

**THAI NGUYEN UNIVERSITY**  
**SCHOOL OF FOREIGN LANGUAGES**

**DO THI THUY**

**DEVELOPING HIGH SCHOOL STUDENTS' INFERENTIAL  
READING SKILLS**

**(Phát triển kỹ năng đọc suy luận cho học sinh bậc THPT)**

**M.A THESIS**

**Field: English Linguistics**

**Code: 8220201**

**THAI NGUYEN – 2019**

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**Supervisor: Ph.D. Nguyen Thanh Long**

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**STATEMENT OF AUTHORSHIP**

I hereby acknowledge that this study is mine. The data and findings discussed in the thesis are true, used with permission from associates and have not been published elsewhere.

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**Dr. Nguyen Thanh Long**

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## **ABSTRACT**

This study aimed to examine how cognitive strategies are beneficial to 12th grade students in performing their reading tasks related to inference. To focus on the overall objective above, the study concerned about what high school students' attitudes toward inferential reading tasks were, how the motivation factor affected high school students' inferential reading result, and how the cognitive reading strategies applied in inferential reading affected students' results in terms of scores. Participating in this study were 80 students of grade 12 from Van Lang School. In collecting the research data, I used inferential pre-test and post-test reading instrument, questionnaire, interviews and diary notes. The tests were used to measure the students' ability to understand the texts, the improvement of students after 8-weeks introducing cognitive strategies and having students practice cognitive strategies in inferential tasks while the questionnaire was used to obtain information about some necessary personal participants and find out cognitive strategies used by students. Research data were collected both quantitatively and qualitatively. The research findings show that students used strategies of cognitive dimensions in inference effectively and moderately, and prove that students' attitudes and motivation affected positively in inferential task performance.

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## **PART A. INTRODUCTION**

This initial part states the background of the present study, the statement of the problem and rationale for the study, the aims, objectives and the scope of the whole paper. Above all, it is in this part that the research questions are identified to work as clear guidelines for the whole research.

### **1. Background of the study**

Reading comprehension, which is language comprehension and general comprehension, is a complex psychological process. Skehan (1998) state reading comprehension is an interaction between the reader's background knowledge and the text, between writing symbols and abstract information. That is, reading consists of a number of interactive processes between the reader and the text, in which readers use their knowledge to build, to create and to construct meaning. Besides, reading is a vital means of gaining new knowledge, and thus students need to acquire effective strategies to cope with reading demands (Hellekjaer, 2009). In reality, we can see that people who read more are able to solve problems more easily than those who do not. The differences are seen more clearly in the learning activities, namely, those students who read more have different academic behaviors than those of students who rarely read. Thus, it can be said that interest in reading significantly influences the scores of students' reading ability (Gambrell, 2011).

Inferring is increasingly recognized as an essential component of the process of reading comprehension according to the psycholinguistic models of reading comprehension in which reading is involved in the interaction between textual information and prior knowledge of the reader. And with inferential comprehension, it is often described simply as the ability to read between the lines. It requires a reader to mix the literal content of a selection with prior knowledge, intuition, and imagination for guesswork. In a reading text, the author does not always provide complete and obvious descriptions of information about the topic, a character, a



thing or an event. They do, however, provide clues or suggestions that reader can read and make inferences based on the information in the text or on the reader's own background knowledge. According to Barrett (1974), literal comprehension focuses on ideas and information explicitly stated in the reading text while inferential comprehension needs thinking and imagination that goes beyond the printed page.

To upgrade their inferential reading ability, students need to be able to handle complex texts characterized in 6 ways: relationships, richness, structure, style, vocabulary and purpose (Damrong, 2013).

It is clear that comprehension is an interactive process of "bottom- up" reading and "top-down" reading. That is to say, when readers read an article, they precede at least two activities: One is readers' literal understanding of the article on the basis of words, phrases, and the other is readers' reconstruction of new information by the use of background knowledge stored in their brains. The second activity is based on the presupposition of the first, i.e. this kind of readers' cognition is set up on their own original cognition (Shen, 2016).

In Barrett's (1974) Taxonomy of Reading Comprehension, subtasks that enable students to make inferences to infer supporting ideas, the main ideas, sequence, comparisons, cause-and-effect relationships, character traits, and predicting outcomes, inferring about figurative language as well. Students can also use inferential reading to help them with new or difficult vocabulary by figuring out antecedents for pronouns, the meaning of unknown words from context clues, and/or the grammatical function of an unknown word.

## **2. Statement of the problem**

Firstly, unlike the grammar-focused English language teaching in the past, nowadays, English is taught with attention paid to four macro-language skills: reading, speaking, listening and writing. According to Nation (2007), a well-balanced language course should consist of four equal strands: meaning focused

input, meaning focused output, language focused learning, and fluency development. Each strand should receive a roughly equal amount of time in a course. To keep pace with the trend of teaching English in the world, Vietnam has gradually changed the learning and teaching methods, curricula, teaching materials, and course books. Also, there have been numerous changes in testing, in which skills, especially reading skills, are paid much attention to in important national examinations annually. However, it can be seen that the results of students in reading comprehension, especially inferential reading tasks, are still low. Inferential reading tasks are quite challenging for many students, and they tend to skip or ignore this part.

Second, middle and high school students who struggle with reading have very few positive experiences with reading so their motivation to read is very low (Ivey & Guthrie, 2008). I found that a lot of students in my school had studied English for more than 10 years, but most of them seemed to have low motivation and to pay little attention seriously to inferential reading tasks. When teaching students reading skills, mostly, I realized that they neglected inferential reading exercises. Besides, the source of difficulty may be that poor readers do not consistently or effectively use their prior knowledge to answer inferential questions (Gilliam, 2007). As a result, many students lack some of the higher level comprehension skills, which are necessary to construct a mental model of a text's meaning to comprehend the implicit meaning of the text (Hogan, Bridges, Justice, & Cain, 2011). These skills include inferential skills addressed in this study. While, it is known that the longer the time students spent on reading the greater the probability that students' reading comprehension success is affected positively (Mazzoni, Gambrall and Korkeamaki, 1999); however, in reality it seems to be wrong to my students. To get more experienced to deal with that problem, it is necessary for me to figure out if there are any other factors that affected my students' results such as motivation and attitude.

Third, it is important to note that “strategies were valuable- neutral, not in themselves good or bad, but were used either effectively or ineffectively by individuals and by groups” (Grenfell & Erler, 2007, p.91). As a teacher- researcher, it is a duty and hope to help students use effective strategies to apply in inferential reading.

### **3. Rationale**

I conducted the present study for two reasons:

Firstly, I started my study based on my own interests and needs for my teaching career in terms of reading skills, especially in inferential reading skill. The findings could be applied to my own teaching practices for better learning outcomes for my students to develop their inferential reading skills.

Secondly, the study aimed to offer suggestions and recommendations for making positive change in teaching at high schools. This critical element was expected to help my colleagues in my high schools or teachers from other high schools, where the context is similar to the one described in the present study, to be able to make changes in their teaching practices.

### **4. Aims of the study**

The study aimed:

To find out students’ attitudes towards inferential reading tasks;

To investigate the motivation factor affecting high school students ‘inferential reading result.

To find out the effectiveness of cognitive reading strategies towards inferential reading tasks students often apply in the school.

In order to achieve the above aims, the following overarching research question has been formulated as follows:

*How are cognitive strategies beneficial to students in performing their reading tasks related to inference?*

The sub-research questions were:

- (1) What are high school students' attitudes toward inferential reading tasks?
- (2) How does students' motivation affect their results in terms of scores in referential reading tasks?
- (3) How do cognitive reading strategies that students apply in inferential reading tasks affect their results in terms of scores?

## **5. Significance of the study**

Once having been completed, the research would serve as a reference source for teachers, students, and those who are interested in this topic. Also, it is expected to provide suggestions for further research.

Specifically, teachers and students would know their actual state in teaching and learning inferential reading skills in order to have some useful adjustments. Thanks to the critical comments, the research is expected to change the students' attitudes towards inferential reading, and motivate students to read inferentially, and teachers' techniques in teaching inferential reading will be adjusted.

## **6. Scope of the study**

The focus of the study lies in finding out students' attitudes towards inferential reading; the relationship between cognitive factors and motivation that affect students' inferential reading ability and cognitive strategies students used to develop students' inferential reading at Van Lang high school, where I conducted the study.

## **7. Organization of the thesis**

This paper has three main parts. The first one is the introduction, where the rationale, objectives, the significance as well as the scope of the study are raised. The second one is the development of the thesis. It concludes 3 chapters : Literature Review, Methodology, Results and Discussion. The literature review chapter, in which key theoretical basis and previous findings concerning motivation, cognitive

strategies, and inferential reading skills are discussed; The next chapter is Methodology which is believed to be an important one. It describes the methods used to collect data, including research instruments (questionnaire, interview with students, diary notes from researcher, and tests). It also provides the data analysis methods, the steps that I took in analyzing the collected data.

The last chapter in this part (i.e. results and discussion) presents the results and discussion of the findings. The final part is the conclusion. In this part, the summary of this study, limitations and recommendations for further studies will be presented.

## **PART B: DEVELOPMENT**

### **CHAPTER 1. LITERATURE REVIEW**

This chapter provides insights into the theoretical issues and research prior to the present study. The chapter begins with basic concepts concerning the researching issues. It includes a review of studies that have been conducted related to the topic of this study.

#### **1.1. Inferential reading**

To high school learners, simple comprehension of a text is not enough. To be high-level readers, students need to be able to infer meaning that goes beyond what the text explicitly tells them. Inferences are the conclusions that are drawn based on what one already knows and judgments readers make based on given information. This skill helps students make connections between their personal experiences and their comprehension of a text. Rather than stopping students during the reading process to comment on specific points, inference focuses on their thinking and how new information reshapes their prior knowledge, which consists of 4 types “syntactical” knowledge, “semantic” knowledge, “orthographic” knowledge and “lexical” knowledge (Rumelhart, 2004).

As students develop inferential reading skills they learn to understand the intonation of characters' words and relationships to one another, provide explanations for ideas that are presented in the text, recognize the author's view of the world including the author's biases and offer conclusions from facts presented in the text. In teaching reading comprehension in a reader's workshop Keene and Zimmerman (1997) state that differently proficient readers who infer are able to draw conclusions from text, make reasonable predictions while and after reading, use the combination of background knowledge and explicitly stated information from the text to answer questions they have as they read. It is clear that proficient readers easily create new background knowledge for themselves, discriminate and

critically analyze text and authors, and engage in conversation and/or other analytical responses to what they read while struggling readers have difficulty with some or all of these comprehension skills. Chikalanga (1993) shows the performance on different types of inference questions of two groups of Zambian secondary school at grade 8 and grade 10, that is, grade 10 students performed significantly better than grade 8 students.

Inference is increasingly recognized as an essential component of the process of reading comprehension. According to the psycholinguistic models of reading comprehension (i.e. schema-theoretic view of reading), inferences are important in integrating the text with the knowledge base (Spiro, 1980; Sanford et al., 1981).

In addition, Chikalanga (1993) shows that inference is defined as the cognitive or mental process of reader goes through to obtain the implicit meaning of a written text on the basis of two sources of information, the propositional content of the text (i.e. information explicitly stated) and prior knowledge of the reader as cued by test items. Some previous work has revealed (Paris and Lindauer, 1976; Paris and Upton, 1976; Omanson et al., 1978) the ability to infer improves with age.

An inference is an event or conclusion reached based on information contained in a text or story, but not stated explicitly (Trabasso & Magliano, 1996). Making inferences is as central to story comprehension as understanding causal relationships and recognizing importance of story events (van den Broek, et al., 2005; van den Broek, 1989; van Kleeck, 2008).

Generally, inference is a cognitive process used to construct meaning. Inference in reading comprehension is a constructive thinking process because the reader expands knowledge by proposing and evaluating competing hypotheses about the meaning of the text in an attempt to progressively refine understanding. The importance of inference in understanding even the simplest text has been pointed out by Thorndike (1917). Inference makes it possible for a reader to comprehend the information that the author presents (Goetz, 1977) and is an

integral part of the comprehension of and memory for text (Anderson & Pearson, 1984; Bransford & McCarrell, 1974; Harris & Monaco, 1978; Kintsch, 1988).

It comes as no surprise that readers' background knowledge has also been shown to be an integral factor in the comprehension of text through inference. Pearson, Hansen, and Gordon (1979) found that background knowledge had a facilitating effect on inferential comprehension.

### **\* Types of inferences**

Kispal (2008) indicates that different researchers such as Pressley and Afflerbach (1995), Graesser et al.(1994), Cain and Oakhill (1999) have identified many different kinds of inferences; however, there is no general consensus in the literature about the number of types of inference, or how they should be named. In the review of this study I pay more attention to Pressley and Afflerbach's (1995) study about types of inferences because of the frequency of these types that students met in the tests. Pressley and Afflerbach describe their list of inferences as those of which readers were consciously aware and which they were able to describe in their own words. In fact, they list nine types of inferences as a catalogue of processes (confirming, concluding and relating) as follows:

1. Referential
2. Filling in deleted information,
3. Inferring meanings of words,
4. Inferring connotations of words or sentences,
5. Relating text to prior knowledge,
6. Inferences about the author,
7. Characters or state of world as depicted in text,
8. Confirming or disconfirming previous inferences,
9. Drawing conclusion



According to the function, inferential types can be categorized below:

1. Backward inferences connect the statement that currently is being read (the focal statement) to events or states that have occurred earlier.
2. Connecting inferences connect the focal statement most directly to information that was processed recently.
3. Reinstatements connect the focal statement to information from the text that its reinstated from long-term memory (Gernsbacher, 1990).
4. Backward elaborations draw heavily on the reader's general background knowledge in connecting the focal statement.
5. Forward elaborations anticipate information that is yet to be described in the text. It predicts the occurrence of novel events or indicate future relevance of information that is being read presently.
6. Orthogonal elaborations concern the activation of information that is implied by and coexistent with the information in the focal statement.
7. Associative inferences activate information that is associated with a focal statement.

All types of inferences categorized highlighting the function were presented by Vanden Broek (1990) as shown in figure 1.1

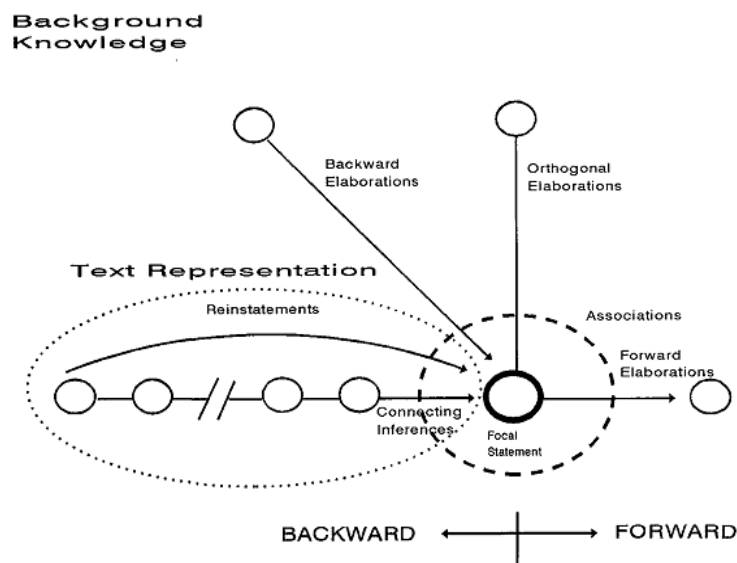
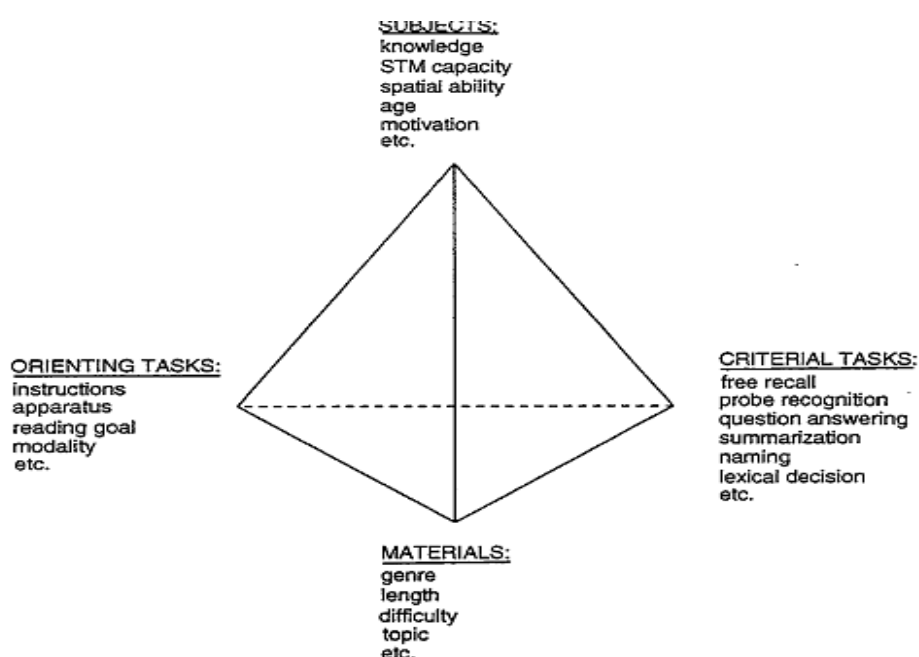


Figure 1.1: Types of inferences

Although the various types of inference differ in their primary source of information, they are not independent. First, all inferences are constrained by focal statement, by the reader's representation of the prior text, and reader's background knowledge. Second, the various types of inferences may interact. The interactions between 4 clusters of variables (i.e. orienting tasks, subjects, criterial tasks, and materials) may have unique effect on the observed inferential process like in figure 1.2 showed:



*Figure 1.2: A tetrahedral model of studies on inference generation in reading  
( based on Jenkin, 1979).*

**\* Skills and factors involved inferences:**

Language and Reading Research Consortium (LARRC) & Muijselaar (2018) believe that it is necessary to consider how inferences depend on vocabulary and background knowledge, factors that may influence inference-making performance.

Phillips (1988) conducted a study with 40 low-proficiency and 40 high-proficiency readers to find out the differences in strategy use were studied with reading proficiency and background knowledge varied. The quantitative analyses

showed that an interaction between proficiency and text familiarity determined frequency of strategy use. The strategies most frequently associated with high-proficiency and high-background knowledge readers were shifting focus when an impasse was reached.

According to Day (2013), inference is one of the skills that belongs to reading comprehension (literal comprehension, reorganization, inference, prediction, evaluation, personal response). He indicates that “inference requires students to combine their literal understanding with their own knowledge. Students need to take information from the reading and relate it to what they know in order to make an inference” (p.37).

Besides, the study of Schunk & Ertmer (2000) shows that improved inferential comprehension requires the following: awareness of, exposure to, and practice with inferential reading comprehension questions; activation of prior knowledge prior to and appropriate application of while answering inferential questions; appropriate interpretation of background information provided in the text; and self-regulated learning via active use of inferential comprehension strategies.

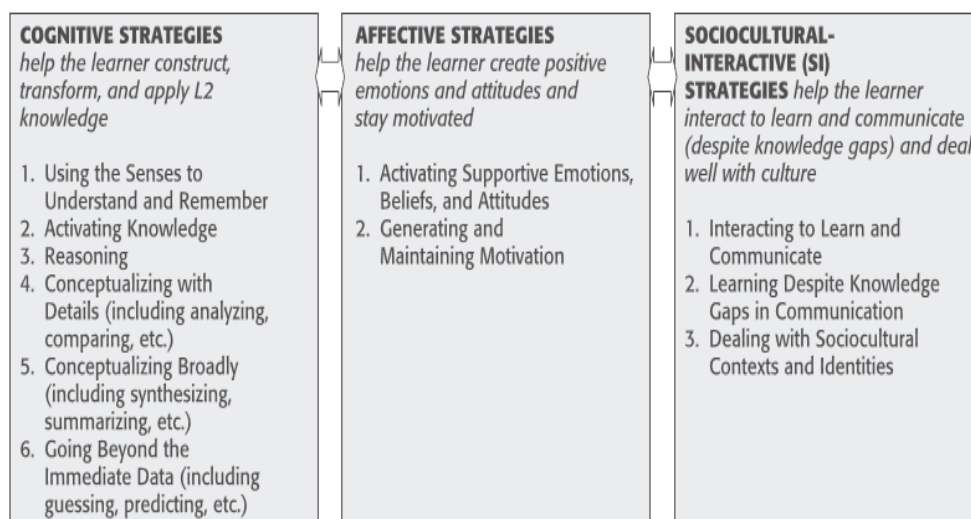
Especially, Horiba (2000) highlight that readers’ goals are another factor that influences how readers generate inference because readers adjust cognitive processes and strategies in accordance with their reason for reading. Linderholm & Broek (2002) support this idea by indicating the fact that reading for an academic reason definitely requires a different kind of processing and different strategies than reading for pleasure.

It is also noted that several of previous studies have shown the role of language skills, particularly vocabulary knowledge, in supporting inference generation (e.g., Hatami & Tavakoli, 2012; Nassaji, 2006; Prior et al., 2014). The data from Calvo’s study (2004) demonstrated the significance of the prior vocabulary knowledge of the participants as a determinant in their abilities for inference generation.

## 1.2. Cognitive strategies

Cognitive strategies are one type of learning strategy that learners use in order to learn more successfully. Köksal and Dündar (2018) cited by Oxford (2013) that Cognitive Strategies help the learner construct, transform, and apply L2 knowledge. The S 2R Model includes six cognitive strategies as "Using the Senses to Understand and Remember, Activating Knowledge, Reasoning, Conceptualizing with Details, Conceptualizing Broadly, and Going beyond the Immediate Data."

Cognitive strategies with effective strategies and social interactive strategies interact and support each other to improve learning and move students to a higher level of proficiency as shown in figure 1.3.



*Figure 1.3: Types of strategies*

(Cited from Introducing the Strategic Self- Regulation Model of language learning, Oxford, 2013, p. 24)

Previous studies with the secondary task technique have shown that reading is associated with increased use of cognitive capacity even in skilled readers (Britton, Holdredge, Westbrook & Curry, 1979), that more cognitive capacity is used when readers are studying harder (Britton, Piha, Davis & Wehausen, 1978), that more is used when text is understood (Britton, Holdredge, Curry & Westbrook, 1979),

and that more capacity is used in processing texts from which more is learned (Britton, Westbrook, & Holdredge, 1978).

Cognitive strategies are typically found to be the most popular strategies with language. Rubin Cognitive Strategy Training: Improving Reading Comprehension in the Language. According to schema theory, as students learn about the world, they develop a schema and are allowed to make connections to many other things. Piaget's (1983) schema theory makes activating prior knowledge before reading essential, because according to his research when we can connect something "old" to something new it helps us better understand the new. In other words, as students are reading they are able to access their schema and make understand of the text and use their experiences. When students and teachers applied schema theory to reading comprehension readers constantly connect their background knowledge to the new knowledge in a text to help them make sense of the reading (Gunning, 2012).

It can be said that cognitive strategies are useful tools in assisting students with learning problems. The term "cognitive strategies" in its simplest form is the use of the mind (cognition) to solve a problem or complete a task. Cognitive strategies may also be referred to as procedural facilitators (Bereiter & Scardamalia, 1987), or procedural prompts (Rosenshine, 1997). Furthermore, a cognitive strategy serves to support the learner as he or she develops internal procedures that enable him/her to perform tasks that are complex (Rosenshine, 1997).

Shen (2016) indicates that memory ability is one of readers' abilities structure. It plays an important role in reading comprehension any kind of activity of people in reading. On cognitive view, memory can be analyzed in the principle of information processing. Contents of memory involve image memory, logical memory, emotional memory and active memory or involve visual appearance or acoustic appearance of words and sentences, and some regulations of sounds or grammar, of which the important part is memory of words meaning, sentence meaning and utterance meaning. For foreign language learners, if there is no

memory of language materials, such as words, sentences, they will not understand meaning of utterance or form logical memory of semantic meaning of utterance. Cognitive psychology regards people's cognitive process as a process of exploring the objective world, and emphasizes the high-level psychological process as memory, learning, thinking, language and sensibility Cognition is a part of psychological activities and a rational thinking process in contrast to emotion, motivation and readers' endurance. In order to improve the ability of reading comprehension, readers have to know the importance of the cognitive influence in the process of reading comprehension. It is proved that cognitive factors influence readers' reading comprehension in two aspects, one is readers' knowledge structure and the other is readers' abilities structure one is readers' knowledge structure and the other is readers' abilities structure.

Cognitive strategy deals with how to learn, how to remember, and how to convey ideas reflexively and analytically. If the learner masters the internal process well, they will be able to self-learn (self-instruction) and can learn independently. The intellectual process of the learner, which includes the process of understanding problems, learning, remembering, and thinking. The statement implies that cognitive strategies are internal processes that can be utilized for various activities requiring cognitive involvement, including (1) cognitive strategies in reading comprehension,(2) cognitive strategies in learning,(3) cognitive strategies in recall, and (4) cognitive strategies in thinking or solving problems.

The present study aimed to describe how the cognitive strategies are applied by students in inference, and explain the contribution of these strategies to the students' inferential reading outcomes. Such results can assist teachers in designing learning inferential reading based on reality. Also, this information also provides an overview of my research.

Hazzard (2016) explains that if the learning strategy is not in accordance with the learning style, students cannot learn the language well. According to Brown (2007), language learning strategies can be grouped into three kinds:

cognitive strategies, metacognitive strategies, and socio-affective strategies. The three kinds of strategies have variants in their use in language learning. This depends on the cognitive style and the learner's understanding of the strategy he or she occupies. In line with the diversity of these strategies, this article focuses its discussion on cognitive strategies in reading comprehension.

Suyitno (2017) found that the negative contribution of understanding strategies to the results of understanding indicates that the strategy used by the reader is not an appropriate strategy choice for understanding the text as measured by using the cloze test after doing a research to find out the use of cognitive strategies designed to aid the comprehension of Indonesian texts and it also examined the contributions of such strategies to students' comprehension scores of 97 students who had completed and passed the reading course.

### **1.3. Attitudes and Motivation towards reading**

#### ***1.3.1. Attitudes***

Allport (1967) defines attitude as emotional and mental readiness or a preliminary tendency based on experience, knowledge, emotion or motivation on any subject, social topic or event. An attitude is attributed to an individual and it is a tendency that arranges in an orderly manner that individual's thoughts, feelings, and behavior in relation with a psychological object (Smith, 1990). Most of the researches show that the success in reading skills is closely correlated to the attitude towards reading (Guthrie & Wigfield, 2000; Wigfield & Asher, 2002; Morgan & Fuchs, 2007). In this regard, it has been concluded that students' attitudes towards reading are the leading factor that directly affects their reading performances (McKenna and Kear, 1990).

Mathewson's (1994) Model of Attitude Influence upon Reading and Learning to Read which is derived from the area of social psychology attempts to explain the roles of affect and cognition in reading comprehension. Attitude toward reading (i.e. prevailing feelings and evaluative beliefs about reading and action

readiness for reading) will influence the intention to read, in turn, influencing reading behavior. “Favorable attitudes toward reading thus sustain intention to read and reading as long as readers continue to be satisfied with reading outcomes”(Mathewson, 1994, p.1148).

### ***1.3.2. Motivation toward reading***

Motivation is the process by which goal-directed activities are initiated and sustained (Schunk, Pintrich & Meece, 2008). Based on the concept analysis of a vast number of articles, Conradi, Jang, and McKenna (2014) describe reading motivation as “the drive to read resulting from a comprehensive set of an individual’s beliefs about, attitudes towards, and goals for reading” (p.156). Motivation can thus be seen as an internal factor that causes or guides different types of behavior and engagement as the observable and unobservable actions associated with reading activities (Unrau & Quirk, 2014).

Self-regulated learners establish and maintain motivation, use supports when help is needed, mediate performance with language, and understand how and when to use specific strategies. Wigfeld and Guthrie (1997) maintain that self-efficacy beliefs, reading goals and values, as well as social aspects of reading are central to reading motivation, and that motivation should be viewed as multifaceted or multidimensional. Kirchner and Mostert (2017) discuss intrinsic and extrinsic motivation and reading activity of Namibian primary school readers such as curiosity about specific topics, the importance of reading and reading for grades, were factors that highly motivated the Namibian learners. Positive relationships between motivation and reading activity, as well as between reading motivation and reading achievement, were established in this study, positive achievement follows from effort, especially effort directed through the strategies being taught (Borkowski et al., 1990). This study draws upon a number of theoretical frameworks of motivation. The expectancy value theory, as developed by Eccles and Wigfeld (2002) postulate that the perceived value of a task and the expectancy of success in task engagement influences and directs behavior (Malloy & Gambrell,



2010). The self-determination theory has contributed to the development of the concepts of intrinsic and extrinsic motivation, and indicates how feelings of autonomy versus control affect motivation (Deci & Ryan, 2000). An engagement perspective of reading, as developed by Guthrie and Wigfield (2000) hold that motivation, in combination with strategy used, will result in higher levels of reading achievement.

Beyond the recognition that success matters in promoting motivation for academic achievement, there was increased understanding about how and why it matters. A sense of positive self-efficacy develops with success, a belief that one can do well in the future (Bandura, 1986). Self-efficacy, however, tends to be very discriminated Guthrie and Klauda (2015, p.48) posit that “the benefits of motivation for achievement growth are not a mere marginal luxury. Reading motivation may stand as the strongest psychological variable influencing achievement”. Another reason might be, as Mucherah and Herendeen (2013) postulate that reading motivation levels could be high during the final year of primary school, based on learners’ aspirations towards higher grades and access to good secondary education.

There were a lot of quantitative and qualitative research argued and identified eleven dimensions of reading motivations such as reading efficacy, reading curiosity, reading for grades and so on. These dimensions have been discussed and changed (Bates et al., 2016; Boerma, Mol, & Jolles, 2015), and utilized in various combinations in the following studies (Baker & Wigfield, 1999; Schiefele et al., 2012; Wang & Guthrie, 2004). Taking into consideration, during the collecting data from diary notes, I paid attention to these dimensions to figure out whether motivation affect the students’ improvement of inference reading in my study. There are two types of motivation: extrinsic and intrinsic motivation. According to Ryan and Deci (2000) intrinsic motivation refers to doing something because it is “inherently interesting or enjoyable” (p. 55), while extrinsic motivation means doing something “because it leads to a separable outcome” (p. 55). Especially, research evidence shows that younger children read for extrinsic reasons

compared to adolescents (Ivey, 1999; McQuillan, 1997). Jeriffe (2013) concludes that reading motivation is significantly related to academic achievement. However, reading motivation, in and of itself, does not necessarily predict performance on a standardized test in reading. In light of this research, it is necessary to work out the motivation factor affected the students' inferential result.

When learning strategies became well known in the 1980's and 1990's, some people might have believed that strategies would remove all the hard work from language learning and teaching. Also, learning strategies do make learning easier in some senses, their purpose is much more significant: strategies make learning deeper, more productive, and more lasting (Cohen & Macaro, 2008).

#### **1.4. Summary**

In summary, inferential reading, cognitive skill motivation and attitude toward reading are three main items discussed in literature review. According to Chikalanga (1993) inference is considered being seen as the cognitive or mental process of reader to read implicitly, so cognitive dimensions are shown as important part of this chapter. Besides, the factors to be a skillful reader such as intrinsic and extrinsic motivation, attitude affect positively on the results of students' performance.

## CHAPTER 2. METHODOLOGY

This study was conducted within the framework of action research in the educational setting (Burns, 2010). With a view to identifying a ‘problematic’ situation or issue that the participants consider worth looking into more deeply and systematically, and to improving the teaching practice in the long run the whole curriculum, the teacher becomes an ‘investigator’ or ‘explorer’ of his or her personal teaching context. According to Burns (2010), this form of research involves taking a self-reflective, critical, and systematic approach to exploring one’s own teaching contexts, and is a cyclical process. It involved four stages, namely: planning, action, observation, and reflection (summarized below).

*Planning:* The planning stage involves refining ideas about the area the researcher wants to focus, and developing the question. In this stage it is crucial to consider how and when to carry out the study, who will be affected by the research, what materials and resources needed for the study.

*Action:* This stage involves in strategies or action the researcher setting up to improve or change the situation of problems focused on. In other words, this stage is the match between the data collection method with what study wanted to find out.

*Observation:* In this stage, the researcher turns to ways of analysing and synthesising the data and making sense of the various types of information collected. It should be noted that action research is a cycle of action and reflection, so the researcher starts examining and analysing the data in a dynamic way right from the very beginning.

*Reflection :* This part of the process occurs from the time the research begins to reflect more systematically than usual on what effect the research is having. Reflection involves creative insights, thoughts and understandings about what the researcher has been doing and finding. It can be said that action and reflection are tied together as a central part of the research process if it is to keep going and achieve positive outcomes for teachers or researchers and students.

## **2.1. Research questions and objectives**

The overarching research question addressed in the present study (as presented in part A.4) has been formulated as: *How are cognitive strategies beneficial to students in performing their reading tasks related to inference?* The sub-questions were:

- (1) What are high school students' attitudes toward inferential reading tasks?
- (2) How does students' motivation affect their results in terms of scores in inferential reading tasks?
- (3) How do cognitive reading strategies that students apply in inferential reading tasks affect their results in terms of scores?

Thus, the overall objective of the study was to find out how the cognitive strategies benefit to students in performing their inferential reading tasks. The specific objectives of the study were to provide:

- An analysis of students' attitudes towards inferential reading tasks;
- An analysis of the motivation factor affecting high school students' inferential reading result;
- The investigation of the effectiveness of cognitive reading strategies towards inferential reading tasks students often apply.

## **2.2. Participants**

Concerning about attitudes towards inferential reading as well as how cognitive strategies are beneficial to students in performing their inferential tasks, this study involved 80 students from two classes at Van Lang school. These were 12<sup>th</sup> grade students and, at the time the study was conducted, they were under the pressure of passing GCSE exam and trying their best to win a place in a university. By this time, they had been trained a lot about the skills they needed to pass the exam. The students were chosen by clustering sampling. Two classes of students were randomly selected by drawing lots from 12 classes. This method was used because it is easy to use and fair. It was also expected to help increase the validity

and reliability of data from the perspective of sampling. In addition, as the researcher conducting the study, I gained permission to do the survey as well as observe test performance in the school.

During the survey, these students were asked to fill a questionnaire to get the information about individual characteristics and get to know the cognitive strategies students applied in their inferential reading, and six of them were invited to answer a semi – structured interview to get more information to make all the things in the questionnaire to be clearer. After 8- week treatment, six students were chosen randomly by drawing lots from the questionnaire they had done.

### **2.3. Data collection instruments**

In this study, I collected data from three main sources: questionnaire, tests, semi-structured interviews with the participants. Furthermore, diary notes were also another source of information that helped clarify knowledge about issue under study. These data collection instruments are described as following:

#### ***2.3.1. Questionnaire***

Considering all the advantages and disadvantages of instruments applied in language learning strategy researching, I decided to choose questionnaire as an instrument to collect data for this study. Questionnaire has some strong points, notably its “*efficiency in terms of researcher time, researcher efforts and financial resources*” (Hoang & Nguyen, 2006, p10). The questionnaire carried out on students was written in 2 languages (i.e. 2 versions): one was in English and one was written in Vietnamese so that students could understand the questionnaire more easily.

This questionnaire consisted of two parts:

Part One was designed to gather the information about individual characteristics of the participants such as names of participants, time and objectives of English study, their self-assessment of reading proficiency in general, and inferential reading skills in particular.

Part Two included statements related to strategies of cognitive dimensions. The aim was to check how participants applied cognitive strategies in inferential reading. When collecting the questionnaire, I evaluated how students used cognitive strategies basing on the theory of such strategies.

For each questionnaire statement, 5-alternative choices adapted from Vagias & Wade (2006) were provided. Participants were asked to select one from among the followings:

- 1.Never true of me
- 2.Untrue of me
- 3.Somewhat true of me
- 4.True of me
- 5.Very true of me

### **2.3.2. Tests**

Data collected in this study also came from two tests administered to the participants twice: one before and the other after the training was applied. Tests were selected because tests are said to be the most common way to evaluate students' achievement and proficiency in language learning has been testing and it is perhaps one of the most difficult and students on their road to learning (Frank, 2012).

Each test consisted of two tasks and the time allowed was 30-minute long. In the first task, students were asked to choose and write in the corresponding numbered boxes the correct heading for each paragraph from the list of headings provided in the passage. This is a good exercise for students to infer the main idea and infer the sequence of each passage. In the second task, students had to apply some cognitive strategies including analyzing, guessing new words in the context, and activating their prior knowledge to perform the tasks. The total scores of each test were 10.

### **2.3.3. Interview**

Interviews were individually conducted with 6 students. I decided to conduct these interviews because they were expected to help establish and maintain a close relationship with the participants and to help clarify more about the information the participants had provided through their answers in the questionnaire. Particularly, interviews helped to gain data to answer the sub-questions “*what are students’ attitudes towards inferential reading?*” and “*How does students’ motivation affect their results in terms of scores in referential reading tasks?*”

However, unlike the questionnaires, only open-ended questions were included and all interviews were semi-constructed, since it is believed that semi-constructed interviews provide the interviewer with a great deal of flexibility while offering the interviewees adequate power and control over the course of the interview (Hoang & Nguyen, 2006, p.45). Additionally, semi-structured interview is also a good method to collect data. It is used to get deep information and makes communication between two people about the topic become easier because the semi-structured form, interviewers do not need a list of predetermined questions. It is determined by topic and issues than questions (Hoang & Nguyen, 2006).

Most importantly, these interviews also helped to collect further information compared to the answers the students had answered in the questionnaires. The students had a chance to express their attitudes towards inferential reading, talk about the way they did their inferential reading exercises, the effectiveness of cognitive strategies towards inferential reading tasks.

### **2.4. Data collection procedure**

The procedure of data collection for this study consisted of six main phases:

Phase 1: I held conversations with the participants about the prior teaching and learning methods in reading skills in general and inferential reading in particular. In English lessons, they discussed in groups or pairs the cognitive strategies and how they understood them.

Phase 2: Participants were asked to do the pre-test which lasted 30 minutes to measure students' ability and gather information about their inferential reading skills prior to treatment, about the use of cognitive strategies they could use in the test.

Phase 3: Participants were asked to complete the questionnaire. I explained to them the purpose of the study, and made sure that they could understand that all information they provided would be used for research purposes only. The main aim of using the strategy questionnaire was to draw out the participants when doing inferential reading exercises. In addition, by requiring the participants to provide some personal information, the researcher aimed to find out how the variables such as participants' English learning time, self-evaluating English learning, and English reading proficiency related to the students' English reading strategies use. With regard to personal information the participants provided, I explained to the participants that I would take measures to protect the confidentiality of this form of information. The participants then were given guidelines and instructions for completing the questionnaire. They were encouraged to ask me about anything they did not understand or were not clear while completing the questionnaire. They then filled in the two parts of the questionnaire, which took about twenty-five to thirty minutes.

Phase 4: In this phase, everything that had been planned was conducted and during 8- week training session with 3 hours per week I noted all the things that were related to the application of cognitive strategies happened in class as soon as possible.

There were many activities in class during this phase.

First, I introduced the concept of cognitive strategies, types of inferential reading tasks, the difference between the use of "strategies" and "skills", gave clear examples for students to understand.



Second, I assigned a short piece of text for students to read inferentially.

Third, I introduced to participants 6 cognitive strategies in inferential tasks by proving various topics for them to read.

To continue this practice, I increased the number of questions related to cognitive strategies until participants were able to understand and use them effectively.

Finally, I asked my participants to read a longer passage and developed a set of questions related to inference.

In fact, during 8- week treatment, students had a chance to practice 15 inferential reading texts related types of inference: Referential, Filling in deleted information, Inferring meanings of words, Inferring connotations of words or sentences, Relating text to prior knowledge, Inferences about the author, Characters or state of world as depicted in text, Confirming or disconfirming previous inferences, Drawing conclusion. These reading texts ranged from the easy to difficult ones.

Phase 5: With a view to evaluating the reading progress of the participants, they were asked to finish their post-test which had the same structures and items as the pre-test.

Phase 6: In this phase, 6 students took part in an interview, individually. They provided more information about what they had done in their questionnaire, their feelings after post- test, their attitude towards inferential reading, the cognitive strategies they used, and how they applied the cognitive strategies in performing test. Taking the suggestions by Patton on conducting effective interviews (1990, cited in Hoang & Nguyen, 2006, pp. 47 – 50) into consideration, I began with a brief explanation of the format, the length of the interview and asked them for any questions before actually conducting the interviews. During each interview, questions were asked one at a time and responses were encouraged and extra

questions were added frequently to exploit in-depth information from the interviewees. On the other hand, reorientation for interviewees was made carefully to avoid off-track conversations while jottings were taken carefully during the interview for better data collation later on.

## **2.5. Data analysis**

### ***2.5.1. Quantitative analysis***

The information gathered from questionnaire was coded in number. For instance, in question 2: if a student chose “A” as their answer to the question about their purpose of studying English, I coded this answer as “1”. Similarly, option “B” was coded as “2”, “C” was coded as “3”, and “D” was coded as “4”.

The Statistical Package for the Social Science (SPSS) version 22 was used to analyze the data from questionnaires and from tests. Paired sample t-test was used to measure the improvement of students in inferential reading tasks. In order to compare task performances, after all the tests were scored, mean and standard deviation of each test were calculated to find out whether the students generally improved after an 8 - week training.

The types and frequency of strategies used were counted and analyzed basing on theory of cognitive strategies and average by adding up individual scores from each participant to obtain a total score for each strategy employed in the questionnaire. The higher the averages, the more frequently the participants used the strategy concerned. The scores were interpreted in three levels with the interpretation key based on frequency scale delineated by Oxford (1990) for general learning strategy use. In this framework of interpretation, the mean of 3.50 or higher shows high usage, the mean from 2.50 to 3.49 shows medium usage and the mean 2.49 or lower is low usage.

## 2.5.2. Qualitative analysis

### 2.5.2.1. Interview

According to Corbin and Strauss (2008), the analysis of qualitative data should begin right after, and even during the collection phase. Therefore, to analyze the interview data, I transcribed interviews and checked them against the research questions and interview guide. For convenience and absolute understanding, the interviews were conducted in Vietnamese, and were all recorded. Six participants were coded. For example, student No.1 was coded S1, student No.2 was coded S2 and so on. The places and time for interviews are presented in the table 2.1

*Table 2.1. Interviews*

<b>Participant code</b>	<b>Place interview</b>	<b>Time length</b>
S1	English room	15'
S2	English room	15'
S3	English room	16'
S4	Classroom 12D	15'
S5	English room	17'
S6	Classroom 12D	17'

To analyse the semi- structure interviews I followed Burn's (2010) procedure as summarized below:

Step 1: reading transcripts very carefully line by line, again and again.

Step 2: labeling relevant pieces in words and phrases about: motivation, cognitive strategies used, attitudes, inferential reading process.

Step 3: deciding which codes are the most important, and create categories by bringing several codes together.

Step 4: labelling categories and decide which are the most relevant and how they are connected to each other.

Steps 5: Interpreting results

#### ***2.5.2.2. Diary notes***

Writing diary notes during and after lessons (i.e. tests, 8-week training lessons) helped me record happenings in participants' classroom, their activities, their feelings and attitudes towards learning in the form of descriptive notes. These diary notes were collected to help me gain more insights into the effect of the 8-week treatment. These were then summarized and notes related to the results from the analysis of the other data sources. These notes would help in the reflection stage of this action research work.

### **2.6. Summary**

In fact, to answer the research questions, questionnaire, interview, and tests were three main tools for the research. Furthermore, diary notes were a supporting tool to get the data. Through 6 phases of data collection procedure it was easy to analyze the data both quantitatively and qualitatively.

## **CHAPTER 3: RESULTS AND DISCUSSION**

### **3.1. Results**

This section presents the results drawn from the analysis of the collected data. It aims to provide the answers to the research questions formulated for this study.

### 3.1.1. Students' attitudes towards inferential reading tasks

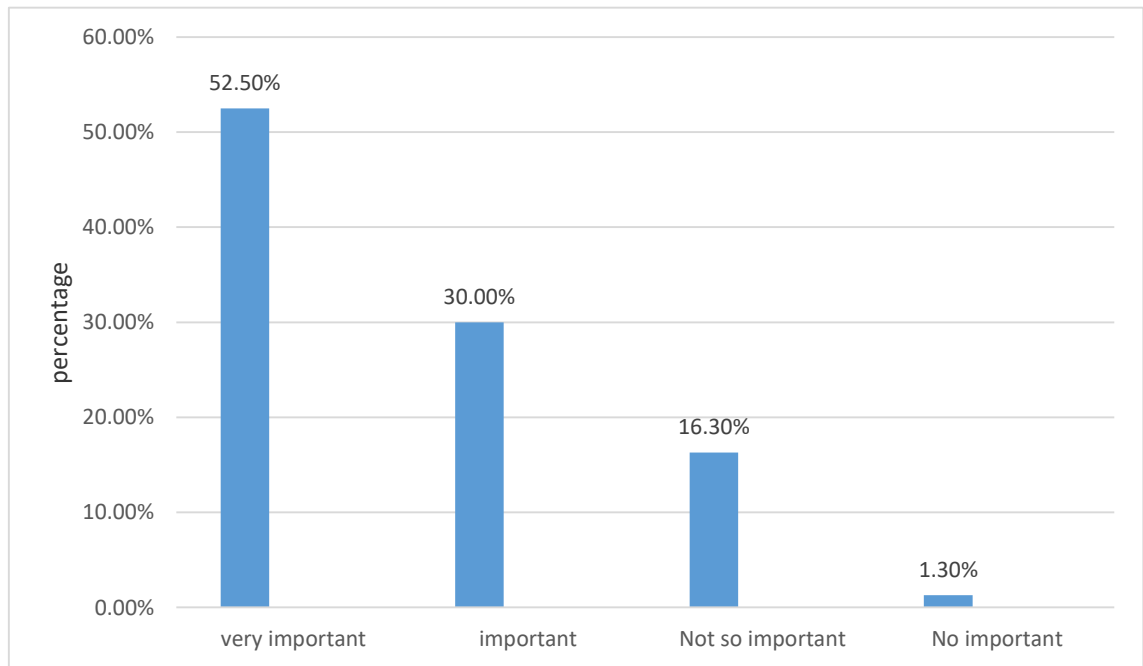


Figure 3.1. Students' attitude towards becoming proficient in inferential reading

Figure 3.1 shows that 82.5% of respondents believed proficiency in inferential activities to be very important and important. Specially, “very important” level was chosen by 52.50% of the respondents and “Important” level had 30% of participants choose. Few students regarded inferential reading as “not important” (1.3%). The percentage of students chose becoming proficient in inferential reading to be “Not important” was 16.3%.

A part from that, only 20 respondents out of 80 students like inferential reading tasks, while the number of students who do not like reading and inferential tasks was 60 as shown in table 3.1

Table 3.1. Students' attitudes towards inferential reading

Items	Number of students
Like	20

Do not like	50
Do not mind	10

It could be concluded from the questionnaire data that they understood the importance of proficiency in inferential reading, but it seemed more than half of them had negative attitude toward this skill.

To understand more about my participants, during 8- week treatment, I got to know more about my participant’s attitude through teaching, observing and diary note taking. To be honest, for the first time, students were lazy to do my assignments. Day by day, more and more students took part in my lessons, they were eager to finish the inference tasks.

In the interview data, participants stated the “negative” and “positive” attitude towards reading and inferential tasks.

Regarding “negative” point two interviewees said that reading was difficult, the exercises they couldn’t do correctly were inferential exercises because a lot of new words appeared in the tasks. They didn’t want to engage in such reading tasks anymore.

However, the rest of interviewees mentioned they were willing and interested to read inferentially. Some ideas were quoted below:

“Gradually, I feel comfortable when seeing the inferential tasks in the reading, I can get better mark in some small tests. It’s good. And I should try to practice more” (S3).

“I don’t hesitate to do this lesson, I’m confident to tackle difficult tasks” (S6).

From the data collected, negative and positive attitude from participants were identified. Apparently, reading attitude is associated with learner’s persistence and success in reading (Woolley, 2011).

### 3.1.2. Students' motivation to read inferentially

To understand the students' motivation towards learning English in general, the data was collected from questionnaire, and table 3.2 showed that 48 respondents out of 80 learned English because they wanted to take part in GCSE (General Certificate of Secondary Education), 25 students chose to learn English for job in the future, while the number of students learning English for communication and entertaining was 2 and 5 respectively.

*Table 3.2. Reasons students to learn English*

<b>Reasons to learn English</b>	<b>Number of students</b>
Take part in exam	48
Get high paid job	25
communicate well	2
entertain	5

To clarify the students' motivation towards reading and inferential reading activities, 6 students were chosen to participate in an interview (see table 2.1). The richness of the interview data collected in this study revealed a clear understanding of the students' motivation towards inferential reading tasks which might have an impact on the day-to-day learning of practices of the cognitive strategies. The students showed their motivation basically in 2 main concepts as "intrinsic" and "extrinsic". For them "intrinsic" here means they had an interest in any fields they could perceive from reading. In other words, they simply enjoyed an activity or saw it as an opportunity to explore, learn, and actualize their potentials. 2 out of 6 interviewed students stated that they found it interesting to get information from the materials they read. With inferential reading activities, they understood implicit meaning from the passage, or from the author.

“Reading is interesting. It helps me to understand better the science and technology field in English. The source of information about such field in English is various and I really enjoy reading about it” (S1).

“Practice reading is helpful. I enrich a lot of vocabulary and that helps me watch international channels like HBO, Movie Star- a lot of interesting films and news there” (S4).

When asked about inferential reading activities, they said:

“Inferential reading skill is very important. I understand the speaker’ saying implicitly” (S3).

“It’s difficult, but it is necessary to get the implicit meaning from the native speaker” (S4).

However, with some other participants, they considered reading in general and inference a must, or a duty.

“I must improve inferential reading tasks because I don’t want to have a bad grade” (S2).

“I’m in grade 12. I want to enter a university [...], English test is a compulsory. And you know, to get high mark I need to better reading skill especially inferential reading tasks in reading test” (S6).

“I need to improve much in reading for graduation, it will help me go for higher studies abroad” (S3).

“Reading is quite challenging. But it will be useful for me in getting a good and high-ranking job” (S1).

### **3.1.3. Effect of the introduction and practice of cognitive strategies on students’ ability in inferential reading.**

#### ***3.1.3.1. Before the treatment***



To bear in mind the effect of cognitive strategies on inference, I noted students' behavior before, during treatment after each lesson. For the first day to come to the class, students showed a surprise to hear the “cognitive strategies” concept on inferential reading. Being asked about “how to do inference task in test, students said they read from the first line to the end of the passage. They tried to translate new words to deal with the exercises. Participants wasted time to do exercises.

The data from questionnaire about self-assessed English proficiency in inferential reading was counted. Questionnaire respondents were asked to evaluate themselves in inferential reading proficiency with four- level scale (i.e. very good, good, fair and poor) which was chosen to match the current English proficiency level being adopted in the regular curriculum in Vietnam at various education level. The familiarity with this assessment scale was believed to produce more accurate judgement of their proficiency among the respondents. Descriptive statistics in SPSS described the findings as shown in table 3.3.

*Table 3.3. Students' self- assessed English inferential reading proficiency*

<b>Proficiency level</b>	<b>N(80)</b>	<b>Percentage</b>
Very good	2	2.5
Good	5	6.3
Fair	45	56.3
Poor	28	35

Table 3.3 indicates that most of the survey respondents evaluated themselves as fair and poor learners of inferential ability. Specially, “fair” level was chosen by 56.3% of the respondents in inferential reading skills. Another important

result regarding self- assessed inference proficiency was that the respondents were least confident with inferential reading skills was 35%. While “very good” learners in inferential reading accounted for 2.5 % of the total.

Looking back the result of pre-test, descriptive statistics in SPSS version 22 was run to check the frequency of mark of students. Table 3.4 shows the results of students’:

*Table 3.4. Statistics from pre-test*

<b>Value</b>	<b>Statistics</b>
Mean	4.66
Minimum	2.5
Maximum	7.0

Table 3.4 illustrates that the minimum scores students got was 2.5, and the maximum ones were 7. The Mean value calculated was 4.68. The detailed marks were presented in table 3.5 below:

*Table 3.5. The marks students gained in pre-test*

<b>Mark</b>	<b>Number of students</b>
Below average( 2.5 – 4.5)	40
Fair ( 5-6)	36
Quite good (7-8)	4

In fact, it might be noticed that students’ abilities in inferential reading were low before researcher introduced and guided students to practice strategies on inferential tasks.

### ***3.1.3.2. After the treatment***

To compare the pre-test and post-test performance, the descriptive statistics was run on the Mean, Mode, Median, Maximum, Minimum and Std. Deviation. The result was shown in table 3.6:

*Table 3.6: Pre- test and post- test performance*

<b>Descriptive statistics</b>	<b>Pre-test</b>	<b>Post- test</b>
Mean	4.66	7.08
Mode	4.0	7.0
Median	4.75	7.00
Minimum	2.50	4.00
Maximum	7.0	9.0
Std. Deviation	0.93	1.25

The table reports the better performance of students in the post- test compared to the pre-test. The mean of students' scores in the post- test was 0.7 point higher than that in the pre-test. All the indices of the post-tests are also higher, which is good evidence for the students' improvement. Besides, with Sig= 0 < 0.05 in Paired sample t-test, these results reveal that students made an effort in inferential tasks based on mark evaluation as in table 3.7:

*Table 3.7. Paired sample t-test*

	Paired differences						
	<i>Mean</i>	<i>SD</i>	<i>95% Confidence Interval of the Difference</i>		<i>t</i>	<i>df</i>	<i>Sig( 2-tailed)</i>
			<i>Lower</i>	<i>Upper</i>			

<i>Pair D1- D2</i>	-2.42125	1.4469	-2.7432	-2.0992	-14.967	79	.000
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In order to identify types of reading strategies students reported using, the descriptive statistics was run on the mean score and fluency of the strategies students used and grouped into 6 strategies as shown in table 3.8. The result was briefly illustrated in table 3.8

*Table 3.8: Individual cognitive strategies used by respondents*

<b>Strategies</b>	<b>Mean</b>
Using the Senses to Understand and Remember	3.45
Activating Knowledge	3.36
Reasoning	3.27
Conceptualizing with Details	3.12
Conceptualizing Broadly	3.31
Going Beyond the Immediate Data	3.41

A closer look at table 3.8 indicates that the frequency students employing cognitive strategies in inferential reading tasks. None of the strategies were used at high level of frequency. It could be said that students balanced in the use of these strategies. These strategies were placed in the medium category of use (M= between 2.5 and 3.49). However, through the table above, the strategy – Using the senses to Understand and Remember was used the most among those strategies with M = 3.45 and Conceptualizing with Details was utilized the least with M=3.12.

During the 8-week training program, I tried to improve my students' cognitive strategies in inferential reading such as using various topic of reading, motivating students more to learn. Basing on the inference exercise, I instructed my

students how to look for pronouns and figure out what to connect them to, figure out explanations for these events, think about the setting and see what details learners could add, think about something that they know about the topic and see how that fits with what is in the text, read this section and see if students can explain why the character acted this way, or look for unknown words and see if any other words in the sentence or surrounding sentences give them an idea of what those unknown words mean, etc. These strategies are closely related to cognitive dimension like activating knowledge, guessing, reasoning, going beyond the immediate data. Week by week, I found the improvement in students' inferential reading exercises. I recognized not only the students' skills were improved but also found that they enriched wide vocabulary, the pace in reading, even their background knowledge was widened.

Interview data show that most of students found applying cognitive strategies effectively had positive impact on inferential tasks performance.

They stated that they understood more about the strategies in cognitive dimensions and they could adopt them into different types of inferences. The attitude toward this kind of exercise had been changed, or they could tackle the challenging tasks as quoted below:

“I saved time in reading than before being introduced the strategies” (S1)

“To me, cognitive strategies are very important to boost my ability in reading inferential tasks...” (S3)

“Since applying appropriate cognitive strategies in inference, I felt my reading speed was enhanced. I could read faster than before. Clearly, without using cognitive strategies, I became passive in reading” (S5).

“I believe that, to be a good learner, it is a must to have appropriate cognitive strategies that makes the inferential result better” (S6).

“Among the factors that contribute to my high results on inferential reading tasks, using appropriate cognitive strategies are the most important. In fact, they play a deciding role” (S2)

Once asked about the strategies students used in cognitive dimension, most of the participants said that they used them moderately. It depended on the types of tests. The following quotes show students’ views of inferential reading skills:

“In post- test, task 2 I reasoned - analyzed and guessed grammatical points, vocabulary, etc. what I read to understand the text “(S1)

“It is important to have the right strategies in everything we do, especially when it comes to studying a language. Inferential learning is a complicated and long- term process, so we need to have the right strategies in order to master the target language in the most effective way and in the shortest time [...].In post- test, I completed 2 tasks in 20 minutes, 10 minutes earlier than expected. I deduced the content of the readings from the available information (title, known vocabulary, topic sentences, etc.) so that I could do task 1 easily while with a lot of students, match the heading exercises is really challenging.” (S5).

“Although my ability in inferential reading is not much improved now due to my lack of vocabulary and background knowledge, I confess that I still can do some inferential tasks like coherence-inference”. (S4)

#### **3.1.4. Summary**

From the results discussed in 3.1, the findings could be summarised as follows.

Inference exercises are challenging tasks because the readers have to think implicitly to understand. This fact was shown clearly through interviews of students about attitudes towards reading and inferential reading. Most of them showed negative attitude towards reading and inference, and a few students expressed positive attitudes toward inferential reading despite their understanding of the

importance of being proficient in inferential reading skills. However, with the various objectives of studying English and with the introducing cognitive strategies to students, their attitudes towards learning had been changed more positively- which is the foundation for reading test performance, and academic achievement. This study revealed that students test results had been improved a lot, students had higher marks than before the treatment. Especially, quantitative data proved that the frequent use of cognitive strategies were moderate. Besides, there had been a very high and positive significant relationship between reading attitudes and reading comprehension, and inferential reading as well. However, the interviews data show that sometimes even with skilled readers they did not engaged much in inference exercises due to their tiredness when having to do a long test.

Together with using effective cognitive strategies, motivation played an important factor in developing students' ability in inference. In spite of the difference of the time students spent on learning English, motivation helped students boost to learn, to enhance skills for their own aim at learning. To conclude, all findings above addressed overarching research question: "How are cognitive strategies beneficial to students in performing their reading tasks related to inference?", that is, utilising cognitive strategies effectively benefits students to change attitudes toward inferential tasks, and leads to the remarkable changes on test inferential performance.

### **3.2. Discussion**

In light of quantitative and qualitative findings of the study, this part focuses on examining to which extent the research aims and objectives have been addressed and achieved. Based on the results of the data analysis presented in part 3.1, this part discusses whether the research questions have been well attended. The most important findings are revisited, and explanations are provided where applicable. These findings are compared with those of previous research projects and theories reviewed in relevant literature.

The study revealed that majority of the participants had negative attitudes towards inferential reading. This finding is in line with the outcome of the study of scholar of reading like Awe (2014) who reported that most learners at the different levels of education in Nigeria particularly the secondary school had negative attitude towards reading. It could be explained that their reading and learning was limited to what was specifically required for the achievement of their limited objectives such as success in examination. In reading skill, inference need high thinking, due to the lack of source of vocabulary or background knowledge, students felt bored in such reading tasks. However as Lawal (2008) opines an individual who lacks the awareness of the values of reading cannot develop positive attitude to reading. In the same vein Petscher (2010) and Seitz (2010) corroborate the assertion that learners' positive attitude to reading are highly critical sign for their high scores in reading comprehension performance, and having a positive attitude is one of the key dimensions in successful learning.

In the interview data, the optimistic changes in students' attitudes towards inferential reading tasks, besides, intrinsic and extrinsic motivation toward reading and inferential reading skills were found in this study. Such motivation had a strong influence on the reading achievement. This finding is quite a controversial topic because link to other study it is not the same. Marinak & Gambrell (2008) show that students would not be able to achieve complete skill in reading comprehension without intrinsic motivation; Educators considered intrinsic motivation to be more favorable and to result in better learning consequences than extrinsic motivation (Deci, Koestner, & Ryan, 1999). Intrinsic motivation could display more effective role in reading achievement and better text comprehension, although there were other factors that could be influential such as students' ethnic backgrounds and learners age (Unrau & Schlackman, 2006).

In the context of this study, participants who were going to take part in some important English exams need to improve reading to get better results and other



goals in the future. This finding is in line with the result from the study by Baker & Wigfield (1999). Therefore, levels of motivation and engagement have been found to predict achievement motivation is thought to be one of the most critical determinants of the success and quality of any learning outcome (Baker & Wigfield, 1999). Better readers tend to read, which leads to improved vocabulary and better skill. Therefore, reading motivation which is defined as “the individual’s personal goals, values and beliefs with regards to the outcome of reading” (Guthrie et al., 2000) plays a very important role in the students’ use of reading strategies.

Beside motivation and attitude factors toward reading and inferential task, the study stated that using cognitive strategies are necessary to improve students’ ability in inference. As discussed in Literature Review, inference is a cognitive process, constructive thinking process used to construct meaning. Inference in reading comprehension is a constructive thinking process because the reader expands knowledge by proposing and evaluating competing hypotheses about the meaning of the text in an attempt to progressively refine understanding. More clearly, my research’s finding was utilizing cognitive strategies effectively plays an important part in enhancing inferential reading skill. Students used various cognitive strategies in understanding text reading. The results of the correlation analysis showed that the use of cognitive strategy has a positive or negative contribution to the results of reading comprehension depending on the accuracy of the selection strategy in accordance with the text he read. Among 80 students who did the questionnaire, many of them confessed that they hadn’t been trained inferential reading skill before, and they found they are less skilled readers. When applied cognitive strategies to read, the ability of many students in inference were improved. They could be adept at a competent working memory, a rich vocabulary, wide background knowledge and become an active reader to make sense of the text. This result is in line with Mc Gee and Johnson (2003) who recognized the role of prior knowledge in inference. They quoted Hansen and Pearson (1983) who developed a method of teaching inferential skills that was intended to encourage children to relate textual information to their own previous experiences. Before

starting to read a text, the children were encouraged to use their own experiences in relation to the topic as a source for generating hypotheses about the text. Moreover, Cook, Limber, & O'Brien (2001) indicate that lack of background knowledge which is necessary for important inferences may result in weakness or failure in inference generation. However, the students who were considered to be skilled readers were not many.

The study found that the skilled readers or less skilled readers applied cognitive strategies moderately. The results replicated previous findings in the sense that both high and low scoring readers seemed to use the same kinds of strategies while engaging in the tasks. Anderson (1991) emphasizes that strategic reading is not a matter of strategy to use, but also the reader must know how to use strategy, it is not sufficient to know about strategies, a reader must also be able to apply them strategically.

All in all, cognitive strategies had a big influence on students' inferential tasks performance. Employing them effectively made them independent in reading, and then led to the change of students' attitude towards reading and inferential tasks. This motivated them a lot to engage reading inferentially. Obviously, the results on the tasks related inference were better.

## **PART C: CONCLUSION**

This part will provide a summary of the findings of the present study. The limitations as well as the recommendations for further studies will be presented.

### **1. Summary**

The present study has provided evidence about cognitive strategies are beneficial to students in performing their reading tasks related to inference in terms of attitude, motivation, and effectiveness of such strategies applied affecting the score of inferential tests.

First, the results of this study proved that motivation of learning English in general and of inferential reading in English in particular might be a necessary factor for getting success in inferential reading. Many teachers realize that they will face a lot of problems in teaching reading when students lack motivation (O’Flahavan, et al., 1992). Reading motivation includes the variety of aspects such as: reading goals, intrinsic and extrinsic motivation, and social motivation for reading (Guthrie & Wigfield, 2000), and it refers to the internal states that make people read. Nearly all of the participants in this study identified the significance importance of being a proficient inferential English reader but not of them show high inferential English proficiency. This fact is very important for teacher to adapt appropriate methods in teaching inferential tasks. Teacher might help student identify clearly their English inferential reading goals in long-term and short-term as well. Although this study explored negative attitudes toward inference of most students from 12, knowing how to deal with the inferential tasks is believed to better students’ attitude toward these exercises.

Second, using cognitive strategies effectively play positive roles in English reading comprehension as they facilitate learning to read effectively (Rubin, 2008). Students who were taught the cognitive strategies demonstrated substantial gains in inferential comprehension. This study revealed these good strategies that were used frequently by students who were considered to be good at English proficiency.

Strategies in cognitive dimensions based on Oxford's (2013) S2R newest theoretical framework focus on activating prior knowledge, analyzing and guessing vocabulary, grammatical points, analyzing other known elements, and deducing the content of the reading. Those strategies should be introduced to students, especially to low proficiency English readers. Teachers should raise students' awareness of equipping the cognitive strategies to help improve their inferential reading competence. Teachers should have clear understanding of the use of each cognitive strategy so that they can teach students to use such strategies effectively. The truth is that teachers spend a lot of time testing reading inferential reading exercises, but little time teaching them. They confuse telling students what is happening in a text with actually teaching those strategies to help students comprehend texts. When learners are confused, teachers often end up simply explaining what the text means. Instead, if teachers want learners to move from being dependent readers to independent readers, they had better provide the cognitive strategies for readers to understand texts. Besides, it is suggestible that teachers should supply students with more various topics of reading, encourage them to read as much as possible to widen the background, to enrich the vocabulary. To conclude, inferential reading achievement is a process of using effective strategies, the richness of vocabulary, the abundance of background knowledge, full of motivation.

## **2. Limitations of the study and recommendations for further studies**

Despite a great effort of the researcher to carry out this paper, there are still some limitations of this research.

Firstly, due to the time and limited permission for this study the number and the representativeness of students directly participating in the study remained relatively low in comparison with the enormous number of students in Quang Ninh. The participants were from grade 12 so their objectives of learning English were quite different from other grades. The sources of data were limited and some problems of other students in other grade of this school or in high schools in general could not

be raised and find the solutions for that. Therefore, this implies that future studies need to be conducted with a larger sample.

Secondly, inferential reading skills are quite challenging not only to students but to teachers sometimes. So further research could involve more sources of information to gain better understanding of the phenomenon. Such sources may include interview with teachers, analysis of teaching materials, and teaching curriculum.

Despite the aforementioned shortcomings, the researcher's flexibility, serious work and justified data collection and research methodology had well retained the validity and reliability of the results. Nevertheless, it is noteworthy that these above shortcomings should always be taken into consideration when further related studies are conducted in the future.

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## APPENDICES

### APPENDIX 1: Questionnaire

- **English version**

#### QUESTIONNAIRE ON STUDENTS' COGNITIVE STRATEGIES IN INFERENCEAL READING

In order to assess the use of English cognitive reading strategies on performing inferential reading of students, please answer the following questions by filling in their personal and circle the number with the appropriate choices. The information obtained is for research purposes only.

##### Part 1: Personal information

1. Name:.....

2. How long have you been study in English?.....

3. Your purpose of study English is.....

a. to take part in GCSE.

b. to communicate well.

c. to get high paid job

d. To entertain

4. Do you like reading English?

Yes

No

Do not mind

5. Do you like inferential reading task in reading skill?

Yes

No

Do not mind

6. Have you ever been trained about inferential reading strategies?

Yes

No

7. How is your English reading proficiency?

Very good

Good

Fair

Poor

8. How is your English inferential reading proficiency?

Very good

Good

Fair

Poor

9. How important is it for you to become proficient in inferential reading in English?

Very important

Important

Not so important

No important

## Part II. Cognitive strategies used in inferential reading

This questionnaire has been designed to help you to identify which strategies you use in inferential reading.

*Read each statement below: Please write the respond 1,2,3,4,5 that tells HOW TRUE OF YOU THE STATEMENT IS.*

1. Never true of me
2. Untrue of me
3. Somewhat true of me
4. True of me
5. Very true of me

*Mark an X in the appropriate column.*

*Please respond to each statement quickly, without too much thought. Try not to change your responses after you choose them. Please use a pen to mark your choices.*

### Example:

No.	Statements	1	2	3	4	5
1	I focus on the text when reading		x			

### Questionnaire statements

No.	Statements	1	2	3	4	5
1	I use the senses to understand and remember what I read.					
2	I activate my knowledge to understand the reading text.					
3	I reason (analyze and guess grammatical points, vocabulary, etc.) What I read to understand the text ( reasoning).					

4	I guess new words or phrases while reading through the analysis of known elements ( Conceptualizing with Details).					
5	I guess the text based on link between words, phrases, concepts etc. in the reading					
6	I deduce the content of the readings from the available information (title, known vocabulary, topic sentences....)					
7	I guess the main idea of the reading text by analyzing the macro structure of the text					
8	I guess the semantic relation between various elements of the text by analyzing the cohesive devices used to connect the elements					
9	I look for the topic of the reading passage and follow its logic development					
10	I interpret selective information based on self-judgment					
11	I identify the given and new information in a sentence					

***Thank you for your cooperation!***

**Vietnamese version**

**PHIẾU ĐIỀU TRA VIỆC SỬ DỤNG CÁC CHIẾN LƯỢC NHẬN THỨC CỦA HỌC SINH TRONG ĐỌC SUY LUẬN**

Để đánh giá việc sử dụng các chiến lược nhận thức trong đọc suy luận của học sinh bằng tiếng Anh, vui lòng trả lời các câu hỏi sau bằng cách điền hoặc chọn các thông tin cá nhân và khoanh tròn vào các lựa chọn phù hợp. Thông tin thu được chỉ dành cho mục đích nghiên cứu.

**Phần 1: Thông tin cá nhân**

1. Họ và tên:.....
2. Bạn đã học tiếng Anh được bao lâu rồi?.....
3. Mục đích việc học tiếng Anh của bạn là.....
  - a. để thi tốt nghiệp trung học phổ thông.
  - b. để giao tiếp tốt.
  - c. để có được công việc chi trả tốt
  - d. để giải trí
4. Bạn có thích đọc tiếng Anh không?  
Có  II Không  không bận tâm
6. Bạn có bao giờ được dạy cách đọc suy luận như thế nào không?  
Có  Không
7. Bạn thấy năng lực đọc tiếng Anh của bạn ở mức độ nào?  
Rất tốt  Tốt  Bình thường  Kém
8. Bạn tự đánh giá khả năng đọc suy luận tiếng Anh của bạn như thế nào?  
Rất tốt  Tốt  Bình thường  Kém
9. Theo bạn việc trở nên thành thạo trong việc đọc suy luận bằng tiếng Anh có tầm quan trọng như thế nào?

Rất quan trọng  Quan trọng  Không quá quan trọng  Không quan trọng

## Phần 2. Các chiến lược nhận thức được sử dụng trong đọc suy luận.

Phần khảo sát này được thiết kế để giúp bạn phân biệt những chiến lược nào bạn đã sử dụng trong việc đọc suy luận của mình.

Đọc mỗi câu dưới đây: Vui lòng sử dụng phần trả lời là 1,2,3,4,5 thể hiện những thông tin này đúng đối với bạn ở mức độ nào.

1. Không bao giờ đúng với tôi
2. không đúng với tôi
3. Có chút đúng với tôi
4. Đúng với tôi
5. Rất đúng với tôi

*Đánh dấu X vào cột phù hợp*

*Vui lòng trả lời câu hỏi mà không cần suy nghĩ quá nhiều. Cố gắng không thay đổi phương án sau khi bạn đã chọn. Vui lòng sử dụng bút bi để đánh dấu đáp án.*

**Ví dụ:**

Thứ tự	Lời phát biểu	1	2	3	4	5
1	Tôi tập trung vào đoạn văn khi đọc		x			

**Các câu phát biểu:**

Thứ tự	Lời phát biểu	1	2	3	4	5
1	I sử dụng các giác quan để hiểu và nhớ những gì tôi đọc					
2	Tôi sử dụng các kiến thức của mình để hiểu đoạn					

	văn.					
3	I suy luận (phân tích và đoán các hiện tượng ngữ pháp, từ vựng. Những gì tôi đọc để hiểu đoạn văn (suy luận).					
4	Tôi đoán từ mới và các cụm từ khi đọc qua việc phân tích các chi tiết đã biết.					
5	Tôi đoán đoạn văn dựa vào mối liên hệ giữa các từ, cụm từ, các khái niệm trong bài đọc... (khái niệm hóa rộng)					
6	Tôi suy diễn nội dung bài đọc từ các thông tin có sẵn (tiêu đề, từ vựng đã biết, các câu chủ đề....)					
7	Tôi đoán ý chính của đoạn văn bằng cách phân tích các cấu trúc vĩ mô trong văn bản					
8	Tôi đoán mối quan hệ ngữ nghĩa giữa các yếu tố khác nhau của văn bản bằng cách phân tích các cấu trúc gắn kết được sử dụng để kết nối các yếu tố trong văn bản.					
9	Tôi tìm chủ đề của đoạn văn đọc và theo mạch phát triển logic của nó					
10	Tôi diễn giải thông tin chọn lọc dựa trên sự tự phán đoán					
11	Tôi xác định thông tin đã cho và thông tin mới trong một câu					

*Cảm ơn các bạn đã hợp tác!*

## APPENDIX 2: Pre- test

### PRE- TEST (Time allowed: 30')

Student's name:.....

**Part 1: The reading passage below has six paragraphs 0-5. Choose and write in the corresponding numbered boxes the correct heading for each paragraph from the list of headings below. (0) has been done as an example. (5 points)**

- |   |   |
|---|---|
| A. Indecision about a name                | E. Integrating other events into cinema |
| B. Current problems with distribution     | F. The plans for the future of films    |
| C. Uncertainty about financial advantages | G. Too true to life?                    |
| D. The contrasts of cinema today          |   |

#### The end of the silver screen?

*Cinema technology has remained much the same for a century, so when will it go digital?  
Kelvin Hilton views the projections.*

0	D
---	---

Cinema is full of contradictions. It is high- tech and old- fashioned at the same time. Today's films are full of digital sound and computer- generated special effects. Yet they are still stored on celluloid film, the basis of which is more than 100 years old. They are also displayed with projectors and screens that seem to belong to our great- grandparents' generation.

1	
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Now that we are in the second century of cinema, there are moves to bring the medium right up to date. This will involve revolutionising not just how films are made but also how they are distributed and presented. The aim is not only to produce and prepare films digitally, but to be able to send them to movie theatres by digital, electronic means. High- resolution digital projectors would then show the film. Supporters say this will make considerable savings at all stages of this chain, particularly for distribution.

2	
---	--

With such a major technological revolution on the horizon, it seems strange that the industry is still not sure what to call itself. This may appear a minor point, but the choices, 'digital' cinema and 'electronic' cinema (e- cinema), suggest different approaches to, and aspects of, the business. Digital cinema refers to the physical capture of images; e-cinema covers the whole chain, from production through post- production (editing, addition of special effects and construction of soundtrack) to distribution and projection.

3	
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And what about the effects of the new medium? The main selling point of digital cinema is the high resolution and sharpness of the final image. But those who support the old-



fashioned approach to film point to the celluloid medium's quality of warmth. A recurring criticism of video is that it may be too good: uncomfortably real, rather like looking through an open window. In 1989, the director of the first full-length American digital high-definition movie admitted that the picture had a 'stark, strange reality to it'.

4	
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Even the money-saving aspect of e-cinema is doubted. One expert says that exciting cinema will have to show the new material and not all of them will readily or rapidly furnish themselves with the right equipment. 'E-cinema is seen as a way of saving money, because print costs a lot,' he says. 'But for that to work, cinemas have to be showing the films because cinemas are the engine that drives the film industry.'

5	
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This view has prompted some pro-digital entrepreneurs to take a slightly different approach. HD Thames is looking at reinventing the existing cinema market, moving towards e-theatre, which would use digital video and projection to present plays, musicals and some sporting events to the public. This is not that different from the large-screen TV system that was set up in New York in 1930 and John Logie Baird's experiments with TV in the late 1920s and early 1930s.

**Part 2: Read the following passage and circle the best answer (A, B, C or D) to the questions according to the text. (5 points)**

Printmaking is the generic term for a number of processes, of which woodcut and engraving are two *prime* examples. Prints are made by pressing a sheet of paper (or other material) against an image-bearing surface to which ink has been applied. When the paper is removed, the image adheres to it, but in reverse.

The woodcut had been used in China from the fifth century A.D. for applying *patterns* to textiles. The process was not introduced into Europe until the fourteenth century, first for textile decoration and then for printing on paper. Woodcuts are created by a relief process; first, the artist takes a block of wood, which has been sawed parallel to the *grain*, covers it with a white ground, and then draws the image in ink. The background is carved away, leaving the design area slightly raised. The woodblock is inked, and the ink adheres to the raised image. It is then transferred to damp paper either by hand or with a printing press.

Engraving, which grew out of the goldsmith's art, originated in Germany and northern Italy in the middle of the fifteenth century. It is an intaglio process (from Italian intagliare, "to carve"). The image is incised into a highly polished metal plate, usually copper, with a cutting instrument, or *burin*. The artist inks the plate and wipes it clean so that some ink remains in the incised *grooves*. An impression is made on damp paper in a printing press, with sufficient pressure being applied so that the paper picks up the ink.

Both woodcut and engraving have *distinctive* characteristics. Engraving lends itself to subtle modeling and shading through the use of fine lines. Hatching and cross-hatching determine the degree of light and shade in a print. Woodcuts tend to be more linear, with sharper contrasts between light and dark. Printmaking is well suited to the production of multiple images. A set of multiples is called an edition. Both methods can *yield* several

hundred good-quality prints before the original block or plate begins to show signs of wear. Mass production of prints in the sixteenth century made images available, at a lower cost, to a much broader public than before.

1. *What does the passage mainly discuss?*
  - A. The origins of textile decoration
  - B. The characteristics of good-quality prints
  - C. Two types of printmaking
  - D. Types of paper used in printmaking
2. *The word "prime" in line 2 is closest in meaning to \_\_\_\_\_.*
  - A. principal
  - B. complex
  - C. general
  - D. recent
3. *The author's purpose in paragraph 2 is to describe \_\_\_\_\_.*
  - A. the woodcuts found in China in the fifth century
  - B. the use of woodcuts in the textile industry
  - C. the process involved in creating a woodcut
  - D. the introduction of woodcuts to Europe
4. *Which of the following terms is defined in the passage?*
  - A. "patterns" (line 5)
  - B. "grain" (line 8)
  - C. "burin" (line 14)
  - D. "grooves" (line 15)
5. *The word "distinctive" in line 18 is closest in meaning to \_\_\_\_\_.*
  - A. unique
  - B. accurate
  - C. irregular
  - D. similar
6. *According to the passage, all of the following are true about engraving EXCEPT that it \_\_\_\_\_.*
  - A. developed from the art of the goldsmiths
  - B. requires that the paper be cut with a burin
  - C. originated in the fifteenth century
  - D. involves carving into a metal plate
7. *The word "yield" in line 22 is closest in meaning to \_\_\_\_\_.*
  - A. imitate
  - B. produce
  - C. revise
  - D. contrast
8. *According to the passage, what do woodcut and engraving have in common?*
  - A. Their designs are slightly raised.
  - B. They achieve contrast through hatching and cross-hatching.
  - C. They were first used in Europe.
  - D. They allow multiple copies to be produced from one original.
9. *According to the author, what made it possible for members of the general public to own prints in the sixteenth century?*
  - A. Prints could be made at low cost.
  - B. The quality of paper and ink had improved.
  - C. Many people became involved in the printmaking industry.
  - D. Decreased demand for prints kept prices affordable.
10. *According to the passage, all of the following are true about prints EXCEPT that they \_\_\_\_\_.*
  - A. can be reproduced on materials other than paper
  - B. are created from a reversed image
  - C. show variations between light and dark shades
  - D. require a printing press

### APPENDIX 3: Post- test

#### POST - TEST (Time allowed: 30')

*Student's name:*.....

**Task 1: The reading passage below has six paragraphs 0-5. Choose and write in the corresponding numbered boxes the correct heading for each paragraph from the list of headings below. (5 points)**

**(0) has been done as an example**

#### **Communicating Styles and Conflict**

*Knowing your communication style and having a mix of styles on your team can provide a positive force for resolving conflict.*

0	E
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The values in self-assessments help determine personality styles. Learning styles, communication styles, conflict-handling styles, or other aspects of individuals may depersonalize conflicts in interpersonal relationships. The depersonalization occurs when you realize that others aren't trying to be difficult, but they need different or more information than you do. They're not intending to be rude: they are so focused on the task they forget about greeting people. They would like to work faster but not at the risk of damaging the relationships needed to get the job done. They understand there is a job to do. But it can only be done right with the appropriate information, which takes time to collect. When used appropriately, understanding communication styles can help resolve conflict on teams. Very rarely are conflicts true personality issues. Usually they are issues of style, information needs, or focus.

1	
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Hippocrates and later Galen determined there were four basic temperaments: sanguine, phlegmatic, melancholic and choleric. These descriptions were developed centuries ago and are still somewhat apt, although you could update the wording. In today's world, they translate into the four fairly common communication styles described below:

2	
---	--

The sanguine person would be the expressive or spirited style of communication. These people speak in pictures. They invest a lot of emotion and energy in their communication and often speak quickly, putting their whole body into it. They are easily sidetracked onto a story that may or may not illustrate the point they are trying to make. Because of their enthusiasm, they are great team motivators. They are concerned about people and relationships. Their high levels of energy can come on strong at times and their focus is usually on the bigger picture, which means they sometimes miss the details or the proper order of things. These people find conflict or differences of opinion invigorating and love to engage in a spirited discussion. They love change and are constantly looking for new and exciting adventures.

3	
---	--

The phlegmatic person - cool and persevering - translates into the technical or systematic communication style. This style of communication is focused on facts and technical details. Phlegmatic people have an orderly methodical way of approaching tasks, and their focus is very much on the task, not on the people, emotions, or concerns that the task may evoke. The focus is also more on the details necessary to accomplish a task. Sometimes the details overwhelm the big picture and focus needs to be brought back to the context of the task. People with this style think the facts should speak for themselves, and they are not as comfortable with conflict. They need time to adapt to change and need to understand both the logic of it and the steps involved.

4	
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The melancholic person who is soft hearted and oriented toward doing things for others translates into the considerate or sympathetic communication style. A person with this communication style is focused on people and relationships. They are good listeners and do things for other people - sometimes to the detriment of getting things done for themselves. They want to solicit everyone's opinion and make sure everyone is comfortable with whatever is required to get the job done. At times this focus on others can distract from the task at hand. Because they are so concerned with the needs of others and smoothing over issues, they do not like conflict. They believe that change threatens the status quo and tends to make people feel uneasy, so people with this communication style, like phlegmatic people need time to consider the changes in order to adapt to them.

5	
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The choleric temperament translates into the bold or direct style of communication. People with this style are brief in their communication - the fewer words the better. They are big picture thinkers and love to be involved in many things at once. They are focused on tasks and outcomes and often forget that the people involved in carrying out the tasks have needs. They don't do detail work easily and as a result can often underestimate how much time it takes to achieve the task. Because they are so direct, they often seem forceful and can be very intimidating to others. They usually would welcome someone challenging them. But most other styles are afraid to do so. They also thrive on change, the more the better.

- |  |  |
|--|--|
| <p><i>A. Lazy and careless personality</i></p> <p><i>B. A lively person who encourages</i></p> <p><i>C. Demanding and unsympathetic personality</i></p> <p><i>D. Summarising personality types</i></p> | <p><i>E. Benefits of understanding communication styles</i></p> <p><i>F. Cautious and caring</i></p> <p><i>G. Factual and analytical personality</i></p> <p><i>H. Self-assessment determines one's temperament</i></p> |
|--|--|

**Task 2: Read the following passage and circle the best answer (A, B, C or D) to the questions according to the text. ( 5 points)**

Before the mid-nineteenth century, people in the United States ate most foods only **in season**. Drying, smoking and salting could preserve meat for a short time, but the availability of fresh

meat, like that of fresh milk, was very limited; there was no way to prevent spoilage.

However, in 1810, a French inventor named Nicolas Appert developed the cooking-and-sealing process of canning. And in the 1850's an American named Gail Borden developed a means of condensing and preserving milk. Canned goods and condensed milk became more common during the 1860's, but supplies remained low because cans had to be made by hand. By 1880, however, inventors had fashioned stamping and soldering machines that mass-produced cans from tinsplate. Suddenly all kinds of food could be preserved and bought at all times of the year.

Other trends and inventions had also helped make it possible for Americans to vary their daily diets. Growing urban population created demand that encouraged fruit and vegetable farmers to raise more produce. Railroad refrigerator cars enabled growers and meat packers to ship perishables great distances and to preserve **them** for longer periods. Thus, by the 1890's, northern city dwellers could enjoy southern and western strawberries, grapes, and tomatoes, previously available for a month at most, for up to six months of the year. In addition, increased use of iceboxes enabled families to store perishables. As easy means of producing ice commercially had been invented in the 1870's, and by 1900 the nation had more than two thousand commercial ice plants, most of which made home deliveries. The icebox became a **fixture** in most homes and remained so until the mechanized refrigerator replaced it in the 1920's and 1930's.

Almost everyone now had a more diversified diet. Some people continued to eat mainly foods that were heavily in starches or carbohydrates, and not everyone could afford meat. **Nevertheless**, many families could take advantage of previously unavailable fruits, vegetables, and dairy products to achieve more varied fare.

1. *What does the passage mainly discuss?*

- A. Causes of food spoilage
- B. Inventions that led to changes in the American diet
- C. Commercial production of ice
- D. Population movements in the nineteenth century

2. *To which of the following does the phrase "in season" in the first paragraph refer?*

- A. a method of flavoring
- B. a kind of weather
- C. an official schedule
- D. a particular time of year

3. *During the 1860's, canned food products were \_\_\_\_\_.*

- A. unavailable in rural areas
- B. available in limited quantities
- C. shipped in refrigerator cars
- D. a staple part of the American diet

4. *When can it be inferred that railroad refrigerator cars came into use?*

- A. before 1860
- B. after 1920
- C. after 1900
- D. before 1890

5. *Which of the following does the word "them" in the third paragraph refer to?*

- A. refrigerator cars
- B. growers
- C. perishables
- D. distances

6. *The word "fixture" in the third paragraph is closest in meaning to \_\_\_\_\_.*

- A. commonplace object
- B. substance
- C. luxury item
- D. mechanical device

7. *The author implies that in the 1920's and 1930's home deliveries of ice \_\_\_\_\_.*

- A. increased in cost
- B. decreased in number

C. occurred only in the summer                      D. were on an irregular schedule

8. The word “**Nevertheless**” in the last paragraph is closest meaning to\_\_\_\_\_.

A. Occasionally    B. However                      C. Therefore                      D. Because

9. Which of the following types of food preservation was **NOT** mentioned in the passage?

A. Drying                      B. Cold storage                      C. Canning                      D. Chemical additives

10. Which of the following statements is supported by the passage?

A. Commercial ice factories were developed by railroad owners.

B. Tin cans and iceboxes helped to make many foods more widely available.

C. People who lived in cities demanded home delivery of foods.

D. Most farmers in the United States raised only fruits and vegetables.

#### APPENDIX 4: Coding samples

Participants	Years studied English	Ability to do inferential reading	Coding
Student 1	12	not good	S1
Student 2	7	Very good	S2
Student 3	3	quite good	S3
Student 4	12	fair	S4
Student 5	16	fair	S5
Student 6	12	poor	S6

#### APPENDIX 5: Interview guide

English version

Date of interview:.....

Time of interview:.....

Participant code:.....

Question 1: How long have you studied English?

Question 2: How is your English proficiency?

Question 3: Can you tell me the reason you want to study English well?

Question 4: Do you think your time you have known English would affect your English result?

Question 5: Do you like inferential reading?

Question 6: How do you think of inferential reading? Is it difficult?

Question 7: Have you been trained how to do inferential reading tasks?

Question 8: Do you think applying appropriate strategies helps you gain better result on inferential reading?

Question 9: During 8- week treatment, you know clearly about cognitive strategies? What cognitive strategies you employed in post- test?

***Extract 4 : Interview with S4***

T: good morning. Can we start now?

T: How long have you studied English?

S4: 12 years

T: How is your English proficiency ?

S4: quite good.

T: Do you like practice reading skill? Why?

S4: Practice reading is helpful. I enrich a lot of vocabulary and that helps me watch international channels like HBO, Movie Star- a lot of interesting films and news there.

T: How about inferential reading? Is your inferential reading skill good?

S4: It's difficult, but it is necessary to get the implicit meaning from the native speaker?

T; You have been trained to apply cognitive skill to do inferential reading task, right? Do you think when having good strategy help you do the task well.

S4: Yes. Before that I did inferential task on my own way until this 8-week training. I can do the task more quickly than before.

(...)“I don't hesitate to do this lesson, I'm more confident to tackle difficult tasks.

T: What strategies you often apply when doing inferentially?

S4: I used them moderately. It depended on the types of tests.

T: Yeah

S4: You know, there are a lot of difficult reading text, so my ability in inferential reading is not much improved now due to my lack of vocabulary and background knowledge related to specific knowledge, I confess that I still can do some inferential tasks like coherence-inference.



T: Do you like inferential reading?

S4: To be honest, it's challenging. I don't like it, but I have to practice more because the national exam is coming soon.

**APPENDIX 6: Sample diary notes**

<i>Week...../Date:.....</i>	<i>Activities researcher gave to students</i>	<i>Students' reflection</i>
Week 1		Attitudes:  Students' feelings:  things happening in class
Week 2		Attitudes:  Students' feelings:  things happening in class
Week 3		Attitudes:  Students' feelings:

		things happening in class
Week 4		Attitudes:  Students' feelings:  things happening in class
.....	.....	.....

