AN ACTION RESEARCH ON IMPROVING READING PERFORMANCE OF NON-ENGLISH MAJORED FRESHMEN AT FPT UNIVERSITY, HO CHI MINH CITY, VIETNAM[i]

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Abstract:

A mixed-methods design (Creswell & Creswell, 2018) was adopted in this action research to examine the effects of reading strategy instruction with four reading strategies - previewing the text, predictions, text-structure awareness, inferencing - on reading performance of non-English majored freshmen in English preparation classes of a private university in Vietnam. Thirty-six students in pre-intermediate English proficiency level participated in the study. Over six weeks, these students received the four reading strategies instruction explicitly in accordance with CALLA model. Via the explanatory sequential design, a type of mixed methods research involves two-phase data collection (Creswell & Creswell, 2018). The results of the pre-post-tests and 11 closed-ended response items in the paper-based questionnaire were analyzed quantitatively while 6 interviews were analyzed qualitatively to provide further explanations of the quantitative results. The study has found that four reading strategies might serve as techniques to improve reading comprehension then result in better reading performance, reading speed and higher frequency of reading strategies use.

Keywords: reading skills, reading strategy instruction, reading strategies, reading comprehension, reading performance, reading speed, mixed methods design, action research

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1. Introduction

1.1 Rationale to the study

It is commonly believed that reading is one of the most significant academic skills alongside listening; speaking and writing that all students need to succeed in their academic and working life. According to Maarof and Yaacob (2011), reading is a complex and cognitive process to extract meaning from a text. It is also a personal process that different readers interpret the text differently. In an academic context, reading is the most important skill for second-language learners (Lynch & Hudson, 1991).

Without a doubt, reading plays a significant role in success in higher education. However, most university students lack academic reading skills as they encounter academic texts in English with great difficulty throughout the course, they might find them quite challenging to gain an understanding of the given text which is considered an essential prerequisite for success in a particular course they take. As a result, university students need to be well prepared with reading strategies which enable them to read more effectively and improve their performance in reading tests.

1.1.1 Contextual background

In the current Vietnamese context of language teaching, a strong emphasis is placed on getting high scores in examinations. It is obvious that the language teaching environment in Vietnam has only focused on grammar rules and vocabulary memorization in reading lessons. Language teachers tend to teach grammar and vocabulary out of context. Then they translate the reading text into Vietnamese, which makes students feel bored during reading class. Upon finishing high school, many students have inadequate command of reading skills which might hinder their academic achievement in university.

Despite the fact that several studies have been done to find out the effectiveness of reading strategies to improve student's competence and performance in reading skills, the current study aspires to figure out whether some reading strategies are effective to enhance non-English majored freshmen's reading performance in English preparation course at FPT University in Ho Chi Minh City, Vietnam.

1.1.2 Statement of problem

For some students, the connection between reading a text and learning can be difficult for many reasons. Some of the students struggle with comprehending written text, while others simply are not interested in the typical classroom reading material. Students who have reading difficulties are often reluctant to read and lose interest in literature (Gorman, 2003). Based on the poor result of the English preparation courses' final exam and the researcher's observation and teaching of these courses at FPT university, it indicates that most non-English majored freshmen find learning reading difficult and boring. They sometimes become struggling and reluctant readers. This may result in their poor performance in tests. For the teachers, the most difficult aspect of teaching reading

skill is making it interesting for their students in the classrooms and how to teach it effectively.

1.2 Research aims
The main aims of this study are to:
- Identify to what extent reading strategies affect non-English majored freshmen's reading performance at FPT University in Ho Chi Minh City.
- Investigate non-English majored freshmen's perceptions about reading strategies use at FPT University in Ho Chi Minh City.

1.3 Research questions
This study attempts to find out the answers to the following two research questions:
1) To what extent do reading strategies affect non-English majored freshmen's reading performance at FTP University?
2) What are non-English majored freshmen's perceptions of reading strategies used at FPT University?

1.4 The significance of the study
Since English has become the world's most widely spoken language, dominating communications in business, tourism, academic publications and many other fields, the need for learning English has increased dramatically over the past few years. A wide variety of strategies that facilitate the English learning process has been studied and tried in language teaching. The current study would contribute to research on the benefits of incorporating strategies in language instruction and its effects on EFL learning.

This study plays a significant role to improve English language teaching and learning in the higher education context in Ho Chi Minh City. First of all, it may raise the teacher's awareness of the importance of reading strategies and effective teaching practices that improve reading comprehension in enhancing students' performance in the reading classroom. Therefore, they can change and plan their reading instruction which emphasizes strategic reading behaviors more frequently and includes certain supportive characteristics. As for university students, it is likely to help advance EFL university students' reading skills and get better results in the final exam. It, moreover, enables them to become strategic readers, which might benefit them in their major study due to the fact that most of the Vietnamese universities use textbooks in English for their curriculum. Finally, as the current study focuses on EFL teaching at a Vietnamese university, its findings might be relevant to and can be applied in the Vietnamese context. Nevertheless, the findings can be a reference and offer suggestions for further research on the implications of reading strategies on teaching and learning critical reading skills and integrated skills - reading and writing.

2. Literature review

2.1 Reading

Reading is considered as one of the most important skills in second language learning. In the simplest sense, reading is a process of recognizing a series of written symbols, or letters from the single letters to particular words and understanding what each word means. Nuttall (1982) defined reading as a meaningful interpretation of printed or written verbal symbols. In simpler terms, reading is a process of connection between the reader and the text in which the reader decodes or interprets the text. The background knowledge might have an impact on their comprehension. The reader needs to activate their background or prior knowledge and linguistic one to infer the writer's intended meaning (Chastain, 1988). They are expected to go beyond the printed letter in materials.

Likewise, Nunan (1999) claimed that reading is a skill the reader is required to make sense of and acquires the meaning from the printed words. Reading is an active and fluent, not passive process (Anderson, 1999). A reader simply receives information that the writer has laid out. Harmer (2001) also suggested that the reader should make use of a wide range of contextual clues to understand the writer's implication in which they can get the meaning of words beyond the literal one. There is a clear distinction between reading "*the lines*", reading "*between the lines*", and reading "*beyond the lines*" (Gray, 1960). More specifically, the first refers to the literal meaning of the reading text, the second one is to inferred meaning and the last focuses on readers' critical evaluations of the text. These differences are associated with the product. It is commonly believed that inferred, or hidden meanings are one on a 'deeper' level than literal meanings. Understanding critically the text is more highly appreciated than only understanding literally. As a result, a mere literal understanding of text should be learnt first. Learners then learn how to infer the meanings or implications of the text. After that, they learnt how to critically understand and evaluate the text.

Readers may read for various purposes such as for pleasure, information or study (Grellet, 1983). They also differ from reading for pleasure to reading for studying purposes (Alderson & Bachman, 2000). While the former may have an effect on their comprehension thanks to intrinsic motivation, the latter has an effect on reading text with intentional learning. Overall, comprehension is considered as the main purpose.

2.1.1 Skimming

Skimming is defined as a strategic, selective reading technique in which the readers focus on the main idea of the reading text. (Holschuh & Nist, 2000). Moreover, Brown (2004) suggests that "*skimming is the process of rapid coverage of reading matter to determine its gist or main idea*" (p.213). When skimming, readers run their eyes quickly over the reading to get a basic mental picture of the gist. Skimming does not target individual pieces of information. It is meant to pick up general meaning, and give readers a sense of the topic and purpose of a text, instead. This is also regarded as a pre-reading activity; or a prediction strategy.

The skimming process should involve the whole reading text. Keep going at a steady pace, though the readers slow down and pay close attention to some certain features:

- The title, subtitles and any subheadings,
- The summary of the chapter or section,
- The first or two sentences and the last one of each paragraph,
- Pictures and their captions (the words under or next to them),
- Graphics (tables, graphs, etc.),
- Bold words,
- Words that begin with capital letters (e.g., names of people and places, titles of books).

One more thing that should be kept in mind when skimming, it is important to encourage students to continue to use active reading strategies. This keeps the student's brain active, engaged and focused, helping the student understand and retain information better and longer. Here are a few effective active reading strategies to pair with skimming:

- Set a purpose for reading. Instead of approaching the text as something the reader just has to get through, identify a purpose for this reading. What does the reader want to get out of it? Why are you, as a reader, reading it? Keep this purpose in mind as reading
- Make a prediction about what the reader thinks the chapter or section is going to be about
- Activate prior knowledge. Make a list of what the reader already knows about the topic and what they want to know about it. Identify and write down any questions you have
- Annotate. Instead of copying down copious notes from a book, jot down brief notes and thoughts in the margins of the text or in a notebook
- Summarize the main ideas. After a section or page, stop and write a 1-3 sentence summary in your own words. This keeps the reader's brain engaged and ensures they comprehend what they read.

2.1.2 Scanning

Sometimes the purpose of reading is to find very specific pieces of information. According to Nation (2009), scanning is the act of looking for a specific piece of information inside the text like a proper name or a number. Furthermore, scanning is defined as a reading strategy in which readers look through the text for particular details (Edge, 2009). They might be trying to answer questions on a test, find a specific fact to use in writing, or check your understanding of specific points in reading. As active and strategic readers, students only need to scan for details – very specific pieces of information. The eyes should zero in on the essentials and filter out all the rest.

In order to answer questions about specific information in the passage, students have a question in their mind with its key ideas and scan read-only for the words that

help answer it (Mikulecky & Jeffries, 1996) Nunan (2015) suggests that teachers can get students to use scanning strategy when asking them to look through the text quickly for the key words "*without expecting them to understand everything*". That means they read some parts of the passage and skip over the irrelevant parts.

Basic scanning techniques:

- For the name of a place, person, or organization, scan for capital letters,
- For the name of a book, movie, game, song, and so on, scan for both capital letters and a typographical clue, such as quotation marks or italics,
- For a year, date, amount, proportion, and so on, scan for numerals,
- For information that is not signaled by unusual type or by numerals, select keywords or phrases to scan for.

2.2 Teaching reading skills

Goodman (1996) also agrees that reading is an active process in which readers use powerful strategies to pursue its meaning. Similarly, reading is the process of making use of strategies to achieve an understanding of the text (Carrell, 1998). In the process of reading, there has been top-down and bottom-up processing. While the bottom-up reading instruction model emphasizes individual words, phrases, cohesive devices or linguistic clues to build up the comprehension of a text, the top-down processing focuses on the reader's pre-existent knowledge and assumptions. The readers may go down from their general knowledge to more specific ones in the text. It is useful to combine both processing because readers might switch from one to another, adopting the top-down approach to predict what the text might be about and then continuing with the bottom-up one to check whether it is really what the writer means (Nuttall, 1996). This is called interactive processing. Most readers start reading by using top-down reading strategies until a problem happens and then shift to bottom-up ones. When readers read something quickly and come across new words, they need to slow down to decode their meanings, and they use bottom-up strategies to understand the words (Anderson, 2008).

Based on a range of L2 reading research review, a set of abilities L2 readers need to develop as follows: efficient word recognition and automatic access to a large vocabulary; reading comprehension skills for extracting meaning from the phrase, clause, paragraph and discourse text structures; applying reading strategies to difficult texts; setting and adjusting reading goals; inferencing and using prior knowledge; synthesizing these processes for critical reading comprehension; maintaining motivation to read extensively and for an extended period of time (Grabe & Stoller, 2011).

Goodman (1992) suggests three stages in the reading process:

- Pre-reading stage: A lead-in is necessary to get students engaged in the topic of the text and activate their background knowledge. They can predict what the text is likely to be about through visual aids, a few words or phrases from the text which show its content. Students are also encouraged to ask themselves questions about what they are about to read. The main purpose of this stage is to get students ready for upcoming tasks

- While-reading stage: Students are given activities or exercises to enable them to get engaged in the aspects of the text and get a better understanding of it. Those activities or exercises help them to develop reading strategies and tackle problems during reading. Some examples of while-reading exercises include guessing the word meaning from context clues, identifying the topic sentences and main ideas, and reading comprehension questions (reading for general ideas and specific information).

- Post-reading stage: Activities or exercises in this stage take students go beyond the text. They can evaluate, reflect, comment and question what they have read. Follow-up tasks might integrate reading skills with other skills such as speaking or writing (Phillips, 1985). They range from writing a response or summary of the text to creating a role-play conversation or discussion related to the reading content.

2.3 Reading strategy instruction

Strategies are reasoned plans that are conscious applied and adapted to a particular situation (Duffy & Roehler, 1987). For example, comprehension strategies, namely predicting cannot be done thoughtlessly because different texts and readers' purposes call for different background knowledge and can be applied situationally. Given a theory of language learning strategies, pedagogical studies classify strategies for acquiring four skills. In contrast to communication (output) strategies, learning (input) strategies put an emphasis on the differences between learning receptive skills of listening and reading and producing language in speech and writing. L2 learners developed effective listening skills through monitoring, elaboration and inferencing. Selective attention to keywords and advance organizers, inferring from context, prediction, using a worksheet and taking notes were shown to be teachable (Rost & Ross, 1991; Ozeki, 2000; Carrier, 2003; Vandergrift, 2003).

Reading strategies are defined as what learners act to construct meaning (Garner, 1987). Additionally, reading strategies are plans to "*solve problems encountered in constructing meaning*" (Duffy, 1993, p.232). When it comes to reading, strategies are still a crucial concept for reading abilities. Anderson (2009) defined strategies as "*abilities that are potentially open to conscious reflection, and reflect a reader's attention to address a problem or a specific goal while reading*". They differ from bottom-up vocabulary strategies, namely consulting the dictionary for the meaning of unknown words to more comprehensive actions such as getting the reader's prior knowledge engaged with what is being read in the text. Depending on how proficient the reader is, they might use strategies to a certain extent. Proficient readers tend to use different kinds of strategies in different ways. Reading strategies can help improve student performance on reading comprehension tests (Carrell, 1985; Carrell, Pharis, & Liberto, 1989; Pearson & Fielding, 1991). Bottom-up and top-down processing, predicting, guessing from the context, brainstorming and summarizing have also been shown to be effective (Anderson, 1991; Chamot & El-Dinary, 1999; Pressley, 2000).

It has been argued that young children or less-able learners might improve their comprehension by teaching those effective learning strategies (Brown & Smiley, 1978). Skilled readers engage in reading over long periods of time through a wide range of texts, with a lot of opportunities to practice. They keep practicing applying strategies, monitoring their processes, and evaluating the effectiveness of different strategies for themselves in different reading situations. Teachers explain and model the use of a wide variety of strategies (Mokhtari & Sheorey, 2008, p.224). Explicit instruction is needed to develop such comprehension strategies since students are unable to acquire them naturally (Pressley, 2006).

It is widely accepted by L2 reading researchers that using reading strategies effectively is a typical quality of a good reader (Anderson et al., 1991). They can be taught to students in productive ways (Block & Pressley, 2002b). Reading strategy instruction is a form of reading-comprehension instruction when carried out in the reading-a-text context. To be more specific, reading strategies and strategy instruction are explored in a pre, while, and post-reading framework (Aebersold & Field, 1997; Fitzgerald & Graves, 2004). Each strategy should be recycled on a regular basis and consistently, combined with others as part of pre, while and post-reading activities or tasks once introduced and practiced. As claimed by Block and Pressley (2002b), reading strategy instruction should encompass "*modeling, scaffolding, guide practice and independent use of strategies so that students develop an internalized self-regulation of comprehension processes*" (p.3).

CALLA model focuses on integrating learning strategy training in academic language and content instruction (Chamot et al., 1999; Chamot, 2005). A strategy instruction includes six steps:

1) Preparation: The teacher identifies reading strategies to be taught and designed tasks for the training of these strategies.
2) Presentation: The teacher models and explains how a specific strategy was used.
3) Practice: Students practice the strategy.
4) Self-evaluation: Students evaluate their own strategy use immediately after practice.
5) Expansion: Students transfer the strategy to the new reading tasks.
6) Assessment: The teacher assesses students' reading strategy use and the effect of strategy training on students' reading performance.

Several essential principles backing up effective strategy instruction are described by Baker (2002), Pressley (2002a), and Pressley and Block (2002):

- Numerous good reading strategies are known to support reading comprehension.
- Strategies learning requires extreme and persistent effort with continual recycling.
- Comprehension monitoring can be the main aim in strategy instruction and main-idea comprehension.
- Strategy should be taught in a direct way to students by modeling and throughout the text, comprehension teaching process.
- Strategy instruction is part of negotiated interaction over texts.

In terms of reading a text, understanding the main idea, or main idea comprehension, requires the reader to have the ability to identify the main ideas in the text. It also needs to have sufficient knowledge of basic grammar, effective comprehension strategies to deal with difficult texts, strategic processing abilities to maintain a high level of comprehension over periods of time, an awareness of discourse structure, and a wide range of vocabulary (Pressley, 2002a).

There have been multiple L2 reading strategy research studies to discover significant differences between the control and experimental group related to strategies supporting reading comprehension. Some common strategies have been proven effective in research such as monitoring comprehension, using text-structure awareness, and using visual graphics and graphic organizers (Pressley et al., 1989; Trabasso & Bouchard, 2002)

2.3.1 Monitoring comprehension strategies

Not only is monitoring comprehension a main reading strategy, but a major metacognitive process (Weinstein & Mayer, 1986). Monitoring comprehension was defined as "*an executive function, essential for competent reading, which directs the reader's cognitive as he/ she strives to make sense of incoming information*" (Wagoner, 1983, p.344).

Several strategies are normally used as part of monitoring comprehension, namely, having a reason for reading and being aware of it, recognizing text structure, previewing the text, identifying important and main-idea information, relating the text to background knowledge, reading carefully, and clarifying misunderstanding. Obviously, any strategy supporting main-idea comprehension can be considered as a means to monitor comprehension under certain circumstances. As a result, monitoring comprehension may be viewed as a metacognitive control. An extensive array of work indicated comprehension monitoring is used by good readers as reading (Baker & Brown, 1984). Before reading, they make hypotheses about the most likely interpretation of a text and then they check that interpretation against the new, incoming information in a text. While reading, those hypotheses are either confirmed or rejected by new ones. This is the manner that comprehension monitoring proceeds until a breakdown arises. Therefore, good readers need to adopt a compensatory strategy to repair the comprehension breakdown.

2.3.2 Text structure awareness

Teaching students to raise their text-structure awareness or awareness of text organization is regarded as an effective means to improve reading comprehension and recall information. It encompasses discourse-signaling systems such as headings and subheadings, transition forms and signal words, co-referential connections across ideas in a text, organizational patterns (narration, cause and effect, problem and solution, comparison and contrast, description, classification, analysis, argument and evidence, procedural sequence, chronological order), and graphic clues (pictures, tables or diagrams).

Reading comprehension depends somewhat on a reader's awareness of how discourse is structured (Grabe, 2009; Meyer & Poon, 2001). To be more specific, awareness of how a text is structured is regarded as a crucial part of a reader's overall comprehension abilities (Pearson & Fielding, 1991; Trabasso & Bouchard, 2002). When students are taught that paragraphs can be organized according to cause-effect, comparison-contrast, and problem-solution, this awareness improves comprehension. Good readers pay attention to the ways information is organized in the text and signaling mechanisms that provide the cues to this organization (Grabe, 2009). Fourth graders can improve story-structure awareness and narrative text comprehension through story-structure and causal-inference instruction (Trabasso & Bouchard, 2002; Oakhill & Cain, 2002). Similarly, students who have in-depth knowledge about text structure and make use of text structures in their recalling or summarizing show better text comprehension (Kern, 1989; Grabe, 2003). More importantly, instruction to build text-structure awareness can be incorporated into a standard procedure of teaching a reading lesson, with pre-reading, while-reading and post-reading stages.

Due to the importance of text-structure awareness, using graphic organizers to organize text structure and highlight the main concepts and their relations with supporting information results in improved recall of information and significantly better comprehension. Numerous researches develop student's awareness of text structure with various kinds of visual representations: outline grids, tree diagrams, hierarchical summaries, and discourse-based graphic organizers (Anderson, 1991; Taylor, 1992; Vacca, 2002; Jiang & Grabe, 2007). It indicates that students better understand texts when seeing how the text is organized and the discourse-structure signaling cues that signal this organization.

2.3.3 Previewing the text

Before the actual reading, active readers look through the title, and subheadings, notice visuals or graphics that accompany the reading passage and consider the way the passage is organized and what kind or genre the text is, which enables them to get a general sense of what the text is about. In other words, previewing is to help develop mental representations (National Reading Panel, 2000). Then readers might form the questions they would like the text to answer and make predictions about what information might be presented in the reading. As a result, students get more involved and active during the reading process. Previewing the text might be helpful to increase comprehension (Burns et al., 2004) because it helps readers activate and draw on existing knowledge that they have about the topic, which enhances reading comprehension (Torgesen et al., 2017).

2.3.4 Prediction

Having a purpose to read is one of the most typical attributes of good readers. Predicting is one strategy to improve reading comprehension, which enables readers to set a purpose for reading. Hutchinson (1987) defines predictions as "*a matter of using an existing knowledge of a pattern or system*" to expect what might happen in a new situation. Good

text comprehension emerges if a reader is able to predict what the text might be about, relates information in the text to background knowledge, asks questions while reading, monitors the understanding of the text, and summarizes what is being read (Pressley, 2002). Bailey (2015) also points out that a prediction is an educated guess students make based on clues from the text, such as titles, headings, visual clues and from their background knowledge to anticipate what will happen in the text.

To determine if the predictions are correct, students need to reread parts of the text. Magliano et al. (1993) also state that students get feedback "*when they discover if their predictions are substantiated*" (p.53). Predicting encourages students to think ahead actively and ask questions, which allows them to comprehend the text better, make connections to what they are reading and get engaged with the text (Oczkus, 2003).

2.3.5 Inferencing

Inferencing is considered useful to improve comprehension. It depends on prior knowledge that is activated, vocabulary range, text-structure awareness, and comprehension monitoring. Inferencing abilities are seen as a form of metacognitive processing involving some specific strategies, relying on situations, tasks, or reader goals (Pressley, 2002b).

While reading, the reader infers through the process of reference tracking (Walter, 2004). When an object or a person is mentioned previously, the reader makes inferences to retrieve the prior entity due to signals such as pronouns, demonstratives, synonyms, and direct repetition. The antecedent is to be recovered, which may appear further in the same sentence or text. Inferences are required to relate that information to the current one. This is called anaphoric reference tracking which enables readers to retrieve information. Kintsch (1998) suggests it is the main mechanism for coherence building. Anaphoric systems and information retrieval play an essential part in reading abilities (Walter, 2004; Pretorius, 2005).

According to Nuttall (2000), when facing difficulty during the reading process, readers should learn to think inferentially and make a connection between clues in the text and prior knowledge to comprehend the text better.

2.4 Strategies-based instruction

In order to learn better and more effectively, learners need to be equipped with techniques, or strategies. Teaching them the ways to learn is more important and may benefit them in lifelong learning. Strategies-based instruction (SBI), also called Styles- and strategies-based instruction (SSBI), learner strategies training, and learning strategies instruction is an approach incorporating strategies into language tasks directly and indirectly. Students are learnt how, when and why to use strategies to make the learning process and language use tasks easier. When problems arise with reading comprehension, potential strategic options should be discussed in lessons. This means strategic instruction is embedded within the immediate reading context, rather than being something separate and distant. Anderson (1991) claimed that successful readers

not only use a variety of strategies but also use them in combination. It is suggested that the teacher should promote those combinations in their lessons and strategy instruction should have a central role in the teaching of reading (Grabe, 2009; Oxford, 2011).

The role of teachers is to draw students' attention or raise their awareness of available strategic options or techniques for learning that they can apply to a certain task. Teachers need to know students' styles. Therefore, they ensure what strategies may be useful for them. Learner strategies play a vital role in learner autonomy (Wenden, 1985). When a learner recognizes styles and strategies giving them assistance using language authentically outside the classroom, they can develop autonomy. Janzen (1996) proposes the teaching approach to strategy instruction has the following typical features:

- Learning strategies are incorporated into the course content. Students can learn about them while they are reading
- Strategies should be taught explicitly through direct explanation, teacher modelling and feedback. What the teacher can do to model strategies is by explaining what processes they are going through as they read to the class (Janzen, 2002)
- Strategies are constantly recycled over new texts and tasks. Students may encounter individual strategies and groups of strategies over time. They also need to know their usefulness and be trained to transfer from one kind of text or task to another
- Strategies used develops over the long term. It is thought that it takes years for L2 learners to become strategic readers (Beard El-Dinary, et al., 1992)

In general, Weinstein and Mayer (1986) argued that learners use strategies on purpose to make the learning process easier. Those strategies have an impact on how they choose, gain, formulate and integrate new knowledge. More importantly, students can derive benefits from strategy-based instruction when understanding strategies themselves and believe that they are effective and easy to adopt (MacIntyre & Noels, 1996). Consequently, it is advisable for teachers to deliver some technical know-how about how to deal with a language.

2.5 Previous studies

2.5.1 The relationship between reading strategy instruction and reading comprehension and reading strategy use

Many previous studies that were carried out to explore the effect of reading strategy instruction on L2 reading comprehension and reading strategy use has revealed there are generally positive effects in sync with a group of meta-analyses on reading strategy instruction (Edmonds et al., 2009; Okkinga et al., 2018). In Salataci & Akyel's (2002) study, 8 Turkish college students received reading strategy instruction for 4 weeks. Data from observation, think-aloud, questionnaire, interview and PET subtest revealed that reading strategy instruction was positively related to English reading comprehension and reading strategy usage. Due to the short duration, it is unclear in different contexts whether such a short period of time of reading strategy instruction would bring out

positive effects. Likewise, Zhang (2008) conducted an experimental study to examine the possible impacts of reading strategy instruction on English reading comprehension and reading strategy use of Chinese EFL students studying in Singapore. While the experimental group was exposed to reading strategy instruction known as reciprocal teaching in 2 months, the instruction the control one received was teacher-centered. After the treatment, the result revealed that reading strategy instruction could boost reading strategy use and reading comprehension.

There is some evidence to suggest that reading strategy instruction had no effect on reading strategy use even though it enhanced reading comprehension. Dreyer and Nel (2003) examined the effect of reading strategy instruction on 131 South African freshman students in a technology-enhanced learning context. After the treatment, the experimental group achieved considerably higher scores on reading tests than the control one. However, students from the experimental group reported using only certain reading strategies more frequently than those in the control group. A conclusion drawn from this study was that reading strategy instruction might not be effective for each single reading strategy. Zenotz (2012) explored how online reading strategy instruction in Spain had possible changes in reading strategy use and reading comprehension. Along with an online survey of reading strategies and two reading comprehension tests, participants were asked to provide progressive strategy diaries after each session. The result showed that the online strategy instruction could promote the experimental group's online reading comprehension. However, the quantitative and qualitative data indicated that the online strategy instruction training had no effect on the number of reading strategies used or the kind of reading strategy used by the experimental group participants.

Few empirical researches on reading strategies have been conducted in the Vietnam context. Nguyen and Trinh (2011) investigated what metacognitive reading strategies are used by 84 EFL high school students in Mekong delta. The results of the study showed that students used problem-solving strategies more frequently than global and support strategies. Moreover, the interview data demonstrated that students had problems using metacognitive strategies such as a lack of knowledge of cognition, cognition regulation and intrinsic motivation. Adapting the questionnaire items from the Survey of Reading Strategies in Sheorey and Mokhtari's study (2001) and Oxford et al.' study (2001), Minh and Nga (2019) discovered the reading strategies most frequently used by 117 Vietnamese non-English majored sophomores during reading comprehension tests at Kien Giang University. The results indicated that Vietnamese non-English majored sophomores occasionally employed reading strategies when doing reading comprehension tests. This means that they are moderate strategy users. Of the three categories, students preferred using cognitive and metacognitive reading strategies to support strategies. However, the study only employed a quantitative approach. Students might have reported using strategies they did not use actually. Further research may employ a mixed approach for a more painted picture of the research problem.

2.5.2 The relationship between the use of graphic organizers and reading comprehension

Several studies have been conducted to investigate the effects of graphic organizers use on reading comprehension. Like in Simmons's (1988) study, EFL students trained to use graphic organizers performed better in the post-test compared to those who did not receive similar training. Its main purpose was to find out how the use of graphic organizers reflected a passage's hierarchy of information - as putting in proper order like topic sentences and supporting details. As a result, students find it easy to identify the main idea of a reading paragraph, the supporting details and the organization in each paragraph. They can understand the paragraph as a whole, and also its structure. Ciascai's (2009) investigation on the use of graphic organizers for building and systematizing knowledge in educational practice concluded that graphic organizers can help learners to understand the content of the text by classifying and modeling ideas in the text.

Praveen (2013) examined the different forms of graphic organizers that middle school ESL students used as information organizers while reading texts for understanding the main ideas, supporting details, facts, opinions, comparisons and contradictions. The findings of the study offered some pedagogical implications for middle school reading instruction in ESL contexts. Using graphic organizers significantly promoted strategic reading competence, classification or graphical arrangement of the passage content, distinguishing the most important ideas from the supporting details. This result was consistent with Koda's (2007) observations from which the goal of reading is to construct the text meaning based on visually decoded information. Graphic organizers enable readers to identify the information from the text, classifying or arranging them in fixed templates or ones constructed by readers and they can guide readers to graft similar information in a different context.

2.6 Research gaps

In light of the aforementioned studies, although there are a number of studies discovering the effects of reading strategy instruction on reading comprehension and reading strategy use in either international or domestic contexts, there has been little research on the effects of reading strategies, especially text-structure awareness with using graphic organizers in EFL context in Vietnam, particularly in a university context. This study, therefore, attempted to fill in the gap of how effective reading strategy instruction is with four reading strategies, namely prediction, the preview of the text, text-structure awareness, and inferencing on students' reading performance and reading strategies use. What is more, it also enables Vietnamese students to have an awareness of using reading strategies and become high-strategy users.

3. Methodology

3.1 Action research model

This study employed the practical action research design which was used to solve a specific educational problem in a school situation. The design is the systematic procedures done by teachers to gather information about and improve the ways their particular educational setting operates, their teaching and their student teaching (Mills, 2013). It embraces both problem-posing and problem-solving. Not only does it focus on problems, but also can embrace areas of interest for development (McNiff, 2010). Action research is a natural part of teaching. Teachers continue observing students, collecting data and changing practices to improve student learning and the classroom environment. Action research provides a framework that guides the teacher to better understand why, when and how their students become better learners (Miller, 2007). Lewin (1946) codified action research into four stages: planning, acting, observing and reflecting. Kemmiss and McTaggart (1988) also suggest that action research involves four phases in a cycle of research. The first cycle can be considered a continuing spiral of the cycle which repeats until the researcher achieves a satisfactory result and it is time to stop.

Phase 1: Planning
The researcher identifies a problem or issue and develops an action plan to bring out improvements in a specific area of the research context. The action plan involves what the intervention will comprise, what data are required and how to gather them and what data collection instruments are required.

Phase 2: Action
The plan involves some deliberate interventions into the researcher's teaching situation which the researcher puts into action over a period of time. The interventions are 'critically informed' since the researcher questions his or her assumptions about the present situation and plans new and alternative ways of doing things.

Phase 3: Observation
This phase is related to observing systematically the effects of the action to see how far the intervention has met its objectives to solve the problem and document the context, actions and opinions of those involved. This is a data collection phase where the researcher uses tools to collect data about what is happening, and analyze and interpret the data.

Phase 4: Reflection
The researcher reflects on, evaluates and describes the effects of the action to make sense of what has happened and to understand the issue he or she has explored more clearly. The researcher can do a further cycle of action research to improve the situation even

more or share the story of the research with others as part of ongoing professional development.

Figure 3.1: Cyclical Action Research Model
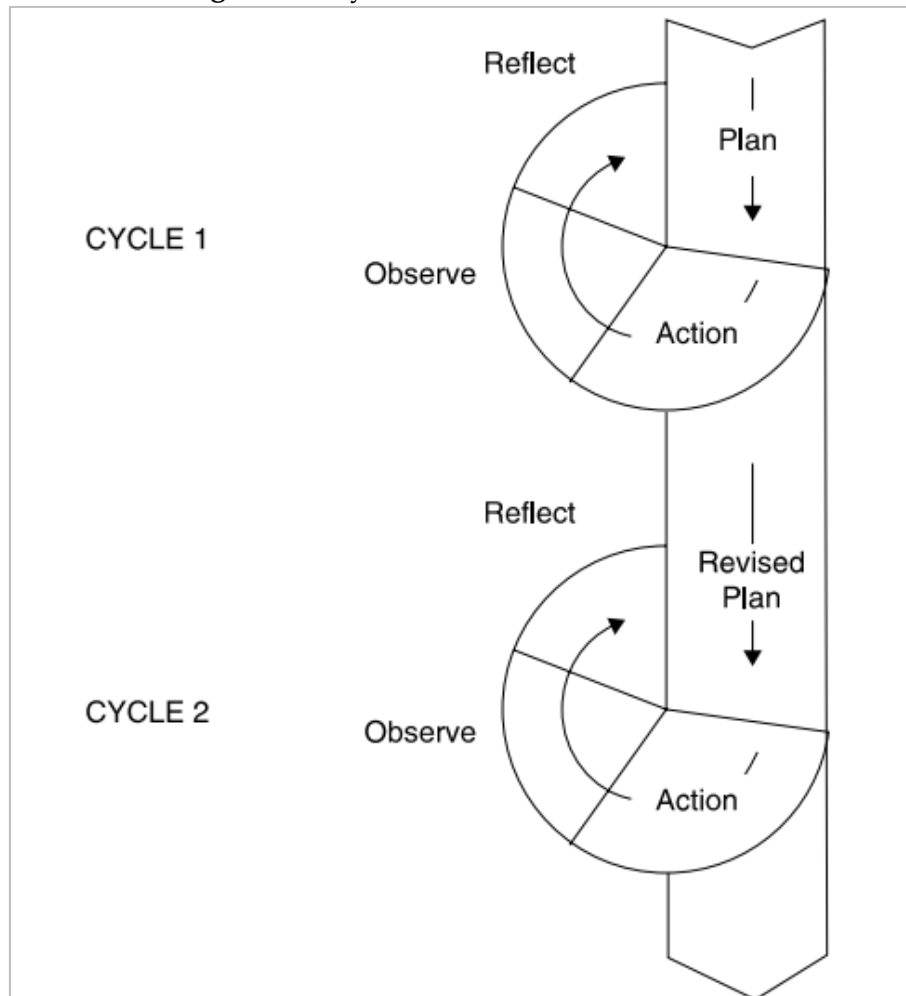
Adapted from Kemmis & McTaggart, 1988, pp.11-14.

It also describes specific steps with regard to the Plan-Act-Observe-Reflect cycle.

3.2 Mixed methods research

The current study adopted an explanatory sequential mixed methods design or an explanatory design (Cresswell & Clark, 2011). Perhaps this design is the most popular form of mixed methods approach in educational research. It consists of first collecting quantitative data and then gathering qualitative one to help explain or elaborate on quantitative results (Cresswell, Clark, et al., 2003). The rationale for this approach is that the quantitative data and results provide a general picture of the research problem. Through qualitative data collection, the researcher can analyze further to refine, extend or explain the general quantitative picture. There are two phases in the study. In the first quantitative phase of the study, a pretest and posttest are used to measure to what extent reading strategies have an effect on non-English majored freshmen's reading

performance. Moreover, the questionnaire is adopted to figure out non-English majored freshmen's perceptions of reading strategies use. The second qualitative phase will be conducted as a follow-up to the quantitative results to help explain further the quantitative results through the interviews. The quantitative and qualitative data were collected sequentially, with more weighting given to quantitative data than a qualitative one.

As shown in Figure 3.2, the visualization of the research design employed in the study. It is a mixed methods research.
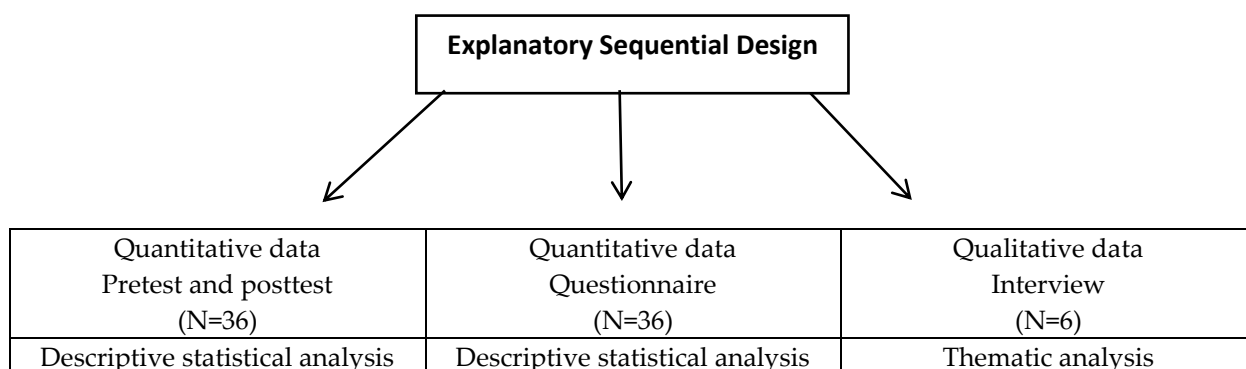
Explanatory Sequential Design		
Quantitative data Pretest and posttest (N=36)	Quantitative data Questionnaire (N=36)	Qualitative data Interview (N=6)
Descriptive statistical analysis	Descriptive statistical analysis	Thematic analysis

Figure 3.2: Research design overview

3.3 Participants

The current study involved 36 non-English majored freshmen aged about 18-20 years old, of both genders, and varied backgrounds and English proficiency at FPT university in Ho Chi Minh City. The participants were studying the English preparation course (Level 5). Moreover, they major in various fields of study, namely, software engineering, security assurance, digital art and design, artificial intelligence (AI), media studies, business administration, and hospitality management. All of them were expected to be at level B1 of the Common European Framework of Reference (CEFR).

3.4 Materials

Both pre-test and post-test consisted of six reading passages adapted from two books called IELTS practice test plus 3 - Practice test plus series by Margaret Matthews and Katy Salisbury published by Pearson Education in 2011 and IELTS 14 Academic Student's book by Cambridge University Press, 2019. The reading texts were adapted from ones in University Success by Lawrence Zwier and Maggie Vosters by Pearson Education Inc., 2017 for the treatment purpose. By reason of making decisions on how students have learnt what they were supposed to during the English preparation course, IELTS reading sections are used by the English department at FPT university to determine students' reading ability. Moreover, reading sections from IELTS is compatible with the course learning objectives that can tell a great deal about students' achievement and the adequacy of the treatment.

3.5 Methods of data collection

In this study, the researchers collected four kinds of data from three sources to find out the answers to two research questions. A pre-test and a post-test were used to determine whether reading strategies have an effect on non-English majored freshmen's reading performance to answer the first question. After that, a questionnaire is used to discover participants' perceptions of reading strategies use. Finally, semi-structured interviews are conducted to explain further the quantitative results

3.5.1 Pretest and posttest

The main purpose of a test is to "*convey how well testee knows or can do something." Its score is assumed to "define the level knowledge of the testee*." (Ur, 1996, p.33). The pretest aimed to measure the participants' achievement of reading performance. The posttest was administered to identify the level of students' reading performance after 6 weeks. Both the pretest and posttest used in the study include short answer questions, True/ False/ Not Given, Note, Summary or Flow-chart completion and Headings or Features matching with two reading passages from IELTS practice test plus 3 - Practice test plus series by Margaret Matthews and Katy Salisbury published by Pearson Education in 2011 and IELTS 14 Academic Student's book by Cambridge University Press, 2019. The reading passages in the pretest and posttest were diversified from technology, and history to culture and the same difficulty level guarantee their reliability and validity.

In terms of the reliability of IELTS reading module, this reading test is measured using Cronbach's alpha for internal consistency of the 40-items in it. The 2014 IELTS Annual Review result indicates that the scores achieve acceptable levels of reliability at 0.90. Due to the fact that the two books are mainly used for test preparation for IELTS, their reading passages is thought to be valid to measure accurately what is supposed to do - reading skill. Weir (1993) claims that "*a test should test what the writer wants it to test. It should be valid*" (p.19). It is obvious that the kinds of questions used in these tests are compatible with the purpose of the test which is meant to measure a testee's proficiency in reading comprehension.

Students have only 60 minutes to answer all the items in the test. The total point is 9 for the whole test. The pretest was administered to assess the participant's reading performance. The posttest aimed to determine to what extent reading strategies affect non-English majored freshmen's reading performance.

3.5.2 Questionnaire

Brown (2001) defines questionnaires as "*any written instruments that present respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting from among existing answers*." The questionnaires were used to figure out participants' perceptions about reading strategies use. Its procedure was carried out in a 15-minute break to avoid interfering with their study. Data from the questionnaire are analyzed by percentage. The researcher uses close-ended statements.

The questionnaire used in this research was adapted from the Survey of Reading Strategies (SORS) by Mokhtari and Sheorey (2002). The SORS measures three categories of reading strategies, namely, global reading strategies, cognitive strategies, and support strategies. They were based on the Metacognitive Awareness of Reading Strategies Inventory's (MARSI) factor analyses and theoretical considerations, originally developed by Mokhtari and Reichard (2002). A brief description of each category and the number of items within each one is as follows:

- Global Reading Strategies (GLOB) are those intentional, carefully planned techniques by which learners monitor or manage their reading, such as having a purpose in mind, previewing the text as to its length and organization or using typographical aids, tables, figures (13 items)

- Problem Solving Strategies (PROB) are the actions and procedures which learners use while working directly with the text. These are localized, focused techniques used when problems arise in understanding textual information such as adjusting one's speed of reading when the material becomes difficult or easy, guessing the meaning of unknown words from the context, and rereading the text to improve comprehension (8 items)

- Support Strategies (SUP) are basic support mechanisms intended to aid the reader in understanding the text such as using a dictionary, taking notes, underlining, or highlighting textual information (9 items)

As the research objective is to investigate participants' perceptions of reading strategies usage in English preparation courses in FPT University in Ho Chi Minh city, the questionnaire consists of two parts. One was for getting personal data such as their gender and the number of years they have learnt English. The second part was of 11 statements of the Global reading strategies category in accordance with the Likert scale, comprising the statements about prediction (items 1, 2, 3, 4), a preview of the text (items 5, 6, 7), text-structure awareness (8, 9), and inferencing (10, 11). The possible responses for each statement were ranked from 1 (never) to 5 (always). Participants were asked to read each statement and ticked the scale that was related to them, indicating the frequency with which they use the reading strategy implied in these statements.

3.5.3 Interview

Despite its obvious benefits, the questionnaire often yields superficial responses (Dörnyei, 2003). Thus, the researcher decided to employ the interview as the other data collection instrument so that it could offer insights into the participants' perceptions of reading strategies use at FPT University in Ho Chi Minh city and complement the data from the pre-post-tests and questionnaire. As Keith (2009) defines the interview as "*conversation with a purpose, professional conversation, and the goal standard of qualitative research*." There are three kinds of interviews: the structured interview, the open interview, and the semi-structured interview. According to Keith (2009), a structured interview is defined as "*a spoken questionnaire*" with pre-planned questions. When questionnaire use is not sensible or "*where the return rate of questionnaires*" is very low, the

researcher carries out the structured interview which goes with the interview schedule exactly and analyze the answers. Unlike the structured interview, the open interview is conducted to find out the interviewees' feelings, opinions and experiences at a deeper level without pre-designed questions. It is led by the interviewer and its direction is mainly formed by the interviewee. Moreover, a semi-structured interview is combined with a structured interview and the open one, which is based on pre-determined questions. The semi-structured format was selected because its predefined questions ensure critical information can be obtained within time constraints (Richards, 2009) while its freedom for digression allows the researcher to explore emerging themes (Dörnyei, 2007).

In the current study, 6 participants were randomly chosen from 36 students to take part in the interviews. Following the semi-structured format conventions, an interview guide was systematically prepared and piloted, incorporating all the recommended elements in Richards (2009) and Creswell (2012). Therefore, the interview guide (Appendix C) is divided into three parts equivalent to three stages of the interview (ice-breaking, discussion, and closing) with the discussion revolving around the second research question. Care was also taken to exclude all leading questions, ambiguous or loaded words (Dörnyei, 2007) and minimize the number of questions asked so that the most information could be learnt from the participants (Seidman, 2006). More importantly, respondents did the interview anonymously. The researcher needed to give a priority to the participant's privacy and confidentiality during the interview.

3.6 Data collection procedures

The data collection procedures of this study were conducted in six weeks with three different measurement tools, namely pretest, posttest, questionnaire and interview.

3.6.1 Pilot study

A pilot study was carried out to make sure the reliability of the pretest and posttest employed in the study three weeks in advance. Both tests were administered to 20 students at the same English level as those who participated in the current study. They were expected to do the pretest and posttest within 60 minutes for each. The result of the pilot study was analyzed for Cronbach's alpha coefficient α to measure the reliability of both.

Conducting pilot interviews helps the researcher to familiarize himself with the use of interview questions. Interview questions were designed following the theoretical background and the questionnaire. A number of planned questions were included in semi-structured interviews. In the very first week, they were also piloted by non-English majored freshmen who would not be the target participant of the current study.

3.6.2 Data collection

The data were collected over a 6-week period. The procedures of data collection were conducted in two phases. In the first phase, 36 freshmen were asked to take the same

computer-based pretest in class. They were not allowed to use dictionaries in any form during the test time. After that, 36 participants would work with the researcher three periods a week (90 minutes per period). There were 3 lessons of 1 hour and a half weekly. Participants would take the posttest which they finished within 60 minutes at the end of week 6. Eventually, the paper-based questionnaires were delivered to investigate participants' perceptions of reading strategies use. Six students would be asked to take part in the interviews that took place for about 5-7 minutes and in Vietnamese. In the second phase, six interviews' sessions were recorded by a cell phone, transcribed and translated into English for data analysis.

3.6.3 Data analysis

The data collection procedures of the current study were conducted in 6 weeks of the summer semester of the academic year of 2022-2023 with three different measurement tools such as pretest, posttest, questionnaire and interviews.

Since it had an explanatory sequential design, the researcher analyzes quantitative and qualitative data separately. This consists of two phases with the first quantitative data collection and analysis followed by the qualitative phase of the study (Creswell & Plano Clark, 2011). The researcher then combines two databases in the form of integration connecting the quantitative results to the qualitative data collection. In other words, the qualitative findings explain further the quantitative results. The pre-post-tests and 11 close-ended items from the questionnaire were analyzed quantitatively with IBM SPSS version 26 - Statistical Package for Social Sciences. In detail, for Research question 1, score gain from the pre-test and the post-test was computed via SPSS's descriptive analysis to compare the mean scores in each gain between the pre-test and the post-test.

As for the 11 close-ended items from the questionnaire, each statement contains 5 rating points ranging from 1 - "Never" to 5 - "Always" (Adapting from Mokhtari and Sheorey, 2002). Each item was scored due to assigned points, then grouped into four reading strategies, and analyzed with frequencies and percentages from descriptive analysis in SPSS. For Research question 2, the researcher transcribed the interviews in their entirety to avoid "*premature judgments*" related to selective transcription (Seidman, 2006, p.115). As the interviews were conducted in Vietnamese, they were transcribed and translated according to Halai's (2007) recommendations focusing on conveying the essence in an appropriate language. Thematic analysis was conducted to look for themes in the interviews. The researcher started identifying text segments and assigning them a code word or phrase. Or codes are labels describing text segments (Creswell, 2013). After coding, similar codes were grouped and redundant ones were reduced. Some themes were identified by examining codes that the participants discussed most frequently or ones the researcher expected while studying the phenomenon.

3.7 Reliability and validity

Reliability and validity are regarded as the two most important qualities that test scores can have. "*A scale or test is reliable to the extent that repeat measurements made by it under constant conditions will give the same result*" (Moser & Kalton, 1989, p.353). It is obvious that reliability refers to the consistency of measurement (Bachman & Palmer, 1996). In other words, the extent to which test taker's scores are the same even if the test is administered on different occasions of testing. The greater the degree of consistency and stability in an instrument, the greater its reliability.

Huck (2007) argues that testing for reliability plays a vital role to determine the measuring instrument's consistency. The Cronbach Alpha coefficient is commonly used to measure internal consistency. It is also considered as the most suitable measure of reliability when using the Likert scales (Whitley, 2002, Robinson, 2009). The minimum internal consistency coefficient is.70. With regard to validity, a test is thought to be valid if it measures accurately what it is supposed to measure (Hughes, 1989). In a simpler term, "*it is defined as the degree to which the researcher has measured what he has set out to measure*" (Smith, 1991, p.106). In addition, the purpose of the pilot test's results was to determine face validity which ensures that the test can measure what it is expected to do so.

4. Results and Discussion

4.1 Data analysis and interpretation

In the pre-post-test, students answered 40 questions. They received one mark for each correct answer, with the total number of marks determining their score. Regarding students' reading performance before receiving the intervention in Figure 4.1, the level of performance ranged from weak to fair categories. It is noticeable that nearly half of the students had an average score. Meanwhile, the remaining students belong to fair and weak categories, with the figures being 22.2% and 33.3% respectively. However, with the result of the post-test, students' reading performance improved, varying between good and average categories. Those having a fair score accounted for 66.7%. The second largest category was the good, at 27,8%. The proportion of the average category saw a significant decline, with the figure being 5.5%.

4.1.1.3 Comparing mean scores

Descriptive Statistics were run in order to measure the mean scores of the participants' reading performance before and after the intervention. The results were displayed in Table 4.1.

Table 4.1: Descriptive Statistics of the Pre-test

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pre	36	3.5	6.5	5.236	.8741
Valid N (listwise)	36				

As Table 4.1 presented, the lowest scores of participants' reading performance in the reading pre-test were 3.5 (Min= 3.5). Meanwhile, the highest scores of participants' reading performance in the reading pre-test were 6.5 (Max= 6.5). Additionally, the table indicated that the mean scores of participants' reading performance were 5.236 (SD= 8.741).

Table 4.2: Descriptive Statistics of the Post-test

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Post	36	5.5	8.5	6.778	.7411
Valid N (listwise)	36				

The data presented in Table 4.2 revealed that the highest scores of participants' reading performance in the reading post-test were 8.5 (Max= 8.5) while the lowest ones were 5.5 (Min= 5.5). The table, moreover, demonstrated that the mean scores of participants' reading performance were 6.778 (SD= 7.411).

A Paired Samples T-test was conducted to determine whether there is any improvement in the reading performance of participants after the 6-week treatment. On average, participants performed better in the post-test (M= 6.778, SD= 7.411) than in the pre-test (M= 5.236, SD= 8.741). This improvement, 1.542, was statistically significant, p= 0.00 < 0.05. These results revealed that reading strategies enhanced the participants' reading performance

4.1.2 Data analysis of the questionnaire
4.1.2.1 Checking the reliability of the questionnaire

The Cronbach's Alpha reliability coefficient of the observed variables all have Corrected item-total Correlation which is above 0.3 and the Cronbach's Alpha coefficient of scales is greater than 0.7. This shows that the internal reliability of the scales is ensured, which can serve as the basis for the following analysis steps.

Table 4.3: Questionnaire items total statistics

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q1	44.94	21.483	.569	.651	.888
Q2	44.97	22.828	.336	.665	.904
Q3	45.06	20.283	.735	.874	.877
Q4	44.94	21.597	.551	.791	.890
Q5	44.69	23.704	.451	.499	.894
Q6	44.92	20.479	.844	.894	.871
Q7	44.97	20.713	.745	.657	.877
Q8	44.83	21.286	.764	.949	.877
Q9	44.94	20.283	.819	.910	.872
Q10	44.89	21.473	.720	.945	.879
Q11	45.00	23.886	.362	.508	.897

4.1.2.2 Questionnaire interpretation

This section contains all the statistical results from closed-ended questionnaire statements asking students about their perceptions of reading strategies use in terms of four reading strategies - prediction, preview the text, text-structure awareness and inferencing.

Table 4.4: Prediction

Descriptive Statistics					
	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
S1	36	3	5	4.47	.736
S2	36	3	5	4.44	.773
S3	36	3	5	4.36	.762
S4	36	3	5	4.47	.736
Valid N (listwise)	36				

Overall, the participants in Table 4.4 reported a high degree of frequency in using prediction. The mean scores of statement 1 and statement 4 were 4.47 (SD= 7.36). Moreover, the mean scores of statement 2 and statement 3 were 4.44 (SD= 7.73) and 4.36 (SD= 7.62) respectively.

4.2 Results from statements

Statement 1: I have a purpose in mind when I read.

It indicated that the majority of students have a purpose in mind when they read. 'Always' was chosen by 22 students, making up 61.1% of the total. There were 25% (9 students) who usually had this. Only 13.9 % (5 students) chose 'Sometimes'.

Statement 2: I think about what I know to help me understand what I read.

To explore students' perceptions of their background knowledge or existing knowledge may have an effect on a prediction about what the text might be, leading to having the reading purpose in their mind and enabling them to understand the text better, the statement 'I think about what I know to help me understand what I read' was given to students. Only 22.2% (8 students) said they usually related to their existing knowledge to help them understand what they read. Thus, is followed by 'Sometimes', at 16.7% (6 students). A great majority of students always think about their background knowledge to increase their understanding of the text, 61.1% (22 students).

Statement 3: I try to guess what the content of the text is about when I read.

The data presented in Table 4.4 revealed that 52.8 % (19 students) chose 'Always' and 30.6% (11 students) chose 'Usually', a total of 83,4%. Only 16.7 (6 students) sometimes try to guess the content of the text when reading. This suggests that most of the students have an educated guess based on their background knowledge.

Statement 4: I check to see if my guesses about the texts are right or wrong.
Another aspect of the students' perception of predictions is shown in Table 4. 12. More than half of the students (22 students) always check their predictions to see whether they are right or wrong. Only 25% (9 students) usually check their predictions while 5 of them sometimes do this, at 13.9%. The result is in line with the one shown in Table 4.11 After making educated guesses about the text, most of them check to determine if their predictions are correct.

Table 4.5: Preview the text

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
S5	36	4	5	4.72	.454
S6	36	3	5	4.50	.655
S7	36	3	5	4.44	.695
Valid N (listwise)	36				

Given the preview of the text, the respondents in Table 4.5 expressed a substantial-high degree of frequency in their use. The mean score of statement 5 was 4.72 (SD= 4.54) and that of statement 6 was 4.50 (SD= 6.55). In addition, the mean score of statement 7 was 4.44 (SD= 6.95).

Statement 5: I take an overall view of the text to see what it is about before reading it.
Table 4.5 demonstrate students' perception concerning the statement 'I take an overall view of the text to see what it is about before reading it'. There were 72.2% (26 students) who always do this while the percentage of students who usually do the same is 27.8% (10 students).

Statement 6: I use tables, figures, and pictures in the text to increase my understanding.
It can be inferred from Table 4.5 that students become aware of the importance of graphics which can tell them about the reading text's content and improve their understanding. The highest percentage of students who gave 'Always' was 58.3%. 33.3% of them (12 students) reported that they usually use graphical clues to increase their understanding. Only 8.3% (3 students) stated they sometimes take advantage of graphics to enhance their comprehension

Statement 7: When reading, I decide what to read closely and what to ignore.
As seen in Table 4.6 indicates that none of the surveyed students answer 'Never' and 'Only occasionally' while 11.1% (4 students) stated that they sometimes choose what to read closely and what they should ignore. 55.6% (20 students) answered 'Always' and 33.3% (12 students) chose 'Usually'. On the whole, the students' level of awareness of what is important information to read carefully while previewing the reading passage was high.

Table 4.6: Text-structure awareness

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
S8	36	3	5	4.58	.604
S9	36	3	5	4.47	.696
Valid N (listwise)	36				

In terms of text-structure awareness, the respondents' use in Table 4.6 was prominent, which was 4.58 (SD= 6.04) for statement 8 and 4.47 (SD= 6.96) for statement 9 respectively.

Statement 8: I review the text first by noting its characteristics like length and organization.

Regarding text-structure awareness, there were 63.9% of surveyed students always review the text's characteristics to identify its structure. 'Usually' option has the second highest percentage of answers which students chose, 30.6% (11 students). On the other hand, only 2 students reported that they sometimes did this, accounting for 5.6%.

Statement 9: I use typographical features like boldface and italics to identify key information.

Table 4.8 indicates that the majority of students examine typographical features such as headings, subheadings, and sentence-initial phrases to identify main ideas and lead to recognising the specific kind of text structure. 58.3% (21 students) of them answered 'Always' and Usually was chosen by 30.6% (11 students). Only 4 students reported that they sometimes use these features.

Table 4.9: Inferencing

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
S10	36	3	5	4.53	.609
S11	36	4	5	4.42	.500
Valid N (listwise)	36				

Generally, the respondents in Table 4.9 had a very positive perception of inferencing use. The mean scores of statement 10 and statement 11 were 4.53 (SD= 6.09) and 4.42 (SD= 5.00)

Statement 10: I use context clues to help me better understand what I am reading.

As shown in the above table, the more frequently students use context clues, the better they understand what they are reading. There were 58.3% (21 students) who chose 'Always' option and 36.1% (13 students) who answered 'Usually'. However, the remaining two students reported 'Sometimes'

Statement 11: I check my understanding when I come across new information.
Based on the results in Table 4.9, the number of students who usually check their understanding was 58.3%, compared to 41.7% of those who always do the same. None of them chose 'Never', 'Only occasionally', and 'Sometimes'

4.1.3 Interview
To provide a richer understanding of students' perceptions of reading strategies uses at FPT University, eight follow-up interviews were carried out. Each student was asked four questions:

Question 1: Students' opinions about reading strategies
The first question for students was about their general opinions of reading strategies. Most of them seemed positive about reading strategies. The most common point mentioned amongst them was that applying these reading strategies can help understand the reading text better; that is to say, reading strategies are what learners act to construct meaning (Garner, 1987) or plans to "*solve problems encountered in constructing meaning*" (Duffy, 1993, p.232)

> *"I can improve my comprehension; understand more information in the reading passage."* (S1)

> *"I find it useful to improve my reading performance, read faster and understand the text more clearly."* (S2)

> *"I find reading strategies important to find out what the reading is about."* (S3)

> *"I find reading strategies useful to help me better understand the reading texts and answer the reading questions correctly. Using reading strategies enables me to take in information faster"* (S4)

> *"Reading strategies help me find the main idea of the reading easier and faster."* (S6)

Overall, students find reading strategies useful in supporting their better understanding of the reading. S2 also indicated that the use of reading strategies enables him to read faster. Similarly, S5 said that reading strategies help find the answers to reading questions faster.

Question 2: The effects of reading strategies on reading performance
The second question is about the effects of reading strategies on students' reading performance. Most of them believed that reading strategies affect their reading performance positively. To be more specific, interviewed students claimed that reading strategies can help them find the answer to reading questions.

"Realizing the text structure of a reading not only helps him recognize 'the connection between different kinds of information within a reading text but also find the exact information needed while doing exercises or tests". (S1)

"Reading strategies help me better understand the reading, easy to find the answers for reading questions." (S3)

"Using reading strategies helps me completely understand the reading questions and answer them correctly." (S4)

"...When I preview the text and become aware of the way the text is structured like problem-solution, I can take note of this information related to the problem and the other about solution, then deal with the reading questions asking about problem or solution." (S6)

Furthermore, other effects of reading strategies were"

"…help me to catch exactly what the text is about." (S1)

"…read faster and realize how the text is organized faster. After reading, I can recall the main idea." (S2)

"Predicting what the reading is about to get me focused on the main idea of the reading. In general, it improves my reading performance" (S5)

Question 3: The frequency of reading strategies use

When students were asked about the frequency of reading strategies used which might lead to a better comprehension of the reading, they all confirmed that the more frequently they use reading strategies, the better they understand the reading. As reported by S1, the more frequently he uses reading strategies such as recognizing the text structure which results in recognizing the specific text structure of reading, the easier he can comprehend the content of the reading. Similarly, S3 and S4 also showed their agreement that the more frequently they use them, the better they are at reading.

However, students who suggested using reading strategies on a regular basis might develop a habit of using them or get used to using them.

"When I normally use reading strategies, I develop a habit of applying them when reading, which helps me find the answers faster and more correctly." (S5)

"If I use reading strategies on a regular basis, I will get used to them" (S6)

Question 4: Student's opinions on using reading strategies in combination

It is obvious that all students had a positive attitude towards using reading strategies in combination. They felt that rather than adopting one reading strategy individually, they should use one and combine it with others.

"I would say that in case I used reading strategies in combination, and I did them in the right order. I believed reading strategies stills help me understand the reading passage even when I read something I have no idea about it" (S1)

"Yes. Personally, I tried to use a single reading strategy individually. Using them in combination can be more effective." (S2)

It is noticeable that the experience of S6 indicated that the combination of using reading strategies has a specific effect on reading performance. As suggested by Anderson (1991), successful readers not only use a variety of strategies but also use them in combination.

Using a reading strategy makes reading lessons more interesting. This also helps me improve my reading comprehension. For example, predicting getting engaged in the reading, previewing the text helps me know what the text is about, and recognizing the text structure helps me understand the main points of the reading.

4.2 Discussion of findings
4.2.1 Research question 1

The answer to the first research question is from the results of the pre-test and post-test. The main purpose of the tests is to make a comparison of students' performance before and after receiving reading strategy instruction. Overall, the data analysis presented in Tables 4.1, 4.2 and 4.3 indicated that students' reading performance after the intervention was improved. The mean score of the post-test was above 1 score higher than that of the pre-test. The test score was divided into four levels of scales: Weak, average, fair and good. More specifically, the score distribution in the pre-test ranged from weak to fair. After receiving reading strategy instruction, the score range in the post-test was between average and good. These results revealed that reading strategies were effective to enhance non-English majored freshmen's reading performance.

Interview responses to questions 1 and 2 also validated the results, which demonstrated their opinions and beliefs regarding reading strategies. It seemed that they can benefit from using reading strategies such as finding the answers to questions correctly, getting the gist of the reading, recognizing the text structure and recalling the main points from the reading. The finding was in line with the results of Salataci & Akyel's (2002), Zhang's (2008) and Aghaie and Zhang's (2012) studies which demonstrated that reading strategy instruction could improve EFL students' reading comprehension in the reading test.

4.2.2 Research question 2

Taking students' perceptions of reading strategies use into account, the data from the questionnaire showed that they used reading strategies with high frequency. More importantly, the majority of students respond to the choice in questionnaire items varying from 'always' to 'sometimes'. None of them reported the two remaining options, namely 'never' and 'only occasionally'. Also, this was confirmed in their interview responses to question 3. In fact, the more frequently they use reading strategies might result in a habit of adopting reading strategies during the reading process and better comprehension. This finding also showed that Vietnamese students fell into the high strategy user group which was different from the result of Minh and Nga's (2019) study which discovered that Vietnamese students were moderate strategy users, that is, they occasionally employed reading strategies when doing reading comprehension tests. As a result, they use reading strategies more frequently to overcome breakdowns when reading and read better.

It is important to note that when responding to these items, students also showed their knowledge of a specific strategy. Students knew how, when and why to use strategies to make the learning process and language use tasks easier. MacIntyre & Noels (1996) suggested that strategy-based instruction can bring out benefits for students when understand strategies themselves and believe that they are effective and easy to adopt.

5. Conclusions and Implications

5.1 Conclusions

The present study attempts to investigate the effects of reading strategies on non-English majored freshmen's reading performance as well as their perceptions of reading strategies use. To achieve the objectives of the study, the researcher conducted practical action research to improve student's learning in his own classroom and the teacher-researchers professional development. Three research tools were used to gather quantitative and qualitative data: the pre-post-tests, questionnaires and interviews. From the analysis of the data collected, it is concluded that, firstly, reading strategies influence non-English majored freshmen's reading performance in a positive way, namely, finding the answer correctly, getting the gist of the reading, recognizing the text structure to identify the main idea and supporting details, and reading faster. In other words, reading strategies can improve their reading comprehension to a certain extent.

Secondly, the data analysis from the questionnaire revealed that non-English majored freshmen were high strategy users. More specifically, students perceived that they not only used reading strategies in a high frequency ranging from 'always' to 'sometimes', but became aware of how to use a specific reading strategy. Finally, interview responses also showed that students expressed their positive opinions about reading strategies appreciated their effectiveness for different reading purposes and used them in combination.

5.2 Pedagogical implications

The findings from the present study result in pedagogical implications for reading instruction in Vietnamese university context as well as similar contexts as the research setting.

From the pedagogical point of view, this study suggests how to incorporate reading strategies into a reading classroom in accordance with CALLA model (Chamot et al., 1999; Chamot, 2005) and using the think-aloud technique to demonstrate a new reading strategy. In order to ensure effective strategy instruction, EFL university teachers had better be aware that strategies should be taught in a direct way to students by modeling and throughout the text comprehension teaching process. As students, they need to perceive that learning strategies require persistent efforts and continual recycling. (Baker, 2002; Pressley and Block, 2002).

To sum up, this study contributes to teacher's and student's awareness of the significance of reading strategy instruction, especially monitoring comprehension strategies. EFL teachers should understand the importance of these reading strategies in improving student's reading performance, pay better attention to their instructions and take advantage of them in reading classes.

5.3 Limitations and further research suggestions

Even though the present study achieved its aims, some limitations of the research are evident, from which particular recommendations for further research can be drawn out. Firstly, due to the relatively small sample size of the population as 36 non-English majored freshmen participated, the result of this action research could be hardly generalized. Consequently, further future research should be conducted on a larger number of participants to make sure that the results could be generalized.

Secondly, the current study was carried out in 6 weeks with one cycle of action research in accordance with the standard duration of an English preparation course at FPT University in Ho Chi Minh City, Vietnam. Therefore, in order to investigate the effects of reading strategies on non-English majored freshmen's reading performance more thoroughly, future research should do two or three cycles in a longer duration, which might be ideal.

Thirdly, as the target population in the present study was a non-English majored freshman in a university in one of the biggest cities in Vietnam. Future studies on the topic may be carried out with high school students both in urban and rural areas to gain a more painted picture of the topic.

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Conflict of Interest Statement

Both authors strongly agreed on the publication of this paper and there was no contention or rivalry during finishing the work. In other words, the authors declare no conflicts of interests in this article. Both authors are fully and equally responsible for the benefits and harms after this article is published. The authors, moreover, declare that the material presented by us in this paper is our original work, and does not contain any materials taken from other copyrighted sources. Wherever such materials have been included, they have been clearly indented or/and identified by quotation marks and due and proper acknowledgements given by citing the source at appropriate places.

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