ESP Vocabulary Learning Strategies

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The Effect of Self-Esteem, Self-Regulation and Learning Styles

By

Eirene Katsarou

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To my son, Andrew

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LIST OF ABBREVIATIONS

AC	Abstract Conceptualization
AE	Active Experimentation
AL	Applied Linguistics
ASSOC	Association Strategies
CONS	Consolidation Strategies
CE	Concrete Experience
CSA	Riding's Cognitive Styles Analysis
DU	Dictionary-Use Strategies
ECTS	European Credit Transfer System
EAP	English for Academic Purposes
EFL	English for Foreign Learners
ESP	English for Specific Purposes
FLSES	Foreign Language Self-esteem Scale
FTF	Face to Face
GSD	Gregorc's Style Delineator
IDs	Individual Differences
ILS	Index of Learning Styles
JFS	Janis-Field Feelings of Inadequacy Scale
M	Memorization Strategies
MBTI	Myers-Briggs Type Indicator
MR	Multiple Regression
NT	Note-keeping Strategies
LG	Lexical Guessing Strategies
LSI	Kolb's Learning Style Inventory
LSP	Jackson's Learning Style Profiler
LLS	Language Learning Strategies
LSS	Learning Styles Survey
PEPS	Productivity Environmental Preference Survey
PLSPQ	Perceptual Learning Style Preferences Questionnaire
REP	Repetition Strategies
RO	Reflective Observation
SD	Social-Discovery Strategies
SAS	Style Analysis Survey
S^2R	Strategic Self-Regulation Model
SI	Socio-cultural-interactive strategies

SILL	Strategy Inventory of Language Learning
SLA	Second Language Acquisition
SRC (voc)	Self-Regulating Capacity in Vocabulary Learning
SRL	Self-Regulating Learning
SRSD	Self-Regulated Strategy Development
SSES	State Self-esteem Scale
VARK Model	Visual-Aural-Read Write-Kinesthetic Model
VLS	Vocabulary Learning Strategies
VLS-Q	Vocabulary Learning Strategies Questionnaire
VLT	Vocabulary Levels Test
VOLSI	Vocabulary Learning Strategy Inventory
WTC	Willingness to Communicate
ZPD	Zone of Proximal Development

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INTRODUCTION

Vocabulary is seen in the literature as 'the most sizable and unmanageable component in the learning of any language, whether a foreign or one's mother tongue, because of tens of thousands of different meanings' (Oxford 1990, 39-40). According to Meara (1984), some researchers have neglected vocabulary, while others consider it to be an unequivocally integral component in the successful acquisition of another language due to its critical role in the development of both receptive and productive language skills (Schmitt 2000; Nation 2001; Gu 2002) and, therefore, in the enhancement of overall communicative skills in foreign language performance (Milton 2013). Large vocabularies, speed, and depth of vocabulary knowledge are empirically found to be reliable predictors of good performance in foreign language learning across learners from different proficiency levels (e.g., Staer 2008; Milton et al. 2010) as they enable EFL (English as a Foreign Language) and ESP (English for Specific Purposes) learners alike to effectively overcome their lexical problems in receptive (Huckin 1995; Laufer 1992) and productive tasks (Coxhead 2012; Hyland and Tse 2007; Durrant 2014) and to learn and use the language effectively in all learning contexts.

The research of vocabulary learning strategies (VLS) in a foreign language, which originally stems from research into Language Learning Strategies (LLS) in the 1970s, has gained rapid interest in the last two decades in an effort to explore the role and benefits of VLS for effective vocabulary acquisition (e.g., Ahmed 1988; Sanaoui 1995; Kojic-Sabo and Lightbown 1999; Gu 2003). While a few studies have examined a comprehensive set of VLS (e.g., Schmitt 1997, Marin 2005, Al-Qahtani 2005), most research carried out on L2 lexical learning has either focused on individual strategies (e.g., guessing, dictionary use), a subgroup of them in general (e.g., word attack strategies in Alseweed 1996) or a limited number of them in certain language skills such as reading (e.g., Alyami 2006). Nevertheless, VLS research is still evolving as compared to other areas of Applied Linguistics (AL) (Marin 2005), and intensive research is being conducted in the direct aspects of vocabulary teaching such as the management of lexical learning by reducing vocabulary load, dealing with specific learning difficulties, and effective methods for lexical teaching (Laufer and Kimmel 1997). This suggests a need for more

in depth VLS studies on EFL and ESP educational contexts worldwide, and the Greek study context is no exception.

Interestingly, the number of empirical studies addressing the use of vocabulary learning strategies by ESP learners, in general, and in relation to such specific individual and affective factors as self-esteem, self-regulation capacity, and language learner styles remains strikingly limited. In acknowledging the fact that acquisition of specialized vocabulary in English is tightly related to content knowledge of the discipline aiding university ESP learners to cope with their studies in academic and professional environments (Coxhead 2018), recent corpus-related research in the area has been heavily focused on methods to delimit technical vocabulary (Chung and Nation 2003) per subject area via the compilation of discipline-specific Word Lists (e.g., Nekrasova-Beker et al. 2019; Martinez et al. 2009; Wang et al. 2008) to serve as useful frameworks in organizing ESP vocabulary modules and teaching materials. However, such a situation is particularly awkward given the usage of English as a medium of international communication in a wide array of subjects ranging from technology to science, economics, medicine, and life sciences (Floris 2013). Hence, ESP learners' need to succeed in their subject-specific and, ultimately, occupational goals' using English (Akhbari 2011, 7).

Evidence from relevant empirical research carried out by Woodward - Kron (2008) in a longitudinal study using undergraduate students' academic writing in education found that students' knowledge of a discipline is closely tied to the specialized language of that discipline and that understanding and use of this special-purpose vocabulary shows that these learners form a particular group that needs this kind of language "showing that understanding make meaning and engage with disciplinary knowledge" (Woodward – Kron 2008, 246). Obviously, it seems that second and foreign language learners need a large technical vocabulary to cope with their studies in academic or professional environments (Evans & Morrison 2011; Coxhead et al. 2016), but as estimates of the size of a technical vocabulary are difficult to be accurately determined in any given text (Nation 2013; Nation and Coxhead 2014), we feel that an investigation of the types of VL strategies used by L2 ESP learners is imperative to determine the extent to which they resort to them to discover the meaning of unknown technical words, retain newly acquired words, store them in their memories, and use them in practice.

Self-regulation and Language Learning Strategies

Although many different learner-related factors are considered throughout the literature. In relation to the study of language learning strategies in L2 contexts (e.g., Skehan 1991; Ehrman et al. 2003), our initial motivation to first focus on the role of self-regulating capacity in the process of L2 vocabulary acquisition coincides with a shift in the research paradigm noticed throughout the last decade in the study of language learning strategies. This new era has been clearly marked by the articulation of Oxford's (2017, 95) Strategic Self-Regulation Model (S^2R), where "self-regulation, agency and autonomy, growth mindsets, self-efficacy, resilience, hope, and internal attributions for success" are characterized by the researcher as essential characteristics of 'the soul of learning strategies". According to Oxford's (2017; 1999) view, the linkage between learning strategies and self-regulation is forged via the socio-cultural and psychological overtones associated with the latter, and vastly originating from Vygotsky's theory of mediated learning, the zone of proximal development (ZPD), self-regulation as well as theories of educational psychology, most notable among the others proposed by Schunk and Ertmer (2000) and Zimmerman and Schunk (2011) who described self-regulation as a set of strategies, all fundamental to the learning process and involving goal-setting; focusing on instruction; organizing, coding, and rehearsing information; managing time and the environment; using resources effectively; monitoring performance; seeking assistance.

In Oxford's terms (1999, 111), the psychological concept of self-regulation lies at the heart of autonomous learning as it implicitly involves the use of the meta-cognitive learning strategies of planning, guiding, monitoring, organizing, and evaluating deemed to be fundamental for the internalization of 'higher-order cognitive learning strategies. Despite Gao's (2007) conviction that the model of self-regulating capacity is not incompatible with language learning strategies measuring the same event from different perspectives, i.e., self-regulation involves the initial driving forces of language learning and strategy research that examines the outcome of these forces, Griffiths (2020) also pointedly emphasizes that research on language learning strategies remains vibrant with self-regulation at its core arguing for the need to acknowledge diversity and to engage in productive debate.

However, despite the pedagogically indispensable contribution of strategic competence (Oxford 1990; Gunning and Oxford 2014; Ma and Oxford 2014) and self-regulation (Zimmerman and Schunk 2001) in autonomous language learning process, overall proficiency in a

foreign/second language (Kim et al. 2015; Ekhlasa and Shangarffam 2013) and academic achievement in general (Camahalan 2006; Cekolin 2001; Erdogan, 2011), the notion of self-regulation has only recently been included in language learning strategy research (e.g., Tsuda and Nakata 2013; Brown and White 2010; Nakata 2010). In this respect, following Weinstein, Acee and Jung (2011, 47) strategies and self-regulation exist interdependently in the language learning process as "the glue and the engine that helps students manage their strategic learning" and, in an effort to fill this gap in research, our study examines university ESP learners' use of vocabulary learning strategies when learning technical vocabulary in the disciplines of Agriculture and Forestry to determine the vocabulary learning strategies that ESP learners most commonly prefer to use throughout their ESP course and, subsequently, investigate the extent of self-regulation capacity they exhibit in the process, and whether they favour the use of specific vocabulary strategies in particular.

Self-esteem and Language Learning Strategies

The selection of self-esteem as the second explanatory variable of VLS use by ESP learners can also be traced to Oxford's (2017, 115) Strategic Self-Regulation Model (S^2R), as it implicitly seems to constitute a crucial factor contributing to 'empowered and effective L2 learning alongside other related strength factors such as self-efficacy, resilience, hope, and internal attributions for success. In line with the researcher's belief, the pedagogical expediency of these factors in the L2 learning process lies in the fact that 'they are potentially tied to the use of learning strategies and self-regulation as well as that they are all related in one way or another to beliefs [implicit or explicit] about the self in context' (Oxford 2017, 115) that can, in turn, affect individuals' approaches to L2 learning and learning in general (Williams et al. 2015).

Interestingly, of all the affective factors, self-efficacy and, by association, self-esteem (i.e., a global or situational high-low evaluation of oneself in terms of competence and worthiness in interactions with the world), is related to agency (Bandura 2002; 2008), L2 learning strategy use (Chamot 2004; Chamot Barnhardt, El-Dinar and Robbins 1996), a growth mindset (Mercer and Williams 2014), and overall psychological and physical well-being (Oxford 2016) and self-regulation itself in the pursuit of desired goals. Following Maddux (2011), "self-regulation (simplified) depends on three interacting components …: goals or standards of performance, self-evaluative reactions to performance, and self-efficacy beliefs. Self-efficacy beliefs influence the goals we set, our choices of goal-directed

behavior, our degree of effort, our persistence, and the efficiency and effectiveness of our problem-solving". Self-efficacy, self-concept, and self-esteem overlap as they are all forms of self-appraisal, i.e., self-evaluation related to an individual's observation and reflection on one's values and attributes capacities (Habrat 2018). Mercer claims (2011a; Pajares and Miller 1994) that the construct of self-efficacy is more cognitive in nature than self-concept or self-esteem, describing it as a more affective response to self (Schunk and Pajares 2002) with tremendous influence on human behaviour.

Given the absence of studies examining the role of self-esteem in relation to L2 strategy use in empirical terms, the current research investigates a sample of ESP learners in tertiary education in Greece to explore the extent to which self-esteem influences the use of vocabulary learning strategies when learning new technical vocabulary and determine the strength of interactions between self-esteem, self-regulation and learning styles as predictor variables of VLS frequency of use. We believe that the insights gained from this study may translate into practical pedagogical advice applicable in foreign language classrooms, catering for an ego-protecting, learner-friendly atmosphere.

Learning Styles and Language Learning Strategies

The study of cognitive and learning styles within Second Language Acquisition (SLA) has long been an interesting puzzle as well as studies of style representing a clear case of importing a concept from the neighboring field of psychology in a manner that has proved simultaneously attractive and unsatisfactory (Dorneyi and Skehan 2003). The various factors most commonly cited for the attractiveness of learning style concepts by SLA researchers stems from a growing appreciation for their contribution to language learning success and learning strategy use in recent ESL/EFL classroom research (e.g., Carrell and Monroe 1993; Carrell et al. 1996; Wen and Johnson 1997). Oxford (2003, 1) emphasizes that "language learning styles and strategies are among the main factors that help to determine how –and how well –our students learn a second or foreign language". Ma (2002) further argues for the salient contribution of learning styles to L2 vocabulary knowledge as they affect the knowledge eventually gained. As distinct as these notions: language learning strategies and learning styles, they both contain cognitive and affective elements and are good predictors of L2 language proficiency. Brown (1994) further points out that learning strategies do not operate by themselves, but rather are directly linked to the learner's innate learning

styles and other personality-related factors, while Oxford (1990b) suggests that the notion of learning style encompasses the learners' general inclination to use certain learning strategies while avoiding others. In Cohen's (2012, 142) terms, "language learning and use strategies do not operate in a vacuum, but rather are directly tied to learners' underlying learning style preferences" (i.e., their general approaches to and preferred ways of learning).

In acknowledging the influential role of learning styles and learning strategies in the L2 teaching and learning, Denig (2004) suggests that it is important for teachers to diversify their teaching techniques to match their students' different styles by aiding learners to identify their style preferences (known as a "comfort zone") and extending from it through practice (Oxford, 2001). Zhou (2011, 73) further stresses the need for teachers to be cognizant of their students' learning styles as "this knowledge will help teachers to plan their lessons to match or adapt their teaching and provide the most appropriate and meaningful activities or tasks to suit a particular learner group at different stages". In this sense, understanding learning styles can help instructors design appropriate activities for students and allow teachers to do this systematically. As such, extensive research into students' learning styles and strategies in different contexts and across different disciplines seems necessary (e.g., Psaltou and Kantaridou 2011; Lau and Gardner 2019). In recent years, language learning strategies and styles have been studied in relation to a number of variables in various contexts.

However, thus far, no empirical studies have examined students' vocabulary learning strategy use and learning styles in EFL or ESP learning contexts. While research into the extent to which L2 learners' learning styles influence VLS use may contribute to the improvement of L2 vocabulary learning and teaching situation, hardly any studies have been conducted to identify the association between Greek ESP learners' vocabulary learning styles and strategies in any particular field of study. Hence one of the purposes of the present study is to examine the possible relationships between learning style preferences and vocabulary language learning strategies used by Greek university L2 students.

The study reported in this book investigates the frequency of vocabulary strategy use among undergraduate ESP learners and, at the same time, explores whether significant differences arise in VLS use based on gender and vocabulary knowledge level in a Greek educational context. It contributes to the general understanding of the extent to which L2 learners' degree of self-regulatory competency in L2 vocabulary acquisition, degree of self-esteem, as well as dominant individual style preferences affect

frequent VLS use both in categories and separately within the context of a Greek university educational setting. The need for this research is attributed to two reasons: (i) the salient role of self-regulation in relation to overall strategic competence and success in L2 language learning proficiency (Oxford 2017; Griffiths 2020), (ii) the limited research attention that self-esteem as an affective factor and learning style has received in relation to the study of L2 vocabulary competence and vocabulary learning strategy use. As a result, our study employs an exploratory character and is primarily based on previous research undertaken generally within the SLA and L2 language learning strategy areas.

More specifically, this study investigates the contribution of ESP Greek learners' self-regulation capacity in vocabulary learning, the degree of self-esteem of L2 language learners, and the reported learning style to the frequency with which they adapt to VLS. Gender and vocabulary proficiency are also considered in this investigation, and potential differences are addressed with respect to L2 learners' use of VLS as well as their self-reported self-regulatory competence in vocabulary learning. Another relevant objective of this investigation is to describe the VLS patterns of L2 university learners regardless of their degree of self-regulation, self-esteem, learning style, vocabulary proficiency, and gender. The purpose of this is to explore what VLS are used most and least frequently across the entire sample and to what extent L2 learners differ with respect to some types of VLS, such as, for example, the use of bilingual and monolingual dictionaries, among other interesting comparisons also presented in the relevant literature.

We believe that this study might prove useful to both language teachers and learners. It will enrich L2 teachers' knowledge on the role of self-regulation, self-esteem and learning styles on L2 learners' vocabulary learning process and aid their effort to make the learning environment productive, satisfying, and self-rewarding. To this end, the present study adopts a survey-based approach to explore how the multi-dimensional notion of self-regulation conditions L2 learners VLS use while learning new English vocabulary in an ESP university context. Also, it explores the roles of affective learner-internal variables such as L2 self-esteem and learning styles throughout the L2 vocabulary learning process with the ultimate goal of providing some useful empirical evidence that can further be translated into useful pedagogical guidelines for the EFL and ESP class. To achieve this, the present study adopts a correlational method and seeks to determine which of these three independent variables is the best predictor of VLS use for this sample of learners.

An Overview of the Book

As already shown throughout this introductory chapter, this study focuses on the self-reported VLS use of Greek students in a university context and determine the extent to which VLS use is influenced by (i) self-regulatory capacity, (ii) self-esteem and, (iii) learning styles in an ESP environment. Overall, this book is organized into four chapters. Chapter One presents the relevant literature on the main strategy classification systems (Naiman et al. 1978; Rubin 1981; O'Malley and Chamot 1990; Oxford 1990) and overall VLS use research. Chapter Two is an overview of relevant research on the learner variable factors affecting the use of VLS in our study, i.e., self-regulation, self-esteem, and language learning styles.

Chapter Three presents the research questions and hypotheses posited as well as the methodology of our study. It provides a detailed description of the subjects, instruments, and procedures for the study. Data analysis and coding methods, as well as the statistical methods used in responding to the questions and hypotheses are also contained in this chapter. Key results of the main study are also presented and discussed in the second half of the chapter. This section is divided into four main sections devoted to the quantitative analysis starting with an overall picture of VLS use among the entire sample. Section two presents the results and discusses the relationship between self-regulation, gender, vocabulary knowledge, and overall VLS use, separate and in categories. Section three covers the findings regarding the relationship between (a) self-esteem and the use of separate VLS, (b) self-esteem and the use of VLS in categories, and (c) self-esteem and overall use of VLS. Section four covers the findings regarding the relationship between (a) learning styles and the use of separate VLS, (b) learning styles and the use of VLS in categories, and (c) learning styles and overall use of VLS. Finally, Chapter Four provides a summary of the major findings and the general conclusions of the study, followed by useful implications for vocabulary strategy training in EFL and ESP educational contexts alike and suggestions for future research in the area of vocabulary strategy in second language learning settings.

CHAPTER 1

L2 EMPIRICAL RESEARCH ON VOCABULARY LEARNING STRATEGIES

1.1. Introduction

Being generally viewed as a subset of general Language Learning Strategy (LLS), it seems sensible to provide an account of the key aspects relevant to the wide research area of vocabulary learning strategies (VLS). In broad terms, this chapter consists of four main sections that provide a thorough account of VLS research from a foreign language educational contexts through discussion of issues primarily pertaining to VLS definitions in the area of second language learning and their classification in selected VLS taxonomies presented in the second section of the chapter. This discussion is followed by an overview of relevant studies akin to our study and concerned with the general use of VLS in EFL and ESP contexts in the third and fourth sections, and therefore, necessary as our conceptual framework.

1.2. Key Taxonomies of Vocabulary Learning Strategies (VLS)

In defining VLS, we are faced with a scarcity of definitions as most of them are centered around the construct of LLS (Nation 2001). In attempting to define VLS, Schmitt (1997) initially draws on Rubin's (1987, 29) definition of LLS, which views learning as "the process by which information is obtained, stored, retrieved, and used". Thus, Schmitt observed that VLS "could be any [strategies] which affect this rather broadly-defined process" (Schmitt 1997, 203), suggesting that VLSs can be observable or not, conscious or unconscious, and aim to learn vocabulary. Nevertheless, this definition sounds rather general, and seemingly no explicit indication of VLS is made.

A more concrete and detailed definition of VLS is offered by Jimenez-Catalan (2003, 56), who defines VLS as "knowledge about the mechanism (processes strategies) used to learn vocabulary and the steps or actions taken by students (a) to find out the meaning of unknown words, (b) to retain them in long-term memory, (c) to recall them at will, and (d) to use them in oral or written mode". Such a definition seems to focus on two types of strategies involved in L2 vocabulary acquisition, i.e., meta-cognitive strategies (knowledge about the mechanism of vocabulary learning) and cognitive strategies (actions taken), reflecting somewhat of Anderson's (2005) three-stage process of vocabulary learning. Catalan based her definition of VLS only on the meaning of the word to be learned, excluding other important aspects of the word knowledge to be acquired by learners such as form and proper use in example-sentences.

Moreover, Nation (2001, 217) draws on important characteristics of a strategy to arrive at a definition of VLS as follows: a strategy would need to: first, involve choice, that is, there are several strategies to choose from: second, be complex, i.e., there are several steps to learn though this feature is not applicable to all strategies, such as in the case of repetition. Third, it requires knowledge and benefits from training though some argue that strategies cannot be taught or there is no benefit from training students in strategies. Fourth, a strategy increases the efficiency of vocabulary learning and vocabulary use. This implies that strategies are by definition beneficial and cannot be included as a defining feature of a VLS. These are intended to help the users, except the well-known "unhelpful" ones like over-reliance on internal word clues when guessing.

Following the LLS strategy research conducted by Oxford (1990a), Cohen (1998) and O'Malley and Chamot (1990), Marin (2005, 74) offers a more comprehensive definition of VLS as "those conscious and unconscious, planned and unplanned steps and actions that L2 learners take to discover and consolidate the form, meaning and usage of words", hence highlighting four important aspects of vocabulary learning, i.e., (i) the conscious and unconscious aspect, (ii) planned and unplanned actions or steps that touch upon meta-cognitive strategies, (iii) discovery and consolidation strategies which assume deliberate actions done by the learner, and (iv) linguistic aspects related to the identified word such as grammatical category, meaning, and usage. In this section, the focus will be on the key VLS taxonomies such as Schmitt (1997), Stoffer (1995), Gu and Johnson (1996), and Nation (2001).

1.2.1. Stoffer's (1995) VLS Taxonomy

Stoffer (1995) produced the Vocabulary Learning Strategy Inventory (VOLSI), which included a questionnaire containing 53 items designed to assess vocabulary learning strategies. She used factor analysis to classify the categories. The 53 items were clustered into nine categories as follows:

1. Strategies involving authentic language use.
2. Strategies used for self-motivation.
3. Strategies used to organize words
4. Strategies used to create mental linkages.
5. Memory Strategies.
6. Strategies involving creative activities.
7. Strategies involving physical actions.
8. Strategies used to overcome anxiety.
9. Auditory strategies.

Since she used actual data from learners to create her categories of VLS, the factors might be specific to her idiosyncratic sample. This approach seems to make the classification irrelevant (Tseng et al. 2006); in other words, many of the VOLSI items for a particular factor look unrelated to each other.

1.2.2. Gu and Johnson (1996) VLS Taxonomy

Gu and Johnson (1996, 643-679) investigated 850 advanced Chinese students' uses of VLSs when learning English. They identified the following VLSs:

- Meta-cognitive regulation (e.g., selective attention);
- Cognitive strategy (Note-taking strategies guessing strategies, dictionary strategies);
- Rehearsal strategies (e.g., oral repetition)
- Encoding strategies (e.g., visual encoding, Imagery)
- Activation strategies; and
- Beliefs about vocabulary learning.

The aforementioned categories, similar to other strategy classifications systems offered elsewhere, include sub-strategies; for example, the meta-cognitive strategies, which entail selective attention and self-initiation strategies. According to the researchers, those second- or foreign-language

learners who adopt a selective attention strategy know which words help them comprehend a passage adequately. Language learners who employ a self-initiation strategy typically use several methods to clarify the meaning of target words. On the other hand, cognitive strategies such as note-taking, guessing, and the skillful use of a dictionary involve background knowledge and linguistic clues, such as identifying the grammatical structure of a sentence in order to guess the meaning of target words correctly.

In terms of memory strategies, the researchers classified these into two aspects: rehearsal and encoding strategies. The former encompasses strategies such as association, imagery, visual, auditory, and semantics, whereas the latter includes strategies such as word analysis. Moreover, they identify activation strategies, which refer to "those strategies through which learners actually use new words in different contexts, for instance, learners making sentences using the words they have just learned" (Gu and Johnson 1996, 51).

1.2.3. Nation's (2001) VLS Taxonomy

Nation (2001, 218) devised a taxonomy for L2 VLSs, which is based on three aspects of L2 vocabulary learning: (1) aspects of vocabulary knowledge, (2) sources of vocabulary knowledge, and (3) learning processes. Nation's taxonomy includes three types of strategy. These are strategies for planning vocabulary learning, strategies for finding information about words (sources), and strategies for establishing knowledge (processes).

The first class of strategies is "deciding on where to focus attention, how to focus the attention, and how often to give attention to the item" (p. 218). This class includes choosing words, choosing aspects of word knowledge to focus on, choosing strategies, and planning repetition. Choosing words implies deciding the aim of language learning, and consequently, the most effective type of vocabulary to achieve this aim. This strategy distinguishes good language learners who benefit from lists of frequent words, academic vocabulary, good dictionaries, etc. (Gu and Johnson 1996; cited in Nation 2001). As for the strategy of choosing aspects of word knowledge to focus on, Nation maintains that L2 learners usually focus on word meaning, whereas they also need to consider other aspects of word knowledge for both receptive and productive language use. Choosing strategies involves "choosing the most appropriate strategy from a range of known options and deciding how to pursue the strategy and when to switch to another strategy" (p. 219). Finally, the strategy of

planning repetition entails the use of increasingly spaced retrievals when revising previously studied word lists, word cards, old material, etc.

The second general class of strategies in Nation's taxonomy is finding information about L2 words. Nation proposed four sources as follows: (1) analyzing word parts (affixes and stems), (2) using context, (3) consulting a reference source, and (4) using parallels with other languages.

The third class of VLSs, establishing vocabulary knowledge, focuses on remembering L2 words and making them available for use. They include the following strategies: (1) noticing, (2) retrieving, and (3) generating. Noticing requires recognizing the word as an item to learn. Noticing strategies include putting new words in a vocabulary network, word lists, word cards, semantic grids, etc. Retrieving refers to recalling previously discovered words. Nation maintains that retrieving can occur across the four language skills (receptive/productive, oral/visual, overt-covert, in context/decontextualized). The difference between noticing and retrieval strategies, Nation remarks, is that the latter involves having "only a cue and the other information has to be recalled by the learner", whereas the former involves providing all the information needed by the learner. Generating strategies, in Nation's words (p. 222) include "attaching new aspects of knowledge to what is known through instantiation (visualizing examples of the word), word analysis, semantic mapping, and using scales and grids. It also includes rule-based generation by creating contexts, collocations and sentences containing the word, mnemonic strategies like the keyword technique, and meeting and using the word in new contexts across the four skills of listening, speaking, reading, and writing".

1.2.4. Schmitt's (1997) VLS Taxonomy

Schmitt's taxonomy classifies VLSs into two main types: discovery and consolidation strategies (see Figure 1.1. below). Together, the types total 58 individual strategies. According to Schmitt, his taxonomy is based on different sources, which include: (1) examining a number of reference books and textbooks, (2) asking Japanese intermediate level students to write a report about how they study English vocabulary, (3) then asking their teachers to review the preliminary list and add any other strategies they thought of, and (4) subsequent reading, introspection, and conversations with other teachers. He also indicated that his taxonomy "should not be viewed as exhaustive, but rather as a dynamic working inventory that suggests the major strategies" (p. 204). Schmitt also admits that it is difficult to devise the list and assign particular strategies to any of the main categories. It is thus possible for some strategies to belong to more

than one category. The social strategy of interacting with native speakers, for instance, can be used as a discovery strategy, a consolidation strategy, and a meta-cognitive planning strategy.

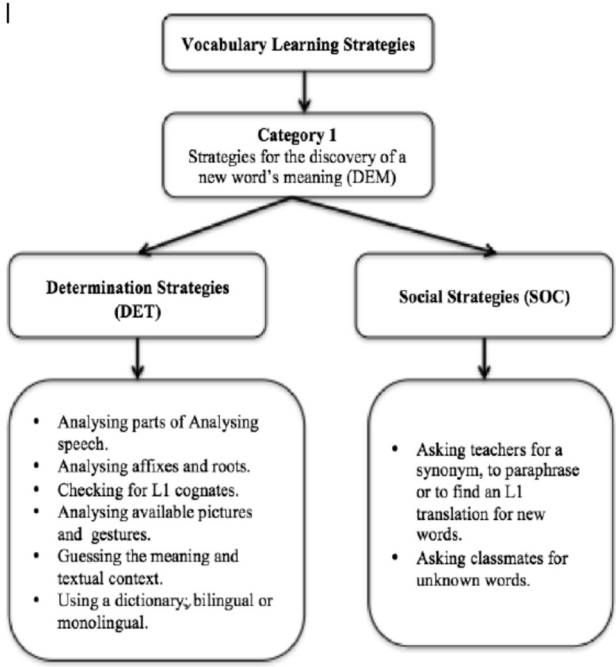

Figure 1.1. Schmitt's (1997) VLS Taxonomy – Discovery Strategies (Adopted from Alyami, 2018)

Schmitt's (1997) taxonomy of VLSs is based on Oxford's (1990) taxonomy of LLSs, which groups LLSs into social, memory, cognitive, and meta-cognitive categories (Nation 2001). Schmitt (2000), however, criticizes Oxford's taxonomy for lacking a category that adequately describes the type of strategy that a learner may use to work out the meaning of new words without seeking help from someone else. He thus introduces a category which he calls "Determination Strategies". Discovery strategies suggest that learners must discover the meanings of unknown words by different means such as "structural knowledge", "guessing" and "asking someone", which are further subcategorized into determination strategies and social strategies. The former enhances "gaining knowledge of a new word from the first four options": analysing a word's part of