: Yep, I think some reading is too long, that make me cannot focus...and the grammar structure is complex and strange, so it's hard to understand. Yes, I think that's all.

I: So what do you do to solve these problems?

P: Well...the way I do to improve my reading is practice. I think that's the most effective way to know more vocabulary...to improve my reading speed.

I: Wow, how often do you practise?

P: I'm trying to practise it frequently, like...like I will read more materials for my writing, for my essay or assignment. So along with I do my essay, I can improve my reading.

I: Yes, thank you. So it's enough for today...thank you very much for your useful information...

4. Interview with Student C

I: Good afternoon. Now I'd like to ask you some questions about the way you do academic reading at university. Are you ready?

P: Yes I am.

I: Great! So the first question...What is your purpose of reading academic materials in English, for example, a book or an article?

P: Well, for my study at school...I usually read an academic, um, book or article...when I have to write some essay assignment. But actually...most of the time I just read the slides, the lecture slides, you know...to prepare for the lectures, and specially when I have to take an exam. I only read, like, articles when I have something to write.

I: Yes. So, can you describe how you read the text?

P: Well...I mostly use Dephis, which is a online search tools from Southampton library...

I: I'm sorry...Dephis?

P: Yes...Um, D-E-P-H-I-S. It's the online search tool from the library of Southampton University. When I get the article that I want, I just search the key word I'm looking for...then read carefully the part included that word. I usually don't read the whole texts...just scan key words and get the particular information.

I: Yep...Um, I'm sorry but I'm not quite sure about the search tool...Can you explain more about it?

P: Yep. Because it's especially built for Southampton students and staffs...People needs IDs to access it. We are encourage to find reference from that tool, or we can look for a book...But I'm lazy to come library to find books, so I don't do it.

I: So it means...you use the tool and enter the key words, and then it suggests a list of articles?

P: Yes, it does. Enter key words, the treasure will be found out.

I: Yep, got it. So you mostly read articles?

P: Yes. Unless my lectures force me to find a certain book, otherwise I prefer articles. I think...90% of my reference is articles.

I: And...you just search for the key words, and focus on the relevant parts?

P: Yes I do.

I: But if you don't read from the beginning, maybe...you'll miss some important information, or you can't understand the structure of the article?

P: Yeah. I just only figure out the point of the author...and cite it for my assignment. Because mostly an article has many hypotheses...but I just need only one to strengthen my point.

I: Oh, so do you have to read a lot to prepare for your assignments or lectures at school?

P: Well. It depends on the subjects...but yes, mostly.

I: Well, so how can you memorize all the information? It may be long and sometimes hard to understand.

P: Well...I just print out the slides...the PPT slides for the lectures...Normally I just focus the main points written in slides, and highlight the key words...

I: Oh...so I have another question. Which kind of materials do you read the most...I mean, academic materials?

P: Well, mostly I use the slides. I used them for the whole semester...because, you know, my subjects needs a lot of calculations, and I must read the slides to prepare for lectures and exams. But when I have, um, like...some essay questions, usually I will read articles, and...Um, as I say, I don't read the whole article...just find the information that I need, and cite it in my essay.

I: Do you have to take notes?

P: Oh not at all. I'm very lazy...I know it works, but I don't do it. I just care my exam papers, and try to read very quick...quickly.

I: Yep...so another question. What do you do when you meet an unknown word?

P: Well. Ideally, I should guess it at first, but I just look up the dictionary...or copy and paste them straight to Google Translate, if the words are identified as important in the sentence.

I: Um, how often do you use the dictionary?

P: Well, most of the time. I'm very lazy...Oh, but...I don't try to understand every word. Only the strange words, I mean, important words.

I: Yes, thank you...So the next question...can you explain any difficulties you meet while reading, I mean, reading academic materials in English?

P: Well...I have to say, complicated structures and new words are, um, the difficult problems that I usually meet while reading. Or...probably the most challenging problem for me in English reading is new words, um, particularly this word is playing as the key word in the text...so, if I don't understand this word, so it means I don't understand the whole text...so, I have to understand what the word means, and yeah, the guessing of this word is also important. But normally I will use a dictionary, because I'm very lazy.

I: So you mean your biggest difficulty is vocabulary, right?

P: Yes, vocabulary. My vocabulary is so poor.

I: So can you explain any other difficulties?

P: Yes, the other difficulty is complicated structure...

I: Yep, the grammar structure?

P: Yes, the grammar structure is so complicated and...even when I understand every word in that sentence, but the structure is quite, yes, strange and challenging. And I have to read it over and over again so I can understand it. So it waste time, take me a lot of time reading.

I: Yes, ok...so one last question. What do you do to solve these problems in reading?

P: Well, actually...I didn't do anything particular...Um, my teachers did consistently remind me to be hard-working, learning new words, reading more novels...but I didn't listen to them. That's the point, I'm lazy at reading...I think it's very boring, especially when the text have many new words.

I: Yes, thank you. I think that's enough for today...Thank you for your useful information, it helps a lot!

P: No problem. If you have any other questions, just contact me.

I: Thank you! That's very nice...

5. Interview with Student D

I: Now I have some questions for you about the way you do academic reading at university...I may have four main questions, and it may take about 5 to 10 minutes. So, are you ready?

P: Yes.

I: Ok, so the first question...Can you explain your purpose of reading an academic text in English?

P: Well, actually...I often read a book or an article when I have to write some assignments at school. Normally I have to read a lot to find, um, necessary or relevant information for my assignment...and you know, sometimes I must focus on some particular topics, find some, um, books or articles to read carefully to understand about the topic. Otherwise I can't write my essays...And secondly, I also have to read to prepare for my lectures at university. Sometimes we have to read some articles...or some chapters in the book before class, especially when we have some presentations to do.

I: Perfect. So...can you describe how you read the texts? The way you get the meaning or the information?

P: Um, for example, a book, usually I will look at the table of contents first...or for an article, I will look at the headings and sub-headings...Um, I try to understand the outline of the text first, then I will look for the part that contains the information that I need. Yes, normally I just focus on the part that has the relevant information. I try to get the main idea, and if I find anything useful, I will take notes and highlight that part using a pen or highlighter.

I: So, what will you do if you come across some unknown words, or some new terminologies in the text?

P: Um, I will not use the dictionary, I will base on the context of the text... to assume the meaning of the words...

I: You mean the general meaning?

P: Yes, but if they are the very important words that I need to understand the exact meaning, then I will look at the dictionary.

I: Do you often look up new words in the dictionary?

P: No, because the subject that I am studying is Communication...it's not like Science or Politics, and...The words they use are like...they are more casual words, and I don't think they use too many big words or something too complicated...So most of the time I can understand everything.

I: Yep, thank you...and now, another question...Can you explain any difficulties that you meet while reading English academic texts?

P: First, I find it difficult to focus on the text...

I: You mean the concentration?

P: Yes! It's like...um, it's an academic text, so I find it difficult to focus on... It's not like I am reading a news or something entertaining but it is academic...I don't really enjoy, so I find it difficult to focus on. Second, sometimes I don't have enough background knowledge to understand everything they write in the books or in the articles. Third, the difficulty...um...maybe sometimes the writer of the book or the article, like, their writing style is not really logical to me. So sometimes I find it a little difficult to follow the content of what they write.

I: Yes, so among those difficulties, which one you find the most problematic?

P: The first one.

I: Concentration?

P: Yes!

I: Can you explain why?

P: Um, just my personal problem. I also have some problem with background knowledge, or the writing style of the writers...but not always. Just some unfamiliar topics or writing styles...I don't think it's a big problem.

I: So what do you do to solve these problems?

P: Well, the reason for it...mostly because of the environment around me when I read, so I may find the way to prevent everything that can distract me...Yes, I mean, like I will turn off my mobile phone, log out all the social network accounts when I decide that I need to focus on reading.

I: Yes, so how about the problem of background knowledge?

P: I don't really do anything particular to improve it. It is more like...because I'm studying this subject, so the more I read about that subject, naturally the more knowledge I can get from them...so my knowledge just naturally improve.

I: Ok, I think it's very useful information. Thank you for your participation, and if I have any questions I will contact you later...

6. Interview with Student E

I: So now I have some questions for you about the way you do academic reading at university? Are you ready?

P: Yes.

I: So, the first question...what is your purpose of reading an English academic text, for example, a book or an article?

P: Well, I think, um, I may have to main goals...Um, firstly, to fulfill my assignments at university. Actually we have to write a lot of essays, and normally we have to read quite a lot to understand about various topics, and to collect information, and also...um, how to say...yeah, to learn from the structure of an article, or a paragraph in the article. I think it's very useful, because...it helps me to, well, build the outline for my essay, or...arrange the ideas in a paragraph...Yes, that's it. And secondly, I also have to read some articles or some book chapters, it depends...to prepare for my lectures...and seminars. Because we have lots of discussion in class, so it's necessary to read something in advance.

I: Wow, perfect. So can you describe the way the read an academic text? Like, how you get the information, how you get the overall meaning, etc.?

P: Well, for me...when I read a book or an article, normally I think I will skim through the table of content at first, or I may look at the heading of every part...to get an overview about the overall structure or organization of the whole text. And then I will decide which part to focus on, um, normally the parts that I find interesting or relevant. I mean, I just focus on this part and try to read for the main idea...But normally I don't read the whole text.

I: Oh, can you explain why you need to figure out the structure in the beginning? How can it help?

P: Yep, I think it's very useful. It helps me to decide exactly which part I need to focus on...and I also have some idea in mind about the flow of arguments in the text. And, as I

say, it's very important when I have to write some essays. I can learn from the text, learn from its structure, and adjust it for my assignment.

I: Yes, so do you have to read a lot for your academic study at school?

P: Well, yes! Actually my major is Education and Applied Linguistics, so normally I have to write a lot of essays, and...this requires me to read quite a lot of academic materials...

I: So how can you memorize such a huge workload of information?

P: Yeah, I often underline or highlight the key words while reading...so it will be easier for me to review later. And I often take notes, you know, it's very important...especially when I have to read more than one article for my assignment, otherwise I can't remember all the information. And...sometimes when the text is quite long and complicated, I must summarize the main ideas so that I don't have to read the text again.

I: Yep, I got it. So what do you do when you meet some uncommon words?

P: Um...actually I think my vocabulary is good enough for me to read without any interruption. But sometimes when I meet some uncommon words, I think I'll try to guess it. But if the word is not very important and well, doesn't contribute much to the overall meaning of the sentence...so normally I will just skip it.

I: Oh, can you explain more...how can you guess it?

P: Guess the uncommon words?

I: Yes!

P: Um, I will depend on the context...look at the words or sentences surrounding the unknown words, and try to guess the word forms and the general meaning. Yes...that's it!

I: Perfect. So how often do you use the dictionary?

P: No, actually not...I rarely use a dictionary. It's very time-consuming!

I: Yes, so thank you for the first question. Now, another question, can you describe any difficulties you meet while reading academic materials?

P: Well, for me I think my biggest problem is concentration...because, well, I have to read some kind of very long texts with lots of terminologies...You know, it's very boring, I can't concentrate all the time...

I: Anything else?

P: Um, no. I think it's the only problem. I don't have any difficulties because my vocabulary and grammar are quite good...normally I can read without any interruption...

I: Lovely! So, one more question...what do you do to solve your reading problems?

P: Um, how to say...Yep, I think the biggest problem is that...I usually have to read e-books or some articles on my laptop. And actually, I can't focus on the screen for too long...my eyes will get dizzy, and it's completely nightmare! So I think, um, the only way to improve the problem is try to print out all the materials, or I must borrow the books from the library. That's the reason why I often go to the library and I couldn't study at home.

I: Yep...So I think that's all for today. It's really nice to talk to you...very useful information...

P: You're welcome. If you have any more questions, just contact me by email and we can meet later!

I: Perfect. Thanks a lot!

7. Interview with Student F

I: Good afternoon. Now I have some questions for you about the way you do academic reading. Are you ready?

P: Yes I am.

I: Lovely! I may have four big questions, and it may take about 5 or 10 minutes. And for the first question, what is your purpose of reading an academic text in English, for example, a book or an article?

P: Well, actually I like reading...so I often try to read as much as possible. But for academic reading, I think I mostly do when I have to write some assignments at university, and prepare for the lectures and seminars. I think reading is very important if you want to broaden your knowledge, and it's particularly useful for academic study.

I: Yes, totally agree. So for the second question...can you describe the way you read an academic text, for example, when you write your essay or prepare for lectures at school?

P: Well, when I read an academic paper or an article or a book, I usually read the table of contents, or the summary of that text or that book...first, in order to understand roughly the content, and after that I will read each by each paragraph. I will start by skimming through the whole paragraph, trying to get the main idea of that paragraph...and then when reading

through the sentences, I highlight all the key words...or the key details that I think, um, support the big idea of that paragraph...

I: Yeah, so you mean...you often read from the first paragraph to the last paragraph?

P: Um, not really. If the article is rather short, I may read from the beginning to the end...but, for example, a book, I often skim the table of contents and decide which parts to focus on.

I: Yeah, I agree...

P: And if the paper, the article or the book is extremely long, I find it useful to take notes, um, because it can help you save a lot of time when you want to review that book, so actually you don't have to read that book again. You can just review the notes, and because it's short and to the point...so it help you to save a lot of time.

I: Yeah, I completely agree! And so...what do you do when you come across an unknown word?

P: Um, uncommon word? That's what you mean?

I: Yes, exactly.

P: Um, when I come across any uncommon word, I...critically, I will skip it if I have already understood the main content of the paragraph. It's not important for you to understand each word by each word, so...yeah! Normally I will just skip it.

I: Oh, but...um, I mean that, if the word is quite important and it contributes to the meaning of the whole sentence, and suppose you can't understand the main idea without that word...so what will you do?

P: Um, I think I'll try to guess it...

I: Yeah, can you explain more? Like, how can you guess it?

P: Um, I will base on the context...I will identify if that word is a noun or an adjective or anything...and then, um, and then see any linking word that is used with that word, and try to, yeah, link any possible link that I may have with that word...

I: Ok, lovely. And now, another question, can you describe any difficulties you have while reading academic materials, um, in English?

P: Normally I don't have any difficulty in reading an, um, article or an academic paper. Generally I don't have any difficulty, but if I come across difficult topics...or unfamiliar

topics, it may take me a longer time to read. And I'll try to read it more carefully...if the topic is not something that I feel comfortable with, or familiar with.

I: Yeah, thank you. So I think it's enough for today...Thank you very much for your kind support! If I have some further questions, I'll contact you later. Is that ok?

P: Sure. You're welcome.