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Master of Arts

THE IMPACT OF COMPULSORY DISTANCE EDUCATION IN FOSTERING SELF-REGULATED VOCABULARY LEARNING

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Necmettin Erbakan Üniversitesi Tez Çalışması Orijinallik Raporu Uygulama Esaslarını inceledim ve tez çalışmamın, bu uygulama esaslarında belirtilen azami benzerlik oranının (%30) altında olduğunu ve intihal içermediğini; aksinin tespit edileceği muhtemel durumda doğabilecek her türlü hukuki sorumluluğu kabul ettiğimi ve yukarıda vermiş olduğum bilgilerin doğru olduğunu beyan ederim.

7/01/2025

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BİLİMSEL ETİK BEYANNAMESİ

Bu tezin tamamının kendi çalışmam olduğunu, planlanmasından yazımına kadar tüm aşamalarında bilimsel etiğe ve akademik kurallara özenle riayet edildiğini, tez içindeki bütün bilgilerin etik davranış ve akademik kurallar çerçevesinde elde edilerek sunulduğunu, ayrıca tez hazırlama kurallarına uygun olarak hazırlanan bu çalışmada başkalarının eserlerinden yararlanılması durumunda bilimsel kurallara uygun olarak atıf yapıldığını ve bu kaynakların kaynaklar listesine eklendiğini beyan ederim.

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ABBREVIATIONS

Abbreviations

CDE: Compulsory Distance Education

EFL: English as a Foreign Language

ELT: English Language Teaching

LLS: Language Learning Strategies

OSRL: Online Self-Regulated Learning Strategies

SILL: Strategy Inventory for Language Learning

SIVL: Strategy Inventory for Vocabulary Learning

SRL: Self-Regulated Learning

SRVLS: Self-Regulated Vocabulary Learning Strategies

VLS: Vocabulary Learning Strategies

ÖZET

Necmettin Erbakan Üniversitesi, Eğitim Bilimleri Enstitüsü
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ZORUNLU UZAKTAN EĞİTİMİN ÖĞRENCİERİN KELİME ÖĞRENİMİ İÇİN ÖZ-DÜZENLEME BECERİLERİNİN GELİŞİMİ ÜZERİNDEKİ ETKİSİ

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Bu çalışma, 2023-2024 akademik yılı güz döneminde zorunlu uzaktan eğitimin öğrencilerin öz-düzenleyici kelime öğrenme stratejilerinin kullanmalarını teşvik edip etmediğini araştırmaktadır. Bu araştırmanın temel amacı, kelime öğrenme stratejilerinin farklı eğitim ortamlarından (çevrimiçi ve yüz yüze) nasıl etkilendiğini araştırmak ve Türk İngilizce öğretmenliği lisans öğrencilerinde öz-düzenleyici kelime öğrenme stratejilerini teşvik etmeye odaklanmaktır. Hem nicel hem de nitel veri toplama yöntemlerini birleştiren karma bir yöntem yaklaşımı benimsenmiştir. Nicel veriler Kelime Öğrenme Stratejileri Envanteri kullanılarak toplanmış ve SPSS-21 Programı aracılığıyla analiz edilmiştir. Yarı yapılandırılmış görüşmelerden elde edilen nitel veriler için içerik analizi yapılmış ve temalar halinde sunulmuştur. Bulgular, öğrencilerin çevrimiçi ortama kıyasla geleneksel yüz yüze ortamda öz-düzenleyici kelime öğrenme stratejilerini daha fazla kullandıklarını göstermektedir. Çevrimiçi ortamda cinsiyetler arasında öz-düzenleyici kelime öğrenme stratejilerinin kullanımı açısından anlamlı bir fark bulunmazken, kız öğrenciler geleneksel yüz yüze ortamda daha yüksek oranda öz-düzenleyici kelime öğrenme stratejileri uygulaması göstermiştir. Son olarak, veri analiziler ayrıca bilişsel ve bellek alt faktör stratejilerinin öğrenciler tarafından en çok uygulandığını, üstbilişsel ve sosyal/duyuşsal stratejilerin ise hem çevrimiçi hem de yüz yüze ortamlarda çok fazla kullanılmadığını göstermiştir. Yarı yapılandırılmış görüşmelerden elde edilen nitel veriler de nicel bulguları desteklemektedir. Bu araştırma, çevrimiçi eğitim sırasında kelime öğreniminde strateji öğretiminin önemini vurgulamakta ve bunun nasıl yapılacağına dair öneriler sunmaktadır.

Anahtar Kelimeler: İngilizce Öğretimi, Dil Öğrenme Stratejileri, Kelime Öğrenme Stratejileri, Öz-düzenleyici Öğrenme, Öz-düzenleyici Kelime Öğrenme, Zorunlu Uzaktan Eğitim

ABSTRACT

Necmettin Erbakan University, Graduate School of Educational Sciences
Department of Foreign Language Education
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Master Thesis

THE IMPACT OF COMPULSORY DISTANCE EDUCATION IN FOSTERING SELF-REGULATED VOCABULARY LEARNING

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This study investigates whether compulsory distance education (CDE) fosters students' usage of self-regulated vocabulary learning strategies (SRVLS) during the fall semester of the 2023-2024 academic year. The primary aim of this research is to explore how VLS are influenced by different educational settings (online and face to face) with a focus on fostering self-regulated VLS in undergraduate Turkish ELT students. A mixed-methods approach was adopted, combining both quantitative and qualitative data collection methods. Quantitative data were gathered using The Strategies Inventory for Vocabulary Learning (SIVL), and analyzed through SPSS-21 Program. Content analysis was performed for qualitative data obtained from semi-structured interviews and presented in themes. The findings suggest that students engage in self-regulated VLSs more in a traditional face-to-face setting when compared to an online setting. While there was no significant difference between genders in online setting about their usage of SRVLS, female students showed higher rate of SRVLS practice in traditional face-to-face setting. Finally, our data analysis also showed that cognitive and memory sub-factor strategies are practiced the most by students while metacognitive and socio/affective strategies were not used as much both in online and face-to-face settings. The qualitative data obtained from the semi-structured interviews further corroborates the quantitative findings. This research highlights the importance of strategy instruction in vocabulary learning during online education providing recommendations on how to do so.

Keywords: English Language Teaching, Language Learning Strategies, Vocabulary Learning Strategies, Self-Regulated Learning, Self-Regulated Vocabulary Learning, Compulsory Distance Education

PART 1

1. INTRODUCTION

In this part of the research, the problem statement, aim and significance of the study, assumptions, and limitations are presented.

Fostering students' autonomy and self-regulation is essential to their performance and success, especially when it comes to learning a foreign language. It is now more crucial than ever to investigate how compulsory distance education (CDE) affects students' capacity to oversee their own language acquisition methods. Investigating how CDE affects English as a Foreign Language (EFL) learners' development of self-regulated vocabulary learning strategies (SRVLS) and comparing it with students' self-regulation in traditional face-to-face environment is the goal of the current study. Additionally, the study also aims to shed light on the difficulties and possibilities that come with studying remotely and provide insights into what measures should be taken into account for CDE to more effectively promote learners' self-regulation.

1.1. Problem Statement

Vocabulary learning strategies (VLS), which are considered a sub-category to language learning strategies (LLS), play an important role in learning a language. Vocabulary affects the comprehension and production of the target language; therefore, vocabulary development deserves special attention. Yunhao (2011) claims that "The use of vocabulary learning strategies is one crucial factor that affects the success of foreign vocabulary acquisition" (p. 1). Nation (as cited in Yunhao, 2011) recommends that if a teacher wants to assist students in managing their vocabulary, they should focus more on teaching them strategies rather than teaching them individual words.

However, SRVLS used by students may differ due to personal differences and external factors. With the outbreak of the Coronavirus disease (COVID-19) around the world, a major shift from face-to-face to online distance education has taken place in the education system globally. Türkiye has also been affected by the outbreak of the disease and shifted to distance education on 23rd of March 2020. Unfortunately, the Turkish education system has experienced this sudden shift once more because of the two big earthquakes that took place in Kahramanmaras with a magnitude of 7.8 and 7.5 in February 2023.

The aim of the current study is to try to investigate if there is a difference in the SRVLSs used by EFL students who studied online and face-to-face. Thus, the problem statement of this study can be stated as follows:

Does Compulsory Distance Education (CDE) foster the usage of Self-Regulated Vocabulary Learning Strategies (SRVLS) compared to Traditional Face-to-Face setting?

1.2. Purpose of the Study

As a result of the sudden transition from traditional classroom setting to online learning environment, it is expected that students had to rely increasingly on self-regulation and autonomy especially in areas like vocabulary acquisition—which is crucial for language learning, The purpose of this study is to discover students' capacity to oversee, monitor, and regulate their acquisition of vocabulary in two different settings: online and face-to-face. The research will shed light on how well students use their learning strategies in online and face-to-face education settings by concentrating on SRVLS.

Both quantitative and qualitative data will be used in the study to measure how students use cognitive, metacognitive, memory and socio-affective strategies while learning vocabulary in online and face-to-face settings. Interviews will also provide us with more insight into students' struggles and experiences in the two different educational settings. In this context, the following research questions will be investigated;

1. Is there a significant difference in the frequency of students' usage of SRVLS in face-to-face and online settings?
2. Is there a significant difference in usage of SRVLS in online setting in terms of gender?
3. Is there a significant difference in usage of SRVLS in face-to-face setting in terms of gender?
4. What is the frequency of the sub-factors of SRVLS used in online setting?
5. What is the frequency of the sub-factors of SRVLS used in face-to-face setting?

1.3. Significance of the Study

Vocabulary is a vital part of a language system. It is necessary to be able to acquire all four skills of a language: reading, writing, listening, and speaking. While studies have explored self-regulation broadly in distance learning, there is limited focus on its role in VLS in distance education. This gap is particularly evident in Türkiye, where abrupt transitions to CDE posed unique challenges for both students and educators. This study is different regarding its focus in

examining students' online self-regulation specifically in vocabulary learning of undergraduate Turkish EFL students and comparing these findings to traditional face-to-face learning environments.

This study examines the effects of CDE in fostering students SRVLS and has considerable implications for the profession of English language teaching (ELT). CDE requires more student autonomy in their learning; hence it is crucial to measure how CDE affects students' usage of self-regulated vocabulary learning techniques because remote learning frequently brings about unfamiliar circumstances, such as less in-person interaction and a greater reliance on technology. Evaluation of SRVLS usage helps indicate areas where support is required to help learners properly regulate their vocabulary learning. It also helps identify obstacles that learners have, such as persistence in motivation or resource management.

Additionally, this evaluation can provide insightful information that may be used to enhance instructional strategies in hybrid learning models or during future emergencies. Teachers can more effectively create lessons and support systems that encourage self-regulated learning (SRL) by knowing how CDE influences SRVLS. Additionally, it guarantees that teaching methods are more inclusive, catering to the various needs of students and fostering fairness in distant environments. The findings can help guide long-term planning for education, allowing schools to incorporate efficient methods for supporting vocabulary growth in evolving learning environments**.**

1.4. Assumptions

It was assumed that the participants of the study answered all questions accurately and sincerely.

1.5. Limitations

The study was conducted with ELT undergraduate students at Konya Necmettin Erbakan University, 84 students in face-to-face setting and 76 students in online setting. nine volunteer students took part in the interviews. The study was conducted once in the beginning and once at the end of the fall semester in 2023-2024 academic year. Thus, the participants' age and proficiency levels are expected to be homogenous. The inventory was developed in 2017 and was never used previously with Turkish EFL students. Thus, some minor changes were made to the inventory to make it applicable with Turkish students. The semi-structured interviews were constructed by the interviewer herself.

PART 2

2. LITERATURE REVIEW

In this part of the study, ELT and LLS, VLS, SRL, SRVL, CDE, self-regulation in CDE, technology use in language learning and vocabulary learning, and lastly the previous studies conducted in Türkiye and abroad are mentioned.

2.1 ELT and LLS

As the objectives of the 21st-century education move toward independent learning and skill-based instruction, the importance of effective and learner-centered approaches has grown in the field of ELT, underscoring the vital role that LLS play in promoting successful language acquisition. By incorporating LLS into ELT approaches, students are empowered to take an active role in their education, enabling them to take charge of their own language development, improving their competence and independence. As a result of this change, the attention inevitably shifts to the ways in which students can successfully acquire and maintain these skills in their language learning journey.

Many techniques and approaches have been developed to improve learners' proficiency within the larger structure of ELT. Language acquisition techniques are essential for assisting learners in acquiring and using the language in an effective way. According to Rubin (1975), a learner can employ some strategies as a method or instrument to learn a new language. These strategies are known as LLS and explain the learning differences of learners who are within the same educational setting. LLSs can differ from one person to another depending on their characteristics and individual differences. They are defined as “language learning strategies are steps taken by students to enhance their own learning” (Oxford, 1990, as cited in Tseng, 2022, p. 20). As a result, it can be concluded that LLS paves the way for a successful language learning experience in which students take responsibility for their own learning.

The characteristics of LLS were also highlighted, including the following:

“Language learning strategies;

- Are specific actions taken by learners.
- Can be taught.
- Expand the role of teacher.

- Are flexible.
- Are often conscious as the term *strategy* itself implies a conscious
- movement towards a goal (Hsiao and Oxford, 2002).
- Are problem-oriented, that is, learners use them intentionally and consciously control them.
- Help learners to be more self-directed (learner autonomy).
- Support learners' learning directly and indirectly.
- Are influenced by a variety of factors.
- Contribute to the communicative competence of learners, which is the main goal of FL teaching" (Oxford, 1990, as cited in Arslan, 2014, p. 17).

Another definition of LLS is "... any sets of operations, steps, plans, routines used by the learner to facilitate the obtaining, storage, retrieval, and use of information" is (Wenden & Rubin, 1987, as cited in Ungureanu & Georgescu, 2012, p. 2). An additional definition of LLS after years of research on LLSs is unique concepts and attitudes that students employ to comprehend, acquire, and retain new information (O'Malley & Chamot, 1990, as cited in Cetin, 2019). This definition highlights the fact that LLS are helpful for more than one reason: the acquisition of new information and the retention of that knowledge.

According to researchers, some students apply those strategies consciously while others apply them unconsciously. The conscious usage of learning strategies is only effective along with two significant elements called "reflection" and "flexibility" (Skehan, 1998, as cited in Sahin, 2005). Learners should be capable of looking back at their learning experience to evaluate its effectiveness, and then by responding to the situation in a flexible manner or attitude.

In short, although there are different definitions to learning strategies, they can be summarized as useful tools that students can utilize to become successful language learners.

2.1.1 Importance of LLS

Mastering a new language requires the application of LLS as they can increase the effectiveness and personalization of the learning process, leading to better language competency and student success. LLS also enhance learner autonomy and train learners to become lifelong learners (Oxford, 2003, as cited in Kulusakli, 2019). The main goal of learning strategies is to improve students' comprehension and knowledge of the target language (Cohen,

2000, as cited in Kulusakli, 2019). Learning strategies also promote the development of the language system built by the learner. Allwright and Little have proven that these strategies help learners become independent and self-regulated (as cited in Kulusakli, 2019).

It is also possible to increase students' performance and self-confidence and lower their affective filter when there is a meaningful relationship between learning strategies and the methodologies and materials used. It's reported that students are more likely to be successful if they use learning strategies that are well-suited to their goals, demands of their learning, materials, and academic level (Oxford, 1989, as cited in Cetin, 2019). Besides, Cetin further explains that according to O'Malley and Chamot's previously mentioned definition of learning strategies, it can be concluded that these strategies are of great importance when it comes to learning information and recalling it.

Equally important, another reason why learning strategies are important is that they contribute to the main goal, communicative competence, as well as the grammatical, sociolinguistic, discourse, and strategic components of that competency. It's also important to mention that learning strategies enable students to develop greater independence. The goal of teaching learning techniques is to empower students to take charge of their own education. Learning strategies promote learning both directly and indirectly (Oxford, 1990, as cited in Jalo, 2005). In fact, Wenden (as cited in Bayalas, 2022) adds a new perspective to the topic and states that learning strategies also provide an insight into the reasons behind the failure of students at certain tasks.

In short, everyone has a distinctive viewpoint on language learning. Different backgrounds, gender, hometowns, and ages all have an impact on how an individual learns. Despite these differences, having knowledge about learning strategies and implementing those strategies can help students become successful language learners.

2.1.2. Classification of LLS

Considering the vital role that LLS play in improving language competency, it's critical to investigate the many categories of these strategies to have a better understanding of how they can be used efficiently in diverse learning environments. Numerous researchers have examined LLS and categorized them in various ways. In this thesis, Oxford's, Rubin's, O'Malley and Chamot's, and Stern's classifications will be mentioned.

2.1.2.1. Oxford's Classification (1990)

The most common and comprehensive classification of learning strategies was put forward by Oxford. According to Oxford, the goal of language learning strategies is to foster communicative competence (Hardan, 2013). Oxford categorizes LLS's into two groups: direct and indirect.

Direct strategies include cognitive strategies which are mental operations closely connected to the processing of information. They help learners identify and generate a language and involves "practicing, receiving and sending messages, analyzing and reasoning, and creating structure for input and output" (Bayalas, 2022, p. 32). Cognitive strategies enable learners to use all of their processes to correctly manipulate the target language or activity (Hardan, 2013). These strategies are divided into four main sets: practice through listening, producing sounds or writing, receiving and sending messages, analyzing and reasoning, and creating structures for input and output by taking notes, summarizing or highlighting for emphasis (Ozturk, 2004).

Memory strategies are also part of direct strategies and are divided into four parts. They are known to help learners retain information. "Laying things out in order, making association, reviewing, creating mental linkages" (Arslan, 2014, p. 23) are examples of memory strategies. The first part is creating mental linkages by grouping and classifying target information into meaningful units, linking new information to previous knowledge and thus creating association in memory, and contextualizing the word for easier recall. Applying images and sounds is the second category of memory strategies. This includes making use of meaningful imagery, semantic mapping with key concepts at the center linked with related concepts using lines or arrows, using keywords and recalling information based on its sound. The third and fourth part consists of reviewing well in suitable intervals and employing action using physical response or sensation as well as mechanical techniques (Jalo, 2005).

In addition, memorization strategies are methods used for improving memory and retrieving and transferring knowledge that will be needed for future language use. Through memorization, learners can retain key information from their education. These strategies assist the student in retrieving the material once it is needed for future usage (Hardan, 2013). While memory techniques do not always require in-depth comprehension, they do assist learners in connecting second language items to one another. Despite the fact that memory techniques are

crucial to the process of learning a language, numerous studies have revealed that language learners rarely report using them (Cetin, 2019).

And finally, compensatory strategies are used by learners to make up for their incompetency when their knowledge of the target language isn't enough to communicate. These strategies are sometimes referred to as communication strategies (Arslan, 2014). Students utilize compensatory strategies to make up for their lack of vocabulary in the target language. Despite having a restricted vocabulary, these techniques enable the learner to write and speak in the target language (Hardan, 2013). Oxford states that students automatically use certain supplements to fill in knowledge gaps in the learning process, or they deliberately employ compensatory strategies when their vocabulary and grammar are inadequate (as cited in Cetin, 2019). Guessing with the help or linguistics or other clues and overcoming limitations in speaking and writing by switching to the mother tongue, getting help, miming or gesturing or even avoiding communication whether partially or completely are all ways of overcoming obstacles (Ozturk, 2004). "Guessing from the context, using synonyms and talking around the missing word, and using gestures or pause words" are the most common examples (Sadraei, 2015, p. 22).

As for indirect strategies, they are methods and techniques that support and manage learning without the direct involvement of the target language. Students use metacognitive methods to help them plan their learning strategies, coordinate the learning process, and adjust them if necessary (Hardan, 2013). Metacognitive strategies are about learners thinking about their learning process and organizing it by planning, arranging, focusing, and evaluating their learning process through self-monitoring and self-evaluation. Learning about the language itself, setting goals and objectives, planning for a language task and identifying its purpose are also part of metacognitive strategies and fall under the arranging and planning of your learning (Ozturk, 2004).

Social strategies are also indirect strategies that boost social interactions using the target language. Students are assisted in working together by social strategies. Learners take advantage of every social interaction that occurs in the new language environment as an opportunity to learn new things in the target language or to reinforce what they already know (Cetin, 2019). Asking questions for clarification, verification or correction, cooperating with peers or proficient users of the target language, and developing cultural understanding by empathizing are all sub-categories of social strategies (Ozturk, 2004). "This group involves

strategies such as asking questions to get verification, asking for clarification of a confusing point, asking for help in doing a language task, cooperation with others, conversing with a native-speaker, and exploring cultural and social norm" (Arslan, 2014, p. 28).

And lastly, affective strategies focus on learner's emotional needs such as boosting their confidence (Altay & Saracaloglu, 2017). "Lowering Your Anxiety, Encouraging Yourself, and Taking Your Emotional Temperature" are three sub-categories for affective strategies (Cetin, 2019 p. 27). Making use of deep breathing or mediation, listening to soothing music and laughing at a funny movie or a book can help lower anxiety. Producing affirmative statements, taking risks and rewarding yourself for good performance can be used to encourage oneself. Listening to your body by being aware of its signals, using a checklist to figure out your feelings and attitude about learning a language, writing a language learning diary and discussing your feelings are ways of taking one's emotional temperature (Ozturk, 2004). To conclude, Cetin (2019) claims that "affective learning strategies are about managing feelings both positive and negative. When a student controls his or her feelings (s)he can easily handle the learning process" (p. 27). We can therefore state that it is important to have a positive attitude towards something to succeed in what you want to do.

Table 2.1. Oxford's Taxonomy of LLS (Bayalas, 2022, p. 32)

Classes	Groups	Sets
Direct Strategies	Cognitive Strategies	Practicing
		Receiving and sending messages strategies
		Analyzing and reasoning
		Creating Structure for input and output
	Memory Strategies	Creating mental linkages
		Applying images and sounds
		Reviewing well
		Employing action
	Compensation Strategies	Guessing intelligently
		Overcoming limitations in speaking and writing
Indirect Strategies	Metacognitive Strategies	Centering you learning
		Arranging and planning your learning
		Evaluating your learning
	Affective Strategies	Lowering your anxiety
		Encouraging yourself
		Taking your emotional temperature
	Social Strategies	Asking Questions
		Cooperating with others
		Empathizing with others

2.1.2.2. Rubin's Classification (1987)

Rubin categorizes learning strategies into two parts; strategies that affect the development of the learners' language system directly and strategies that affect the development of the learners' language system indirectly. The former strategies are also called 'learning strategies' while the latter are called 'social strategies' and 'communication strategies' (as cited in Hardan, 2013).

Learning strategies are divided into two sub-groups of strategies: cognitive and metacognitive strategies. Cognitive strategies include six types of strategies: clarification/verification, monitoring, memorization, guessing/inductive reasoning, deductive reasoning, and practice. Metacognitive strategies, on the other hand, aid learners in regulating and managing their learning activities. Such examples of metacognitive strategies include self-management, planning, setting goals and prioritizing (Hardan, 2013).

Communication strategies, however, are more about involving the learner in a dialogue and expressing themselves to the addressee in a comprehensible manner. They are less directly tied to language learning, concentrating on the act of engaging in a discussion, explaining one's initial goal or getting understood as the speaker. In case of inadequate knowledge, the learner uses communication strategies to get the message across using different ways. Social strategies are basically activities that allow learners to practice what they have learned. They are defined by Rubin as "activities providing learners with opportunities to be exposed to and practice their knowledge" (as cited in Yilmaz, 2021, p. 12)

Table 2.2. Rubin's Taxonomy of LLS (Kulusakli, 2019, p. 28)

Primary Strategy Classification	**Sub-groups of Strategies**	**Representative Secondary Strategies**
Direct Strategies	Cognitive strategies	Monitoring Deductive reasoning Practice Memorization Classification/verification Guessing/inductive inferencing
	Metacognitive strategies	Self-management Planning Setting goals Prioritizing
Indirect Strategies	Compensation strategies	Creates opportunities for practice
	Social strategies	Production tricks

2.1.2.3. O'Malley and Chamot's Classification (1990)

O'Malley & Chamot (1990) classifies LLSs into three categories: metacognitive strategies, cognitive strategies and social/affective strategies. Thinking about the learning process, planning, monitoring and evaluating the learning process are the core elements of metacognitive strategies.

Executive abilities or techniques that particularly plan and consider the learning process that is happening are referred to as metacognitive strategies. This method is further wrapped up by monitoring a learner's production and/or understanding and assessing learning after the completion of an activity. The metacognitive methods category includes techniques related to self-monitoring, self-evaluation, advance organizers, self-management, and selective attention (Karaslan, 2016).

Table 2.3. Sub-Categories of O'Malley and Chamot's Metacognitive Strategies (Ozturk, 2004, p. 64)

Meta-Cognitive Strategies	Selective attention	Focusing on special aspects of learning tasks, as in planning to listen for keywords or phrases
	Planning	Planning for the organization of either written or spoken discourse
	Monitoring	Reviewing attention to a task, comprehension of information that should be remembered, or production while it is occurring
	Evaluation	Checking comprehension after completion of receptive language activity, or evaluating language production while it is occurring

Cognitive strategies are more about steps or actions that a learner does intentionally and involves more direct transformation of learning materials as well as the usage of the learned information (Cetin, 2019). Cognitive strategies "manipulate the learning material more directly and are more limited to specific learning tasks" (Yilmaz, 2021, p. 10). Repetition, organizing, inferencing, summarizing, and deduction are some of the main components of cognitive strategies.

Table 2.4. Sub-Categories of O'Malley and Chamot's Cognitive Strategies (Ozturk, 2004, p. 65)

Cognitive Strategies	Rehearsal	Repeating the names of items or objects to be remembered
	Organization	Grouping and classifying words, terminology, or concepts according to their semantic or syntactic attributes
	Inferencing	Using information in text to guess meanings of new linguistic items, predict outcomes, or complete missing parts
	Summarizing	Intermittently synthesizing what one has heard to ensure the information has been retained
	Deducing	Applying rules to the understanding of language

Cognitive Strategies	Imagery	Using visual images (either generated or actual) to understand and remember new verbal information
	Transfer	Using known linguistic information to facilitate a new learning task
	Elaboration	Linking ideas contained in new information, or integrating new ideas with known information

And finally, socio/affective strategies' focus is on how learners communicate (Arslan, 2014) and the use of one's mental orientation to assist his/her own success and reduce his/her anxiety (Cetin, 2019). Working with peers to study or review the study materials, consulting teachers or other learners for assistance or information gathering and having self-talks to lower anxiety level are part of social/affective strategies (Ozturk, 2004).

Table 2.5. Sub-Categories of O'Malley and Chamot's Social/Affective Strategies (Ozturk, 2004, p. 66)

Socio/Affective Strategies	Cooperation	Working with peers to solve a problem, pool information, check notes, or get feedback on a learning activity
	Questioning for clarification	Eliciting from a teacher or peer additional explanation, rephrasing or examples
	Self-talk	Using mental redirection of thinking to assure oneself that a learning activity will be successful or to reduce anxiety about a task

2.1.2.4. Stern's Classification

Stern classifies learning strategies into five strategies: management and planning strategies, cognitive strategies, communicative and experiential strategies, interpersonal strategies, and affective strategies.

Table 2.6. Stern's Taxonomy of LLS (Kulusakli, 2019, p. 30)

Strategies	**Representative Secondary Strategies**
Management and planning strategies	- Decide what commitment to make to language learning - Set himself reasonable goals - Decide on an appropriate methodology, select appropriate resources, and monitor progress - Evaluate his achievement in the light of previously determined goals and expectations
Cognitive strategies	- Clarification / verification - Guessing / inductive inferencing - Deductive reasoning - Practice - Memorization - monitoring
Communicative Experiential strategies	- circumlocution - gesturing - paraphrase or asking for repetition - explanation
Interpersonal strategies	-
Affective Strategies	-

The term "management and planning strategies" refers to establishing a realistic goal and evaluating one's own performance in relation to it (Yilmaz, 2021). In other words, management and planning strategies point out learners' aim to direct his/her own learning and controlling his/her improvement in the learning process. The learner is willing to take responsibility for his own learning and as a result develops a plan with the help of his/her teacher. It was noted that the learner should 'decide what commitment to make to language learning, set reasonable goals, decide on an appropriate methodology, select appropriate resources, and monitor progress, evaluate his achievement in the light of previously determined goals and expectations' (Stern, 1992, as cited in Arslan, 2014, p. 22).

The methods that students employ when studying and practicing the target language are referred to as cognitive strategies (Yilmaz, 2021). They are used for "direct analysis, transformation, or synthesis of learning materials" (Arslan, 2014, p. 22). Cognitive strategies include clarification, verification, guessing, inductive inferencing, deductive reasoning, practice, memorization and monitoring (Bayalas, 2022).

Communicative and experiential strategies are used by learners to keep the conversation going. "Circumlocution, gesturing, paraphrase, or asking for repetition and explanation" can be mentioned as communicative and experiential strategies (Arslan, 2014, p. 22).

Interpersonal strategies require learners to interact with the native speakers (Arslan, 2014) of the target language and communicate with them to improve interpersonal skills and learn the culture and the language (Cetin, 2019).

And finally, steps that a learner takes to reduce or overcome negative feelings, such as stress, anxiety, and prejudice, towards the target language are known as affective strategies (Arslan, 2014).

2.1.3. Factors Affecting LLS

Knowing the various categories of LLS helps one to identify the range of approaches that students can take; that being said, it's also critical to consider the different factors that affect students' decisions about which strategies to use in different learning environments.

Language learners use different strategies that correspond with their needs and goals. The strategies learners choose are inevitably influenced by many different types of individual

differences. Those parameters are categorized as age, aptitude, personality, learner disabilities, motivation, attitude and beliefs (Freeman, 2001, as cited in Sahin, 2005). Cultural background and past learning experiences can also be added to the list of individual differences. Numerous studies have investigated the extent to which these diverse aspects affect pupils' selection of language-learning techniques.

Age

While some argued that learning a new language for adults is more difficult due to factors such as cultural shock, feeling inefficient and the decreasing ability to learn, others claimed that they can understand grammatical rules and patterns better than young learners thus are cognitively superior. In fact, a study found out that adult learners use more learning strategies compared to young learners (Bialystok, 1981, as cited in Rezalou & Altay, 2022). Another study revealed that adult learners utilized generalized strategies while young learners used strategies in task-specific manner (Ellis, 1994, as cited in Ceylan, 2017).

Gender

Gender differences can also be a reason for different usage of learning strategies. It's been asserted that female students and male students have different preferences when it comes to using different types of learning strategies (Oxford & Nyikos, 1989, as cited in Arslan, 2014). Another revealed that men didn't use as many strategies as women (Ehrman & Oxford,1989, as cited in Arslan, 2014). Yalcin attained a similar result at a study conducted at Gazi University (as cited in Cetin, 2019).

As to the types of strategies favored by different genders, Bacon (1992) stated that females used more metacognitive and cognitive strategies. Kaylani also claimed that the use of memory, compensation, cognitive and affective strategies was far more by female students than male students (as cited in Rezalou & Altay, 2022). Besides that, Cetinkaya (2017) found out that memory strategies were mostly preferred by female students while male students preferred compensation strategies. On the other hand, Karahan (2007) found no relationship between strategy use and gender.

Proficiency Level

Several studies were also conducted to figure out the relationship between learning strategies used and the proficiency level of students. To start, Griffiths (2007) conducted a study that confirmed higher level students used various strategies more frequently. Likewise, a

similar result was obtained by Chi-Him Tam (2013) indicating students with higher proficiency level used learning strategies more frequently and efficiently.

The types of strategies preferred by different levels of learners were also discovered through studies. For example, Lai (2009) revealed that metacognitive and cognitive strategies were favored by higher level students as to lower-level students who preferred memory and social strategies. Wu also stated a similar result regarding the preference of higher-level students for using cognitive, metacognitive, and social strategies (as cited in Ellis, 2008).

Motivation

Motivated students tend to be more willing to learn a language and do whatever it takes to be successful, therefore, a positive correlation is expected between motivation and LLS. Oxford and Nyikos (as cited in Arslan, 2014) conducted a study and revealed that highly motivated students use more strategies compared to less motivated students. Besides, they also observed that high use of strategies also leads to an increase in the level of motivation. Ellis also suggested “highly motivated students use more strategies related to formal practice, functional practice, general study, conversation and input elicitation than poorly motivated students” (as cited in Ceylan, 2017, p. 115).

2.2. VLS

While there are numerous approaches for learning a new language through LLS, vocabulary acquisition is also an important area that needs special focus. This is because building the lexical information that serves as the basis for efficient communication in any language requires the use of vocabulary learning techniques, which are a subset of LLS. Thus, a subcategory of general learning strategies for second language acquisition can be VLS.

2.2.1 Definition and Importance

For someone learning a language regularly, vocabulary is important and serves as a key component in language competency as vocabulary ignorance, or lack of vocabulary, can result in lack of meaningful communication.

According to Oxford (2017), "L2 vocabulary learning strategies are teachable, dynamic thoughts and behaviors that learners consciously select and employ in specific contexts to improve their self-regulated, autonomous L2 vocabulary development for effective task performance and long-term proficiency" (p. 244).

Since most undergraduate degree programs require academic reading, obtaining a sufficient receptive knowledge of English vocabulary is frequently viewed as a prerequisite for succeeding academically in higher education courses conducted in English. Readers who can understand the 8–9,000 most common word families in English can identify 98% of the words in most academic writings, leading to a nearly 70% comprehension rate. For children whose first language is not English, however, achieving this amount of vocabulary might be very difficult (Bowles, 2024).

Among the most common VLS used by learners are memorization, repetition and note-taking. It has been noticed that learners tend to prefer using simple techniques rather than techniques that require a lot of active manipulation of information, e.g. imagery or inferencing, to learn vocabulary. However, there are many vocabulary learning approaches (Schmitt, 2010).

2.2.2. Classifications of VLS

Like LLSs, VLS have been classified by researchers. As a result, these strategies were conceptualized and helped form the VLS inventories. This has also made it easier to comprehend and understand the relationship among single strategies by grouping similar ones under certain strategy categories, and thus making it possible to draw conclusions on the use and the learning and teaching of these strategies. These VLS classifications have made it possible for researchers to evaluate these strategies using unbiased statistical methods (Taylor, 2004).

This section will provide a summary of Nation's, Schmitt's, Gu's, and Dalton and Grisham's VLS taxonomies.

2.2.2.1 Nation's VLS Taxonomy

There are four characteristics of VLSs according to Nation: (1) it involves choosing from a list of various strategies, and (2) it has multiple steps therefore it is complex, (3) it requires knowledge about different strategies and training, and lastly (4) it improves the effectiveness of learning new words and using them (Taylor, 2004). Nation then classifies VLS into three dimensions: planning, sources, and processes. During the planning phase, the student must select the word knowledge, acquisition strategies, and target vocabulary words. In the source section, the student examines the word, applies it to a situation, refers to an L1 and L2 reference source, and draws comparisons between the language of mother tongue and language

of choice. Ultimately, the learner discovers the need to retrieve and produce the target vocabulary in the process section (Demir, 2022).

2.2.2.2. Schmitt's VLS Taxonomy

Among the most often utilized taxonomies is Schmitt's VLS taxonomy. According to Schmitt (as cited in Demir, 2022), proficient learners are those who can plan their learning process and use several vocabulary acquisition techniques to pick up and retain new words. As a result, he provides a thorough definition of vocabulary learning taxonomy and VLS classification. Schmitt's taxonomy makes use of Oxford's LLS, which includes social strategies (SOC), memory strategies (MEM), cognitive strategies (COG), and metacognitive strategies (MET), as well as Mayer & Nation's Discovery/Consolidation distinction. Nevertheless, because Oxford's classification lacks methods for learning a word's meaning, Schmitt concludes that it is insufficient for vocabulary acquisition. As a result, he includes determination strategies as an additional classification category.

Schmitt created a thorough list of vocabulary acquisition techniques. He separates the methods into two categories: those used to figure out the meaning of new words when they are first experienced and those used to reinforce meaning when they come up again. Cognitive, metacognitive, memory, and social strategies are found in the latter, whereas determination and social strategies are found in the former. Due to their dual-purpose nature, Schmitt incorporates social techniques into both categories (as cited in Nosratinia et al., 2013).

Furthermore, Schmitt divides the strategies into five categories: "Social," which involves interacting with others; "Memory," which involves connecting new information to what is already known; "Cognitive," which involves the learner manipulating language; "Metacognitive," which involves making decisions regarding the learning process; and "Determination," which involves figuring out a new word's meaning on one's own. He continues by making a distinction between the methods employed to determine the meaning of a word and those employed to subsequently solidify comprehension (as cited in Fowle, 2002).

Demir (2022) further explains that the two primary categories of discovery strategies of Schmitt's taxonomy are determination and social strategies. When students come across a word for the first time, they either need the help of someone else, social strategies, or use their language knowledge, contextual cues, or reference materials to determine the new meaning,

determination strategies. These methods for learning the basics of a new word were named "discovery strategies" (as cited in Yilmaz, 2021).

Determination strategies include students learning about an unfamiliar word. With the aid of resources like word lists and flashcards, one can infer the meaning of a word in a given context. There are also some helpful hints for figuring out the meaning of a word you're not sure of. First, thinking about the meaning involves recognizing the word class. Second, the word's affixes and origins might shed light on its meaning. Furthermore, identifying terms that share a root across languages might aid in memory and guesswork.

Social strategies are the second category of discovery strategies. To acquire the target word using this technique, the learner poses questions to someone who is familiar with the word, such as providing a synonym, translating the word, describing it, and using it in a sentence. The student can ask his peers and the teacher questions when employing this technique. In addition, group projects are beneficial for learning a word's definition in addition to applying and practicing it. To help the word become permanent, students can use teamwork for practice (Demir, 2022).

Kesmez (2020) claims that in order to help with word recall, memory strategies entail connecting a word's meaning to previously learned material. A new term can be recalled by making connections with previously learned information, and visual aids that capture the formal and semantic aspects of the word might be useful. According to Schmitt (as cited in Demir, 2022), the six subcategories of memory methods are "pictures/imaginary, related words, unrelated words, grouping, word's orthographical or phonological form, and other memory strategies" (p. 23).

While memory and cognitive strategies for vocabulary learning are similar, cognitive strategies need more repetition and the use of mechanical methods. To be more specific, strategies that require associating, linking with prior knowledge, and using imagery fall under the category of cognitive strategies, Schmitt included strategies involving mechanical means and repetition under the memory strategy category (as cited in Yilmaz, 2021). According to Oxford, when a learner uses cognitive techniques to acquire a new vocabulary, their mental processes are employed to understand and generate the target vocabulary. Cognitive strategies encompass several techniques such as writing and oral repetition, rewriting or pronouncing the term, taking notes, and maintaining a vocabulary notebook. Furthermore, word lists, word

sections found in textbooks, and word cards are useful resources for cognitive methods aimed at helping students remember terms later (as cited in Demir, 2022).

Schmitt asserts that the best resources for learning vocabulary are English-language books, magazines, newspapers, and movies. Speaking with a native speaker is an additional method of learning the language. Finally, self-testing informs the learner about the language learner process since it offers constructive criticism and shows the use of various techniques. Passing over unfamiliar words, studying vocabulary over time, and practicing vocabulary at various times are additional metacognitive language learning techniques (as cited in Demir, 2022)

Gu's VLS taxonomy

Gu and Johnson identified six major categories of VLS used by Chinese students learning English:

1. Metacognitive Regulation: Selective attention and self-initiation are examples of metacognitive regulation techniques. When employing selective attention, students concentrate on words that are essential to comprehending a paragraph. Learners who practice Self-initiation autonomously define words using a variety of techniques.
2. Cognitive Strategies: Cognitive strategies include techniques like taking notes, guessing, and using dictionaries. Learners deduce the meanings of unfamiliar terms by applying prior comprehension and linguistic cues, such as understanding grammatical structures.
3. Rehearsal Strategies: These include methods such as oral repetition, which provide learners with repeated exposure to help them remember terminology.
4. Encoding Strategies: To help learners recall terminology, this category includes techniques like visual encoding and imagery, in which they form associations or mental images.
5. Activation Strategies: By employing these strategies, learners can actively practice and solidify their learning by applying newly taught vocabulary in a variety of scenarios, such as creating sentences with recently learned terms.
6. Beliefs about Vocabulary Learning: This category represents the attitudes and perspectives of learners about the acquisition of vocabulary, which shapes their approach to acquiring new words.

Gu and Johnson emphasized the significance of cognitive methods that combine language proficiency and prior knowledge, and meta-cognitive strategies that help learners decide what to focus on and how to independently look up word meanings. The study emphasizes how difficult it is to learn vocabulary and the strategic methods that students use to improve their language skills (as cited in Katsaru, 2022).

2.2.2.4. Dalton and Grisham's VLS Taxonomy

Dalton & Grisham (2011) represent eVoc strategies and have formed 10 item list highlighting strategies which use digital resources and tools for vocabulary learning. The first five items concentrate on teaching vocabulary directly and assisting students in becoming autonomous vocabulary learners. The sixth and seventh item highlight two internet resources that offer instant assistance while reading. Items eight and nine contribute to increased reading capacity and word learning. The final item is an online vocabulary game that fosters word engagement.

Teachers can employ electronic vocabulary instruction (eVoc) to cultivate students' interest in words and vocabulary acquisition using technology by making vocabulary learning engaging, accessible, and interactive, adapting vocabulary instruction to the digital age. Dalton and Grisham mentioned ten eVoc strategies as follows:

1. Visual Displays of Word Relationships: Students can visualize word relationships with the help of programs like Wordle and WordSift. Students can better grasp themes and important ideas by using word clouds to highlight terms that appear frequently in a text.

2. Digital Vocabulary Field Trips: Students are led on virtual adventures by online resources such as TrackStar, which explore terminology in particular contexts. For instance, students could virtually visit websites about Alaskan weather to investigate weather-related terms.

3. Online Vocabulary Games: Vocabulary learning is made fun with the help of websites like Vocabulary.com, which provide entertaining activities. Word meanings and relationships are reinforced by these games, like crossword puzzles and word scrambles.

4. Multimedia Expressions of Vocabulary: To illustrate vocabulary words, students use PowerPoint or other tools to construct multimedia presentations that include definitions, sounds, and visuals. Through creative expression, this contributes to a greater understanding.

5. Online Word Reference Tools: Students can become independent in their exploration of new words by using Visual Thesaurus and Dictionary.com to discover synonyms, definitions, and examples of contextual usage.

6. Just-in-Time Vocabulary Help: Digital tools offer fast translations or definitions of words. Students may quickly verify word meanings using tools like toolbar dictionaries, which improves reading comprehension.

7. Language Translators for English Learners (ELs): ELs benefit from translators like Google Translate, which offer translations and enable them to use their first language skills to develop vocabulary in English.

8. Reading Digital Texts: Students are exposed to new language in a range of settings when they read a variety of digital publications, such as blogs and online articles. By directing children to trustworthy sources, teachers can promote incidental vocabulary learning.

9. Text-to-Speech (TTS) Tool and Audiobooks: By reading digital literature aloud, text-to-speech programs help struggling readers access grade-level material and improve their vocabulary through auditory comprehension.

10. Combine Vocabulary Learning with Social Service: Games like Free Rice, in which the right answers lead to donations to people in need, have a social impact by encouraging kids to utilize language while also supporting a worthy cause (Dalton & Grisham, 2011).

According to Benson, learning strategies have been greatly affected by SRL (as cited in Ping & Siraj, 2012). Bowles (2024) cited that as the learner's level of L2 proficiency decreases, s/he will need to spend a great percentage of their vocabulary learning time to deliberate, form-focused learning and therefore should make use of self-regulation to manage and control their vocabulary learning. Indeed, self-regulation is now seen as an important part in L2 learning, and the cyclical process of L2 vocabulary learning.

2.3. SRL

Though vocabulary acquisition strategies offer methods for picking up new words, their efficacy is frequently associated with a learner's capacity to control their own learning. SRL gives students the ability to take charge of their motivation, study habits, and thought processes.

With the transition from teacher-based learning to learner-based learning in recent years, learner autonomy has grown and continues to grow in importance in language learning and teaching processes. The idea was first put forward in France in the early 1970's because of the shifting in methodology (Sahin, 2005). According to McDonough (as cited in Ping & Siraj, 2012), Self-Directed Language Learning (SDLL), learner autonomy and self-instruction are among the similar terms used for self-regulation. Helping learners how to learn and improve their learning capacity is the main purpose of SRL. By developing their independence and self-management abilities, using the right learning methodologies allows students to take ownership of their education (Oxford & Nyikos, 1989).

2.3.1. Definition and Importance of SRL

The ability of learners to take charge of their own learning process, make choices, and accept responsibility for their learning results is known as learner autonomy (Alyas, 2011), and it is directly tied to language learning. Autonomy refers to the ability to make decisions on one's own and learn independently, whereas self-regulation refers to the capacity to control one's thoughts and actions to accomplish goals. While they are two different concepts, they are closely related as autonomy often involves the exercise of self-regulation skills to guide one's learning journey.

Self-regulation is defined as 'thoughts, feelings and actions that are planned and adapted to the attainment of personal goals' (Zimmerman, 2000). It is about setting goals for learning, concentrating on instruction, using effective strategies to organize ideas, using resources effectively, monitoring performance, managing time effectively, and holding positive beliefs about one's capabilities (Schunk & Ertmer, 2000).

Self-regulation is a broad term that includes several interrelated elements. It includes cognitive abilities such as beliefs, perceptions, and knowledge, and affective abilities such as moods, feelings, and emotions. Metacognitive abilities- "that is, understanding one's own cognitive skills, including memory, attention and problem-solving. This enables learners to make the best use of their knowledge and skills" (Salter et al., 2009, p. 3) are a part of self-regulation as well (Flavell, 1979).

Self-regulation is important for learners to start taking an active role in their education as opposed to just taking in knowledge passively. Self-regulated learners take responsibility for their own learning by managing their time and study schedules, motivating themselves,

adapting and changing their learning strategies whilst improving their problem-solving skills depending on the challenges they face, and fostering life-long learning habits by monitoring and evaluating their own learning.

2.3.2. Models and Theories

After defining SRL as the process by which students take charge of their own learning, it is critical to explore the different models and theories that offer a framework for comprehending how SRL works and can be effectively fostered. Multiple fields are involved in the formation and development of SRL such as educational psychology and second language teaching (Yu, 2023).

2.3.2.1. Zimmerman's Models

The term "Self-Regulated Learning" was first introduced by Zimmerman in 1986. The foundation of Zimmerman's research on SRL is grounded in the socio-cognitive theory, which holds that people learn through social interaction and observation. His work was first influenced by cognitive modeling with Albert Bandura and Ted L. Rosenthal and has developed to investigate how people become experts at different kinds of tasks. Zimmerman set three important models: The Triadic Analysis of SRL (1989) which is based on Bandura's social-cognition framework and analyzes how environment, behavior and individual characteristics interact in SRL, the Cyclical Phase of SRL which describes how motivational and metacognitive processes interact at various SRL phases, and the Multi-Level Model which illustrates the steps learners undergo to develop self-regulatory competency (Panadero, 2017).

Zimmerman has developed an important concept of SRL known as the Cyclical Phase Model whereby three "cyclical" stages are involved (as cited in Yenicikan, 2020). Students plan their time and effort and assess themselves based on their goal and context expectations during the first step, known as the forethought phase. It entails evaluating the assignments, creating the learning and bringing it to life by awareness and control over the underlying motivation. At the second phase, which is the performance phase, learners can decide to stay or go, or they can decide to commit. Students can control their attitude and learning strategies to stay on track to achieve their goals and, if necessary, adjust their aim in response to changing circumstances to ensure and retain their emphasis on their planned outcomes. They are aware of their plan, practice, feelings, and desires. In the last stage of the cyclical, known as the self-reflection phase, students evaluate the purpose and significance of their learning considering their selected course of action. This entails measuring and analyzing the performance of the

students in relation to the predetermined criteria, considering the goals and methodologies selected during the forethought process.

2.3.2.2. Boekart's Models

Boekarts is also one of the earliest in SRL literature focusing mainly in explaining the role of goals and motivation. She developed two key models of SRL: Structural Model (1996) and Adaptable Learning Model (1991-1992) which later evolved into the Dual Processing Self-Regulation Model. The Structural Model (1996) splits SRL into six components arranged around the cognitive and affective/motivational self-regulation strategies. This model was used for teacher training, creating measurement tools and design interventions. The Adaptable Learning Model revolves around the dynamic aspects of SRL and describes two processing modes: mastery or learning mode and coping or sell-being mode integrating different psychological frameworks. The expanded model places emphasis on three goals of self-regulation: enhancing one's knowledge and abilities, preserving one's dedication to learning, and stopping dangers to oneself (Panadero, 2017).

Boekaerts emphasizes how important emotions are to SRL and names volitional and emotion management techniques as essential elements. According to Boekaert's and Cascallar's (2006) Dual Processing Model, students' evaluations of a task play a crucial role in identifying which goal pathway they activate. Goals serve as "knowledge structures" that direct actions. When students feel that a work poses a threat to their well-being, they experience unpleasant feelings. As a result, they may choose to defend their ego by switching to a well-being pathway. On the other hand, when the work is in line with their objectives, it makes them feel good, which motivates them to follow the mastery/growth pathway. According to Boekaerts (as cited in Panadero, 2017), students who perceive that they may not succeed can go from the mastery pathway to the well-being pathway. Emotions play a crucial role in this model.

2.3.2.3. Winne and Hadwin's Model

Four linked, recursive steps make up the SRL model developed by Winne and Hadwin. These steps work together to create a feedback loop. Students first understand the task they are asked to do. The next step includes setting goals and planning how to accomplish the task. The third step includes students taking the necessary steps to accomplish their objectives. The last step is the metacognition adaptation. Following the completion of the main procedures, students modify their motives, beliefs, and techniques considering their experiences. Winne highlights mistakes can be found in a phase that comes after a previous phase. The model describes how

students plan, carry out, and assess tasks using criteria and standards while continuously comparing their work to these standards. The model links to studies on motivation regulation and recognizes that SRL is goal-driven, even though it does not specifically address emotions (Panadero, 2017).

2.3.2.4. Pintrich's Model

Pintrich's model of SRL is made up of four phases: (1) forethought, planning and activation; (2) monitoring; (3) control; and (4) reaction and reflection. Pintrich claims that during phase one, the learner engages in activities such creating task perceptions, identifying task needs, and drawing on prior knowledge and experience. Phase two involves monitoring, wherein the learner participates in metacognitive monitoring processes. Students can select and use efficient cognitive strategies for the work in phase three. In phase four, the participant is required to evaluate their performance on the project, assess their areas of strength and weakness, and concentrate on the effectiveness of their mental and motivational strategies (as cited in Yenicikan, 2020). Each of these phases involves regulation in four areas: cognition, motivation/affect, behavior and context. The regulation of the cognition area is about employing metacognitive strategies, such as assessing learning. The motivation/affect area is about regulating motivation and emotions. The behavior area is about controlling one's explicit actions. And finally, context is about monitoring and regulating the learning environment (Panadero, 2017).

As for Second Language Learning, LLS have a tremendous impact on SRL (Rose et al., 2018). Tseng, Dornyei, and Schmitt investigated Taiwanese university students' capacity for self-regulation. 192 students from two universities were given the self-regulation tool they created, which they believed to be psychometrically sound. In the field of second language acquisition, their research "provides evidence for the validity of transferring the theoretical construct of self-regulation from educational psychology to the area of second language acquisition." Self-regulation ability may be translated from educational psychology to second language learning, according to Tseng et al. (as cited in Arslan, 2021, p. 20).

The concept of SRL was first introduced into the field of Second Language Teaching by Dornyei proposing five categories: commitment control, metacognitive control, satiation control, emotion control, and environmental control (Yu, 2023). Thus, it combined the emotional and cognitive components of learning. Tseng et al. (2006) then developed the questionnaire "Self-regulation ability of vocabulary learning" influenced by Dornyei's model.

By incorporating SRL and other theories with LLS, Oxford (2017) redefined these strategies and made them a part of attaining self-regulation. This section will be explained in detail further in the Self-Regulated Vocabulary Learning section of the thesis.

In short, it can be stated that the models in educational psychology have richer theoretical foundations and more comprehensive and complete dimensions and are in a constant state of growth and innovation when compared to the models in second language teaching, which also concentrate on LLS but are only a handful in number.

2.3.3. Factors Affecting SRL in LL

Although SRL models and theories provide insightful analyses of the mechanisms behind autonomous learning, it is equally vital to investigate the range of elements that impact the manifestation and application of SRL in the context of language learning. Studies have shown that SRL affects academic success in language learning positively. In this section, we will briefly mention the factors that have an impact on students' self-regulation in language learning.

Motivation

To start with, learners' inner motivation has a tremendous impact on students' success. Students who have a clear goal and an interest in the target language culture tend to self-regulate better. Hromalik & Koszalka (2018) identified that students who are intrinsically highly motivated, especially personal emotional motivation, had better learning results due to their effective time management skills and their ability to reflect and adjust their learning strategies. Students with poor learning outcomes, on the other hand, showed higher levels of practical motivation and procrastination. Self-regulation and learning motivation are therefore known to reinforce each other as mastery learning goals (internal motivation) and achievement learning goals (external motivation) results in enhanced academic success.

Self-Efficacy

Furthermore, self-efficacy, which is a learner's belief about his/her potential in performing certain tasks and goals (Bandura, 1997), also fosters SRL. The higher the self-efficacy, the more the learner shows higher levels of self-regulation (Csizér & Tankó, 2017)**.** A learner can also exhibit more self-regulation if s/he thinks the task s/he is working on is essential, useful and appealing. This is known as task value. Students engage in a range of cognitive and metacognitive tasks to better themselves when self-development is their stated

goal. Thus, mastery goal orientation is also effective in increasing learners' self-regulation in language learning (Pintrich, 1999). Not only learners' beliefs but also teachers' developmental educational beliefs affect self-regulation in language learning (Shahmohammadi, 2014). Daniela (2015) describes SRL as a transferable skill; therefore, it is a vital responsibility of teachers to transfer those skills to their students.

Proficiency

Language proficiency is another factor that affects student success. Zhang discovered that the utilization of learning strategies had a significant correlation and directly affected students' English proficiency (as cited in Koksal & Dundar, 2017). Furthermore, it influences their proficiency in learning English not just regarding the number and types of strategies they employ, but also about how they employ them. The results also suggested that language learning success may be influenced by self-regulation.

It has also been revealed that long term language learners tend to use technology more as their level of proficiency increases. A study revealed that students with high proficiency levels in English language have higher levels of self-regulation in mobile vocabulary learning as they are not afraid of making mistakes but rather focus on using the target language (Liang, 2016, as cited in Yu, 2023).

Culture and Educational Background

Additionally, learners' culture and educational background can also be linked to the strategies they use (Yilmaz, 2010). Personal characteristics, age and the needs of a learner can also influence the type of strategies they prefer to use (Canbay, 2020). This is because some skills are better developed by specific strategies (Setiyadi et al., 2016). It came to light that extrovert students utilized time management, study environment, peer learning and help seeking strategies more than other students (Ghyasi et al., 2013).

Tactical learners are also better self-regulated learners (Paris & Paris, 2001). These learners can decide and adapt their language learning methods to increase the effectiveness of their learning (Anderson, 1991).

Finally, various data suggests that different nationalities prefer different self-regulation skills in language learning. A study has shown that European students use SILL strategies more frequently (Griffith, 2003, as cited in Koksal & Dundar, 2017). Another study revealed that Iranian EFL learners employ metacognitive strategies the most (Nikoopour et al., 2011).

Additionally, a study conducted on Turkish EFL students uncovered that Turkish students prefer to utilize metacognitive strategies the most and cognitive strategies the least (Yesilcinar, 2014).

2.4. Self-Regulated Vocabulary Learning (SRVL)

After examining the numerous aspects that influence self-regulated language learning and its models and theories, we now focus on a more specialized aspect of this process: self-regulated vocabulary learning. Given that vocabulary is a vital building block of language proficiency, it is imperative to understand how learners drive and regulate their own vocabulary development.

Effective vocabulary retention requires considering psychological factors and techniques. Learning Strategies are defined as "mental activities that people use when they study to help themselves acquire, organize, or remember incoming knowledge more efficiently" (Park, 1995, as cited in Senturk, 2016, p. 91). Senturk further elaborates that through this definition, it can be inferred that greater involvement in processing new words can result in better word retention. Long-term vocabulary acquisition both within and outside of the classroom requires learners to adopt autonomous vocabulary learning practices. High self-efficacy learners are more flexible in resolving possible problems in vocabulary learning to accomplish their objectives.

Regarding the regulation research of vocabulary acquisition, Gu & Johnson (1996) divided the methods involved in vocabulary learning into two categories: cognitive and metacognitive. Selective attention and self-initiation are two main components of metacognitive regulation. Conversely, cognitive techniques come in a wider variety, including guesswork, note-taking, encoding, practice, activation, and dictionary use.

On the other hand, Arslan (2021) suggests that it would be reasonable to view Tseng et al. (2006) as the forerunners in the field of second language acquisition when it comes to including self-regulation ability as they were the ones to replace educational psychology with a new definition of self-regulation. He claims that rather than placing emphasis on the results of strategic learning, they highlighted the ability of learners to regulate themselves on an internal level. The primary advancement in the field was the creation of a special place for the ability to self-regulate in the context of vocabulary learning. This is why the idea is known as the self-regulating capacity for vocabulary learning.

Using a six-point Likert scale, Tseng et al., (2006) created the Self-Regulatory Capacity in Vocabulary Scale (SRCVoc), a questionnaire with 20 items. There are five subscales that make up this measure: Environmental control, Satiation control, Metacognitive control, Control commitment, and Emotion control. The following is how Tseng et al., (2006, p. 85-86) described the five aspects of SRCVoc:

"1. Commitment control, which helps to preserve or increase the learners' original goal commitment (e.g. keeping in mind favourable expectations or positive incentives and rewards; focusing on what would happen if the original intention failed).

2. Metacognitive control, which involves the monitoring and controlling of concentration, and the curtailing of any unnecessary procrastination (e.g. identifying recurring distractions and developing defensive routines; focusing on the first steps to take when getting down to an activity).

3. Satiation control, which helps to eliminate boredom and to add extra attraction or interest to the task (e.g. adding a twist to the task; using one's fantasy to liven up the task).

4. Emotion control, which concerns the management of disruptive emotional states or moods, and the generation of emotions that will be conducive to implementing one's intentions (e.g. self-encouragement; using relaxation and meditation techniques).

5. Environmental control, which helps to eliminate negative environmental influences and to exploit positive environmental influences by making the environment an ally in the pursuit of a difficult goal (e.g. eliminating distractions; asking friends to help and not to allow one to do something)."

2.5. CDE

It is essential to comprehend the fundamentals of self-regulated vocabulary learning, particularly in situations when students are required to oversee their own learning strategies. Especially in the context of emergency remote learning, where a traditional classroom setting is physically absent, a greater level of learner autonomy is required. To completely understand the implications of this change in education, it is necessary to first define CDE and investigate its special features.

2.5.1. Definition

CDE can be defined as a mandatory type of instruction where teaching and learning needs to take place remotely outside of a traditional classroom by using digital platforms, internet resources and other communication technologies. Public health emergencies that threaten the health of a nation, e.g. the outbreak of the Corona Virus Disease in 2019, or natural disasters that cause massive destruction to an area can be regarded as reasons for a shift from a traditional learning environment to an online learning environment. Toquero (2020) explained that if face-to-face involvement is impractical, the COVID-19 threat forced educational authorities to seek any other technique to meet students' educational needs. The Turkish education system has experienced this major twice; first with the outbreak of the Corona Virus Disease (COVID19) in March 2019 and second because of the two big earthquakes that took place in Kahramanmaras with a magnitude of 7.8 and 7.5 in February 2023.

Additionally, distance learning was defined as “the acquisition of knowledge and skills through mediated information and instruction, encompassing all technologies and other forms of learner at a distance” (Roblyer, 2000, as cited in Kırtık, 2023, p. 18). Even though it has undergone substantial changes and been viewed from various angles, the idea of distance education has always been approached from the same points: a separation of the learner and instructor into two educational properties, two-way communication between the two parties, and the use of technology to create and deliver learning materials. With this foundation, we can now look at the advantages and disadvantages of CDE, examining how this mode of learning both supports and challenges learners.

2.5.2. Advantages and Disadvantages of CDE

Numerous studies have been conducted regarding online learning and as a result, several advantages and disadvantages have been discovered. The major drawback is that there is no time to plan and design the educational program before it is implemented (Kirtik, 2023). Zhang (2020) argued and backed up his argument that there is no readily understandable standard for what to teach, how to teach it, or how much work teachers and students should be required to put in. Furthermore, it is suspected that this sudden shift to a completely different environment may have a negative impact on the standard of instruction and learning.

While implementing online learning has the potential to benefit students in terms of resilience, adaptability, and security, it has also presented teachers and students with several drawbacks and difficulties by placing a burden on students to be more autonomous and active

throughout the learning process. Among other common difficulties of distance education is the inability to interact face-to-face with peers and instructors, the inability to choose the time and location of their studies, and the accessibility of learning resources. Furthermore, time management, low motivation, and unpreparedness for online learning activities are additional difficulties that students face during online learning (Mahmud & German (2021).

Moreover, inadequate writing or communication skills for online learners, as well as challenges with Internet and device accessibility are some academic and general drawbacks of online learning that have been identified (Aboagye et al., 2020). Equally important, students felt isolated, stressed and bored during online learning. Some lacked technological equipment, and others had limited digital skills. Parents also felt insufficient in terms of their technological skills and thus couldn't provide the help their child needed during the learning process (Lepp & Luik, 2021). Lack of organized teaching content, restricted living space to attend lessons as all house members were working remotely from home, along with reduced interactions between teacher- student and student-student are among the disadvantages of CDE (Ferri et al., 2020).

On the other hand, online learning has enhanced both teachers' and students' competency and skills in using digital tools (Lepp & Luik (2021**).** Another advantage was the increase in students' learner autonomy (Jili et al., 2021) and improved research skills of learners (Kaya & Uylas, 2022).

These advantages and disadvantages naturally lead to a discussion on self-regulation in CDE, where the need for learners to independently manage their learning becomes paramount, especially without direct teacher supervision.

2.6. Self-Regulation in CDE

While self-regulation has been considered important in face-to-face learning environments, it has been observed that remote learning is more closely associated with self-regulation. In contrast to traditional face-to-face learning environments where instructors monitor and control students' learning behavior, students must practice self-regulation skills to the fullest extent possible in order to achieve learning goals in online learning formats (Dabbagh & Kitsantas, 2004, as cited in Demirel, 2022). It has also been stated that the usage of SRL skills is more important to implement the learning process successfully and improve learners' academic accomplishment during the online learning process because the instructor does not have control over the learners (Edisherashvili et al., 2022).

A study was conducted to find out the relationship between online self-regulation and learning. The results revealed that online self-regulation behavior is greatly influenced by learning methodologies (Ekici et al., 2014). Because online learning is learner-centered, self-regulation is essential. Another study was carried out to investigate the relationship between online self-regulation and self-efficacy. The study showed that self-efficacy among EFL learners is positively impacted by self-regulation factors such goal setting, environment structuring, and self-evaluation; environment structuring is the most widely accepted of these factors (Su et al., 2018). And finally, Albelbisi and Yusop conducted a study which demonstrated that success in massive open online courses (MOOCs) is correlated with high levels of SRL, Also, the study also showed that learning achievement and the development of self-regulated skills are facilitated by favorable attitudes toward MOOCs (as cited in Kulusakli, 2022).

A study was conducted with students of M. Phil secondary teacher education program and five teachers to explore up to what extent distance education system is successful in fostering SRL among learners at higher level. Teachers of the distance education system were also asked and considered to determine their level of sensitivity, awareness and preferences to encourage SRL among students. Data analysis showed that teachers were concerned about students in the MS/M.Phil program developing the abilities necessary to regulate their own learning. Additionally, teachers were aware of the various factors that could affect students' capacity to regulate their own learning. In this regard, they proposed that more technology-based assessment exercises and interactive course materials would be significant steps toward achieving this goal. As for students, the assignments, presentations, self-learning activities, and reflection exercises were regarded as highly successful in helping them develop into self-regulated learners. The study also found differences in self-regulation skills based on academic achievement. Students who reported higher levels of academic accomplishment and the use of SRL strategies also reported higher levels of self-evaluation and metacognition sub-dimensions. Therefore, it can be stated that self-evaluation and metacognition are important predictors of academic success in higher education. This study also found that social support from teachers and peers served an important role as students are learning to be more self-regulative. Additionally, it was shown that self-regulated learners could set short- and long-term learning objectives, make plans to reach those objectives, motivate themselves, and concentrate on their development. Additionally, they have the capacity to use a variety of learning strategies, modify them as necessary, self-monitor their development, ask for assistance when necessary, and

assess their own learning objectives and progress in light of their learning outcomes (Ambreen et al. 2016).

Another study was also pursued to investigate SRL skills of EFL learners in online English course in distance education and explore the relationship between the learners' SRL skills, their age and gender. 120 students studying in various departments of a state university participated in the study. According to the results, students could handle their environmental structuring skills at a "good" level. In contrast, they gave themselves a moderate success rating for persistence, metacognitive abilities, asking for help, and time management. Additionally, the research revealed that there was no statistically significant distinction in terms of gender and age and their level of self-regulation. According to the study, for distance education students to become more independent language learners, they must enhance their capacity for self-regulated online learning (Kulusakli, 2022).

Additionally, Kose (2023) conducted a study to investigate the tertiary level of EFL learners' self-regulation level and attitude toward distance learning during the Covid-19 Pandemic. The study examined whether there are significant differences in students' Self-Regulation Foreign Language Learning (SRFLL) competencies and Attitude Scale Towards Distance Learning (ASTDL) attitudes based on their demographic information, such as gender, school department, and English proficiency. The participants of the study were 120 preparatory EFL students. It was conducted in the 2020-2021 academic year. The findings showed that students demonstrated skills, such as recognizing their own emotions, self-efficacy, help-seeking, goal-setting, and intrinsic motivation. In addition, moderately positive attitudes toward distance education were clearly expressed in the study. Meaningful relationship was found between students' self-regulation skills and their attitudes toward distance learning, as a positive increase in self-regulation skills can help promote positive attitudes toward online learning. Substantial differences in terms of gender and English proficiency were also found as female students' practice more vital help-seeking skills. Results also revealed that EFL students at the B1 level performed better in most self-regulation abilities when compared to other levels of English proficiency. According to the ASTDL results, no significant relationship was observed between gender, academic department, and English proficiency. It can therefore be concluded that student's gender, academic department, or level of English ability do not significantly affect their attitudes toward distance learning.

In short, in the current era of technology and digitalization, it is important for students to be self-regulated learners who can plan their own learning, set goals, use strategies to achieve those goals, monitor their own progress, evaluate themselves, and make necessary adjustments.

2.7. Technology Use in Language Learning and Vocabulary Learning

Considering the significant role technology has in distance education, we will now focus on technology use in language learning and vocabulary learning, highlighting how digital tools and platforms facilitate or hinder the development of vocabulary within this SRL environment as technology use and learner autonomy gained significant importance in language learning with the shift from traditional classroom setting to online learning.

To begin with, using various learning management systems, such as Moodle, Zoom, Cisco, Youtube, Instagram and Blackboard requires students to acquire new vocabulary and provides them with opportunities to practice it (Dincer, 2020). Alghamdi and Elyas (2020) presented a summary of the studies conducted regarding Saudi students' VLS during the breakout of COVID-19. They demonstrated how electronic flashcards can help students increase their vocabulary. Alhadiah (2020) had a favorable attitude on using the Quizlet vocabulary-learning program. Alamer (2020) investigated the impact of Blackboard (Bb) on vocabulary acquisition. The results of the study indicated that King Khalid University (KKU) students' performance in vocabulary learning was somewhat impacted by Bb. Muidh Alharthi et al. (2020) conducted a literature study on the topic of vocabulary learning using social media platforms in which the effectiveness of social media platforms in vocabulary acquisition has been recognized.

Moreover, Isık (2023) also listed some of the studies conducted in teaching vocabulary using technology. Kocaman (2015) concluded that that with educational games and computer-assisted vocabulary applications, students' vocabulary achievement scores and compensation level utilization significantly increased. Aslandemir (2020) observed that students using Web 2.0 tools had positive things to say about ESP classes, and their pre- and post-vocabulary achievement ratings improved. Kurtoglu asserted that Kahoot and Quizlet, two Web 2.0 resources, were deemed by students to be engaging, entertaining, and useful for learning vocabulary (as cited in Isık, 2023). Ceylan claimed that participants of the study found Quizlet to be amusing, useful, and practical, making it a more effective approach for distant learning than the word list method (as cited in Isık, 2023). And finally, Arslan (2021) concluded through his study that there is a positive relationship between students' attitudes toward digital

technology and how they learn language, with mobile learning devices considerably increasing vocabulary acquisition.

Furthermore, Zhang et al., (2024) presented a mixed-method study on learner application of SRL strategies, motivation and vocabulary knowledge development in Self-Regulated Digital Game-Based Vocabulary Learning (SR-DGBVL) and the interactions among these variables. The findings showed that in SR-DGBVL, applying SRL strategies could significantly enhance motivation, and that high motivation could significantly promote vocabulary knowledge development. SR-DGBVL was also found significantly more effective than conventional vocabulary learning (CVL) for developing vocabulary knowledge and improving motivation. However, applying SRL strategies may have statistically insignificant effects on vocabulary knowledge development after controlling motivation and vocabulary learning methods as the interview results suggested that employing SRL strategies might, in fact, reduce vocabulary learning efficiency by overloading learners' cognitive resources—a finding scarcely mentioned in previous studies on SRL for language education.

In addition, Boroughani et al. (2023) explored the impact of mobile-assisted SRL on developing university students' knowledge of academic vocabulary in English. 49 students participated in the study. Students in the experimental group studied 70 academic words using digital flashcards application installed on their mobile devices (i.e., smartphones), and the control group learned the same words using traditional materials (i.e., word lists). The results showed that, when compared to conventional methods like word list learning, mobile-assisted SRL is more successful at helping students acquire academic vocabulary as in the post-test and delayed test, members of the experimental group did better than those in the control group. This outperformance could be due to various reasons according to the authors. Firstly, the experimental group's participants had the opportunity to learn the target words in a systematic way and had more opportunities to review and use them because the mobile-assisted learning condition involved using digital flashcards with spaced repetition technology. This impacted their overall learning positively and resulted in higher scores on vocabulary tests. Secondly, the adoption of new technologies for education is typically linked to higher motivation, and higher motivation, or engagement with the learning process, is a powerful indicator of language learning success. Thirdly, the experimental group's participants had easy access to mobile-assisted learning materials, which may have led to greater interaction with the content and

eventual learning gains given the affordances of mobile devices for expanding vocabulary learning to anytime and place.

Besides, a study was initiated with the aim to investigate online VLS used by Saudi EFL students who study English at the University of Bisha, Saudi Arabia, during COVID-19 outbreak. Kulikova's VLSs Questionnaire (2015) was used as a data collection tool and results were analyzed using SPSS 24. Regarding methods for incorporating the acquired vocabulary into their repertoire, the study found no significant differences between the variables (male/female, high grade/low grade, and major/non-major). According to student reports, students rarely used techniques that involved asking friends, classmates, and professors questions. To find the meaning, they either employed Google Translate, multilingual dictionaries, or intuition. It was discovered that while English majors and non-majors differed in how they studied and applied new vocabulary-learning strategies, they did not differ in how they retained previously taught vocabulary (Shamsan et al., 2021).

Finally, research was carried out aimed at developing an educational website to encourage self-regulated vocabulary learning. 120 participants were randomly assigned to one of three groups based on two vocabulary-learning strategies: (1) a lexical-inference group; (2) a dictionary-use group; or (3) a dictionary use with lexical-inference group. When the three groups' gain scores were compared, it was found that the lexical-inference group performed best in terms of vocabulary retention while the dictionary-use group performed best in terms of vocabulary knowledge and reading comprehension. The efficiency of various vocabulary acquisition techniques varies in several domains. While dictionary look up techniques may be more suited for vocabulary expansion and reading advancement, vocabulary inference techniques might be better for long-term retention. This emphasizes how important it is for vocabulary learners to get a clear knowledge of when to apply a particular approach, improve their ability to switch between strategies efficiently, and increase their level of skill in each technique. The study also sheds light on the importance of focusing on the quality rather than the quantity of learning strategies in e-learning and interactive learning environments. By doing so, learners can potentially maximize the benefits derived from their vocabulary learning endeavors (Lin et al., 2024).

2.7.1. Seamless and Ubiquitous Learning

The use of technology in vocabulary instruction has completely changed the way students learn, practice, and remember new words by providing them with accessible,

interactive, and adaptable resources. The idea of seamless and ubiquitous learning goes beyond the fact that these developments allow learners to interact with language in dynamic ways by guaranteeing that learning is not limited to certain devices or environments. Through the provision of ongoing, contextualized learning experiences in various settings, seamless and ubiquitous learning enables students to naturally and effortlessly increase their vocabulary at any time and in any location.

With individualized and flexible learning experiences, ubiquitous learning, or U-learning, gives students the proper instruction at the appropriate time and location (Pownell & Bailey, 2001, as cited in Ye & Hung, 2010). Mobile learning environments are useful tools for promoting self-directed learning as every learner has a different educational path that is impacted by time, location, and personal preferences (Zhu, 2003, as cited in Ye & Hung, 2010). These settings give students the freedom and flexibility to choose their own learning style and pace, which is crucial for meeting a range of learning requirements. U-learning has been further enhanced by the development of wireless networks and context-aware technologies, which allow learning to take place anywhere and at any time and easily fit in with the ideas of self-directed learning. By providing appropriate support that is adapted to each student's unique learning style, teachers play a critical role in helping students develop these skills and increase the efficacy of the learning process (Ye & Hung, 2010).

Using a variety of technologies to bridge formal and informal contexts, seamless learning enables students to move between environments with ease (Milrad et al., 2013). Utilizing integrated and pervasive technologies, ubiquitous learning eliminates the distinctions between mobile learning in the classroom, outside of it, and in daily life, which is consistent with seamless learning (Sharples & Roschelle, 2010, as cited in Looi et al., 2015). In other words, seamless learning allows students to continue having consistent learning experiences across various contexts and technological platforms. Learners can effortlessly transition between contexts, whether they are learning alone, with peers, or in larger communities, thanks to mobile devices. These settings could be classrooms, parks, museums, or online platforms and social networking sites. With an emphasis on the development of 21st-century skills and lifelong learning habits, recent research emphasizes the significance of promoting autonomous learners through seamless learning (Anastopoulou et al., 2012). Instead of being constrained by preset goals and resources, the aim is to assist learners in becoming self-directed individuals

who can consistently complete tasks in a variety of contexts by leveraging latent learning opportunities in their everyday environments (Wong et al., 2012).

Finally, contextualized vocabulary usage and comprehension are integrated into language learning through seamless learning, which encourages students to extrapolate word meanings from formal to informal contexts. Web 2.0 platforms and mobile devices are examples of modern technologies that offer substantial affordances to support this smooth language learning cycle, increasing student engagement and guaranteeing learning continuity (Wong et al., 2012).

2.8. Previous Studies

2.8.1. Studies Conducted in Türkiye

To start, Isik (2023) conducted a study in the academic year 2021-2022 with 40 secondary school students in Batman, Türkiye to investigate the effect of Web 2.0 tools on students' vocabulary development and self-regulated vocabulary learning tools. The title of her study was "The Effects of Web 2.0 Tools on EFL students' Self-Regulation and Vocabulary Development" and was released in the year 2023. Isik's study was grounded on a mixed-method research design. It was an experimental study supported with pre/post-test, Self-Regulatory Capacity in Vocabulary Learning Scale (SRCvoc) and semi-structured interviews. While the experimental group used Web 2.0 tools for two hours every week for twenty weeks in total, the control group attended class as usual only to learn the target vocabulary without using Web 2.0 tools. The results of the study revealed that the experimental group was more successful in learning the target vocabulary and that most learners had positive attitudes towards those tools. An improvement in commitment, emotion and metacognitive control was also revealed while there was no significant difference regarding the environmental and situation control.

Furthermore, Demirel (2022) carried out a study to investigate the use of online self-regulated learnings (OSRL) strategies by learners of EFL in a high school setting during distance education in 2022. It explored how these strategies varied across different levels of academic achievement and the roles of gender and course attendance in OSRL strategies. 184 Public High School Students from Türkiye receiving online education during COVID19 participated in her study. The study employed both quantitative and qualitative methods to extract the results. The OSRL Questionnaire, which measures the extent to which students use various SRL strategies in an online context, and a follow-up semi-structured interview were used. The collected data were analyzed through SPSS. Results showed that the help-seeking

and self-evaluation sub strategies were not used as much as the other OSRL strategies. It was also discovered that higher-achieving students used help-seeking strategies more effectively. No significant difference was found in the overall use of OSRL strategies for different genders and course attendance did not contribute to the overall use of OSRL by students.

Moreover, Demir (2022) conducted a study to investigate the relation between the level of language acquisition and VLSs' usage of 100 EFL 8th grader students aged 12-15 studying in a state school. A VLS Questionnaire adapted from Schmitt's taxonomy (1997), an LA Questionnaire adapted from Sakai et al (2008), and a semi-structured interview adapted from Olmez' (2015) were used to collect data. SPSS 26, thematic analysis, and Quirkos were used to analyze the data collected. The results indicated a weak positive relationship between the students' VLS and their autonomy levels.

In addition, Elcin and Sahinkarakas (2021) investigated the self-regulatory capacity of learners with varying proficiency levels in vocabulary acquisition over three different periods: the university exam preparation period, the prep class, and the freshman year at university. The researchers tried to understand what control mechanisms of self-regulation the students with varying proficiency levels have in vocabulary learning. A multiple case study of qualitative research method with a longitudinal approach was used with three learners from the Translation and Interpretation department of a state university in Türkiye were selected based on their proficiency exam grades and were categorized into three groups: more improving, less improving, and steady/decreasing in performance. The authors collected data using three narrations, six interviews, and six self-reports from the participants across the three periods. The data were analyzed using a checklist modified from the "Self-regulatory Capacity for Vocabulary Acquisition (SRCvoc)" scale by Tseng et al. which were coded under the subheadings of the SRCvoc checklist. The study revealed that the good starter and average starter student was able to overcome some negative feelings or habits during his/her vocabulary learning process; however, the steady one was unable to create an effective balance between good and bad feelings and seemed to feel pessimistic and unsuccessful although she tried hard. Additionally, the more improving group successfully adapted her strategies based on emerging needs and maintained motivation despite challenges. The less improving group also showed great improvement in self-regulation such as finding enjoyable ways to practice vocabulary. The steady/decreasing group, on the other hand, experienced strong self-regulatory behaviors in the first period which started to decline later in her second and third periods.

Moreover, Cepni (2021) investigated the impact of Self-Regulatory Vocabulary Learning Capacity on the vocabulary scores of the participants in her study. The participants were preparatory class students in one of the state schools in Türkiye. The survey method was used to collect data using the "Self-Regulatory Vocabulary Learning Capacity Scale" developed by Tseng et al. (2006). The results of the MANOVA test showed that students who have high vocabulary scores have higher self-regulatory vocabulary learning capacity.

A similar study was carried out by Arslan (2021) examining the relationship between vocabulary size and self-regulation capacity of adult EFL learners. A total of 124 undergraduate, master and PhD Turkish and international students from a foundation university in Istanbul took part in the study. A semi-structured interview, a vocabulary size test prepared by Nation and Beglar (2007), and a Self-Regulatory Capacity in Vocabulary Learning Scale developed by Tseng, Dornyei and Schmitt (2006) were used as data collection tools. The results were analyzed using SPSS 22 and indicated that high scorers deployed a diversity of SRVLS compared to low scorers.

Finally, Gorgoz (2019) also pursued a study to the relationship of 990 Secondary school students' self-regulatory skills and VLS in foreign language. Data was collected using a personal data form prepared by the researcher, a perceived self-regulatory scale by Arslan and Gelişli (2015), and a Vocabulary Learning Strategy in Foreign Language Scale by Kocaman and Kızılkaya Cumaoğlu (2014) and analyzed using SPSS 22. The results suggested a positive, medium and significant correlation between the students' self-regulation skills and their VLS.

2.8.2. Studies Conducted Abroad

A study initiated by Bowles (2024) aiming to measure their capacity for self-regulated vocabulary learning through technology before and after 10 weeks of intentional digital vocabulary learning in out-of-class settings conducted a mixed methods study with 246 Gulf Arab students all aged between 17 and 20 years old enrolled on an English foundation course in a higher education context at a university in the Middle East. The study also investigated if there was any difference between learning on a laptop and a smartphone. The purpose of this study was to find out if device control was a relevant dimension of self-regulation. With a newly created self-report survey instrument, the study gathered quantitative data, and Wilcoxon signed-rank tests were used to determine score differences. Qualitative data was also collected from students through paired-depth interviews and analyzed using typological analysis. The findings demonstrated that the students' self-reported ability to study language independently

on laptops was noticeably greater than their ability to do so on their smartphones. Additionally, throughout the 10-week period, commitment regulation while using a smartphone drastically deteriorated, mostly due to social media notifications. At the same time, students knew when to use each device for various learning tasks and in various time and environmental contexts. Overall, this study demonstrated that device control ought to be considered as an extra component of a digital, self-regulated vocabulary learning framework and should be incorporated in subsequent e-learning research studies. Higher education students require more assistance regarding the advantages and disadvantages of various gadgets and ways to increase their ability to self-regulate their technology use.

Przybył and Chudak (2022) also conducted research in the year 2022 to identify problematic areas where students' self-control declined and to give teachers a better understanding of how this change has affected students' self-regulation routines particularly in the context of the COVID-19 pandemic-enforced shift to online learning. The study involved a representative sample of 321 BA and MA volunteer students from a linguistic faculty at a large Polish university majored in multiple languages. Participants were mostly young adults, with a mean age of 21.56 years, of consisted of 81.6 percent women compared to men. The primary instrument used was the Polish adaptation of the Self-regulation Formative Questionnaire (SRFQ) by Gaumer Erickson and Noonan (2018), which was administered twice to measure students' self-regulation in both standard and online education contexts. Data was analyzed using non-parametric statistical methods due to the non-normal distribution of the data. The Wilcoxon signed-rank test and the Friedman test were used to compare self-regulation levels across different phases (Planning, Monitoring, Control, Reflection) in both standard and online learning conditions. The results of the study revealed that learners’ self-regulation decreased drastically in the shift from standard to online learning. Students' reflection on the learning process was noticeably low, while reporting relatively high levels of SR throughout the planning stage making it difficult for them to make the switch to online learning. The findings showed that in both traditional and online learning environments, students thought they were more proficient at planning than they were at monitoring, managing, and reflecting. Across all levels, reflection was shown to be the most overlooked component of SR. Overall, the study emphasizes the necessity for self-regulation skills development tools for students, particularly in the areas of control and reflection during online learning.

Another study was carried out in 2022 to investigate the effects of self-regulatory prompts (SRP) on the self-regulation of college students learning English vocabulary online. It concentrated on how these prompts affected three essential components of SRL: self-evaluation, goal-setting, and metacognitive monitoring. 508 undergraduate students from 12 classes at five different Chinese locations participated in the study. The participants were signed up for a 10-week online course on learning vocabulary in English. Six English teachers who participated in the teaching experiment were also included in the study. A mixed-method design was employed in the study. Data was collected through self-regulation surveys, weekly Self-regulatory Prompts SRP-embedded reflections, and individual interviews and results were analyzed using several statistical tests, including independent and paired sample t-tests, to analyze the effects of SRP on students' self-regulation. According to the study, using SRP dramatically increased students' self-regulatory practices and improved their ability to regulate themselves. Higher levels of learning motivation, self-efficacy, and self-satisfaction were among the improved learning outcomes shown by students in the treatment group. They also showed improved self-regulation, improved behaviors and strategy utilization, and increased understanding of SRL. The study concluded that in online learning contexts, SRP are useful for enhancing and activating students' self-regulation (Binyu Yang, 2022).

Further, Žaper (2018) carried out research examining the development of self-regulated vocabulary learning of Croatian EFL learners. The statistical study revealed no statistically significant correlation between gender, educational attainment, and self-regulating vocabulary acquisition ability. Nonetheless, there are significant associations between self-regulating ability and gender and educational attainment. The results showed that self-regulating ability and attitude toward language acquisition were positively correlated. Additionally, self-regulating ability and the perception of English difficulty are negatively correlated, according to the research. A Self-regulating Capacity in Vocabulary Learning Scale was used to collect data which was later analyzed using SPSS 20.

Finally, a study by Ping and Siraj (2012) investigated the use of SRL strategies as well as the motivational beliefs for vocabulary learning among a group of 38 preuniversity Chinese EFL learners studying at University of Malaysia. Findings indicated that cognitive deep processing strategies and meta-cognitive strategies are rarely applied by the learners. Learners were also found to have low self-efficacy and motivation. An adapted questionnaire developed

by Gu and Johnson (1996) and a structured interview adapted from Gu's (2003) general interview questions were used throughout the study. Results were analyzed using SPSS.

PART 3

3. METHODOLOGY

In this section, research design, participants, data collection tools, data collection process, and data analysis are presented.

3.1. Research Design

This study investigated the effect of compulsory online education and face-to-face education on the SRVLSs utilized by ELT students using a mixed method research design.

The researcher gathers both quantitative and qualitative data in a mixed method research design primarily because the combination of the two types of data can offer a deeper comprehension of a research problem than either type of data alone. In a single research or a multiphase series of investigations, mixed methods designs are processes for gathering, evaluating, and combining quantitative and qualitative data. Research using mixed methods consists of collecting both qualitative and quantitative data from two different strands of the study and then combining, incorporating, attaching, or enmeshing the two strands. To put it briefly, in a mixed methods study, the data are mixed (Creswell, 2012).

Through observation and interpretation, qualitative research focuses on human behavior, experiences, attitudes, and motivations to better comprehend complicated events. It is unstructured, prioritizes participant viewpoints, and attempts to provide concepts or theories for upcoming quantitative study (Ahmad et al., 2019).

However, to generate facts and numerical data, quantitative research uses techniques from the natural sciences. Using statistical, mathematical, and computational techniques, it focuses on determining the cause-and-effect links between variables. With the use of graphs and tables, this research method makes exact measurement and analysis possible, which facilitates the interpretation of findings (Ahmad et al., 2019).

The primary focus of this study is qualitative data, with quantitative data used to support and strengthen the results of the study.

3.2. Participants

Participants of the SRVLS survey were chosen from EFL undergraduate students at a state university in Türkiye from the academic year 2023-2024. As for the participants of the

semi-structured interview, a total of nine students who volunteered to take place in the study were selected randomly from the participants who also took the SRVLS survey. Consent forms were obtained from all participants prior to data collection. The levels of students who have passed the university entrance exam are considered the same.

The table below provides details about the first-year ELT students who took part in the research.

Table 3.1. Details About the First-Year ELT Student Participants

Study Group		***f***	***%***
Face to Face Setting		84	52.5
Online Setting		76	47.5
Face to Face Setting	Male	24	28.6
	Female	60	71.4
Online Setting	Males	20	26.3
	Female	56	73.7

As seen in the table, the total number of students who participated in the study in face-to-face environment was 84 (52.5%) and the total number of students who participated in the study in online environment was 76 (47.5%). Of the students who participated in the face-to-face environment, 24 (28.6%) were male and 60 (71.4%) were female. Of the students who participated in the study in online environment, 20 (26.3%) were male and 56 (73.7%) were female.

3.3. Data Collection Tools

An instrument is used to measure the study's variables in quantitative data gathering. A tool used to measure, observe, or record quantitative data is called an instrument. It includes pre-established or pre-developed questions and response options for the study. More closed-ended methods are used in quantitative approaches, where the researcher designates predetermined response categories (strongly disagree, strongly agree, etc.). Checklists, standardized examinations, and survey questionnaires are a few examples of these tools. Participants are given this tool, which gathers data in numerical form. (Creswell, 2012). Conversely, qualitative research depends less on the researcher's chosen course from the literature and more on the opinions of study participants. Forms known as protocols are used to record data as the study is conducted in qualitative research to gather information from study

participants. These forms ask broad inquiries in order to elicit responses from the participants (Creswell, 2012). Semi-structured interview questions were used to serve as a qualitative data collection tool for this study while an SRVLS questionnaire was used to collect quantitative data.

The Strategies Inventory for Vocabulary Learning (SIVL) was used in this study as a quantitative data collection tool. SIVL is an SRVLS questionnaire developed and validated as part of research published in 2017 by Xuelian Xu and Wen-Cheng Hsu to offer a thorough instrument for assessing vocabulary acquisition techniques employed by Chinese university students studying English. Through exploratory and confirmatory factor analyses, the validity and reliability of the SIVL as a measurement tool were established (Xu & Hsu, 2017).

The SIVL questionnaire is made up of 72 items: 16 under Metacognitive Strategies, 25 under Cognitive Strategies, 24 under Memory Strategies, and seven under Socio-affective Strategies with a five-point Likert scale ranging from (1) Never, (2) Seldom, (3) Occasionally, (4) Often, to (5) Always. The comprehensive approach of the questionnaire, which records methods from the cognitive, metacognitive, and socio-affective domains, reflects the multifaceted understanding of self-regulation found in modern learning theories. The test is useful for both diagnostic and intervention reasons since it may identify the precise strategies used by students, which aids educators and researchers in understanding how students self-regulate their vocabulary learning (Xu & Hsu, 2017).

Under strict validation procedures, which include reliability and validity assessments, the SIVL has been shown to be a reliable research tool. Cronbach's Alpha was used to evaluate the internal consistency of the SIVL. The 72-item SIVL had an overall Cronbach's Alpha of 0.95, which denotes extremely good internal consistency. This implies that the inventory items are accurately measuring the same underlying construct (Xu & Hsu, 2017).

To sum up, the SIVL can be considered a valid and dependable tool for evaluating vocabulary acquisition techniques. It is a reliable tool for research in EFL situations because of its strong construct validity and high internal consistency. The SIVL measures the desired constructs accurately, and it may be used with confidence to evaluate vocabulary acquisition strategies, particularly in studies investigating SRL in remote education, according to the validation processes, which include CFA and EFA (Xu & Hsu, 2017).

After making the necessary adjustments to the inventory to make it suitable for Turkish students, the reliability values obtained from administering the Vocabulary Learning Strategy Scale to the first year ELT Students in Türkiye are presented in the table below.

Table 3.2. Reliability Values Obtained from Administering the VLS Scale to the First Year ELT Students

Factors	Cronbach Alpha
Metacognitive Strategies	.83
Cognitive Strategies	.91
Memory Strategies	.92
Socio-Affective Strategies	.71
Total	.96

The reliability value of the “Vocabulary Learning Strategy” scale is given in the table above. According to the values is in the table, it was discovered that “Metacognitive Strategy” sub-factor reliability value is (a=.83), “Cognitive Strategy” sub-factor reliability value is (a=.91), “Memory Strategy" sub-factor reliability value is (a=.92), “Socio-Affective Strategy" sub-factor reliability value is (1=.71) and the overall reliability value of the scale is (a=.96).

As for the qualitative data, four semi-structured interview questions, developed by the researcher and reviewed by the advisor, were presented to students during an online meeting. Each question was chosen as a representative of the four primary categories that make up the SIVL survey used as quantitative data collection tool in the current study. The interview was conducted individually in the Turkish language to eliminate possible barriers of understanding and replying to questions by students. Each meeting lasted around 8-12 minutes and was recorded for future reference. Data obtained from the semi-structured interviews were used to support and strengthen the quantitative results of the study.

3.4. Data Collection

This study used two instruments to collect data; a SRVLS questionnaire adapted from Gu and Johnson’s (1996), Stoffer’s (1995), Schmitt’s (1997), Kudo’s (1999), and Oxford’s (1990) SILL questionnaire and semi-structured interview questions prepared by the researcher herself.

The questionnaire was administered to first year ELT students first once at the beginning of the fall semester in the new academic year 2023-2024 as students had just studied and graduated from the Spring semester of the 2022-2023 academic year in distant education due to the earthquake that took place in Kahramanmaras, Türkiye.

In the online learning environment, the English Preparatory B1 Course was administered aiming to enable students to use their reading, listening, speaking and writing skills effectively in both social and academic environments. By the end of this program, students would have completed their preparatory education with a B2 level of English as determined by the Common European Framework Program for Languages.

During distant education, classes were conducted using Microsoft Teams, ensuring both synchronous and asynchronous communication opportunities. Synchronous sessions allowed for real-time interactions, discussions, and teacher-led activities, while asynchronous components included access to recorded lectures, supplementary materials, and self-paced tasks hosted on Microsoft Teams.

Students utilized various digital tools, such as interactive quizzes, collaborative documents, and multimedia content, to facilitate active learning. The platform also included features like assignment submission portals and feedback mechanisms, using comments section, to support engagement and self-regulation. Participants were encouraged to interact with their peers and instructors through chat functions and breakout rooms, fostering collaborative learning despite the remote setup.

The assessment took place on the online platform, Microsoft Teams, and encompassed a variety of formats, including multiple-choice questions, open-ended (classical) responses, fill-in-the-blank exercises, and homework assignments. Technical support was available to participants by the Information Technology Department to address any connectivity or platform-related issues, minimizing disruptions during the study.

For part two, the questionnaire was readministered towards the end of the fall semester of the 2023-2024 academic year as the students had been studying for half a term in a face-to-face classroom setting.

The lessons in face-to-face learning setting took place in a traditional classroom setting within the Necmettin Erbakan University Campus. The courses in the traditional face to face setting included Verbal Communication Skills 1, Listening and Phonetics 1, Writing Skills 1, Reading Skills 1, Information Technology, Turkish Language 1, Foreign Language 1, Ataturk's Principles and History of Turkish Revolution 1, Sociology of Education and Introduction to Education.

The classrooms were equipped with standard teaching resources, including whiteboards, projectors, and printed materials, providing a conventional setup for teacher-student interactions. Students had the opportunity to engage in real-time collaborative tasks and receive immediate feedback from their peers and the instructor. The physical presence of both the instructor and the learners allowed for more spontaneous and dynamic exchanges, fostering a sense of community and mutual support.

The face-to-face environment prioritized structure and routine, with fixed schedules and designated classroom spaces. This setting also facilitated access to supplementary resources such as the library, study groups, and in-person consultations with instructors, creating a comprehensive support system for vocabulary learning.

The questionnaire was administered using Google forms for easier and faster access to data. The language of the questionnaire was English. The participants were informed that their participation in the study was entirely voluntary. Consent forms were obtained from all participants prior to data collection. Furthermore, the investigators ensured that the responses from participants and their personal information would be kept private. The results of the questionnaire were analyzed using a computer program.

The semi-structured interviews were also conducted twice immediately after the administration of the SIVL questionnaire. The interviewee asked four questions in the Turkish language to nine students. The same students were interviewed twice for future comparison of results. The analyzer determined which group the students belonged to from the key expressions in the answers given by the students in the interviews and made inferences accordingly. The information was then tabulated and interpreted.

3.5. Data Analysis

The data, which are usually displayed as numerical values, are statistically (mathematically) analyzed by the researcher when performing quantitative research. In qualitative research, the words (like interview transcripts) or images (like photographs) are analyzed instead of the data through statistical analysis. Using qualitative approaches instead of statistical ones, the researcher looks at the words to categorize them into more general interpretations of knowledge, like codes, categories, or themes (Creswell, 2012).

Within the scope of the aim of the research, content analysis was performed for qualitative data obtained from the semi-structured interviews and were presented in themes.

Two field experts coded the content and 90% of the coded data overlapped. The data obtained was, therefore, accepted reliable. As for the quantitative data, the Vocabulary Learning Strategy Scale has been applied in face-to-face and online environment to teacher candidates studying in the 1st year of the Department of ELT. Data obtained from the scales implemented have been analyzed using SPSS-21 program. To verify the parametric test assumptions for the mean values of the responses provided by the first-year ELT students, tests of normality and homogeneity were conducted.

Following these tests, it was determined that the averages obtained according to $p < .05$ revealed a normal distribution when the Kolmogorov-Smirnov Z (Sig =.10) test was run for the average score obtained based on the overall scale. Because the independent and dependent t-tests satisfy the assumptions of parametric testing, they were employed in the analyses.

Level determination charts are provided for each of the scale's sub-factors in Table3.3.

Table3.3. Vocabulary Learning Scale Level Chart

Level	**Range**
Low	1.00 -2.39
Medium	2.40 – 3.69
High	3.70 – 5.00

To determine the level indicated in the table, mean ranges and levels are provided. Accordingly, the item with a mean range between (1.00 and 2.39) was evaluated as “Low Level”, the item with a mean range between (2.40 and 3.69) as “Medium Level” and the item with a mean range between (3.70 and 5.00) as “High Level”.

PART 4

4. FINDINGS

In this part of the study, findings related to the study and the results of the analysis of the participants' data are presented.

Quantitative Results

4.1. SVLS in the Face-to-Face Setting

This section presents an analysis of students' responses to the VLS Scale in the face-to-face learning environment.

4.1.1. Analysis of Responses to the "Metacognitive Strategies" Sub-Factor in the Face-to-Face Setting

The analysis results regarding the answers given to the "Metacognitive Strategies" sub-factor of the SRVLS scale in face-to-face setting are given in Table 4.1.

Table 4.1. *Results Related to the Answers Given to the "Metacognitive Strategies" Sub-Factor of the SRVLS Scale in Face-to-Face Setting*

Sub-Factor	Items	X	Average
Metacognitive Strategies	1	3.64	Medium
	2	2.98	Medium
	3	3.55	Medium
	4	3.72	High
	5	3.97	High
	6	4.01	High
	7	3.59	Medium
	8	3.67	Medium
	9	2.79	Medium
	10	3.16	Medium
	11	3.36	Medium
	12	3.33	Medium
	13	3.78	High
	14	3.58	Medium
	15	3.67	Medium
	16	2.88	Medium

As can be seen in the table, participants' answers to the items in the "Metacognitive Strategies" sub-factor of the SRVLS scale after studying in a face-to-face setting, 4th, 5th, 6th and 13th items have high averages, while the other items have medium averages.

4.1.2. Analysis of Responses to the "Cognitive Strategies" Sub-Factor in the Face-to-Face Setting

The analysis results regarding the answers given to the “Cognitive Strategies” sub-factor of the SRVLS scale in face-to-face setting are given in Table 4.2.

Table 4.2. Results Related to the Answers Given to the “Cognitive Strategies” Sub-Factor of the SRVLS Scale in Face-to-Face Setting

Sub-Factor	Items	X	Average
Cognitive Strategies	17	3.57	Medium
	18	3.75	High
	19	3.47	Medium
	20	3.61	Medium
	21	3.98	High
	22	3.52	Medium
	23	3.48	Medium
	24	3.45	Medium
	25	3.60	Medium
	26	3.39	Medium
	27	3.57	Medium
	28	3.35	Medium
	29	3.34	Medium
	30	3.80	High
	31	3.53	Medium
	32	3.72	High
	33	3.34	Medium
	34	3.41	Medium
	35	3.59	Medium
	36	3.21	Medium
	37	3.40	Medium
	38	3.30	Medium
	39	3.45	Medium
	40	3.32	Medium
	41	3.72	High

As can be seen in the table, 18th, 21st, 30th, 32nd and 41st items have high averages in the answers given by the participants to the items in the “Cognitive Strategies” sub-factor of the SRVLS scale after studying in face-to-face setting, while the other items have medium average averages.

4.1.3. Analysis of Responses to the "Memory Strategies" Sub-Factor in the Face-to-Face Setting

The analysis results regarding the answers given to the “Memory Strategies” sub-factor of the SRVLS scale in face-to-face setting are given in Table 4.3.

Table 4.3. Analysis Results Related to the Answers Given to the “Memory Strategies” Sub-Factor of the SRVLS Scale in Face-to-Face Setting

Sub-Factor	Items	X	Average
Memory Strategies	42	2.66	Medium
	43	3.39	Medium
	44	3.41	Medium
	45	3.09	Medium
	46	3.05	Medium
	47	3.69	Medium
	48	3.20	Medium
	49	2.96	Medium
	50	3.15	Medium
	51	2.88	Medium
	52	3.40	Medium
	53	2.97	Medium
	54	3.63	Medium
	55	3.47	Medium
	56	3.61	Medium
	57	2.98	Medium
	58	3.33	Medium
	59	3.16	Medium
	60	3.61	Medium
	61	2.90	Medium
	62	3.46	Medium
	63	3.41	Medium
	64	3.00	Medium
	65	3.41	Medium

As can be seen in the table, participants' answers to the items in the “Memory Strategies” sub-factor of the SRVLS scale after studying in face-to-face setting have a medium level average.

4.1.4. Analysis of Responses to the "Socio-Affective Strategies" Sub-Factor in the Face-to-Face Setting

The analysis results regarding the answers given to the “Socio-Affective Strategies” sub-factor of the SRVL scale in face-to-face setting are given in Table 4.4.

Table 4.4. Results Related to the Answers Given to the “Socio-Affective Strategies” Sub-Factor of the SRVLS Scale in Face-to-Face Setting

Sub-Factor	Items	X	Average
Socio-Affective Strategies	66	3.21	Medium
	67	2.96	Medium
	68	3.30	Medium
	69	3.08	Medium
	70	2.57	Medium
	71	4.08	High
	72	4.03	High

As can be seen in the table, items 71 and 72 have high averages and the other items have medium averages in the answers given by the participants to the items in the “Socio-Affective Strategies” sub-factor of the SRVLS scale after studying in face-to-face setting.

4.2. SRVLS in the Online Setting

This section presents an analysis of students' responses to the SRVLS Scale in the online learning environment.

4.2.1. Analysis of Responses to the "Metacognitive Strategies" Sub-Factor in the Online Setting

The analysis results regarding the answers given to the “Metacognitive Strategies” sub-factor of the SRVLS scale in online setting are given in Table 4.5.

Table 4.5. Results Related to the Answers Given to the “Metacognitive Strategies” Sub-Factor of the SRVLS Scale in Online Setting

Sub-Factor	Items	X	Average
Metacognitive Strategies	1	3.53	Medium
	2	3.06	Medium
	3	3.59	Medium
	4	3.75	High
	5	3.92	High
	6	4.15	High
	7	3.25	Medium
	8	3.56	Medium
	9	2.51	Medium
	10	2.81	Medium
	11	2.98	Medium
	12	3.32	Medium
	13	3.51	Medium
	14	3.56	Medium
	15	3.53	Medium
	16	3.14	Medium

As can be seen in the table, participants' answers to the items in the “Metacognitive Strategies” sub-factor of the SRVLS scale after studying in face-to-face setting have a high average of 4, 5 and 6; the other items have a medium average.

4.2.2. Analysis of Responses to the "Cognitive Strategies" Sub-Factor in the Online Setting

The analysis results regarding the answers given to the “Cognitive Strategies” sub-factor of the SRVLS scale in online setting are given in table 4.6.

Table 4.6. Results Related to the Answers Given to the “Cognitive Strategies” Sub-Factor of the SRVLS Scale in Online Setting

Sub-Factor	Items	X	Average
Cognitive Strategies	17	3.82	High
	18	4.02	High
	19	3.50	Medium
	20	3.39	Medium
	21	4.17	High
	22	3.46	Medium
	23	3.17	Medium
	24	3.31	Medium
	25	3.51	Medium
	26	3.05	Medium
	27	3.11	Medium
	28	3.21	Medium
	29	3.13	Medium
	30	3.55	Medium
	31	3.43	Medium
	32	3.47	Medium
	33	3.42	Medium
	34	3.26	Medium
	35	3.40	Medium
	36	2.88	Medium
	37	3.36	Medium
	38	2.90	Medium
	39	3.30	Medium
	40	3.07	Medium
	41	3.57	Medium

As can be seen in the table, participants' answers to the items in the “Cognitive Strategies” sub-factor of the SRVLS scale after studying in face-to-face setting, 17th, 18th and 21st items have high averages, while the other items have medium averages.

4.2.3. Analysis of Responses to the "Memory Strategies" Sub-Factor in the Online Setting

The analysis results regarding the answers given to the “Memory Strategies” sub-factor of the SRVLS scale in online setting are given in Table 4.7.

Table 4.7. Results Related to the Answers Given to the “Memory Strategies” Sub-Factor of the SRVLS Scale in Online Setting

Sub-Factor	Items	X	Average
Memory Strategies	42	2.36	Low
	43	3.25	Medium
	44	3.11	Medium
	45	3.07	Medium
	46	2.80	Medium
	47	3.40	Medium
	48	3.03	Medium
	49	2.48	Medium
	50	2.59	Medium
	51	2.59	Medium

Memory Strategies	52	3.17	Medium
	53	2.73	Medium
	54	3.40	Medium
	55	3.23	Medium
	56	3.32	Medium
	57	2.63	Medium
	58	3.11	Medium
	59	2.84	Medium
	60	3.42	Medium
	61	2.67	Medium
	62	3.27	Medium
	63	2.96	Medium
	64	2.80	Medium
	65	3.15	Medium

As seen in the table, item 42 has a low average, and the others have a medium average level in the answers given by the participants to the items in the “Memory Strategies” sub-factor of the SRVLS scale after studying in the face-to-face environment.

4.2.4. Analysis of Responses to the "Socio-Affective Strategies" Sub-Factor in the Online Setting

The analysis results regarding the answers given to the “Socio-Affective Strategies” sub-factor of the SRVLS scale in online setting are given in Table 4.8.

Table 4.8. Analysis Results Related to the Answers Given to the “Socio-Affective Strategies” Sub-Factor of the SRVLS Scale in Online Setting

Sub-Factor	Items	X	Average
Socio-Affective Strategies	66	3.11	Medium
	67	2.59	Medium
	68	3.10	Medium
	69	3.10	Medium
	70	2.23	Low
	71	4.34	High
	72	4.19	High

As can be seen in the table, items 71 and 72 have a high average; item 70 has a low average; and the other items have a medium average level in the answers given by the participants to the items in the “Socio-Affective Strategies” sub-factor of the SRVLS scale after studying in face-to-face setting.

4.3. SRVLS and Gender

This section examines the differences in SRVLS based on students' gender.

4.3.1. Findings on SRVLS by Gender in the Face-to-Face Environment

The findings regarding the analysis of SRVLS in face-to-face environment and gender are displayed in Table 4.9.

Table 4.9. Analysis of SRVLS in Face-to-Face Environment and Gender

Factors	Gender	N	X	SD	t	p
Metacognitive Strategies	Male	24	51.29	9.61	3.27	.002
	Female	60	57.56	7.16		
Cognitive Strategies	Male	24	81.54	19.35	2.40	.018
	Female	60	90.58	13.79		
Memory Strategies	Male	24	73.20	18.98	1.77	.079
	Female	60	79.83	13.81		
Socio-Affective Strategies	Male	24	21.12	5.98	2.72	.008
	Female	60	24.11	3.83		
Total	Male	24	227.16	49.74	2.68	.009
	Female	60	252.10	33.02		

The table is examined and the results of the analysis between SRVLS and sub-factors in face-to-face environment and gender are given.

A significant difference has been determined between the “Metacognitive Strategies” sub-factor of the SRVLS scale in face-to-face environment and gender ($t=3.27$; $p<.05$). According to the results of the analysis, the average of male students was ($X=51.29$), while the average of female students was ($X=57.56$). According to these results, it can be said that female students use “Metacognitive Strategies” in SRVLS in face-to-face environment significantly more actively than male students.

It was found that a significant difference is present between the “Cognitive Strategies” sub-factor of the VLS scale in face-to-face environment and gender ($t=2.40$; $p<.05$). According to the results of the analysis, the average of male students was ($X=81.54$), while the average of female students was ($X=90.58$). According to these results, it can be said that female students use “Cognitive Strategies” significantly more actively than male students in SRVLS in face-to-face environment.

The data revealed that there was no significant difference between the “Memory Strategies” sub-factor of the SRVLS scale in face-to-face environment and gender ($t=1.77$; $p>.05$). According to the results of the analysis, the average of male students was ($X=73.20$), while the average of female students was ($X=79.83$). Based on these results, it can be said that

female and male students use “Memory Strategies” in SRVLS similarly in face-to-face environment.

Analysis showed that significant difference was present between the “Socio-Affective Strategies” sub-factor of the SRVLS scale in face-to-face environment and gender (t=2.72; p< .05). According to the results of the analysis, the average of male students was (X=21.12), while the average of female students was (X=24.11). According to these results, it can be said that female students use “Socio-Affective Strategies” in SRVLS in face-to-face environment significantly more actively than male students.

A significant difference has been observed between the overall average of the SRVLS scale in face-to-face environment and gender (t=2.68; p< .05). According to the results of the analysis, the average of male students was (X=227.16) while the average of female students was (X=252.10). According to these results, it can be said that female students use SRVLS in face-to-face environment significantly more actively than male students.

4.3.2. Findings on SRVLS by Gender in the Online Environment

The findings regarding the analysis of SRVLS in online environment and gender are displayed in Table 4.10.

Table 4.10. Analysis of SRVLS in Online Environment and Gender

Factors	Gender	N	X	SD	t	p
Metacognitive Strategies	Male	24	53.91	7.95	1.69	.093
	Female	60	57.04	8.50		
Cognitive Strategies	Male	24	84.17	11.46	1.83	.071
	Female	60	90.60	18.11		
Memory Strategies	Male	24	77.50	14.45	.21	.833
	Female	60	78.24	16.54		
Socio-Affective Strategies	Male	24	23.08	3.66	.27	.782
	Female	60	23.38	5.34		
Total	Male	24	238.67	32.46	1.19	.235
	Female	60	249.26	43.99		

The table is examined and the results of the analysis between SRVLS sub-factors in online environment and gender are given.

It was determined that there was no significant difference between the “Metacognitive Strategies” sub-factor of the SRVLS scale in online environment and gender (t=1.69; p> .05). According to the results of the analysis, the average of male students was (X=53.91), while the

average of female students was (X=57.04). According to these results, it can be said that female and male students use “Metacognitive Strategies” in SRVLS in a similar way in online environment.

The results indicated that there was no significant difference between the “Cognitive Strategies” sub-factor of the SRVLS scale in online environment and gender (t=1.83; p> .05). According to the results of the analysis, the average of male students was (X=84.17), while the average of female students was (X=90.60). According to these results, it can be said that female and male students use “Cognitive Strategies” similarly in SRVLS in online environment.

The data revealed that there was no significant difference between the “Memory Strategies” sub-factor of the SRVLS scale in online environment and gender (t=.21; p> .05). According to the results of the analysis, the average of male students was (X=77.50), while the average of female students was (X=78.24). According to these results, it can be said that female and male students use “Memory Strategies” similarly in SRVLS in online environment.

The findings suggested that there was no significant difference between the “Socio-Affective Strategies” sub-factor of the SRVLS scale in online environment and gender (t=.27; p> .05). According to the results of the analysis, the average of male students was (X=23.08), while the average of female students was (X=23.38). According to these results, it can be said that female and male students use “Socio-Affective Strategies” in SRVLS similarly in online environment.

It was determined that there was no significant difference between the averages of SRVLS scale and gender in the online environment (t=1.19; p> .05). According to the results of the analysis, the average of male students was (X=238.67) while the average of female students was (X=249.26). According to these results, it can be said that female and male students use SRVLS in online environment in a similar way.

4.4. Comparison of Sub-Factors in Face-to-Face and Online Settings

Table 4.11 presents the analysis results concerning the SRVLS sub-factors in face-to-face and online environment.

Table 4.11. Results of SRVLS Sub-Factors in Face-to-Face and Online Environment

Factors	Medium	N	X	SD	t	p
Metacognitive Strategies	Face to Face	84	55.77	8.38	1.17	.243
	Online	76	54.25	8.00		

Cognitive Strategies	Face to Face	84	88.00	16.00	1.48	.141
	Online	76	84.56	13.01		
Memory Strategies	Face to Face	84	77.94	15.64	2.66	.008
	Online	76	71.50	14.81		
Socio-Affective Strategies	Face to Face	84	23.26	4.71	.79	.433
	Online	76	22.69	4.33		
Total	Face to Face	84	244.97	39.86	2.00	.047
	Online	76	233.01	35.24		

The table shows the results of the analysis between SRVLS and sub-factors in face-to-face and online environments.

It was determined that there was no significant difference between the “Metacognitive Strategies” sub-factor of the SRVLS scale and the environments (t=1.17; p> .05). According to the results of the analysis, while the average of face-to-face environment was (X=55.77), the average of online environment was (X=54.25). According to these results, it can be said that “Metacognitive Strategies” in SRVLS is used in a similar way in face-to-face and online environments.

It was established that there was no significant difference between the “Cognitive Strategies” sub-factor of the SRVLS scale and the environments (t=1.48; p> .05). According to the results of the analysis, while the average of face-to-face environment was (X=88.00), the average of online environment was (X=84.56). According to these results, it can be said that “Cognitive Strategies” in SRVLS is used in a similar way in face-to-face and online environments.

The results demonstrated that there was a significant difference between the “Memory Strategies” sub-factor of the SRVLS scale and the environments (t=2.66; p< .05). According to the results of the analysis, while the average of face-to-face environment was (X=77.94), the average of online environment was (X=71.50). According to these results, it can be said that students use “Memory Strategies” in SRVLS significantly more actively in face-to-face environment than in online environment.

The data revealed that there was no significant difference between the “Socio-Affective Strategies” sub-factor of the SRVLS scale and the environments (t=.79; p> .05). According to the results of the analysis, while the average of face-to-face environment was (X=23.26), the average of online environment was (X=22.69). According to these results, it can be said that

“Socio-Affective Strategies” in SRVLS are used in a similar way in face-to-face and online environments.

The results pointed to that fact that there was a significant difference between the mean scores of the SRVLS scale and the environments (t=2.00; p< .05). According to the results of the analysis, while the average of face-to-face environment was (X=244.97), the average of online environment was (X=233.01). According to these results, it can be said that SRVLS is used significantly more actively in face-to-face environment than in online environment.

According to the averages of the sub-factors of the SRVLS scale in face-to-face setting, the mean of the metacognitive strategy factor is (X=55.77), the mean of the cognitive strategy factor is (X=88.00), the mean of the memory strategy factor is (X=77.94) and the mean of the socio-affective strategy factor is (X=23.26). Analyzing the variables reveals that students employ cognitive strategy the most in a face-to-face setting, followed by memory strategy the second, metacognitive strategy the third, and socio-affective strategy the last.

According to the averages of the sub-factors of the SRVL scale in online setting, the mean of the metacognitive strategy factor is (X=54.25), the mean of the cognitive strategy factor is (X=84.56), the mean of the memory strategy factor is (X=71.50) and the mean of the socio-affective strategy factor is (X=22.69). Upon analyzing the variables, it is evident that students employ cognitive strategy the most in online setting, followed by memory strategy the second, metacognitive strategy the third, and socio-affective strategy the last.

Qualitative Results

4.5. SRVLS in Face-to-Face Environment

This section presents the students' responses to the semi-structured interview questions concerning their SRVLS in the face-to-face learning environment.

4.5.1. Findings of Responses to Metacognitive Strategies in Face-to-Face Setting

The analysis of "Interview Question 1" highlights students' utilization of metacognitive strategies in this context.

Interview Question 1: Are there any specific strategies or techniques you use to plan and organize vocabulary learning? Can you give five examples?

Table 4.12. Content Analysis Results of the Metacognitive Sub-Factor in the Face-to-Face Setting

Theme	Category	Code
Planning and Organizing Vocabulary Learning	Cognitive	Systematic Memorization
		Note-taking
		Inferring Meaning from Context
	Metacognitive	Keeping a Vocabulary Notebook

Table 4.12. presents the results of content analysis conducted on semi-structured interview responses, focusing on the metacognitive sub-factor of SRVLS within the traditional face-to-face educational setting.

According to the results of the interviews with the participants, it was determined that the methods they used for planning and organizing their vocabulary learning process in the face-to-face environment were in two categories. These categories are cognitive and metacognitive. In the cognitive category, it was determined that they preferred systematic memorization, note-taking and inferring meaning from context. In the metacognitive category, only those who used keeping a vocabulary notebook were identified.

The views on the systematic method used by the participants in planning vocabulary learning are exemplified with the following statement: *"He wrote that the given 3000 words are the words that will be most useful to you and includes almost all the words used in English. I took a screenshot of those words, and I will memorize them in a notebook" (St4).*

Several participants also exemplified their planning method using context by saying, *"For example, I mostly memorize the words I come across in the readings. Then I look at the*

word in context. That way it stays in my mind" (St5), "there are words that are very important in the conversation, but we don't know, and we need to know, I learn those words somehow and take notes of them or (I learn words) while reading a book" (St7), and "Randomly I come across a word and I look up its meaning" (St6).

4.5.2. Findings of Responses to Cognitive Strategies in Face-to-Face Setting

The analysis of "Interview Question 2" sheds light on students' use of cognitive strategies in the face-to-face environment.

Interview Question 2: Are there any specific techniques or methods that you have found effective in the process of learning and memorizing new vocabulary?

Table 4.13. Content Analysis Results of the Cognitive Sub-Factor in the Face-to-Face Setting

Theme	Category	Code
Word Memorization Methods and Techniques	Memorization	Watching Movies
		Listening to Podcasts
		Reading Texts
		Listening to Music
	Usage	Writing Paragraph
		During Speech
		Self-talk

Table 4.13. outlines the findings derived from the content analysis of semi-structured interviews, highlighting the cognitive sub-factor in the traditional face-to-face learning environment.

Based on the participants' interview responses, it was revealed that there were two categories of opinions regarding the use of new vocabulary memorization methods and memorized words in a face-to-face environment. These categories are memorization and use. In the category of memorizing vocabulary, the ways of watching movies, listening to podcasts, reading texts, and listening to songs; and the ways of using the memorized words are writing paragraphs, during speech, and self-talk.

Participant's views on listening to podcasts as a method of word memorization are exemplified in the following statements, *"I don't use the dictionary when listening to podcasts. Context helps me define the word" (St7) and "By listening to podcasts we can learn the pronunciation of words better" (St2)*

Reading and using newly learnt words in writing a paragraph is also a common technique used by students. Their techniques are encapsulated in comments such as, *"For example, by reading a book. When I want to write something, I use the words I have just learned in a paragraph text" (St2), "Rather, I reinforce it by rereading the place where I see that word by seeing it in a sentence" (St3)*

Regarding the use songs for vocabulary learning, participants mentioned, *"look up interesting words in a song and check the meaning from dictionary" (St5) and "I listen to songs. I watch a lot of foreign movies. I listen to the words in the movie again and again and I think what could this be" (St4).*

As for the usage of the newly learnt vocabulary words, the approaches taken by participants can be seen in remarks like, *"I try to practice talking to myself a lot" (St5) and "Recently, when we sit with our friends, we speak English, constantly, full. I mean, we are talking to ourselves so that the accent develops, so that we can do something, and now we have started to have therapy sessions like this" (St8).*

4.5.3. Findings of Responses to Memory Strategies in Face-to-Face Setting

"Interview Question 3" focuses on examining students' application of memory strategies in the face-to-face environment.

Interview Question 3: How do you make words stick in your memory for a long time? Are there any specific strategies you use to strengthen and consolidate your knowledge over time?

Table 4.14. Content Analysis Results of the Memory Sub-Factor in the Face-to-Face Setting

Theme	Category	Code
Word Memory Retention	Cognitive	Repetition
		Synonyms and Antonyms
		Writing
		Speaking
	Metacognitive	Online vocabulary applications

Table 4.14. summarizes key insights related to the memory sub-factor, as revealed through content analysis of interview data from the face-to-face setting.

As the interviews with the participants revealed, it was determined that there were two categories of opinions regarding the techniques they used for memory retention in the face-to-

face application. These opinion categories are cognitive and metacognitive. In the cognitive category, they used repetition, synonym-antonym, writing and speaking to keep the word in memory; in the metacognitive category, they used online vocabulary applications.

Participants exemplified their word retention methods using synonyms and/or antonyms saying, *"I'm trying to strengthen it by repeating it more to myself. Yes, synonyms - antonyms I've started recently" (St1), "Just using it in conversation. Or you know in the classes, for example in the academic writing class, the teacher tells us to write a conclusion part, write an introduction part, I will write an article in the exam. Accordingly, you prepare yourself to write something and try to use the words in your mind. I try to use them especially in that way while paraphrasing with their synonyms" (St7).*

To add, associating newly learnt words with previous knowledge is also among the memory techniques used by students. The following statement reveals the student's approach: "*I look at the context again, for example. In other words, I associate the previous and the next word a little bit. Apart from that, as I said, I try to use the word I just learned that word specially while speaking or writing or something like that, so that it stays in my mind longer. Also, sometimes something happens, for example, a word has several English equivalents. I know one of them. I have just learned one of them. I match those two. Or I do it with antonyms" (St5).*

Besides, using online applications is also among students' preferred techniques. Participants' insights are stated in their comments such as, "*Yeah, I use Quizlet, English central. And cake. Last year I was using Duolingo" (St4)* as well as "*I use online apps and quizzes like Kahoot" (St6).*

4.5.4 Findings of Responses to Socio-Affective Strategies in Face-to-Face Setting

The findings related to "Interview Question 4" underscore students' practice of socio-affective strategies in the face-to-face environment.

Interview Question 4: Are there specific socio-affective techniques or resources that you find useful for vocabulary learning and how do they contribute to your learning experience?

Table 4.15. Content Analysis Results of the Socio-Affective Sub-Factor in the Face-to-Face Setting

Theme	Category	Code
Vocabulary Learning Techniques or Resources	Socio-Affective	In-class peer feedback
		Out-of-class peer feedback
		Teacher Feedback
		Exposure to Culture

The findings of table 4.15. outlines the content analysis of interviews of the socio-affective sub-factor in the traditional classroom context.

The data gathered from participant interviews showed that there was a socio-emotional view regarding the use of vocabulary learning techniques in face-to-face practice. The socio-affective category includes peer feedback in the classroom, out-of-class peer feedback, feedback from the teacher, and exposure to the cultural situation.

Participants' views on in-class feedback in word learning are exemplified in the following remarks, *"When we talk in the classroom or elsewhere in a social environment, when we get feedback, it helps us to improve ourselves more, so we do it 2-3 times a week from time to time, although not very often" (St2), "I mean, my classmates and I usually speak English among ourselves, that's how I have developed it. I mean, of course, we receive oral communication lessons from our teachers" (St3).*

In addition, one participant exemplified exposure to culture as a means of practicing socio-affective methods in vocabulary learning by saying, *"Cultural, you know, for example, Shebi Aruz is a very big event, you know, not only from America and England but also from Iran, for example, we talked to so many people that I learned something about Iranian culture. Or you know, different communities. Apart from that, Mevlana is exposed to very good cultural things there" (St7).* And finally, exposure to different cultures through online games as a social experience was reflected by a participant with the following remark, *"Online, I use it mostly in games, I usually use it in the game by pressing the microphone" (St6).*

4.6. SRVLS in Online Environment

This section presents the students' responses to the semi-structured interview questions concerning their SRVLS in the online learning environment.

4.6.1. Findings of Responses to Metacognitive Strategies in Online Setting

The analysis of "Interview Question 1" highlights students' utilization of metacognitive strategies in this context.

Interview Question 1: Are there any specific strategies or techniques you use to plan and organize vocabulary learning? Can you give five examples?

Table 4.16. Content Analysis Results of the Metacognitive Sub-Factor in the Online Setting

Theme	Category	Code
Planning and Organizing Vocabulary Learning	Cognitive	Systematic Memorization
		Note-taking
	Metacognitive	Vocabulary Tests
		Keeping vocabulary notebook

Table 4.16. presents the results of content analysis conducted on semi-structured interview responses, focusing on the metacognitive sub-factor of SRVLS within the online educational setting.

It was determined that the methods participants used for planning and organizing their learning in the online vocabulary learning lesson were in two categories. These categories are cognitive and metacognitive. In the cognitive category, it was determined that learners preferred systematic memorization and note-taking. In the metacognitive category, those who used vocabulary tests and kept vocabulary notebooks were identified. In addition, the participants stated that they used an online English to English dictionary.

One participant exemplified the word list method to plan his/her vocabulary learning by saying, *"When I memorize words, first I divide the words I don't know into groups of twenty or thirty. I mean, I think it is not possible for a person to memorize too many words at once. Twenty, thirty, forty, as many as I can memorize" (St2).*

And finally, keeping vocabulary notebooks and making use of vocabulary tests are reflected in statements such as, *""Also, while reading, I take notes of the words I don't know and then write their meanings next to them and memorize them that way" (St2), "There are also songs, for example, I often take notes on the patterns in movies. I have a notebook, and I keep separate notes for each series" (St9). "In some applications, for example, there are tests or there are tests on google, I try myself from there to see if it stays in my mind, or for example, I looked here a few times to see if the words I memorized on holiday are still in my mind. It is very permanent" (St4).*

4.6.2. Findings of Responses to Cognitive Strategies in Online Setting

The analysis of "Interview Question 2" sheds light on students' use of cognitive strategies in the online learning environment.

Interview Question 2: Are there any specific techniques or methods that you have found effective in the process of learning and memorizing new vocabulary?

Table 4.17. Content Analysis Results of the Cognitive Sub-Factor in the Online Setting

Theme	Category	Code
Word Memorization Methods and Techniques	Memorization	Watching Movies
		Listening to podcasts
		Reading texts
		Listening to music
		Keeping a notebook
	Usage	Writing paragraphs
		Self-talk

Table 4.17. outlines the findings derived from the content analysis of semi-structured interviews, highlighting the cognitive sub-factor in the online learning environment.

The results of the interviews with the participants indicated that there were two categories regarding the use of new vocabulary memorization methods/techniques and memorized words in the face-to-face environment. These categories are memorization and usage. In the category of memorizing vocabulary, watching movies, listening to podcasts, reading texts, and listening to songs are included; and the ways of using the memorized words are in the form of writing paragraphs and speaking to themselves.

Participants' comments on their methods to use the new words are exemplified as follows, *"When I try to write, I try to use the words I have just learned. I don't write sentences directly, but I try to use the words I have learnt, for example, when I try to write articles, essays, articles given by my teachers, I try to use the words I have learnt"* (St2) and *"I try to use it myself in the learning phase, and in general, the way I work the most when I learn a language is to talk to myself. In the first learning phase, I try to use the word myself, and the way you learn a word is usually when you are trying to talk to yourself*" (St5).

Likewise, watching movies and listening to songs and podcasts to learn new words is mentioned by participants in the following statements, *"I watch a lot of foreign movies. I mean, almost all the movies I watch are foreign. I also listen to foreign songs. I think it's effective"* (St4) and "*I watch films or series very regularly, but after a while I stop watching them because of my workload or something else. Among these, podcasts, especially in traffic, etc., I listened to podcasts the most. It was useful to me when I listened"* (St7).

A participant shared the following comment, shedding light on using reading texts to memorize new words: *"I don't specifically start by saying that I will memorize this many words, but for example, I choose a reading piece. That piece is slightly above my level. I mark and learn the words I don't know from there. I both see their use in sentences, and they are better memorized"* (St3).

Finally, one participant exemplified keeping a notebook as the memorization method used in vocabulary learning by saying *"I tried a lot to learn vocabulary from podcasts, films or music, but it was never useful for me, I usually get caught up in that rhythm, so I don't apply it much. I continue with the same method of writing on paper and memorizing. I need to touch it, for example, in the lesson, the teacher says there is no book, but I need to write, I need to touch something"* (St8).

4.6.3. Findings of Responses to Memory Strategies in Online Setting

"Interview Question 3" focuses on examining students' application of memory strategies in the online environment.

Interview Question 3: How do you make words stick in your memory for a long time? Are there any specific strategies you use to strengthen and consolidate your knowledge over time?

Table 4.18. Content Analysis Results of the Memory Sub-Factor in the Online Setting

Theme	Category	Code
Word Memory Retention	Cognitive	Repetition
		Synonyms and Antonyms
		Reading
		Listening
		Speaking
	Metacognitive	Online vocabulary applications

Table 4.18. summarizes key insights related to the memory sub-factor, as revealed through content analysis of interview data from the online setting.

From the interviews conducted with the participants, the techniques they used to retain words in the face-to-face application were determined and categorized as cognitive and metacognitive. In the cognitive category, repetition, synonyms and antonyms, reading, listening and speaking are used to retain words; in the meta-cognitive category, online vocabulary applications are used.

Participants' views on the repetition technique to memorize words are exemplified in remarks like, *"You know, when I memorize it, I repeat it, I say it, I use it during the day. It stays in my mind" (St4) and "So, in general, I try to repeat it to myself like this, I try to repeat it intermittently" (St5).*

One participant shed insights into using synonym and antonym method as part of his/her memory strategy by stating, *"Among these, all I am doing now is evaluating them as synonyms and antonyms" (St7).* Additionally, another participant mentioned his/her use of online applications as part of the memory strategy by saying, *"On applications, for example, there is Quizlet, there was another one. I sometimes do it on these" (St4).*

The listening approach taken by participants to plan their vocabulary learning can be seen in remarks like, *"English foreign TV series and English music, games, so constantly thinking in that language keeps you fresh in terms of vocabulary" (St6) and "Among these, all I am doing now is evaluating them as synonyms and antonyms. The thing about keeping it in memory is, as I said, the more I see that word, that application I am still doing, the more I see it, whether it is a book, podcast or movie, the more I see that word, then it enters my memory" (St7).*

4.6.4. Findings of Responses to Socio-Affective Strategies in Online Setting

The findings related to "Interview Question 4" underscore students' practice of socio-affective strategies in the online environment.

Interview Question 4: Are there specific socio-affective techniques or resources that you find useful for vocabulary learning and how do they contribute to your learning experience?

Table 4.19. Content Analysis Results of the Socio-Affective Sub-Factor in the Online Setting

Theme	Category	Code
Vocabulary Learning Techniques or Resources	Socio-Affective	Peer feedback in virtual setting
		AI sites
		Out-of-class peer feedback
		Teacher feedback
		Exposure to culture

The findings in table 4.19. outline the content analysis of interview results of the socio-affective sub-factor in online classroom context.

According to the interview findings with the participants, it was determined that there was a socio-affective view regarding the use of vocabulary learning techniques or resources in the face-to-face application. In the socio-affective category, it is in the form of peer feedback in virtual environment, artificial intelligence sites, peer feedback outside the classroom, feedback from the teacher, and exposure to cultural situation.

Participants' views on making use of online resources such as social platforms, artificial intelligence and other online websites in vocabulary learning are exemplified below: *"We set up a WhatsApp group with four friends. Everyone sets up a group. That way, we read a paragraph out loud. On the other side, those other three friends of mine give us feedback, whether we have pronounced the word correctly. There are artificial intelligence tools I use, natural reader. I use this" (St1), "There is a site called write and improve, where I write some things to improve my writing and vocabulary. Other than that, I meet friends to talk" (St3) and "Artificial intelligence, Speak talk to me. There was such an application on Google. I got feedback from there, I tried it. I also use a conversation app. There are foreign students from all over the world. There are profiles of people who enter their levels, their countries, and talk about themselves, and you talk to them" (St7).*

And finally, receiving outside class feedback and teacher feedback are methods participants used as socio-affective strategy in vocabulary learning are reflected in statements such as, "*My roommate speaks English. She has studied English before, so her English is better. So, I try to communicate as much as I can. This affects my English" (St4) and "Chatting seems to me to be the most effective method. Getting feedback from our professors also seems to be the most efficient method while actively speaking" (St6).*

PART 5

5. DISCUSSION, CONCLUSION AND SUGGESTIONS

This section contains the research findings' conclusions, a discussion section where the findings are compared to pertinent literature, and recommendations based on the research findings.

5.1. Discussion

The primary aim of this research was to explore and find out if CDE has any effect in fostering SRVLS of students when compared to traditional face-to-face education settings. The study also aimed to explore if there is any difference between genders regarding their use of SRVLS in different settings as well as the frequency of students' usage of the sub-factors of these strategies in those settings. The current study addresses a critical gap in understanding whether CDE influences self-regulated VLS of Turkish ELT students, an area that has gained increased relevance in the digital learning era. While prior studies have explored SRL, this research is among the first to examine students' self-regulation specifically in vocabulary learning with Turkish ELT students comparing a CDE setting (online) and a traditional face-to-face setting.

Regarding the application of SRVLS by gender and in various contexts, the study produced several important conclusions. The use of all strategies, apart from memory strategies, was comparable in both online and face-to-face contexts. However, face-to-face settings saw a higher frequency of the use of memory strategies, suggesting that the traditional classroom setting encourages these strategies more than online learning does. Students generally used SRVLS more in face-to-face contexts than in online ones.

Another key finding derived from the study is that the use of cognitive, metacognitive, memory, and socio-affective strategies in online contexts did not significantly differ by gender, indicating that male and female students used these strategies in a similar way. Apart from memory strategies, which were employed similarly by both sexes, there were notable gender differences in face-to-face settings, with women employing all strategies more frequently than men. This implies that while the online context neutralizes gender-specific tendencies in strategy use, the face-to-face setting may amplify them.

Lastly, when the four SRVLS subfactors—cognitive, memory, metacognitive, and socio-affective strategies—were arranged according to how frequently they were used, cognitive strategies came in first in both contexts, followed by memory, metacognitive, and socio-affective strategies. The impact of the learning environment on the use of memory strategies was evident in the fact that, despite the consistent ranking, they were employed more frequently in face-to-face settings than online. These results demonstrate the influence of context and gender on vocabulary learning strategies.

To start with, we mentioned previously that our findings revealed that students practiced SRVLS more in a face-to-face setting than in an online setting. This result is consistent with earlier research conducted by Przybył and Chudak (2022), aiming to compare participants' self-regulation in standard and online education. The data analysis of their study indicated that participants' self-regulation (SR) has significantly deteriorated due to the shift from standard to online learning during COVID-19 with respect to all the investigated SR areas. A similar sudden shift to online education was experienced by our participants as well because of the earthquake that hit Türkiye. Given that new learning environments are thought to have an impact on students' motivation and cognition (Pintrich, 2003), it is also expected that students' SR would be affected. "University students are not inclined to using technologies when regulating their own learning process, even when they are regular users of digital technologies for social, personal and leisure activities, among others" (Przybył & Chudak, 2022, p. 59)

Moreover, students' usage of self-regulated vocabulary learning techniques may be impacted by the variations between in-person and virtual encounters. Chun et al. (2016) claim that because face-to-face communication and online language instruction experience presence differently, using digital technology necessitates that users renegotiate interactional time frame standards. That is, users must modify or reframe their customary expectations and conventions around the time and flow of interactions when using digital technology for language instruction. This renegotiation is necessary because, in contrast to face-to-face contact, online communication can alter rhythm, pace, and speed of response. This is also a challenge for teachers if they are not fully trained in how to deliver effective online instruction. The social component of language learning is also at risk when distance online language learning (DOLL) is applied without enough planning, as it is claimed to be a crucial catalyst for students' intrinsic motivation and an enhancer of their autonomy (Przybył & Chudak, 2022). This supports the idea that students who maintain social bonds with their peers throughout their time in school

and college will perform better academically than those who do not, missing out on chances to co-construct knowledge or negotiate meanings in the target language (Liu & Lan, 2016).

In addition, students are more likely to employ strategies like asking questions and reflecting on their learning more frequently when teachers and peers are present in the physical classroom as the classroom environment itself serves as a cue for students to shift into a focused, strategic learning mode as one interviewee shared, "*When we talk in the classroom or elsewhere in a social environment, when we get feedback, it helps us to improve ourselves more, so we do it 2-3 times a week from time to time, although not very often" (St2).* The physical classroom also facilitates the immediate implementation of SRVLS by means of instant teacher-student exchanges, group work, and peer discussions. In-person instruction also makes it possible for teachers to monitor students more closely and provide quick feedback, which helps students improve their SRVLS on time. Bohnensteffen (as cited in Przybył & Chudak, 2022) that because error correction normally depends on the teacher rather than the student, learners may not be able to build strategic self-supervision or self-correction skills under the forced online learning environment. As one participant noted about the importance of receiving feedback from the teacher in the face-to-face setting, *"I mean, my classmates and I usually speak English among ourselves, that's how I have developed it. I mean, of course, we receive oral communication lessons from our teachers" (St3).*

Equally important, easy access to unplanned social interactions and body language cues in face-to-face setting reduces distractions and improves students' application of socio-affective and metacognitive skills. In online learning environments, on the other hand, social presence is frequently restricted and there are less opportunities for in-person interactions and non-verbal cues, a possible reason why self-talk could have emerged as an alternative for in-person interactions in the online setting. Underscoring this issue, a participant noted, *"I try to use it myself in the learning phase, and in general, the way I work the most when I learn a language is to talk to myself. In the first learning phase, I try to use the word myself, and the way you learn a word is usually when you are trying to talk to yourself" (St5).* It is also important to mention that usually, neither teachers nor students are ready for the sudden change in educational settings in emergency remote education, which causes disruptions to the learning process and a lack of organized assistance. Students may find it harder to regularly use SRVLS like goal setting, time management, and self-monitoring if they lack organized resources, training, and time to get used to online tools.

Furthermore, multitasking and cognitive overload from managing technology in online contexts may also hinder the application of learning strategies. “Differences in access to the internet and type of device might also cause fatigue for some learners. For example, learners moving through lessons on a cellular phone, or a slow internet connection may be able to complete less work in the same period as a person with a laptop and high-speed internet. Another possibility is that students might be overwhelmed by the cognitive demands of the content and potentially complex digital interfaces ” (Carter et al., 2020, p. 5). Thus, obstacles related to technology, delayed feedback, and the complex nature of platform navigation might make it difficult to apply strategies consistently in online classes. The following remark by a participant highlights one aspect of the difficulties encountered in communication via online platforms, *“We set up a WhatsApp group with four friends. Everyone sets up a group. That way, we read a paragraph out loud. On the other side, those other three friends of mine give us feedback, whether we have pronounced the word correctly” (St1).*

It is also important to mention that a slight increase in students’ proficiency level might have been effective in face-to-face education setting as students had just started the first year of college when the first round of the questionnaire was presented while they were halfway through first year when the second round took place. As a result, we can say the findings which revealed a higher rate of SRVLS employed in face-to-face settings could be explained by students’ minor increase in competency in this setting. This prediction about the effect of proficiency level in the usage of SRVLS is in line with a previous study that have proved effective learners can apply a variety of learning techniques to various activities and modify them as necessary to help them move closer to their objectives. It was observed that the majority of pupils understood and felt at ease using a variety of learning techniques (Ambreen et al., 2016). Other studies also found that students with higher vocabulary scores are better able to self-regulate their vocabulary learning than those with lower levels (Cepni, 2021) and their results indicated that high scorers deployed a diversity of self-regulated VLS compared to low scorers (Arslan, 2021). In the words of two participants, *“.. in the classes, for example in the academic writing class, the teacher tells us to write a conclusion part, write an introduction part, I will write an article in the exam. Accordingly, you prepare yourself to write something and try to use the words in your mind. I try to use them especially in that way while paraphrasing with their synonyms” (St7).* and *“for example, a word has several English equivalents. I know one of them. I have just learned one of them. I match those two. Or I do it*

with antonyms" (St5). Academic writing, making associations and finding alternatives to previously learnt words are only possible after reaching a certain level of proficiency level.

It is likely that the former outcomes might also be because students who are proficient can employ more advanced strategies, like metacognitive reflection and memory strategies, as they are under less cognitive burden. This competency increases their self-assurance in establishing objectives, tracking their development, and modifying their teaching strategies when necessary. In face-to-face settings, proficient students are more likely to experiment with alternative approaches, take charge of their education, and participate actively in group projects, presentations, and class debates. A participant remarked, "*Recently, when we sit with our friends, we speak English, constantly, full. I mean, we are talking to ourselves so that the accent develops, so that we can do something, and now we have started to have therapy sessions like this" (St8).* When combined with an organized learning environment, this classroom interaction increases the chances for regular and meaningful vocabulary drill with SRVLS.

On the other hand, learners who are marginally less proficient could be more insecure in online environments and stick to simple techniques. As shared by one interviewee "*He wrote that the given 3000 words are the words that will be most useful to you and includes almost all the words used in English. I took a screenshot of those words, and I will memorize them in a notebook" (St4).* Limited online engagement and feedback also make it difficult to employ more sophisticated techniques, which could result in a decrease in the utilization of SRVLS. Thus, proficiency can encourage greater motivation and autonomy in language learning.

In accordance with the second and third research questions of the study, our analysis of the data obtained showed that although there was no significant difference between genders in their usage of SRVLS in online setting, female students tend to use SRVLS more than male students in face-to-face setting. This result corroborates the findings of several other studies conducted previously. Kulusakli (2022) investigated the SRL skills of EFL learners in online English course in distance education and explore the relationship between the learners' SRL skills, their age and gender and found that there was no statistically significant distinction in terms of gender and age and their level of self-regulation. Additionally, Abdulhalim Ahmad Shamsan et al. (2021) investigated the online VLS used by Saudi EFL students who study English at the University of Bisha, Saudi Arabia, during COVID-19 outbreak and found no significant differences among genders. Demirel (2022) also found no significant difference in the overall use of OSRL strategies for different genders while investigating the use of OSRL

strategies by learners of EFL in a high school setting during distance education. On the other hand, a study conducted by Cepni (2021) contradicts this result and reports that male and female SRCvoc subscale scores were similar and there was no statistically significant main influence for gender in face-to-face setting.

One explanation to these results is that female students may be more likely to employ self-regulated vocabulary learning methods in face-to-face classroom settings because of peer dynamics, social expectations, and teacher interactions which can encourage organization and diligence. Female students might also be under pressure to do well academically due to societal or cultural norms. Furthermore, female students could feel more at ease asking for assistance and participating in debates, which encourages the use of socio-affective techniques. Teachers' interactions with male and female students may also differ, e.g. expecting female students to be more organized, which could impact how often female students use SRVLS.

Live online environments, on the other hand, typically lessen most of these social dynamics, which reduces the pressure and visibility that could otherwise motivate female students to utilize SRVLS more frequently. Gender variations in strategy use become less noticeable when participation is equalized, and individual focus is reduced in the online environment. Furthermore, online environments frequently provide more impartial learning structures and equitable access to instructor help. The online format can also make female students feel less at ease because of less immediate and more formal interaction, e.g. typing in chat box or having to unmute to speak, which could result in a decline in the use of SRVLS. A more neutral setting, similar access to teacher support via email or chat, using the same resources and having to overcome comparable obstacles and technological barriers such as navigating platforms, it can be inferred that technology can level the playing field and reduce the gender disparity in SRL by creating a more neutral setting.

As per the fourth and fifth research questions of the study, the ranking of self-regulated VLS that students practice in both online and face-to-face settings are as follows: cognitive strategies being used the most, followed by memory strategies, metacognitive strategies, and socio-affective strategies being the least. “The transition across the four analysed phases of SR, from planning, through monitoring and control, to reflection, appears to be more challenging in online settings” (Przybył & Chudak, 2022, p. 58).

The characteristics of self-regulated VLS and the way in which students use them can account for the ranking of these techniques. The most often employed cognitive techniques are those that are simple and easy to implement, such note-taking, repetition, and using words in context. The following statements illustrate participants' cognitive techniques in the online setting: *"I usually write down the words that I don't understand in the textbooks or that I am curious about on small post it notes and hang them where I can see them. This way it is useful for me. Apart from that, I pay attention to use them in sentences" (St8), "I speak English in my head, I activate it in my head by talking to myself" (St3).*

The following quotes highlight interviewees' cognitive strategies for using words in context within the face-to-face setting*: "For example, I read or hear a sentence that I learned from a movie, and I create my own sentence about it. Then I discover Quillbot, I check whether there are grammatical mistakes or not" (St1)* and *"Using it in a sentence, keeping a vocabulary notebook, and I also record audios" (St9).*

The fact that these tactics provide instantaneous outcomes supports their application. Because cognitive strategies are more compatible with standard teaching techniques like exams and assignments, students are encouraged to use them and frequently find them to be more intuitive. The findings of a study conducted by Ping and Siraj (2012) indicated that among Chinese learners, shallow processing techniques such as repetition techniques and dictionaries that are used primarily to seek up word definitions, continue to be prevalent. Equivalent results were obtained from the interviews conducted in both the online and face-to-face settings of the current study. Two participants in the online setting noted, *"Online dictionary. English to English" (St3)* and *"Online, application style. Google translate, Tureng, again very well-known websites like Cambridge, I use them" (St6).* Likewise, one interviewee remarked in the face-to-face interview, *"And then I look at the Cambridge website" (St1).*

In contrast, memory methods are thought to be more difficult and sophisticated, as they require cognitive effort and creativity, such as creating mental images and associations. These strategies can feel abstract to most students and less straightforward, discouraging them from consistently using them even though they are beneficial for long-term retention. It is also important to mention that although findings have revealed that memory strategies are students' second most used strategies in both settings, details have shown that they are more frequently used in face-to-face setting when compared to online setting. "Memory strategies are referred to as approaches associating new words to existing knowledge" (Schmitt, 1997, as cited in Xu

& Hsu, 2017, p. 13). Thus, this increase in the frequency of strategy use can be the result of students' increased vocabulary knowledge which is a result of their increased proficiency level.

Illustrating this idea, the statements that follow highlight participants' use of memory strategies in face-to-face setting: "*For example, in Tureng or google translate, I star the words whose meaning I checked previously, I look at them from time to time*" *(St6)*, "*I'm trying to strengthen it by repeating it more to myself. Yes, synonyms - antonyms I've started recently" (St1), "In other words, I associate the previous and the next word a little bit. Apart from that, as I said, I try to use the word I just learned that word specially while speaking or writing or something like that, so that it stays in my mind longer. Also, sometimes something happens, for example, a word has several English equivalents. I know one of them. I have just learned one of them. I match those two. Or I do it with antonyms" (St5),* and *"I repeat it intermittently, if I have taken a note of that word, for example, I reread it from there, but recently I started to look at synonyms because it helps me not to use the same word all the time while writing, for the last 1-2 months or so" (St3).*

Providing further insight, here are some interview excerpts that reflect participants' use of memory strategies in the online settings: *"I mean like this, you know, when I memorize it, I repeat it, I say it, I use it during the day. This stays in my mind" (St4)* and *"It is more useful to learn the synonyms and antonyms of the word together" (St2).*

On the other hand, metacognitive and socio-affective methods are used less frequently in both settings, possibly due to their higher cognitive burden and less rapid satisfaction. As Demirel (2022) also stated that after the self-evaluation factor, the mean score for help-seeking item was the lowest of all the techniques. Students may not be completely aware of or eager to apply metacognitive methods, which involve planning, monitoring, and assessing one's learning. These strategies call for a greater level of self-awareness and introspection as well as explicit strategy training. The following interview excerpts, conducted after receiving online education, provide insight into how students set their vocabulary learning goals: *"I had a vocabulary notebook. It was a way of sketching out how many words I aimed to learn at work each week, or how many words I learned in lessons" (St7) and "I set goals, but I don't usually follow them. That's why I don't apply it much. Generally, whatever I can get is as much profit for me" (St8).*

Underscoring this issue, participants noted the following after receiving education in the face-to-face setting: *"In fact, I don't particularly think that I memorize that many words, but if a word that I don't know the meaning of is mentioned somewhere I read or listen to, I learn it and memorize it that way" (St3), "Mine is more randomly, I come across a word and I look up its meaning. That's how I learn. Words" (St6) and "I do not plan" (St9)*

Zimmerman (as cited in Demirel, 2022, p. 55) claims that "self-evaluation depends on such personal processes as self- efficacy, goal setting, and knowledge or standards, as well as self-observed responses", thus, self-evaluation, which is part of metacognitive strategies, may not be the best course of action for students studying online who may have struggled with assessing their own performance. Some of the responses received when students were asked to elaborate on how they track and assess their learning during online education include: "*First, for example, I close the English version of the word and try to find its meaning in Turkish. Then, as I move on to other parts, I go back and check if I remember those words*" *(St3) and "If I see a word once and I don't remember its meaning, I haven't memorized it, but I try to think more about the meanings that the word connotes in order to remember it" (St 2).*

On the other hand, when asked about how participants monitor and assess their learning in traditional education, students provided the following response: "*For example, I studied today, 1-2 days later I remember that sentence or word. I realize that I have learned it. If it comes to my mind and I can't remember it, I go back and look again immediately" (St1).*

These tactics, planning, monitoring and assessing one's learning, are less appealing since they frequently yield long-term advantages as opposed to immediate outcomes. One participant's comment on their planning during the online learning process reinforces this perspective: "*Honestly, I don't (set any goals), so I can say that I leave it to its natural process. This is not only because I am a bit lazy, but also because I did not observe that setting a goal and so on does much good. In other words, I find it more efficient to learn by leaving it to its natural state in a process" (St5).*

And finally, the least commonly applied techniques are socio-affective ones, which are strategies related to social connection and emotion regulation. This is particularly true in online contexts where social engagement possibilities are scarce. One interviewee shared the following insight about their social connections in the online learning experience: "*I sent letters, it's like a pen pal. I sent letters a couple of times, and it was very much like sending a real letter.*

You would write it and send it online, for example, it would go to New York, it had three days. The letter was delivered three days later. It would take about seven days for it to get back to me. It was like a real letter. Continued doing this during summer vacation but I stopped later. I got bored I think" *(St8).*

In a study conducted by Kulusakli (2022), she states that students had trouble updating their peers on their progress in the online English course despite their willingness to ask for assistance when needed. The interviewees in her study also noted that a lack of cooperation and group projects may be creating less interaction, which could make it harder for them to compare their performance to that of others in a more competitive learning environment. One participant's comment during the face-to-face learning process reinforces this perspective: "*Actually, we only use English in class, I mean in the classroom, so I don't have anyone I speak English with (other than my classmates)*" *(St4).* Demirel (2022) also suggested that when students required assistance during their distance education, some students profited from using outside, supplemental resources like the Internet or books rather than contacting their teachers or peers. Illustrating this idea, one participant shared the following during online education: "*Artificial intelligence, Speak talk to me. There was such an application on Google. I got feedback from there, I tried it. I also use a conversation app. There are foreign students from all over the world. There are profiles of people who enter their levels, their countries, and talk about themselves, and you talk to them" (St7).*

Last but not least, the decreased use of socio-affective methods is also influenced by cultural factors, a lack of emphasis on emotional learning, that is developing skills to recognize, understand, regulate, and manage emotions effectively through receiving emotional support from peers or instructors, using relaxation techniques, reframing thoughts and developing problem-solving skills, and the stigma associated with seeking assistance, such as fear of judgement or looking incompetent. As Kulusakli (2022) also mentioned in a study, students at higher education sometimes struggled to ask for assistance from others, including their teachers and fellow students, because they felt ashamed and therefore, avoided the opportunity.

5.2. Conclusion

This study aimed to find out whether online educational settings foster the use of SRVLS by Turkish ELT students when compared to face-to-face setting. The study also sought to determine whether students' use of SRVLS in various contexts differed by gender and how frequently they used the sub-factors of these techniques in those contexts. SRVLS questionnaire

was presented twice to the same group of students once after receiving online education and once after studying in a traditional face-to-face education setting. Interview questions were also administered twice after the questionnaires were filled out to support and elaborate on students' answers in the survey.

The data obtained from the study showed that while there was not any significant difference between genders in their usage of SRVLS in online setting, a significant difference was spotted between genders in face-to-face environment. The results also revealed that students practiced SRVLS more in face-to-face setting when compared to online education setting. And finally, regarding the use of the sub-factors of the SRVLS, cognitive strategies ranked the most used strategy among students. Memory strategies ranked second, metacognitive third and socio-affective the last.

It has been discussed that social, contextual, and interactional elements that are reduced or equalized in live online situations may be the cause of the gender differences in SRVLS use in face-to-face settings. Face-to-face settings, with their attendant social pressures, instructor expectations, and organized classroom dynamics, may encourage female students to exercise more self-regulation. Live online environments, on the other hand, lessen these dynamics and foster a more equal learning environment where learners of both genders approach SRVLS in a comparable way.

As for students' utilization of SRVLS, it was forecasted that significant distinctions that exist in live online sessions when compared to in-person settings may have impacted the usage of SRVLS. Pupils in physical classrooms are more involved, get feedback faster, and connect with peers and teachers more naturally. These elements, along with less distractions and improved instructor supervision, can encourage more regular and consistent usage of SRVLS. Even with real-time engagement, students' capacity to fully engage with SRVLS in live online settings may be limited by technological obstacles, a decrease in social presence, and the nature of the virtual environment. SRL mechanisms may therefore be used more frequently because of the enhanced competency and engagement in face-to-face settings.

And finally, several characteristics, such as ease of use, immediacy of results, awareness, and social or emotional barriers, can be ascribed to the varying frequency of SRVLS usage (cognitive strategies the most, memory second, metacognitive third, and socio-affective the least). While metacognitive and socio-affective techniques necessitate greater self-

awareness, introspection, and social interaction—qualities that are frequently neglected or deemphasized in both in-person and virtual learning environments—cognitive and memory strategies provide students with more immediate, tangible benefits.

5.3. Suggestions

The results of this study can offer important and helpful suggestions for future online self-regulated VLS and instruction, particularly for English language classes. However, further research regarding this topic is also suggested since this study has been conducted within a certain framework. The first recommendation relates to the individuals involved. The participants of this study may not be sufficient to discover and compare the SRVLS used in online and face-to-face settings due to their number, age group and proficiency level. Since the participants of the study consisted of students who had just started their first year of college, their age and proficiency levels are expected to be homogenous. Including students from various levels and age groups will be helpful in attaining more comprehensive and detailed data to generalize the results. It is also important to make sure that all participants have a similar degree of familiarity with SRVLS.

Another suggestion is related to the students' proficiency level. In the current study, students' proficiency level might have affected their strategy use between the two settings as a change is inevitable between the beginning of the term and the end of it. Thus, students from different proficiency levels and ages can be divided into two groups, each group receiving education in a particular setting for a certain amount of time. The questionnaire could then be distributed and filled out to obtain in-depth data to analyze.

In light of the findings, it is recommended educators promote self-regulated VLS through explicit teaching, which involves explaining what the strategies are and how to use them effectively, through online workshops, where learners receive clear instructions on vocabulary strategies. Collaboration by using digital tools like Google Docs or Padlet will enable students to share vocabulary, provide peer feedback, and engage in collaborative learning. Additionally, creating supportive learning environments can help encourage the use of underutilized strategies, such as metacognitive and socio-affective methods.

To start with, planning, assessing, and reflecting are examples of metacognitive techniques. Teachers can help students plan by teaching them to create SMART (specific, measurable, achievable, relevant and time-bound) goals for their vocabulary development.

Students can also create a vocabulary learning plan by concentrating on choosing words from topic-based lists, high-frequency words, or keywords related to a topic. For self-assessment, smartphone apps like Quizlet and Kahoot can help with vocabulary organization and review in a gamified manner. Self-evaluation and reflection are equally crucial. Students can learn to evaluate their progress by completing speaking and writing exercises that include target vocabulary, keeping reflection notebooks, or conducting weekly reviews.

To continue, socio-affective techniques prioritize peer support, emotional control, and teamwork. For peer review and vocabulary exchange, educators can utilize collaborative platforms such as Padlet or Google Docs. It will be easier to normalize asking for help if low-stakes activities are established, like casual discussions, vocabulary discussion forums, debates, or games centered around language. Giving students regular feedback on their accomplishments and development will also help them develop a growth mentality, which will boost their drive and self-esteem. Students who are taught emotion regulation skills are also better able to cope with stress and stick with their vocabulary study.

In addition, deeper processing of words through meaningful use is a component of cognitive strategies. Instructors might give their students assignments that call for them to employ new terms in context, including writing dialogues or stories that use the target vocabulary. Another good strategy is to give learners digital reading or listening assignments so they may practice inferring word meanings from context.

And finally, the goal of memory techniques is to assist students in remembering and retaining new words. Teachers can use multimedia tools like PowerPoint or Canva to demonstrate how words can be associated with images. Learning to make acronyms and memory aids for difficult words can also help students. Using rhymes, pictures, or mnemonic devices are strategies that can help vocabulary become more memorable. Through the integration of many strategies, this organized approach can enhance self-regulated vocabulary learning in an online setting, making it more efficient and student-centered.

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ZORUNLU UZAKTAN EĞİTİMİN ÖĞRENCİERİN KELİME ÖĞRENİMİ İÇİN ÖZ-DÜZENLEME BECERİLERİNİN GELİŞİMİ ÜZERİNDEKİ ETKİSİ

Sevde ÖZTÜRK

Modern, küreselleşmiş toplumda İngilizce Dil Öğretiminin önemi küçümsenemez derecede büyüktür. Uluslararası iletişimde en yaygın kullanılan dil haline gelen İngilizce, kültürler arası değişimlere katılmak, eğitim almak ve uluslararası iş yapmak için gereklidir. İngilizce Dil Öğretiminin, öğrencilere hem kişisel hem de mesleki gelişimleri için ihtiyaç duydukları dil becerilerini sağlamanın yanı sıra, farklı geçmişlere sahip insanlar arasındaki iletişimi ve iş birliğini kolaylaştırarak küresel anlayışı teşvik eder. İngilizce dil becerileri, bilginin çoğunun bu dilde paylaşıldığı bir zamanda modern dünyanın karmaşıklığında gezinmek için gereklidir ve bu da İngilizce Dil Öğretimini modern eğitim programlarının önemli bir parçası haline getirir.

Sözcük dağarcığı bir dil sisteminin hayati bir parçasıdır. Bir dilin dört becerisini (okuma, yazma, dinleme ve konuşma) edinebilmek için gereklidir ve bu nedenle kelime öğrenme stratejileri araştırmacılar tarafından araştırmaların odak noktası olmuştur. Geçmişte kelime dağarcığı, kelime dağarcığını etkileyen faktörler ve öğrencilerin kelime dağarcığı kullanımının nasıl geliştirilebileceğine ilişkin çeşitli çalışmalar ve pandemi nedeniyle çevrimiçi eğitimde öğrencilerin kullandıkları kelime dağarcığına ilişkin bazı çalışmalar yapılmış olsa da, bu çalışma, çevrimiçi öğrenmenin öğrencilerin kelime öğrenimini düzenlemedeki etkisini ve çevrimiçi ve yüz yüze geleneksel sınıf ortamlarında eğitim gördükten sonra İngilizce Dil Öğretimi öğrencileri tarafından kullanılan kelime dağarcığı arasında bir fark olup olmadığını incelemeye odaklanması açısından farklıdır.

Bu çalışmanın amacı, zorunlu uzaktan eğitimin, geleneksel yüz yüze eğitim ortamına kıyasla, İngilizce öğretmenliği öğrencilerinin öz-düzenleyici kelime öğrenme stratejilerini kullanmaları üzerinde bir etkisi olup olmadığını araştırmaktır. Öğrencilerin, geleneksel sınıf ortamlarından çevrimiçi öğrenme ortamlarına ani geçişin bir sonucu olarak, özellikle dil öğrenimi için çok önemli olan kelime edinimi gibi alanlarda, öz-düzenleme ve özerkliğe

giderek daha fazla kullanmak zorunda kalmaları beklenmektedir. Bu çalışmanın amacı, öğrencilerin çevrimiçi ve yüz yüze olmak üzere iki farklı ortamda kelime edinimlerini denetleme, izleme ve düzenleme kapasitelerini keşfetmektir. Araştırma, öz-düzenleyici kelime öğrenme stratejilerine odaklanarak İngilizce Dil Öğretimi öğrencilerin çevrimiçi ve yüz yüze eğitim ortamlarında öğrenme stratejilerini ne kadar iyi kullandıklarına ışık tutacaktır.

Öz-düzenleyici kelime öğrenme stratejileri anketinin katılımcıları, 2023-2024 akademik yılında Türkiye'deki bir devlet üniversitesinde öğrenim gören İngiliz Dili Öğretimi lisans öğrencileri arasından seçilmiştir. Çalışmaya yüz yüze ortamda katılan toplam öğrenci sayısı 84, çevrimiçi ortamda katılan toplam öğrenci sayısı ise 76'dır. Yüz yüze ortama katılan öğrencilerin 24'ü erkek, 60'ı kadındır. Çalışmaya çevrimiçi ortamda katılan öğrencilerin 20'si erkek, 56'sı kadındır. Yarı yapılandırılmış görüşmenin katılımcıları ise, çalışmaya katılmaya gönüllü olan toplam 9 öğrenci, öz-düzenleyici kelime öğrenme stratejileri anketini de alan katılımcılar arasından rastgele seçilmiştir.

Kelime Öğrenme Stratejileri Envanteri bu çalışmada nicel bir veri toplama aracı olarak kullanılmıştır. Kelime öğrenme strateji envanteri, Xuelian Xu ve Wen-Cheng Hsu tarafından İngilizce öğrenen Çinli üniversite öğrencileri tarafından kullanılan kelime edinme tekniklerini değerlendirmek için kapsamlı bir araç sunmak üzere 2017 yılında yayınlanan araştırmanın bir parçası olarak geliştirilen ve onaylanan bir öz-düzenleyici kelime öğrenme stratejileri anketidir. Keşifsel ve doğrulayıcı faktör analizleri yoluyla, kelime öğrenme stratejileri envanteri bir ölçüm aracı olarak geçerliliği ve güvenilirliği belirlenmiştir (Xu & Hsu, 2017).

Nitel verilere gelince, çevrimiçi bir toplantı sırasında öğrencilere dört yarı yapılandırılmış görüşme sorusu sunulmuştur. Her bir soru, mevcut çalışmada nicel veri toplama aracı olarak kullanılan Kelime Öğrenme Stratejileri Envanteri anketini oluşturan dört ana kategoriyi temsil edecek şekilde seçilmiştir. Görüşme, öğrencilerin soruları anlama ve yanıtlama konusundaki olası engelleri ortadan kaldırmak için bireysel olarak Türkçe dilinde gerçekleştirilmiştir. Her görüşme yaklaşık 8-12 dakika sürmüş ve ileride başvurulmak üzere kaydedilmiştir. Yarı yapılandırılmış görüşmelerden elde edilen veriler, çalışmanın nicel sonuçlarını desteklemek ve güçlendirmek için kullanılmıştır.

Öz-düzenleyici kelime öğrenme stratejilerinin cinsiyete göre ve çeşitli bağlamlarda uygulanmasıyla ilgili olarak, çalışma birkaç önemli sonuç ortaya koymuştur. Hafıza stratejileri dışındaki tüm stratejilerin kullanımı hem çevrimiçi hem de yüz yüze ortamlarda

karşılaştırılabilir düzeydedir. Bununla birlikte, yüz yüze ortamlarda hafıza stratejilerinin kullanım sıklığı daha yüksektir; bu da geleneksel sınıf ortamının bu stratejileri çevrimiçi öğrenmeden daha fazla teşvik ettiğini düşündürmektedir. Öğrenciler genellikle öz-düzenleyici kelime öğrenme stratejilerini yüz yüze ortamlarda çevrimiçi ortamlara göre daha fazla kullanmışlardır.

Çalışmadan elde edilen bir diğer önemli bulgu, bilişsel, üstbilişsel, bellek ve sosyo-duyuşsal stratejilerin çevrimiçi bağlamlarda kullanımının cinsiyete göre anlamlı bir farklılık göstermemesidir; bu da erkek ve kız öğrencilerin bu stratejileri benzer şekilde kullandıklarını göstermektedir. Her iki cinsiyet tarafından da benzer şekilde kullanılan hafıza stratejileri dışında, yüz yüze ortamlarda cinsiyetler arasında kayda değer farklılıklar görülmüş, kadınlar tüm stratejileri erkeklerden daha sık kullanmıştır. Bu durum, çevrimiçi bağlamın strateji kullanımında cinsiyete özgü eğilimleri nötralize ederken, yüz yüze ortamın bunları güçlendirebileceğini ima etmektedir.

Son olarak, dört öz-düzenleyici kelime öğrenme stratejilerinin alt faktörü, bilişsel, bellek, üstbilişsel ve sosyo-duyuşsal stratejiler, hangi sıklıkla kullanıldıklarına göre düzenlendiğinde, bilişsel stratejiler her iki bağlamda da ilk sırada yer almış, bunu bellek, üstbilişsel ve sosyo-duyuşsal stratejiler izlemiştir. Öğrenme ortamının hafıza stratejilerinin kullanımı üzerindeki etkisi, tutarlı sıralamaya rağmen, yüz yüze ortamlarda çevrimiçi ortamlara göre daha sık kullanılmalarında açıkça görülmektedir. Bu sonuçlar, bağlam ve cinsiyetin kelime öğrenme stratejileri üzerindeki etkisini göstermektedir.

Canlı çevrimiçi ortamlarda azalan veya eşitlenen sosyal, bağlamsal ve etkileşimsel unsurların, yüz yüze ortamlarda öz-düzenleyici kelime öğrenimi stratejilerin kullanımındaki cinsiyet farklılıklarının nedeni olabileceği tartışılmıştır. Yüz yüze ortamlar, beraberinde getirdiği sosyal baskılar, eğitmen beklentileri ve organize sınıf dinamikleri ile kız öğrencileri daha fazla öz-düzenleme yapmaya teşvik edebilir. Öte yandan, canlı çevrimiçi ortamlar bu dinamikleri azaltır ve her iki cinsiyetten öğrencilerin öz-düzenleyici kelime öğrenimi stratejileri kullanımlarını karşılaştırılabilir bir şekilde yaklaştığı daha eşit bir öğrenme ortamını teşvik eder.

Öğrencilerin öz-düzenleyici kelime öğrenimi stratejileri kullanımına gelince, yüz yüze ortamlara kıyasla canlı çevrimiçi oturumlarda var olan önemli farklılıkların öz-düzenleyici kelime öğrenimi stratejilerin kullanımını etkilemiş olabileceği tahmin edilmiştir. Fiziksel

sınıflardaki öğrenciler daha katılımcıdır, daha hızlı geri bildirim alır ve akranları ve öğretmenleriyle daha doğal bir şekilde bağlantı kurar. Bu unsurlar, daha az dikkat dağıtıcı unsur ve daha iyi eğitmen gözetimi ile, öz-düzenleyici kelime öğrenimi stratejilerini daha düzenli ve tutarlı kullanımını teşvik edebilir. Gerçek zamanlı katılım olsa bile, öğrencilerin canlı çevrimiçi ortamlarda öz-düzenleyici kelime öğrenimi stratejilerini kullanma kapasiteleri teknolojik engeller, sosyal varlığın azalması ve sanal ortamın doğası nedeniyle sınırlı olabilir. Bu nedenle öz-düzenleyici öğrenme mekanizmaları, yüz yüze ortamlarda artan yetkinlik ve katılım nedeniyle daha sık kullanılabilir.

Ve son olarak, kullanım kolaylığı, hızlı geri bildirim, farkındalık ve sosyal veya duygusal engeller gibi çeşitli özellikler, öz-düzenleyici kelime öğrenimi stratejileri kullanımının değişen sıklığına atfedilebilir (en çok bilişsel stratejiler, ikinci olarak bellek, üçüncü olarak üstbilişsel ve en az sosyo-duyuşsal). Üstbilişsel ve sosyo-duyuşsal teknikler daha fazla öz farkındalık, iç gözlem ve sosyal etkileşim gerektirirken- hem yüz yüze hem de sanal öğrenme ortamlarında sıklıkla ihmal edilen veya vurgulanmayan nitelikler- bilişsel ve hafıza stratejileri öğrencilere daha acil, somut faydalar sağlar.

Bu değerlendirmeler, hibrit öğrenme modellerinde veya gelecekteki acil durumlarda öğretim stratejilerini geliştirmek için kullanılabilecek aydınlatıcı bilgiler sağlayabilir. Öğretmenler, zorunlu uzaktan eğitimin öz-düzenleyici kelime öğrenimi stratejilerinin kullanımını nasıl etkilediğini bilerek öz-düzenleyici öğrenmeyi teşvik eden dersleri ve destek sistemlerini daha etkili bir şekilde oluşturabilir. Ayrıca, öğretim yöntemlerinin daha kapsayıcı olmasını, öğrencilerin çeşitli ihtiyaçlarını karşılamasını ve uzak ortamlarda adaleti teşvik etmesini garanti eder. Bulgular, eğitim için uzun vadeli planlamaya rehberlik edebilir ve okulların gelişen öğrenme ortamlarında kelime dağarcığı gelişimini desteklemek için etkili yöntemleri dahil etmelerine olanak tanır.

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APPENDICES

APPENDIX A: ETİK KURUL KARARI

NECMETTİN ERBAKAN ÜNİVERSİTESİ
SOSYAL VE BEŞERİ BİLİMLER BİLİMSEL ARAŞTIRMALAR ETİK KURULU
ETİK KURUL KARARI

Etik Kurul Toplantı Tarihi/Sayısı ve Karar No	**Tarih :08/09/2023** **Toplantı Sayısı:09** **Karar No :2023/358**
Araştırmanın Başlığı	The Impact of Compulsory Distance Education in Fostering Self-Regulated Vocabulary Learning.
Sorumlu Araştırmacı	Dr. Öğr. Üyesi Mustafa Serkan ÖZTÜRK
Yardımcı Araştırmacı	Lisansüstü Öğrenci Sevde ÖZTÜRK
Etik Kurul Kararı	15271 sayılı başvuru Etik Kurul tarafından değerlendirilmiş olup, başvurunun bilimsel araştırma etiği açısından **"Uygun"** olduğuna karar verilmiştir.

APPENDIX B: A NEW INVENTORY OF VOCABULARY LEARNING STRATEGY FOR CHINESE TERTIARY EFL LEARNERS

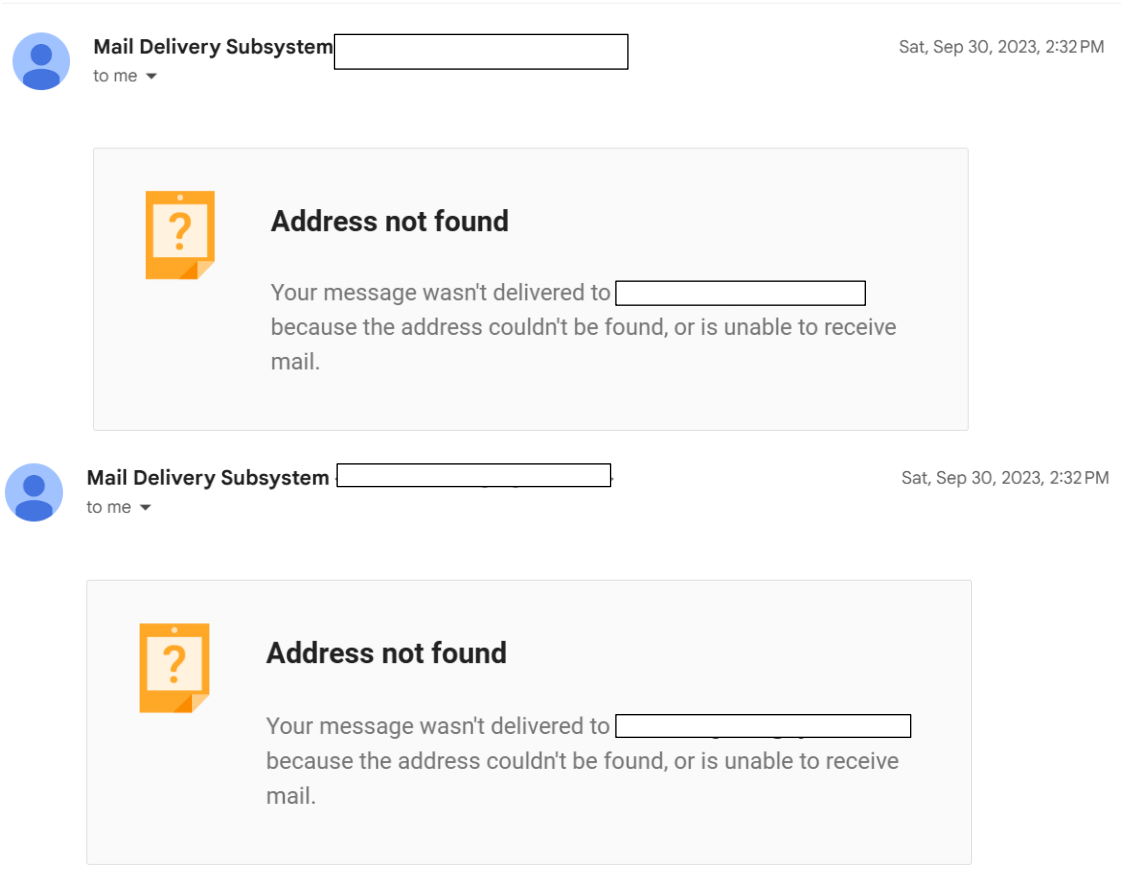
Items	Never	Seldom	Occasionally	Often	Always
Part A: Metacognitive Strategies (MET) (16 items)					
1. I pay close attention to the vocabulary use in my speech and that of others.	(1)	(2)	(3)	(4)	(5)
2. I break lists into smaller parts.	(1)	(2)	(3)	(4)	(5)
3. I know when I need to skip or pass a new word.	(1)	(2)	(3)	(4)	(5)
4. I know when a new word is essential for adequate comprehension of a passage.	(1)	(2)	(3)	(4)	(5)
5. I know which words are important for me to learn.	(1)	(2)	(3)	(4)	(5)
6. I look up words that I'm interested in.	(1)	(2)	(3)	(4)	(5)
7. I try to find as many ways as I can to use new English words.	(1)	(2)	(3)	(4)	(5)
8. I try to find out how to be a better learner of English words.	(1)	(2)	(3)	(4)	(5)
9. I plan my schedule so I will have enough time to study English words.	(1)	(2)	(3)	(4)	(5)
10. I have clear goals for improving my vocabulary.	(1)	(2)	(3)	(4)	(5)
11. I care about vocabulary items my English teacher doesn't mention or emphasize.	(1)	(2)	(3)	(4)	(5)
12. I use various means to make clear vocabulary items that I am not quite clear of.	(1)	(2)	(3)	(4)	(5)
13. I associate a new word with a known English word that sounds similar.	(1)	(2)	(3)	(4)	(5)
14. I am aware when I have not used a new word correctly and use that information to help me do better.	(1)	(2)	(3)	(4)	(5)
15. I think about my progress in learning English words.	(1)	(2)	(3)	(4)	(5)
16. I test my vocabulary with word tests or other means.	(1)	(2)	(3)	(4)	(5)
Part B: Cognitive Strategies (COG) (25 items)					
17. I make use of the logical development in the context (e.g. cause and effect) when guessing the meaning of a word.	(1)	(2)	(3)	(4)	(5)
18. I make use of my common sense and knowledge of the world when guessing the meaning of a word.	(1)	(2)	(3)	(4)	(5)
19. I analyze the word structure (prefix, root, and suffix) when guessing the meaning of a word.	(1)	(2)	(3)	(4)	(5)

20. I use alternative cues and try again if I fail to guess the meaning of a word.	(1)	(2)	(3)	(4)	(5)
21. When I want to confirm my guess about a word, I look it up.	(1)	(2)	(3)	(4)	(5)
22. When looking up a word in a dictionary, I pay attention to sample sentences illustrating its various meanings.	(1)	(2)	(3)	(4)	(5)
23. I look for phrases or set expressions that go with the word I look up.	(1)	(2)	(3)	(4)	(5)
24. When I want to know more about a word that I already have some knowledge of, I look it up.	(1)	(2)	(3)	(4)	(5)
25. When I get interested in another new word in the definitions of the word I look up, I look up this word as well.	(1)	(2)	(3)	(4)	(5)
26. If the new word I try to look up seems to have a prefix or suffix, I will try the entry for the stem.	(1)	(2)	(3)	(4)	(5)
27. If the unknown word appears to be an irregularly inflected form or a spelling variant, I will scan nearby entries.	(1)	(2)	(3)	(4)	(5)
28. If there are multiple senses or homographic entries, I use various information (e.g. part of speech, pronunciation, style, collocation, meaning, etc.) to reduce them by elimination.	(1)	(2)	(3)	(4)	(5)
29. I try to integrate dictionary definitions into the context where the unknown was met and arrive at a contextual meaning by adjusting for complementation and collocation, part of speech, and breadth of meaning.	(1)	(2)	(3)	(4)	(5)
30. I use audio, video, computer aids to learn or consolidate my vocabulary.	(1)	(2)	(3)	(4)	(5)
31. I learn words written on commercial items.	(1)	(2)	(3)	(4)	(5)
32. I make a note of the meaning of a new word when I think it is commonly used or interesting.	(1)	(2)	(3)	(4)	(5)
33. I take notes when I look up a word.	(1)	(2)	(3)	(4)	(5)
34. I make notes when I want to help myself distinguish between the meanings of two or more words.	(1)	(2)	(3)	(4)	(5)
35. I remember a new word by saying it repeatedly.	(1)	(2)	(3)	(4)	(5)
36. I memorize a new word by writing it repeatedly.	(1)	(2)	(3)	(4)	(5)
37. I try to read as much as possible so that I can make use of the words I tried to remember.	(1)	(2)	(3)	(4)	(5)
38. I make up my own sentences using the words I just learned.	(1)	(2)	(3)	(4)	(5)
39. I try to use the newly learned words as much as possible in speech and writing.	(1)	(2)	(3)	(4)	(5)
40. I try to use newly learned words in real situations.	(1)	(2)	(3)	(4)	(5)

41. I try to use newly learned words in imaginary situations in my mind.	(1)	(2)	(3)	(4)	(5)
Part C: Memory Strategies (MEM) (24 items)					
42. I group new words by grammatical class, e.g. nouns, verbs, adjectives, etc.	(1)	(2)	(3)	(4)	(5)
43. When I meet a new word, I search in my memory and see if I have any synonyms and antonyms in my vocabulary stock.	(1)	(2)	(3)	(4)	(5)
44. I remember a group of new words that share a similar part in spelling.	(1)	(2)	(3)	(4)	(5)
45. I associate a group of new words that share a similar part in spelling with a known word that looks or sounds similar to the shared part (neighbor, sleigh, weigh).	(1)	(2)	(3)	(4)	(5)
46. I create a sentence in Turkish when I link a new word to a known word.	(1)	(2)	(3)	(4)	(5)
47. I learn new words by relating them to myself or my personal experience.	(1)	(2)	(3)	(4)	(5)
48. I connect the new word to its synonyms and antonyms (blossom/Mower; wet/dry).	(1)	(2)	(3)	(4)	(5)
49. I associate the word with its coordinates/subordiantes/superordinates (apple/peach; animal/dog; spinach/vegetable).	(1)	(2)	(3)	(4)	(5)
50. I use ‘scales’ for gradable adjectives (cold, cool, warm, hot).	(1)	(2)	(3)	(4)	(5)
51. I deliberately study word-formation rules in order to remember more words.	(1)	(2)	(3)	(4)	(5)
52. I remember a word’s part of speech.	(1)	(2)	(3)	(4)	(5)
53. I learn the words of an idiom together.	(1)	(2)	(3)	(4)	(5)
54. I create a mental image of the new word to help me remember it.	(1)	(2)	(3)	(4)	(5)
55. I create mental images of association when I link a new word to a known word.	(1)	(2)	(3)	(4)	(5)
56. I visualize the new word to help me remember it.	(1)	(2)	(3)	(4)	(5)
57. I remember the spelling of a word by breaking it into several visual parts.	(1)	(2)	(3)	(4)	(5)
58. I remember together words that are spelled similarly.	(1)	(2)	(3)	(4)	(5)
59. I try to create semantic networks in my mind and remember words in meaningful groups.	(1)	(2)	(3)	(4)	(5)
60. I remember a new word together with the context where it occurs.	(1)	(2)	(3)	(4)	(5)
61. I deliberately read books in my areas of interest so that I can find out and remember the special terminology that I know in Turkish.	(1)	(2)	(3)	(4)	(5)

62. I associate a new word with its preceding/following words to remember it better.	(1)	(2)	(3)	(4)	(5)
63. I review new words soon after the initial meeting.	(1)	(2)	(3)	(4)	(5)
64. I link new words to similar sounding Turkish words.	(1)	(2)	(3)	(4)	(5)
65. I paraphrase the word's meaning.	(1)	(2)	(3)	(4)	(5)
Part D: Socio-affective Strategies (SOC) (7 items)					
66. I ask teachers or others for the meaning of a new word.	(1)	(2)	(3)	(4)	(5)
67. I ask teachers or others for paraphrases or synonyms of a new word.	(1)	(2)	(3)	(4)	(5)
68. I try to relax whenever I am afraid of using a word.	(1)	(2)	(3)	(4)	(5)
69. I encourage myself to use new words even when I am afraid of making mistakes.	(1)	(2)	(3)	(4)	(5)
70. I give myself a reward or treat after I have successfully recalled new words.	(1)	(2)	(3)	(4)	(5)
71. I feel successful when having learned new words.	(1)	(2)	(3)	(4)	(5)
72. I enjoy learning new vocabulary.	(1)	(2)	(3)	(4)	(5)

(Xu & Hsu, 2017)



APPENDIX C: INTERVIEW QUESTIONS

1. Kelime öğreniminizi planlamak ve organize etmek için kullandığınız belirli stratejiler veya teknikler var mı? Örnek verebilir misiniz? (Ör. Hedef belirlemek, zaman çizelgesi oluşturmak, kelime listesi oluşturmak, önemli kelimeleri seçmek)
   Gelişiminizi ve ilerlemenizi nasıl takip ediyorsunuz?
2. Yeni kelime öğrenimi ve ezberleme sürecinde etkili bulduğunuz belirli teknik veya yöntemler var mı? (Ör. Kelimeleri yazmak, film, şarkı, podcast dinlemek, kitap okumak kısacası bağlam içerisinde öğrenmek, hayali durumlar düşünmek)
   Öğrendiğiniz kelimeleri aktive etmek için kullandığınız bir yöntem var mı? (ör. Yazı veya konuşma içerisinde kullanmak gibi)
3. Kelimelerin hafızanızda uzun süre kalıcı olmasını nasıl sağlarsınız? Bilgilerinizi zaman içerisinde sağlamlaştırmak ve güçlendirmek için kullandığınız belirli stratejiler var mı? (Ör. Aralıklı tekrar, bulmaca çözmek, kelime oyunları oynamak, eş ve/ya zıt kelimelerle bağlantı kurmak, kelimeleri önceki/sonraki kelimelerle ilişkilendirmek, Kahoot ve Quizlet gibi online testler çözmek)
4. Kelime öğrenimi için yararlı bulduğunuz belirli sosyo-duygusal teknikler veya kaynaklar var mı? Bunlar öğrenme deneyiminize nasıl katkıda bulunuyor? (Ör. Dil değişim programları, konuşma arkadaşları, çevrimiçi topluluklar, öğretmen ve/ya öğrencilerden geri bildirim almak, farklı kültürlere maruz kalmak)