STRATEGIES IN LEARNING ENGLISH VOCABULARY AMONG TWELFTH GRADERS IN XUAN DINH HIGH SCHOOL

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ABSTRACT

Vocabulary learning is an immense journey which leaves its trademarks in all of the four skills. It places an upheaval importance in every EFL learner's process of acquiring it. The aim of this study was to identify the vocabulary learning strategies in terms of frequency patterns and the differences between Social Science and Natural Science students. 151 Xuan Dinh non-majoring in English students participated in the research. The study utilized quantitative method with questionnaires as the representative. Descriptive statistics, including means and standard deviations and response percentages were analyzed to compile the responses to the discovery and consolidation strategies. The findings reveal that consolidation sub-group's cognitive and discovery sub-group's determination were more widely used among students than other strategies and Social Science students tended to use discovery group more than Natural Science pupils. Based on the findings of the study, understanding students' strategy use may enable EFL teachers to incorporate vocabulary learning strategy training in English lessons in Xuan Dinh high school and improve students' vocabulary learning strategies in accordance to their majors.

Keywords: Vocabulary learning strategies; EFL learners; frequency; Xuan Dinh high school

CHAPTER 1: INTRODUCTION

The opening chapter gives information about the overview of the research and is categorized into six main parts (1) rationale for the study, (2) research aims and research questions, (3) significance of the study, (4) scope of the study, (5) research design and (6) organization.

1.1 Rationale for the study

There is no denying the importance of English as a common means of communication across the world, or its strength as the first foreign language of choice for most non-Anglophone countries (Enever & Moon & Raman, 2009). Learning English has become fundamental in our lives. The reality that we all need to learn vocabulary to apply it in all four skills of learning English: listening, reading, speaking and writing is irreplaceable. Vocabulary learning is an essential part in foreign language learning as the meanings of new words are very often emphasized, whether in books or in classrooms (Alqahtani, 2015). For listening, we will mishear, misunderstand the context of a conversation without an adequate number of conventional words as background knowledge. In terms of reading, the general information and the meaning of underlying context will become uncertain, misleading hence limiting readers from understanding the meaningful material. For speaking, the conversation will become essentially confusing if the communicators cannot understand each other through rephrasing, causing confusion and complexity, affecting the quality of the speaking process. When it comes to writing, expressions are also incomprehensible or indigent without suitable words for each context so unsuitable words will expose the lack of appropriate words for context.

Vocabulary learning strategies work, like well manufactured and easily dispensed pills and potions for the relevant students. The research under review intends to investigate the types of vocabulary learning strategies which the 12th grade students reported to deal with their vocabulary learning. The research group decided to choose Xuan Dinh high school in Hanoi as the setting of the present study. Established since 1960, Xuan Dinh high school has gained enormous reputation of patriotism and hard-working traditions. That a lot of a lot of the school's alumni became renowned figures in many areas of Vietnamese society makes this school an outstanding one. Therefore, the researchers are honored to conduct the study in such a prestige and prominent highschool in Hanoi. Hopefully the results of this study could be of benefit to a large population.

1.2 Research aims and research questions

The research group aimed at discovering the strategies 12th graders studying in Xuan Dinh school are using in the process of learning English vocabulary. In general, the research was conducted with the use of questionnaires and then distributed to Xuan Dinh's students to discover their current utilization of different vocabulary learning strategies. Based on the data analysis, research group composed discussion and some suggestions towards the strategies.

To systematize the research, the objectives are given below:

1. What vocabulary learning strategies do 12th graders in Xuan Dinh high school report using?
2. What are the most and least frequently used strategies reported by students?
3. What are the differences between the strategies used by NS students and SS students?

1.3 Significance of the study

The research group discovered the strategies that 12th graders in Xuan Dinh high school are using in the process of learning vocabulary. To be specific, the results of this research can be beneficial in terms of discovering the most and least popular English vocabulary learning strategies and shows the differences in the strategies used between NS and SS students. This discovery can pave the way to the utilization of strategies among Xuan Dinh students and gives insights to the teachers of how to renovate the approaches towards students exploration in English vocabulary strategies.

1.4 Scope of the study

The research focused on twelfth graders non-majoring in English strategies in the process of learning vocabulary in Xuan Dinh high school. The procedure included surveying 151 twelfth-graders in classes non-specialised in English. Specifically, the research group chose students from 4 classes including 1 NS class and 3 SS classes in which their core subjects are: literature, mathematics, physics, chemistry and English. The students have been acquiring vocabulary knowledge from similar material: experimental textbooks and also have the assimilated foundation at the beginning of the learning course.

1.5 Research design

The research group decided to utilise quantitative method. Questionnaires is the representative to identify the vocabulary learning strategies that Xuan Dinh high school students are reported using. 27 Likert-scale questionnaire items was an adaptation from Riankamol's (2008) 25-item Vocabulary Learning Strategy Questionnaire and adapted the

taxonomy by Schmitt (1997). With the projected scope and aim, the research group decided on choosing this method for the sake of the research.

1.6 Organisation

The following chapters are included correspondingly in this research paper.

Chapter 2: Literature review - provides the key term's definition and the review of related studies.

Chapter 3: Methodology - describes the application of a specific process to collect data

Chapter 4: Findings and Discussion - presents and discusses the findings

Chapter 5: Conclusion - summarizes the findings, implications and limitations of the study and recommendations for further studies.

Following these chapters are References and Appendices.

CHAPTER 2: LITERATURE REVIEW

This chapter provides information about the key terms, accordance issues and related research on different approaches to vocabulary learning strategies.

2.1 Vocabulary

In order to investigate the obstacles faced by students in the process of learning English vocabulary, it is fundamental to understand the term "vocabulary".

Vocabulary is generically defined as the knowledge of words and word meanings. More specifically, we use vocabulary to refer to the kind of words that students must know to read increasingly demanding text with comprehension (Kamil & Hiebert, 2005). It is something that expands and deepens over time.

Vocabulary is generally considered as the basic communication tool, and often labelled as the most problematic area by language teachers (Celik & Toptas, 2010). Even though learners master all grammatical areas in the language, the communication stops when they do not know the necessary word. Strategies used for vocabulary learning have been examined by many researchers, scholars, linguists and language teachers for over the past decades (Levenston, 1979).

2.2 Types of Vocabulary

According to Coxhead (2016), categorizing academic vocabulary can be considered as "a layer of vocabulary that occurs across a range of academic subject areas", meaning that these words will be encountered by students regardless of their particular area of their study. Academic vocabulary can also be acknowledged as a subgroup of a much wider and more general lexicon and overlaps with the term 'technical vocabulary' which refers to the specialized words and collocations related to specific fields of study, such as biology, engineering and computer science (Coxhead, 2000; Nation, 2013). Despite existing overlap between academic and technical, a way of differentiating the two domains is to reflect on "the degree of relatedness of a particular word to a subject matter of the field" (Nation, 2013). As a rule of thumb, if a particular word in the context of a certain discipline is clue to understanding a particular concept in a text, then it is technical vocabulary (Beck, McKeown, & Kucan, 2013).

2.3 The importance of learning vocabulary

Learning vocabulary in any language is certainly very important. Learning grammar is definitely also important, however, you cannot simply speak without any knowledge of vocabulary items. Grammar is rather a system of rules that connects these items in meaningful units. If you need to transfer some meaning into a conversation, e.g. when you want to find a train station in a foreign country, you do not need to know any grammar rules but words and gestures. Of course, it does not mean that students should only pay attention to learning and using vocabulary. For the correct and precise usage of language you have to manage all elements of it. On the other hand, emphasis was not always put on vocabulary learning and acquisition. There have been several teaching approaches in history, which concentrated mainly on grammatical structures. Direct Method and audiolingualism for instance. (Thornbury 14) The change of this attitude came later as Thornbury mentions. "The advent of the communicative approach in the 1970s set the stage for a major re-think of the role of vocabulary."(14). Since that time vocabulary has been targeted more than before.

2.4 Vocabulary learning strategies

2.4.1 Vocabulary learning strategies

Vocabulary learning strategies have been defined differently by several scholars. Nation (2001), for example, defines vocabulary learning strategies as a part of language learning strategies which in turn are a part of general language learning strategies" (p.217). In the same vein, Schmitt (1997), for example, adopts *Rubin's (1987)* definition

of learning strategies, which states that learning is the process of obtaining, storing, retrieving and using information (p.29). To elaborate on this, he stated that "vocabulary learning strategies could be any which affect this rather broadly defined process" (p.203). Schmitt's adoption of Rubin's definition of language learning strategies as a standard for vocabulary strategies is an acknowledgement that vocabulary strategies are a subclass of learning strategies.

According to Cameron (2001), vocabulary strategies are the actions that learners take to help them understand and remember vocabulary (p. 92). As supported by Catalan (2003) defines vocabulary strategies as "knowledge about the mechanism (e.g., processes, strategies) used in order to learn vocabulary as well as steps or actions taken by students to find out the meaning of unknown words, retain them in long-term memory, recall them at will and use them in oral or written mode" (p. 56). Takač (2008), however, considers vocabulary strategies as "activities, behaviors, steps, or techniques used by learners (deliberately) to facilitate learning.

It can be clearly observed from the aforementioned definitions that there is no unifying definition of vocabulary strategies. To end this, Nation (2013) notes that there are a variety of vocabulary learning strategies, which L2 learners can use to aid and facilitate vocabulary learning. Therefore, these learners are required to regulate their own learning by choosing strategies which help them in learning new vocabulary.

2.4.2 Taxonomies of vocabulary learning strategies

According to Cook and Mayer (1983) and Nation (1990), vocabulary strategies could be classified into two main groups: discovery strategies and consolidation strategies. The former is about discovering new word meanings and the latter is for remembering and retaining new word meanings. Sanaoui (1995) also identified two distinct approaches to vocabulary learning: a structured and an unstructured approach. However, both Sanaoui's and Mayer and Nation's classifications are not profound enough. Another researcher, Stoffer (1995) developed a more reliable and valid categorization of vocabulary learning strategies, the Vocabulary Learning Strategy Inventory (VOLSI), consists of 53 items, which are classified into 9 groups based on the results of factor analysis:

1. Strategies that involve authentic language use;

2. Strategies that involve creative learning activities;

3. Strategies of self-motivation;

4. Strategies for creating mental linkages;

5. Memory strategies;

6. Visual/auditory strategies;

7. Strategies that involve physical action;

8. Strategies used to overcome anxiety; and

9. Strategies used to organize words (p. 119).

One of the most recent and comprehensive classifications of vocabulary learning strategies is Schmitt's taxonomy, which consists of 58 strategies divided into five groups. Schmitt's taxonomy of vocabulary learning strategies were based on Oxford's classification system and Mayer & Nation's Discovery/Consolidation distinction. He adopted four of Oxford's six strategy groups which are most useful for his purpose (Schmitt 1997:205).

1. Social strategies (SOC) —use interaction with other people to improve language learning.

2. Memory strategies (MEM) —relate new material to existing knowledge.

3. Cognitive strategies (COG) —exhibit the common function of manipulation or transformation of the target language by the learner. They are similar to memory strategies, but are not focused specifically on mental processing.

4. Metacognitive strategies (MET) —involve a conscious overview of the learning process and making decisions about planning, monitoring, or evaluating the best ways to study.

In addition, Schmitt created a new category called Determination Strategies (DET). The reason is that in Oxford's taxonomy —there is no category which adequately describes the kind of strategies used by an individual when faced with discovering a new word's meaning without recourse to another person's expertise (Schmitt 1997:205). Altogether, there are five strategy categories containing 58 strategy items in Schmitt's taxonomy of vocabulary learning strategies.

2.5 Research on Vocabulary Learning Strategies

Lu and Liu (2011) constructed a research on Affection factor and Strategy utilization with the particular participants: Chinese undergraduate students under EFL context and narrowed down on first year non-majoring in English pupils from 3 different universities. Their backgrounds are various including diverse majors such as Law, Engineering, Mechanics and Economics and Management. Obtaining the same participants, Tsai and Chang (2009) led a research on Chinese freshmen in Nankai University of Technology to investigate their vocabulary learning strategies as in EFL context. Meanwhile, Zou & Zhou (2017) targeted students in one particular university:

Leshan Normal University in Sichuan China. Their major varied in fields: Computer, Accounting, Political Science, Law, however, they are also not specialized in English. Although the three research were conducted on subjects with high similarities in the setting: being first-year students of Chinese universities with majors not including English, they differed in the research aim: while Lu & Liu (2011) discussed the anxiety issues and linked it with vocabulary use among freshmen; Tsai & Chang (2009) compared the utilisation among male and female students, departments and proficiency in English then Zou & Zhou (2017) compared between the majorities of Han students and the minorities of other ethnics like Yi, Tibetan, Mongolian students. These different aims had led to further differences in their research path.

Ye & Wang (2004) highlighted the vocabulary strategies used by senior high school students in Taiwan and targeted on finding the frequency and differentiation amongst ranked students in utilizing different groups of strategies. Their results are summarized as follows: cognitive and determination strategies were used the most whilst meta-cognitive and social strategies were scarcely applied; furthermore, there was a significant difference in the frequencies of overall strategy use between good and poor learners. This implies that good learners tended to use overall strategies more often than poor learners did. Conducting research on the similar participants-to be more specific, secondary schoolers, Gao and Liu and Zhu (2013) shifted the setting onto Mainland China to testify English vocabulary usage. Although focusing on the same subject, however, the setting categorized the two research had led to the differences in the results of the two research.

In terms of frequency usage of vocabulary learning strategies by EFL university students, foreseeably similar results are observed as well. Tsai and Chang (2009) identified English as a Foreign Language vocabulary learning strategies of English and non-English major freshmen students in Taiwan. The results of their study suggest that strategies such as 'guessing meanings', 'speaking words out loud' and 'looking up the dictionary' are most used strategies. These findings were in accordance with the study result by Easterbrook (2013), who conducted a research on vocabulary learning strategies in a Chinese context, also found that students have a tendency to acquire English vocabulary by practicing these strategies.

Le (2018) conducted a survey question about the strategies that EFL university students use for academic vocabulary learning and whether there are differences in strategies for learning general vocabulary and academic vocabulary. Her survey's results

illustrate that the cluster of meta-cognitive group reaches the lowest mean score among all the six groups of surveyed strategies. Additionally, her findings indicates that learners depended more on external factors in learning academic words than internal factors related to cognitive strategies. In accordance with Le (2018), Lu and Liu (2011) examined foreign language anxiety and strategy use in relation to their interactive effect on the students' performance in English simultaneously with Chinese university EFL learners of similar backgrounds. However, their participants reported a medium use of the cognitive strategies of receiving and sending messages and analyzing and reasoning, a medium use of all the categories of metacognitive strategies. Tsai & Cheng (2009) noted that the most frequently used strategy is cognitive and metacognitive. The disagreement between the used strategies by Le (2018)'s participants and Tsai (2009)'s implies the difference in vocabulary learning strategies between Vietnamese, Chinese and Taiwanese EFL university students.

When conducting research about vocabulary learning strategies, out of the two research methods, many researchers have prefered to choose and apply quantitative method over qualitative method. To be more specific, data was collected using questionnaires in both online and offline survey. In their research examining on EFL Vocabulary learning strategies of students at the University of Technology of Taiwan, Tsai and Chang (2009) distributed an English vocabulary learning questionnaire to 23 freshmen classes, seven hundred and twenty-eight questionnaires were collected with 675 valid copies. The same data collection method was utilised by Le (2018), adapting the taxonomy by Schmitt (2000) and Bramki and Williams (1984) and Chung and Nation (2003). The strategies included 6 clusters: Determination, social, memory, cognitive, metacognitive, and device-assisted strategies. The questionnaire contains 35 items for all the strategy groups. Along with quantitative research method, qualitative method including semi-structured interviews and interviews have also been used to gain in-depth understanding and analysis of the collected data. In Saengpakdeejit (2014) investigation on how Thai university students deal with vocabulary problems, the interview recordings from the semi-structured interview were transcribed verbatim and then translated from Thai into English for the purpose of data analysis. The translated data was then validated and analyzed.

Differences in vocabulary learning strategies used by male and female were illustrated in many pieces of research of this topic. According to Marttinen (2008), females and males adopted different strategies, while females used memory strategies

more often than males, males used metacognitive strategies more often than females. Malik and Akhtar (2015) highlighted the difference in the use of vocabulary learning strategies on the basis of gender, female students used metacognitive strategies more than their counterparts, the male students. Omaar (2016) studied EFL vocabulary learning strategies among Tuareg people, he noticed that there were statistically significant differences between male and female students associated with (1) the overall use of the social strategies and (2) in using two individual strategies in the determination strategies category as well as using one individual strategy in memory strategies category. The analysis of the independent samples t-test revealed that female participants had statistically significant mean scores in (1) using a bilingual dictionary (2) word lists to discover the meanings of new English words as well as (3) saying a new word aloud when studying to consolidate the meanings of English vocabulary.

Aforementioned, the research centralized on the strategies used in learning English vocabulary. The participants of the research varied in size and patterns, however, the research group noticed the similar context behind Yeh and Wang (2004) and Gao and Liu and Zhu (2013) when they conducted their research on Chinese adolescent learners: studying in Mainland China and Taiwan. These particular subjects shared similar patterns with Vietnamese learners that we are investigating on: they are all Asian learners, Vietnamese curriculum adapted significant proportion from those of Chinese and classroom operation as well as testing system are of the same denominator. It is noticeable that a colossal number of researchers had focused and investigated on Chinese learners like Gu and Johnson (1996) researched on Chinese EFL learners' strategies in vocabulary learning or Yang (1999) focused on Taiwanese graduates' vocabulary learning strategies. Little notice had been shifted to Vietnamese learners and their approaches to vocabulary acquisition. Furthermore, in terms of methodology, the majority of research apply quantitative method with questionnaire as representative. Since these research like Yeh and Wang (2004), Tsai and Chang (2009), Marttinen (2008) were conducted over a decade ago, their questionnaire items had little adjustment from the original source of Schmitt (1997). The results, consequently, could not overhaul the modern days' conventional strategies. These factors affect future study on vocabulary strategies in general.

CHAPTER 3: METHODOLOGY

The following sections describe the research methodology of the present study. The problem and hypotheses are discussed first and then the analysis methods will be introduced in detail. The data was analysed using quantitative method in order to find answers to the research questions. This chapter also includes a description of the questionnaire design, data collection and provides information on the students participating in the study.

3.1 Research questions

1. What vocabulary learning strategies do 12th graders in Xuan Dinh high school report using?

2. What are the most and least frequently used strategies reported by students?

3. What are the differences between the strategies used by A01 students and D01 students?

3.2 Participants

3.2.1 Research setting

The research was put forward at Xuan Dinh High school in Hanoi. The main subject is 12th graders from classes non-majoring in English and they have had concrete foundation in general since the school is prestigious in terms of academic performance. To be more specific, all of the students had previously entered the high school entrance exam and Xuan Dinh high school has high competitive acceptance rate among non-specialised schools in the area. In Xuan Dinh high school, students are divided into their chosen blocks, but we mainly focus on students who are in SS which primarily study English, Mathematics, Literature (03 classes) and NS (01 class) which study Chemistry, Mathematics, Physics as core subjects. They share similar English background knowledge as throughout the first and second year of high school and they had undergone multiple examinations in English to seclude and refine themselves. Furthermore, all of the participants have adapted the same studying materials from the English textbook renovation scheme, depart themselves from other students in the same school which up to this point still attach with the previously generalized English textbooks.

3.2.2 Participants

The population of the research was 151 students from Xuan Dinh high school. Each class has different students number: class 12D1 has 34 students, class 12D2 has 27 students, class 12D3 has 36 students and class 12A1 has 54 students. 109 female students (72,2%) and 42 male students (27,8%) participated in the research. In terms of main core subjects, there were 97 SS students (64%) and 54 NS students (36%). They share similar patterns of academic acquisition in general and English proficiency in specific. In regard to years of learning and studying English, it should be mentioned that most of the participants in the study started learning English during elementary school. Particularly, after 2015, the Ministry of Education decided to apply the English textbook renovation scheme into the curriculum of high school students to replace the contemporary version. The pupils are acquiring and practicing English by using the renovated textbooks. The context that they are studying English under is mainly for the University entrance exam and other purposes. In addition, all of the students attend 3 hours of compulsory English lessons a week.

Table 3.1

Participants' Demographic Information

Variable	Frequency	Percent
Gender		
Male	42	27,8%
Female	109	72,2%
Total	151	100%
Core subjects		
D01	97	64%
A01	54	36%
Total	151	100%

3.3 Sampling

3.3.1 Justification for the sampling method

The research group decided to utilise quantitative method. Questionnaire was the representatives. There are two main kinds of sampling for the quantitative method in social research: 1) probability sampling and 2) non-probability sampling. In the former, there is a probable chance that every individual in a large population will be randomly selected in the research study, and it consists of four types of probability sampling: random, systematic, stratified, and multi-stage cluster. In non-probability sampling, on the other hand, not every individual in the population will be randomly selected in the research study. It also consists of four kinds of sampling: convenience, snowball and quota (Bryman, 2012).

Given the fact that this study is concerned with investigating the overall use of vocabulary learning strategies in Xuan Dinh high school in Ha Noi, a non-probability type of sampling was used in the selection of the participants for the quantitative phase of the mixed methods research design, namely convenience sampling. The rationale for using this type of sampling is based on the availability and accessibility of the participants. According to Bryman (2012), "convenience sampling is simply available to the researcher by virtue of its accessibility" (p. 201). The limitation of convenience sampling, however, lies in the fact that the research findings cannot be generalized beyond the targeted group

3.3.2 Sample size

54 A01 and 97 D01 students were selected to find out whether there is any significant difference in strategy use at the identified level of 0.50 effect size (d) required for vocabulary studies (Hattie, 2012). According to Suter (2012), effect size (d) is "an index of a treatment effect expressed as a standardized difference between two means (the mean difference divided by the standard deviation of the comparison group's mean)".

3.4 Research method

The research group decided on choosing a quantitative method with the representative of survey to analyse the research topic to the fullest. This method drew conclusions for large numbers of people: as this research was conducted among 151 high school students, quantitative research with the representative of a survey was suitable and convenient. Secondly, it analyzed data efficiently: the data were analyzed and summarized efficiently since the data were compressed and encrypted through calculating engine. Furthermore, the relationships were investigated within data since the aim of the research

was to identify the frequency in which the students used strategies. Therefore, quantitative research can assist in identifying the link that interwinds the numbers together and build up a chain of pattern: which strategies are mostly used? Which strategies are rarely used? Which kind of strategies do Natural Science and Social Science students often aim at? Quantitative method could also assure biased circumstances not to occur since the structure of the questionnaire was systematically arranged with little affection items included and no intention or personal purposes interfered in the process of conducting the survey, it is highly un-biased as well as reaching a certain objective level. Lastly, it is appealed to people's preference for numbers since the fact that survey is not time-consuming and of convenience for the participants (Creswell, 2015).

3.5 Data collection procedure

3.5.1 Data collection instrument

Questionnaire is regarded as an important instrument and effective tool for data collection of research process (Oppenheim, 1992). According to Brown (2001), questionnaires are "any written instruments that present respondents with a series of questions or statements to which they react either by writing out their answers or selecting from among existing answers". This tool is also considered as "one of the most common methods of collecting data on attitudes and opinions from a large group of participants" (Markey & Gass, 2005).

In this research, questionnaire was chosen as one of the data collection instruments as its typical function of measurement is of benefit to the process of studying and analysing respondents' attitude and behavior. With the help of this instrument, the researchers aimed at getting straightforward information from the samples. Comprehensive explanation is also given to the participants about why the information was being collected and how beneficial their response would be to the study.

This survey study adapted the taxonomy by Schmitt (1997), Riankamol (2008) 25-item Vocabulary Learning Strategy Questionnaire was directly used as an instrument. 25 items are about how often learners use vocabulary learning strategies. The researcher had added two questionnaire items: in MEM section, the researcher divided the item: 'I use a bilingual dictionary to help me translate English words into native language.' into two separated items:' I use a bilingual dictionary on electrical devices (smart phone, e-

dictionary,...) to translate English vocabulary to Vietnamese meaning.' and 'I use hard-copied bilingual dictionary (Oxford, Cambridge,...) to translate English vocabulary to Vietnamese meaning.'; in COG section, the researcher divided the item: 'I record vocabulary from Turkish soundtrack movies in my notebook.' into two separate items: 'I record vocabulary from English songs' lyrics in my notebook' and 'I record vocabulary from English movies in my notebook.' In addition, the researcher changed the formula of the item: 'I learn words by listening to vocabulary CDs.' into 'I learn words by watching Youtube videos'. As for the former changes, the researcher wanted to differentiate the two sections more carefully for making the items more detailed and tailored. As for the latter change, the researcher wanted to accustom the Natpassorn Riankamol's (2008) questionnaire to contemporary fashion. In addition, item number 26 also changed from 'I am not worry very much about the difficult words found when reading or listening, I pass them.' to 'I look up all the new words I find when reading or listening.'. Therefore the total items are 27 items, 2 items exceeded the original version. As the participants were non-specialised in English, the items were given in Vietnamese.

These items were divided into 5 groups according to Schmitt's classification. The first four items measure the frequency of usage of determination strategies. 5th, 6th, 7th and 8th items measure the frequency of usage of social discovery strategies. 9th, 10th and 11th items measure the frequency of usage of social consolidation strategies. 12th, 13th, 14th and 15th items measure the frequency of usage of memory strategies. 16th, 17th, 18th, 19th, 20th, 21st and 22nd items measure the frequency of usage of cognitive strategies. 23rd, 24th, 25th, 26th and 27th items measure the frequency of usage of metacognitive strategies.

The strategy questionnaire items were placed on a 5-point Likert scale from 'Never use it' to 'Always use it'.

1 = never use it

2 = seldom use it

3 = sometimes use it

4 = often use it

5 = always use it

Table 3.2

The Distribution of 27 Items of Vocabulary Learning Strategies

No	Categories	Items	Total
1	Determination Strategies (DET)	1-4	4
2	Social Strategies (SOC)	5-11	7
3	Memory Strategies (MEM)	12-15	4
4	Cognitive Strategies (COG)	16-22	7
5	Metacognitive Strategies (META)	23-27	5
			27

Note. DET = determination strategies; SOC = social strategies; MEM = memory strategies; COG = cognitive strategies; META = Metacognitive strategies.

3.5.2 Data collection procedure

3.5.2.1 Piloting

A pilot study was conducted on 16 Xuan Dinh high school students in October, 2019, with the aim of testing the practicability of the instruments used by the researchers, including the clarity and comprehensibility of all items and instructions on the questionnaire and the reliability. To measure the internal-consistency reliability of the questionnaire, Cronbach's alpha for the total scale and each subscale were calculated, and the results from the pilot study proved this questionnaire to be reliable and practicable.

3.5.2.2 Distributing and collecting the questionnaire

Considering the circumstances that our research team was not given access permission to most of the high schools in Ha Noi, and the fact that the response rate for the questionnaire online was too poor to serve research purposes, our data collection procedure was conducted entirely in Xuan Dinh High school. The procedure to collect data from the questionnaire went through 5 main steps as follows:

Step 1: Contact the school and teachers for support

The research team members contact with the school-board of Xuan Dinh High school as well as the head teachers of each class in order to ask for permission and support.

Step 2: Organize in advance and introduce the research and the survey

On the day when the survey was conducted, 150 copies of the questionnaires were printed for the participants. It should be notified to the students that the surveys would be completed within 30 minutes of each class. The researchers gave a brief oral explanation of the research topic to the participants before distributing the questionnaire. It was followed by a 5-minute break time for the participants to read an introduction to the research study, and to understand their rights in participating in completing the questionnaires, which were translated by the researchers into Vietnamese in the introduction of the questionnaires. The rationale for providing the instruction in Vietnamese was to ensure that the participants understood what they were going to do and what was required of them.

Step 3: Ask for agreement and instruct them to complete the questionnaire

After the researchers had obtained the consent from the participants, they instructed them on how to complete the background demographic section and the two parts of the main questionnaire section (discovery strategies & consolidation strategies). The researchers also assured them that they could leave the class at any time if they felt uncomfortable while completing the questionnaire and that would not cause any harm to them or affect their grades. It took 20 to 30 minutes for the participants to complete the questionnaires in every class, and overall, the surveys were completed and data collected during two days, from Friday, November 1, 2019 to Saturday, November 2, 2019.

Step 4: Collect the data

After students had completed the questionnaires, the researchers retrieved all of them and expressed appreciation to the participants' involvement and the teachers' support. The researchers informed the participants that their identities would be kept confidential, and their responses would only be used in the research.

Step 5: Evaluate the collection process

The number of responses was calculated and the questionnaires were put into respective category. Brief report about the process of questionnaire collection was also made about the achievement to continue maintaining and shortcomings for further improvements in later collection procedure of the remaining classes.

3.6 Data analysis procedure

According to Markey & Gass (2005, p. 251), measures of frequency illustrate how frequent a particular behavior or phenomenon occurs, for example how often students use online bilingual dictionary to translate English words into Vietnamese. Frequency is graphically presented, some of the most common ways are in table format, bar graphs. Therefore, this type of descriptive statistics is applicable for this study, enabling the researchers to categorize answers from questionnaire items to calculate the frequency of each strategy used by 12th graders in Xuan Dinh high school in the process of learning English vocabulary. To analyse the measures of frequency, we decided to apply Microsoft Excel (Version 1910 (Build 12130.20272)) and Statistical Package for Social Sciences (SPSS) software, version 25, which are widely used tools for analysing quantitative data into our research.

Step 1: Prepare and collect the data

When the questionnaires were returned, the researchers had to carefully study each of them to check (1) the completion of the questionnaire, (2) the relevance of the given answers to the items and (3) the understandability and validity of the answers given. Only the questionnaires fulfilling 3 criteria mentioned above can proceed to the second step. Overall, over 151 students conducted the survey, the researcher retrieved 132 sheets and sorted out 117 qualified sheets and then coded them with a number for analyzing process later on.

Step 2: Analyse the statistics

After preparing the data, we decided to keep and use one hundred and twenty-five copies from Xuan Dinh twelve-graders and all of them were analysed by using Statistical Package for Social Sciences (SPSS) software, version 25. This was also a crucial instrument to determine the reliability of the questionnaire, the statistical analysis revealed that the 27 items of the questionnaire had Cronbach's Alpha value of 0.87, which was considered very high as shown in table 3.3.

Table 3.3

Cronbach's Alpha Reliability of Vocabulary Learning Strategies

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
.875	.872	27

The researchers input participants' provided demographic information and their responses to the twenty seven items on vocabulary strategies in the questionnaire into the SPSS software. Descriptive statistics such as mean scores and standard deviations were calculated to discover Xuan Dinh twelfth graders' overall use of vocabulary learning strategies as well as to identify the most and least frequently used vocabulary strategies among the Xuan Dinh 12th-grade students. As in aforementioned questionnaire instruments, the participants were asked to rate their responses on a 5-point Likert scale from 'Never' to 'Always' (1 = never, 2 = seldom, 3 = sometimes, 4 = often, 5 = always). Strategies with mean scores lower than 3 were considered to be the least frequently used, strategies which had mean scores of 3 were considered as sometimes used and those with mean scores higher than 3 and closer to 5 were marked as most frequently or often used ones.

In addition, we conducted an independent t-test in order to identify whether or not there were any significant differences in strategy use among students focusing on natural and social science. The rationale for using an independent t-test instead of other statistical measurements such as a one-way ANOVA is the fact that we had one categorical independent variable (core subjects) to compare with vocabulary strategies as the

dependent variable. An independent t-test is commonly and widely used in such situations among quantitative researchers. In fact, it is regarded as the best statistical tool to determine whether a mean difference between the two groups is statistically different (Omaar, 2016).

Step 3: Report the statistics

In this step, the researchers would have to make a final report to calculate and conclude how frequently each strategy was used by Xuan Dinh 12th graders in the process of learning English vocabulary and compare the frequency of them with other strategies.

Step 4: Visualize the data

To make it easier to comprehend and compare the statistics from the survey questionnaire findings, researchers applied visual aids (bar graphs, pie charts, tables) beside written form of reports with detailed description to depict the charts.

3.7 Research ethics

According to Shamoo and Resnik (as cited by David B. Resnik, J.D., Ph.D. (2015), there are a number of the most common ethical principles. However, due to the characteristics of this study, only some of them will be adapted in this research, that are honesty: in which we strive to report the information on the data collected, the methodologies, along with the results of the data analysis procedure truthfully without deceiving; objectivity: in which we strive to avoid or minimize bias or personal interest on the study that might impact on the results; integrity: in which we keep our promises with the participants; carefulness: in which we strive to avoid carelessness during the process of conducting the study; respect for intellectual property: in which we never plagiarize and give credits for all contributions; confidentiality: in which we do not reveal the identities as well as other information of the participants without their consent; legality: in which we obey related laws and other policies.

In summary, this chapter has covered the core sections of the research. It has repeated the three research questions, discussed the research method, participants information including sampling, description of participants and the setting of the study. In addition, the detailed description of data collection instruments including the choice,

description and source of the instrument; procedures of the two steps: data collection and data analysis have also been demonstrated. The research ethics and the summary has marked the end of this chapter; while the next chapter will present the findings and the discussion of the findings.

CHAPTER 4: FINDINGS AND DISCUSSIONS

In this chapter, the results of the study are carefully presented and analyzed, followed by the detailed discussion of the findings. Tables and charts are made use of for better presentation and elaboration.

4.1 Findings

4.1.1 Frequency of English vocabulary strategies use
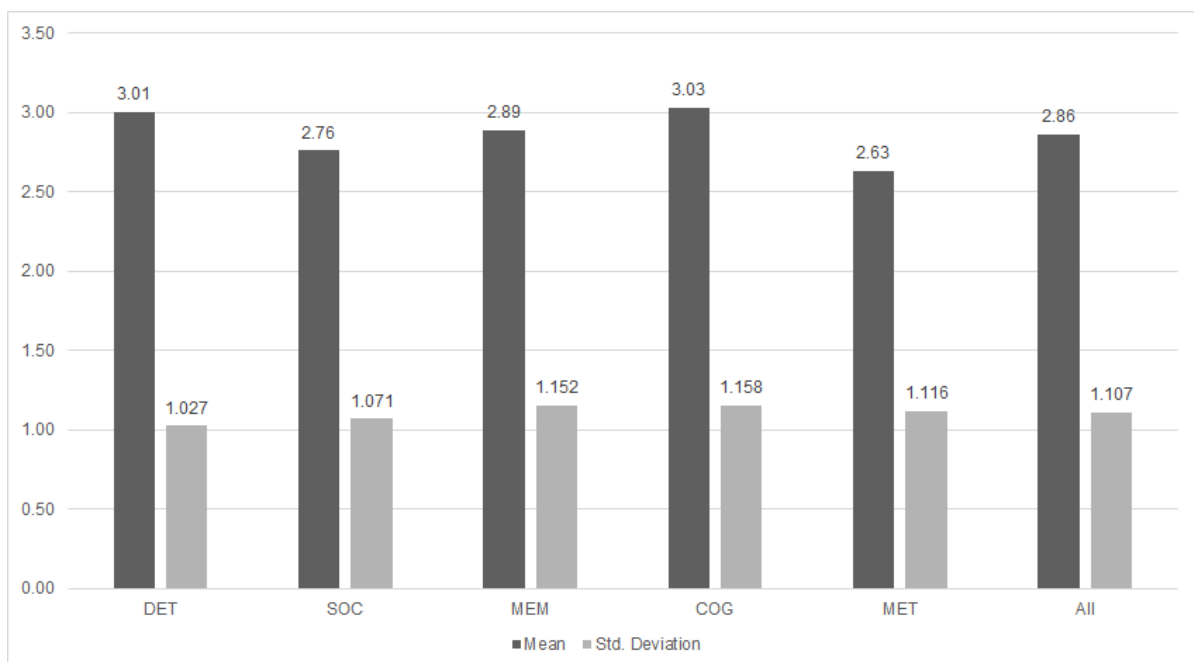

Figure 4.1 Mean and Standard Deviation of Overall Use of Vocabulary Learning Strategies

In general, the overall frequency of vocabulary learning strategies was not high with the mean score of 2.86. Out of five strategies, determination and cognitive strategies were the most frequently used the mean scores of 3.01 and 3.03 respectively. The standard deviation were all high of all above 1, which were considered to be significantly high.
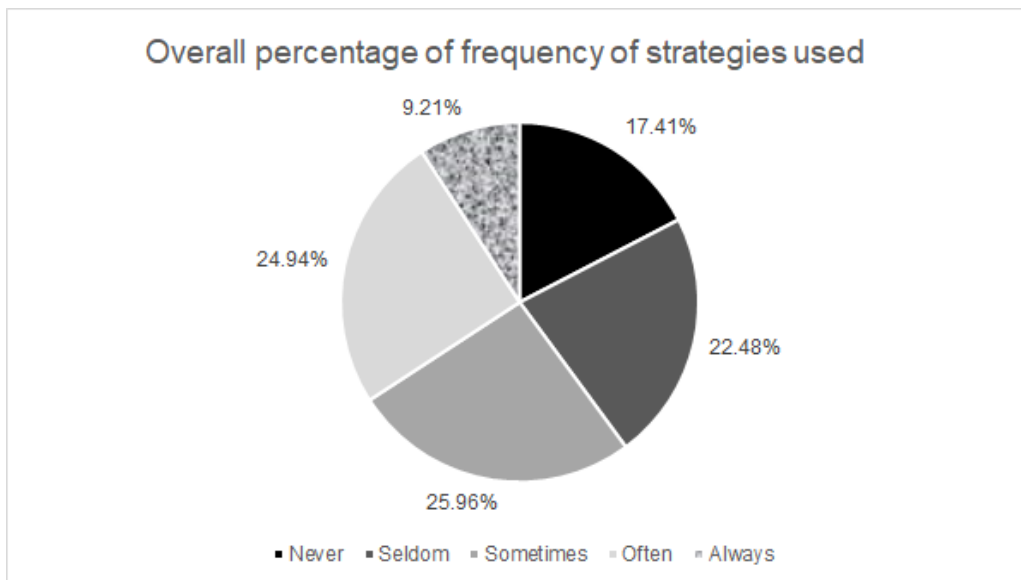
Figure 4.2 Percentage of Frequency of Strategies used by twelfth graders

Figure 4.2 explained the proportion of the responses from the students. Half of the students chose "Sometimes" and "Often" as their frequency in applying vocabulary learning strategies, with approximately a quarter each. Meanwhile, two fifths chose categories of lowest frequency of "Never" and "Seldom". Subsequently, the percentage of students picking "Always" was the lowest of less than 10%.

4.1.2 Detailed problems

4.1.2.1 Discovery Strategies

Table 4.1

Descriptive Statistics of Most and Least Used Discovery Strategies

Rank	Item	Strategies	Category	Min	Max	M	SD
1	1	I use bilingual dictionaries on electronic devices to help me translate English words into Vietnamese.	DET	1	5	3.87	.915

2	7	I ask my classmate for meaning.	SOC	1	5	3.51	.934
3	8	I know some new words when working in group works.	SOC	1	5	3.16	1.042
4	4	I learn the meanings of words by identifying its part of speech.	DET	1	5	3.08	1.01
5	2	I use a hard-copy of a bilingual dictionary to translate English words into Vietnamese.	DET	1	5	2.78	1.138
6	5	I ask the teacher to translate the words into Vietnamese.	SOC	1	5	2.52	1.103
7	3	I use pictures illustrated in the textbook to find the word meanings.	DET	1	5	2.29	1.043
8	6	I ask the teacher to put an unknown word into a sentence to help me understand the word's meaning.	SOC	1	5	2.14	1.008

Table 4.1 depicted the descriptive statistic the most and least used discovery strategies of Xuan Dinh twelfth graders. The results from the table indicated that students used a range of discovery vocabulary learning strategies. The most frequently used strategy in this group with the highest mean score of 3.87 is using bilingual dictionaries on electronic devices for vocabulary translation purposes (item 1), which belonged to determination category. Followed by item 1 were item 7 and 8, both were social strategies related to learning new words from friends with the mean scores of 3.51 and 3.16 respectively. Meanwhile, the other two social strategies concerning the help of the teachers were two of the least used discovery items, with item 5 with the mean score of 2.52 and item 6 with the lowest mean score of 2.14. As for the remaining three determination strategies, their frequency varied as the mean scores ranged from 2.29 (item 3) to 3.08 (item 4).

4.1.2.2 Consolidation Strategies

Table 4.2

Descriptive Statistics of Most and Least Used Consolidation Strategies

Rank	Item	Strategies	Category	Min	Max	M	SD
1	18	I learn words by watching Youtube videos.	COG	1	5	3.71	1.099
2	26	I look up all the new words I find when reading or listening.	MET	1	5	3.65	1.003
3	21	When I try to remember a word, I write or say it repeatedly.	COG	1	5	3.47	1.156
4	13	I study the spelling of new words.	MEM	1	5	3.42	1.100
5	15	I speak words out loud when studying.	MEM	1	5	3.33	1.182
6	20	I record vocabulary from English movies.	COG	1	5	3.22	1.274
7	19	I record vocabulary from English songs.	COG	1	5	3.09	1.236
8	16	I repeatedly practice new words.	COG	1	5	3.03	.973
9	11	I learn words about the culture of English-speaking countries.	SOC	1	5	2.97	1.224
10	23	I listen to English news or programmes.	MET	1	5	2.85	1.243

11	9	I practice English in group work activities.	SOC	1	5	2.76	1.056
12	12	I write new words in a sentence so I can remember it.	MEM	1	5	2.68	1.134
13	17	I write new words on a flash card so I can remember it.	COG	1	5	2.53	1.208
14	24	I memorize words from English magazines.	MET	1	5	2.43	1.213
15	27	I use online exercise to test my vocabulary knowledge.	MET	1	5	2.28	1.049
16	10	I ask native speakers for help.	SOC	1	5	2.26	1.133
17	22	I make vocabulary cards and take them with me wherever I go.	COG	1	5	2.14	1.159
18	14	I use physical actions when learning words	MEM	1	5	2.12	1.190
19	25	I review my own English vocabulary cards for reviewing before the next lesson starts	MET	1	5	1.95	1.074

The results presented in Table 4.2 suggested that the participants simultaneously used a variety of consolidation strategies to study and remember the meaning of new words. Cognitive strategies proved to be one of the most frequently used consolidation strategies as 5 out of 7 items belonged to top 10, including learning vocabulary from Youtube (item 8) with the highest mean score of 3.71, repeating writing or speaking a word (item 21) which ranked third, recording vocabulary from English movies and songs (item 20, 19) which ranked sixth and seventh, followed by repeatedly practicing new words (item 16) with all the mean scores above 3. With the dominance of cognitive strategies, although

looking up all new words while reading or listening (item 26) ranked second with the mean score of 3.65, and listening to English news or programs (item 23) ranked in top 10, the findings reported low frequency in using other metacognitive strategies such as memorizing words from magazines (item 24) or using online exercises for vocabulary test (item 27), and the least frequently used strategies also belonged in this categories as the mean score of "I review my own English vocabulary cards for reviewing before the next lesson starts" (item 25) only reached 1.95. As for the last two categories, other than both memory strategies of studying the spelling of new words (item 13) and speaking words out loud (item 15) ranked fourth and fifth with the mean scores of 3.42 and 3.33 respectively, the remaining ones including two other memory and three social consolidation strategies had lower frequency of utilization. It was noticeable that the four strategies with the lowest mean scores belonged to all four different categories.

4.1.2.3 Core subjects Difference in the Overall Use of Vocabulary Learning Strategies

Table 4.3

Core subjects Difference in the Overall Use of Vocabulary Learning Strategies

Strategy group	Core	n	M	SD	t	df	p
Overall Use of Vocabulary learning strategies (discovery & consolidation groups)	A01	43	76.53	14.431	-.398	115	.691
	D01	74	77.65	14.685			

The analysis of the independent sample t-test disclosed that there was no statistically considerable gap in the mean scores along with the overall use of vocabulary learning strategies between A01 students (M = 76.53, SD = 14.431) and D01 students (M = 77.65, SD = 14.685) at the specified .05 level, t(115) = -.749, p = .691, 95% CI [-6.657, 4.429].

Core subjects Difference in the Overall Use of Discovery Strategies Group

Table 4.4

Core subjects Difference in the Overall Use of Discovery Strategies Group

Strategy group	Core	n	M	SD	t	df	p	d

Overall Use of Discovery Strategies (Determination & Social Strategies)	A01	43	22.28	4.194	-2.187	115	.031 *	0.42
	D01	74	23.97	3.948				

Note. '*' = Mean scores are significant at p < 0.05.

In terms of the differentiation between the two blocks in the use of discovery strategies group, the analysis of the independent sample t-test demonstrated that there was a statistically considerable gap in the mean scores between A01 and D01 students at the specified .05 level, t(115) = -2.187, p = .031, d = 0.42, 95% CI [-3.228, -.160]. The findings disclosed a statistically significant higher mean score for D01 students (M = 23.97, SD = 3.948), than for A01 students (M = 22.28, SD = 4.194). Cohen's d was approximated to 0.42 level, which is considered a near medium effect size based on Cohen's (1992) guidelines. Generally, the statistical difference in the overall use of social strategies category between A01 and D01 students is considered a medium difference based on Cohen's d estimated effect size.

Table 4.5

Core subjects Difference in the Overall Use of the Two Categories of the Discovery Strategies

Discovery Strategies Group	Core	n	M	SD	t	df	p	d
Overall Use of Determination Strategies	NS	43	11.65	2.553	-1.240	115	.217	
	SS	74	12.23	2.361				
Overall Use of Social Strategies	A01	43	10.63	2.984	-2.211	115	.029 *	0.41
	D01	74	11.74	2.405				

Note. '*' = Mean scores are significant at p<0.05.

Deeper analysis of the sub-categories of the discovery strategies group (determination strategies category and social strategies category) as two separate groups showed a different result in students' use of vocabulary strategies. The analysis of the independent samples t-test results of the overall use of the determination strategies category specified that there was no statistically significant difference in the mean scores between the NS

students (M = 11.65, SD = 2.553), and SS students (M = 12.23, SD = 2.361), at the specified .05 level, t(115) = -1.240, p = .217, 95% CI [-1.503, .346].

Unlike the analysis of the determination strategies category, however, the analysis of the independent t-test results of the overall use of social strategies category revealed that there was a statistically significant difference in the mean score between A01 and D01 students at the specified .05 level, t(115) = -2.211, p = .029, d = 0.41, 95% CI [-2.115, -.116]. The results revealed a statistically significant higher mean score for SS students (M = 11.74, SD = 2.405), than for NS students (M = 10.63, SD = 2.984). Cohen's d was estimated at 0.41 level, which is considered a near medium effect size based on Cohen's (1992) guidelines. Put differently, there was a statistically significant difference in the overall use of social strategies category between NS and SS students, and it is considered a medium difference based on Cohen's d estimated effect size.

Core subjects Difference in the Overall Use of Consolidation Strategies Group

Table 4.6

Core subjects Difference in the Overall Use of Consolidation Strategies Group

Strategy group	Core	n	M	SD	t	df	p
Overall Use of Consolidation Strategies	A01	43	54.26	11.396	.259	115	.796
	D01	74	53.68	11.837			

As mentioned in the previous chapter, there are four categories of vocabulary learning strategies in the consolidation strategies group: social, memory, cognitive, and metacognitive strategies. These strategies are used for studying and remembering the meaning of an English vocabulary item after it has been introduced (Schmitt, 1997). The analysis of the independent samples t-test of the overall use of the consolidation strategies group revealed that there was no statistically significant difference in the mean scores between NS students (M = 54.26, SD = 11.396), and SS students (M = 53.68, SD = 11.837, at the specified .05 level, t(115) = .259, p = .796, 95% CI [-.3.855, 5.016].

Table 4.7

Core subjects Difference in the Overall Use of the Four Categories of the Consolidation Strategies

Consolidation Strategies Group	Core	n	M	SD	t	df	p
Overall Use of Social Strategies	A01	43	7.95	3.023	-.116	115	.908
	D01	74	8.01	2.502			
Overall Use of Memory Strategies	A01	43	12.28	3.089	1.874	115	.063
	D01	74	11.14	3.236			
Overall Use of Cognitive Strategies	A01	43	20.77	4.180	-.723	108.76	.471
	D01	74	21.43	5.700			
Overall Use of Metacognitive Strategies	A01	43	13.26	3.861	.242	115	.809
	D01	74	13.09	3.232			

Deeper analysis of the independent samples t-test of the four categories of the consolidation strategies group revealed that there were no statistically significant differences in the mean scores between NS and SS students related to the overall of these four categories.

4.2 Discussion

4.2.1 General points

The participants are reported to have been using every strategy in all 5 sub-group strategies. The concentrated analysis indicates that among discovery group, determination strategies are utilized the most frequently. This findings coincide with Le's (2018) results that Vietnamese students learned academic English vocabulary by using reference materials, for example, using dictionaries reached the highest mean score of 4.32 whereas the lowest value for learning academic English vocabulary by categorizing affixes and roots stood at 3.58, which was still a considerably high mean score. Other items have quite similar mean scores.

When unravel the interwinds of the differences between the vocabulary strategies used by NS students and SS students, the data indicates that the overall use of discovery strategies is quite significant. In general, SS students have the tendency to practice English vocabulary with discovery group more than NS students. This indicates the effect of SS subjects on their choice of learning that same goes for NS pupils. Henceforth, their critical thinking and logical comprehension can be the reasons accounted for this result.

4.2.2 Detailed problems

4.2.2.1 Discovery strategies

The findings of the current study indicate a high level of using all strategies in the taxonomy by Schmitt (2000). In addition, the statistics for the strategies adopted from Bramki and Williams (1984) and Chung and Nation (2003) indicate the significantly high agreement of using devices assisting with learning and remembering vocabulary. This goes in line with the development of technology and the creation of educational devices as well as their applications nowadays.

In the current study, determination strategy overall has the second highest mean score (M=3.01) among all six strategies. This finding indicates the preference of looking up for the word meanings in the dictionary, guessing meaning of academic words from contexts and using illustrating pictures in textbook to find the word meanings. It is interesting to see that the mean value for the category of "using bilingual dictionaries on electronic devices" strategy (item 1) obtains the highest statistics of 3.87, following by item 2 "using hard-copy dictionary" with the mean value of 2.78 whereas the category of " using pictures illustrated in the textbook" (item 3) only reaches 2.29, the lowest mean score in the group of determination strategies. The benefits of the item 1 "using bilingual dictionaries on electronic devices" are easy to detect since using a translation offers the needed information rapidly and there is much less room for error than, for instance, in guessing the meaning from context. This finding is in accordance with the study result by Tsai and Chang (2009), Le (2018) and Tran (2012) who found that the learners have a tendency in using electrical devices in learning English vocabulary. Furthermore, Wu's (2005) study also corresponded that the use of an electronic dictionary is the most popular strategy adopted by students from different age groups. However, this finding is incompatible with Schmitt (1997), Kulikova (2015) and Omaar (2016), none of them found "using electronic devices" as the most frequently used strategy.

Based on the research's findings, it is prominent among Xuan Dinh students to collaborate with and consult their peers when learning English vocabulary. Both the items relating to studying with classmates ranked high in the Discovery strategies category, item 7 "I ask my classmate for meaning" and item 8 "I know some new words when working in group works" ranked second and third respectively. Similar observation can be found in the research by Omaar (2016), stating that working in a group and asking a classmate for the meaning of new English vocabulary were two among the three most frequently used social strategies employed by Tuareg EFL learners. One of the explanations for this frequency is that Xuan Dinh schoolers traditionally find it convenient to ask their classmates to discover the meaning of new words and their curriculum comprise many activities that require them to do group work.

The results obtained from the questionnaires demonstrate that participants do not prioritize asking teachers for help to understand new English words' meaning. It can be clearly inferred from frequency level of the two questionnaire items: item 5 "I ask the teacher to translate the words into Vietnamese" and item 6 "I ask the teacher to put an unknown word into a sentence to help me understand the word's meaning" with mean scores of 2.52 and 2.14 accordingly. This result contradicts with past studies' findings such as that of Marttinen (2008) which showed that the main source for vocabulary learning strategies were teachers (38%). The difference in participants' school environment may account for this contradiction. Teachers and students in Xuan Dinh high school seemed not to have the close relationship and bonding, this may hinder students from consulting their teachers.

4.2.2.2 Consolidation strategies

Cognitive strategies are certainly used more among 151 Xuan Dinh high school students participated in this study. Specifically, students are reported to have been using social media, in this case, Youtube (item 18) to acquire new words. In this day and age, the Internet has affected the way students learn significantly, so our alteration of the original survey adapted from Riankamol's (2008) 25-item Vocabulary Learning Strategy Questionnaire: from 'I learn words by listening to vocabulary CDs.' into 'I learn words by watching Youtube videos' shows considerable effect. Since it has been 11 years from the period the original questionnaire was conducted, the research team's adjustment is

effective in a way that 40,17% of the students reported to often use Youtube to learn words. This result showcases that the approach from the Internet can open new opportunity for vocabulary learners. In another respect, students are also frequently repeated writing or speaking new words (item 21) to enhance their learning process with 33,33% of all the students often use it. Similar pattern was also discovered by Marttinen (2008) when she compiled that the two most common strategies were written repetition occupied 56% and written repetition accounted for 38% of participants' answers. This finding clearly coincides the popular beliefs that Asian students persist in using rote repetitive strategies (O'Malley, 1987).

Metacognitive strategies, on the other hand, reach lower ranks with 3 out of 5 items fall to the 5 least used strategies of consolidation strategy group. Particularly, item 24 'I memorize words from English magazines.', item 27 'I use online exercise to test my vocabulary knowledge.' and item 25 'I review my own English vocabulary cards for reviewing before the next lesson starts.' are reported that 33, 04% of all the students answered to rarely use this strategy group. Similarly, Gao and Liu and Zhu's (2013) result from investigating Taiwan middle schoolers indicated the scarce utilization of metacognitive strategy group. It can be concluded that since cognitive and metacognitive group rely heavily on learners' autonomy and consciousness of the learning process by planning, mentoring, evaluating the ultimate method (Oxford, 1990), Xuan Dinh students in general have not certainly got high self-learning morale to perform cognitive and metacognitive frequently enough.

The results from the questionnaires reveal that social strategies are not frequently used by students, since the percentage of students choosing "never" and "seldom" for these strategies are considerable, in agreement to that of Schmitt's (1997) (as cited in Yeh & Wang, 2008, p. 24). Marttinen (2008, p. 77) claimed that the reason for the low utilization of social strategies may be the fact that vocabulary learning has traditionally been seen as an individual task instead of group work. In terms of memory strategies, they are not favored by students as other than studying the spelling of new words (item 13) and speaking words out loud (item 15), the others have low frequency reports. This is in contrast to the claim of Sihaneti and Kyaw (2016) of the importance of memorizing, as well as the results from other studies (Kulicova, 2015; Omaar, 2016) that strongly supported the popularity of memory strategies.

To sum up, students use a range of different consolidation strategies. It is difficult to draw exact conclusions based on the data as while the difference between the most and least popular strategies might be significant, the variation between the frequency of the strategies in general is not as considerable.

4.2.2.3 Core subjects Difference

The researchers conducted a number of independent samples t-tests: (1) overall use of vocabulary learning strategies, (2) overall use of discovery strategies group (determination strategies and social strategies), (3) overall use of consolidation strategies group (social strategies, memory strategies, cognitive strategies, and metacognitive strategies) in order to investigate whether or not there were statistically significant differences in strategy use among students studying natural and social sciences. The results of the independent t-tests revealed that there were no statistically considerable differences between NS and SS students in the overall use of vocabulary learning strategies, as well as consolidation strategies; however, the difference in the overall use of discovery strategies is quite significant. Deeper analysis of four categories in consolidation strategies also disclosed no statistically significant differences between the two groups of students. As for discovery in category levels, while the statistic difference in the frequency utilization of determination vocabulary learning strategies between natural and social science students is almost nonexistent, that of social is considered of medium difference, according to Cohen's d estimated effect size.

CHAPTER 5: CONCLUSION

5.1 Summary of findings

In general, the aim of the research was to investigate the use and frequency of the strategies utilized by students in grade twelfth in Xuan Dinh High school , as well the differences between students mainly studying natural science and those mainly studying social science. Thanks to the data analysis and discussion of data collected from questionnaires, the aforementioned research questions were adequately answered.

Firstly, students were reported to use all strategies proposed in the questionnaires. As the researchers divided 27 items into 2 main groups of discovery and consolidation strategies,

it can be concluded that a wide range of strategies were utilized by students for the purpose of learning vocabulary. Nonetheless, some strategies were found to be more common than others. The most frequently used strategies were from determination (of discovery) and cognitive (of consolidation) categories, namely using bilingual dictionary in electronic devices and watching Youtube videos to learn words accordingly. Meanwhile, metacognitive is the category with the lowest frequency, both in overall mean score and the lowest used strategy of revision on English vocabulary cards before the next lesson. In addition, social consolidation strategies was also one of the least popular. In terms of the difference in mean scores between natural and social science learning students, other than the significant variation in discovery group, there was no statistically meaningful difference recorded in the overall use.

5.2 Pedagogical implications

The aim of the present study was to describe the current situation of vocabulary learning strategy use among students of Xuan Dinh high school in Hanoi. Based on the findings some implications can be concluded.

Firstly, the present study can raise the awareness of vocabulary learning and vocabulary learning strategies in second language in general. The results can make teachers of second language more aware of the need for vocabulary learning strategy awareness and apply their teaching so that they can introduce vocabulary learning strategies and techniques to their students. Teachers who are interested in knowing how high school students work with vocabulary can gain more information about how their students approach vocabulary learning and maybe design their teaching based on this study's findings. This can open up a possibility for their students to use more tools in dealing with vocabulary learning and the problems it may include.

Secondly, as Oxford (1990) points out, learning strategies can help the learner to become more self-directed and contribute to the learning process. However, the students may not have the appropriate tools for doing that even though they may acknowledge the meaning of vocabulary in language proficiency. Mastering the use of learning strategies, the learner can more easily achieve his goal, successful learning. Therefore teachers should enhance the meaning of learning strategies and offer the opportunity to get to know and try out the different strategies in school so that each learner can find the best strategies for them. For instance, Furthermore, as the results of the present study imply, students feel that school is

the place for providing information on learning strategies so that everyone could have access to that information. Naturally, teachers would be the ones to offer that information. Finally, in addition to helping teachers to modify their teaching and helping the learners in their learning process, the present study can also contribute to teacher training programmes. Since, according to the results of the previous study, students feel that skilled teachers are important factors in successful language learning. Therefore it could be useful to take into account the role of vocabulary learning and teaching when training future second language

teachers.

5.3 Limitations and suggestions for further research

Although the researchers have put a number of efforts in conducting the study with careful consideration, there are some certain limitations that should be acknowledged.

Firstly, the scale of the research is relatively small, grounded to Xuan Dinh high school only. Therefore, the results can only benefit students and teachers from this school and is not well applicable for schools. For further studies, it is recommended that researchers should spend more time on reaching and investigating on a larger amount of population to gain more useful findings for other groups of students and teachers.

Secondly, there is an imbalance between the number of participants from natural science and that from social science classes. While the former includes only one class of 43 students, there are 3 classes of the latter with 97 students in total involved in the survey. If possible, future studies will need to reach more students from natural science classes to yield more generalizing results.

Thirdly, only one data collection instrument which is questionnaire was employed in the research, which is not enough to guarantee the validity and reliability of the results. If class observation, students and teachers' interview were utilized, the researchers would arrive at more convincing conclusions. Therefore, it is highly appreciated to have more research with other instruments to gain in-depth insights into the issue.

Lastly, when analysing data from questionnaire, the researchers found out that there were more unqualified answers than expected. This is because some items in those 24 answers

were not completed by the students. Henceforth, it is highly appreciated if the researchers check participants' answers more carefully before collecting the response.

In general, the limitations of the study lie in the number of participants, the small scope of the study and methodology. Those shortcomings can be eliminated if more consideration is given. The researchers suggest that future studies should investigate the effectiveness of the strategies.

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