

Utilization of Vocabulary Learning Strategies in the Comprehension of Turkish as a Second Language

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Understanding a second language entails not only the transmission of information from educators but also the learner's individual attribution of meaning within their mental framework. It is essential to comprehend Turkish as a second language, along with the distinctive characteristics and related vocabulary building skills. This study aims to detect the comprehension of the target language by Turkish as a second language learners in relation to the vocabulary learning strategies they use. For this purpose, the vocabulary learning strategies preferred by the students who learn Turkish as a second language in 10 different universities in Türkiye were examined in detail. In the study, the 'Vocabulary Learning Strategies Scale' adapted based on the 'Language Learning Strategies Inventory (SILL)' developed by Oxford (1990) was utilized. The strategy preferences revealed in the quantitative findings and qualitative open-ended interview forms were also analyzed comparatively using a mixed method. The students' average vocabulary learning strategies within the current investigation were determined to be at a moderate level ($X > 2.5$). The results demonstrated that emotional strategies were more frequently utilized in vocabulary strategies for acquisition. The study examines which types of vocabulary acquisition strategies are referenced in the quantitative data and which are omitted, through content analysis in the qualitative dimensions.

Introduction

In the relationship between objects and words, as long as there is interaction, the stored information in the depths of the mind somehow comes to the surface during communication. Accordingly, a native speaker is able to use the language in accordance with the rules of sound, meaning, syntax, word choice, and word production of the language he/she speaks, even if he/she has not received any formal education; however he/she may not be consciously aware of what these rules are. Grammar and language competency are examples of such understanding, which is often referred to as implicit or unconscious knowledge. Language usage is the process of positioning this knowledge into practice by conversing. (Çapan, 1987: 26). During this spontaneous and unacknowledged interpretative process, the individual, through their linguistic competency, can assimilate words, store them in unconsciously, and utilize them actively when necessary. Accordingly, every word that has entered the mind is stored in the overall vocabulary, and these words can be replaced in the receptive and productive vocabulary based on their perception and usage frequencies.

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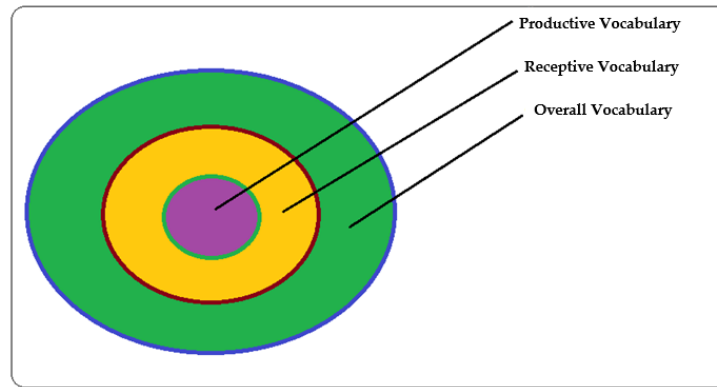


Figure 1. Productive, receptive, overall vocabulary cycle

Figure 1 demonstrates that every term in this cognitive orchestration contributes to the whole lexicon and is integrated into the comprehensive mental lexicon. The vocabulary that comes out of this integration then flows naturally between two distinct layers: the productive vocabulary, which has been created for expressive articulation, and the receptive vocabulary, which is accessible for perception and comprehension. The harmonious interplay between utilization and reception tends to create the intricate composition of linguistic proficiency. Receptive knowledge is generally defined as having the knack for recalling a word's meaning upon encountering its form, whereas productive knowledge is regarded as the ability to generate the appropriate form to convey the meaning that was intended (Nation, 2001; Laufer et al., 2004; Laufer & Goldstein, 2004; Schmitt, 2010).

The differentiation between receptive (sometimes referred to as passive) and productive (frequently referred to as active) knowledge of a word is prevalent, despite the fact that the two categories are not consistently regarded in the same manner (Laufer & Goldstein, 2004; Laufer et al., 2004; Schmitt, 2010). Nevertheless, Nation argues that mastering formal, semantic, and denotational aspects is required in order to comprehend and utilize a word in a language. As a result, grasping the three fundamental aspects of a word—"formal, semantic, and usage"—as well as their sub-domains of perception and production, is the prerequisite for completely understanding a word or a phrase in a language (2001: 27). Therefore, knowing a word involves several different things, such as pronunciation and spelling as well as syntagmatic usage and knowing who and how to use it. The linguistic relationship between lexicon and interpretation will be better ensured as language exposure rises, especially when communicating through varied visual or auditory texts. Therefore, we ought to understand the deliberate acquisition of a word in a target language, which will be accomplished in some way via strategies for learning.

Vocabulary learning strategies are regarded as components of comprehensive vocabulary development strategies. For Oxford, vocabulary learning strategies provide a model of largely self-directed learning for learners. Based on their respective contributions to language learning, strategies are divided into two primary groups by using Oxford's (1990) Strategy Inventory of Language Learning (SILL): direct and indirect strategies. Figure 2 illustrates a clear overview of the organization and function of the inventory's broad framework, outlining different strategies and their particular roles in learning a new language.

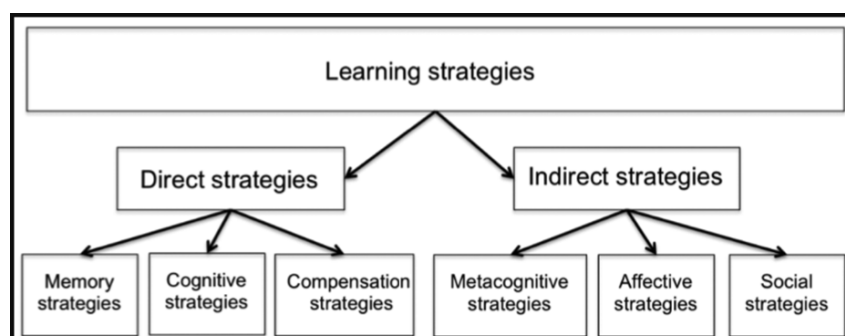


Figure 2. Language learning strategies (Oxford, 1990: 16)

Oxford's (1990) SILL, which is categorized under a single taxonomy, consists of a large number of interrelated questionnaire items on which language learners evaluate themselves. The corresponding scale is initially categorized into two types: strategies applied directly and indirectly. Direct strategies are referred to as implementations in which language learners directly give feedback on the extent to which they have assimilated the training offered them. Indirect strategies, however, comprise strategies that go beyond the instruction provided to the extent to which learners consciously engage in activities which may support their language learning process indirectly.

According to Read, vocabulary learning strategies are linked to many other strategies used in language learning. There are many strategies put forward by researchers. Two of the most important ones are paraphrasing the new word by expressing it differently with other words in the target language during the lesson and looking for an equivalent for the new word in the native language (2000: 34). Naturally, the implementation of both strategies will be possible only if the vocabulary of the first language and the foreign language overlap in many factors such as usage, context and semantic value.

Regarding languages such as Turkish, in which a significant number of inflectional suffixes can be added to a word to create new words and grammatical functions, several aspects such as the language family of the language and individual learning characteristics should be considered. This can happen due to the possibility of individual differences in developing vocabulary strategies. Some learners prioritize their auditory processing, and they may claim that hearing words enables them to remember them. For some, learning a word through reading and seeing it written in letters may function in a better way. Furthermore, individuals can achieve greater retention of words if they associate words with pictures and shapes. As other students look up words in dictionaries and see definitions and sample sentences, they could possibly comprehend them better.

First, the word is analyzed in order to determine its source of knowledge. The construction or inflectional suffixes that the word employs to achieve its semantic, structural, and functional properties are analyzed in light of structural characteristics of Turkish (Onan, 2011). After that, dictionaries are consulted, and these characteristics are explained based on the word's usage context. When learning Turkish as a second language, a person typically starts by consulting the word's equivalent in his or her native tongue. Turkish-Turkish monolingual dictionaries can be utilized depending on the context. Whenever a foreign student acquires a new word, they will seek to compare its meaning with that of their own language (Demirekin, 2017). As a result, students who are able to apply strategies in a methodical or systematic way tend to have higher achievement rates. Thus, it becomes essential to consider the learning of vocabulary procedures

in a laid-out classification.

Many classifications ranging from Oxford's (1990) vocabulary learning strategies to Nation's (1990) and Schmitt's (1997) taxonomies are regarded as efforts to determine the sub-steps of vocabulary learning strategies. This type of research, which asserts that by grouping vocabulary development procedures, the implications of the words can be better grasped and remembered for use in memory when needed, has mostly concentrated on the learning of English as a second language around the world and in Türkiye as well.

According to Oxford using learning strategies in a second language is of great importance in learning vocabulary as well as in activating a certain amount of background knowledge (2011: 254). One of the issues that researchers have focused on is whether the use of vocabulary learning strategies affects success in the language learning process. Sanaoui (1995), as a result of written records and oral interviews with students of English as a second tongue instruction, has discovered that successful learners develop a structured approach in which they discover their own independent language learning style within a certain discipline. Accordingly, successful learners repeat newly learnt vocabulary words by following them themselves; they also tend to use their free time as an opportunity to reinforce words while walking, driving or waiting somewhere.

Numerous factors that influence language learners' preferred strategies should be taken into consideration while determining an efficient vocabulary acquisition procedure. In this regard, by identifying the learner profile, this study investigates how vocabulary learning strategies for handling Turkish as a second language are comprehended. In other words, this investigation focuses on how vocabulary strategies for learning are utilized to comprehend Turkish as a second language.

Method

The research investigates the preferred vocabulary strategies used by Turkish language learners, from micro to macro levels, and focuses on the challenges they encounter in comprehending the language while suggesting alternative solutions.

Purpose of the Study

The primary goal of this research was to explore how Turkish language learners create meaning in their mental process through the vocabulary-learning strategies they employ. The study initiates by describing participants' demographic information and examining their sense-making processes across lexical, grammatical, and pragmatic aspects. This study analyzes the lexical strategies choices of students learning Turkish at ten universities in Turkey. Students studying Turkish as a second language at ten different Turkish universities were asked about their preferred strategies for learning vocabulary. Additionally, a detailed analysis was conducted on the differences in the preferred strategies based on various variables.

The following research questions were prerequisites to the inquiry in order to achieve what follows:

- (1) What are the common characteristics of vocabulary, grammar, and pragmatic grasp of language among undergraduates learning Turkish as a second language?
- (2) What proportion of vocabulary learning methodologies should foreign students of Turkish use, given these characteristics?

Research Model

In the current study, the mixed research model was preferred as a method in order to determine the perceptions and attitudes of Turkish university students toward using lexical sense-making and vocabulary strategies in a descriptive and inferential manner. Accordingly, the numerical and demographic data obtained in the quantitative research were harmonized with the data of the open-ended questions asked to the students themselves to reach in a more reliable and holistic way. In addition, we aimed to reveal more valid findings by comparing the missing aspects of both quantitative and qualitative data within this model based on self-assessment.

Dörnyei (2003: 75) asserts that, notwithstanding its possible drawbacks, which may include variances among all student categories, the self-evaluation scale is a highly beneficial measurement instrument due to its comprehensiveness, low cost, and efficacy in optimizing the time of both research personnel and students. Cohen (1998: 39) states that this sort of data is highly valuable, particularly when assessed and interpreted in light of the settings under which the instrument was administered.

The quantitative research approach entails a procedure in which the researcher identifies the study's objective, formulates precise and targeted questions, collects quantifiable data from participants, and analyzes the numerical outcomes through statistical techniques. Data is generally gathered through surveys in an objective and unbiased manner (Creswell, 2008: 46). In contrast to the closed-ended questions found in quantitative research, the qualitative research approach employs open-ended inquiries, fostering a more engaged interaction between the researcher and respondents (Sale et al., 2002: 42). Qualitative research prioritizes the interaction between the researcher and participants concerning a specific problem, defined by inquiry and investigation. Furthermore, it involves qualitative methodologies, utilizing instruments such as observation, interviews, and document analysis to investigate perceptions and occurrences in a natural and comprehensive manner (Yıldırım & Şimşek, 2011: 39).

To provide a more thorough grasp of the research subject, the mixed model integrates quantitative and qualitative research methodologies rather than using them separately (Creswell, 2008: 18). In the phase of analysis and interpretation, quantitative data is combined with qualitative data obtained from participant responses and viewpoints (Altunışık et al., 2010).

Study Group

The data involved was gathered from 505 foreign students who were enrolled in preparatory courses at 10 different Turkish universities. The study concentrated on students at Turkish language teaching institutions who were almost finished with their preparation courses in the language. Students pursuing education in Turkish as a second language in preparatory courses at Turkish universities represent the research population. Factors including time, location, and practical situations were considered while choosing participants from ten institutions that were representative of this demographic. The universities were spread across the country's western, central, and eastern regions. An attempt was made to guarantee suitable sampling. Purposive sampling was also used, concentrating primarily on students at these Turkish language teaching institutions who were nearing the end of their language studies. For purposive sampling, the study aims to explore learning vocabulary processes, with the sample potentially selected based on certain attributes such as proficiency in the target language, previous exposure to the target language. All of the participants were the students enrolled in



10 Turkish Language Teaching Centers at different institutions. Thus, the study group consists of 505 students who were taking classes in these centers at the time of the study.

Figure 3 summarizes the number of participants from each center and the course levels, arranged in accordance with the Common European Framework of Reference for Languages.

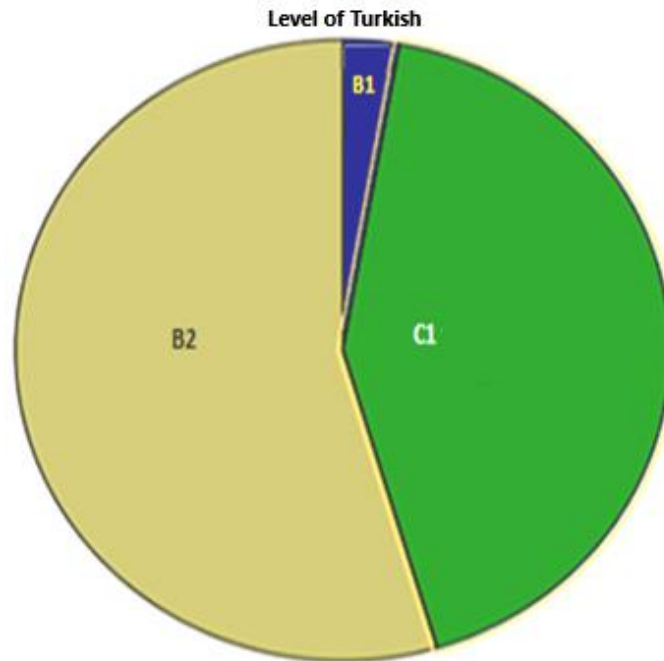


Figure 3. Number of students participating in the study by course level

The analysis of the levels of international students (N=505) participating in the study indicated that 14 students were at level B1, 276 were at level B2, and 215 were at advanced level C1 or higher. The course level was assigned based on the students' own statements. Table 1 summarizes the demographic factors of the students who participated in the study. In language teaching, B1 and B2 are typically categorized as "intermediate," while C1 and C2 are classified as "advanced." Therefore, to enhance the reliability and focus of the study's findings, the study covers 394 students from intermediate levels and 214 students from advanced levels.

Table 1. Demographic characteristics of the study group

| Variable | | N | % |
|----------|--------|-----|-------|
| Age | 17-19 | 132 | 26.13 |
| | 20-21 | 128 | 25.34 |
| | 22-23 | 73 | 14.45 |
| | 24 + | 172 | 34.05 |
| Gender | Female | 193 | 38.21 |
| | Male | 312 | 61.79 |

In the study group, 34.05% (n=172) were 24 years or older, demonstrating a sizable proportion of senior participants. Furthermore, 61.79% (n=312) of the participants were male, indicating a primarily male demography in the sample. This classification is a data collection tool that has proven to be reliable in measuring strategy preferences and determining their relationship with different variable based on ages.

Data Collection

Each phase of the research design process was approved by the Hacettepe University Ethics Committee, ensuring that all ethical requirements were accomplished. Upon receiving authorization from the Committee, the pertinent institutions were notified and informed of extensive research details. Following providing an in-depth account of the research, individuals who freely opted for participating were given the data collection instruments. Participants received a consent form outlining their right to withdraw at any moment and that their participation was entirely voluntary. Consequently, the researcher, under the supervision of the course instructors, conducted questionnaires on vocabulary learning strategies. In the present study, the Cronbach Alpha reliability coefficient of the vocabulary learning strategies scale was found to be 0.73, which is an acceptable value.

To attempt to tackle the research topics, two separate questionnaires were employed to collect quantitative data during the first phase of the study, which took place over the course of a month at 10 locations, including an average of four institutions per week. In the second phase, interview forms were employed to obtain additional qualitative information following the collection of demographic and quantitative data. At this point, a total of fifteen people who took part in the quantitative data collection were gotten in touch with. Interview questions were designed based on the quantitative data gathered earlier, and the students were asked to reply to them respectively.

Data Collection Instruments

The study collected and analyzed data using a mixed-method method. For the sake of a more comprehensive analysis, both quantitative and qualitative data were gathered simultaneously. Following the gathering of what emerged from both forms of data, they were jointly assessed, enabling a thorough and balanced comprehension of the findings of the research.

Quantitative Data Collection Instruments

In our study, a demographic questionnaire and a quantitative Likert-type quantitative scale were applied in the data collection tool applied to determine vocabulary learning strategies to detect the language comprehension status of the participating students.

Demographic Information Form: The vocabulary learning strategies questionnaire adapted by Kocaman and Kızılkaya (2014) consists of 32 items in total. Participants were asked about their age, gender, country of citizenship, perceived level of proficiency, the institution where they studied Turkish, and any other languages they knew besides their native tongue in the form created by the researcher to collect demographic information. Additionally, the form asked students to choose "vocabulary learning, grammar learning, or pragmatics (culture-related aspects)" as the topic among which they found it most difficult to comprehend Turkish.

Findings

The content of the sub-problems that were identified guided the systematic categorization of the statistical quantitative findings that were obtained through analysis of the data collected from the participant students in the research. Each finding was extensively analyzed concerning these sub-issues, enabling a sophisticated comprehension of the outcomes and implications in the wider framework of the investigation. This approach made sure that the



analysis answered the research questions and provided relevant details on the broader goals of the study.

When asked which title they found most challenging to comprehend while learning Turkish as a foreign language—from vocabulary level to pragmatic language use—participating students (n = 505) provided the following responses.

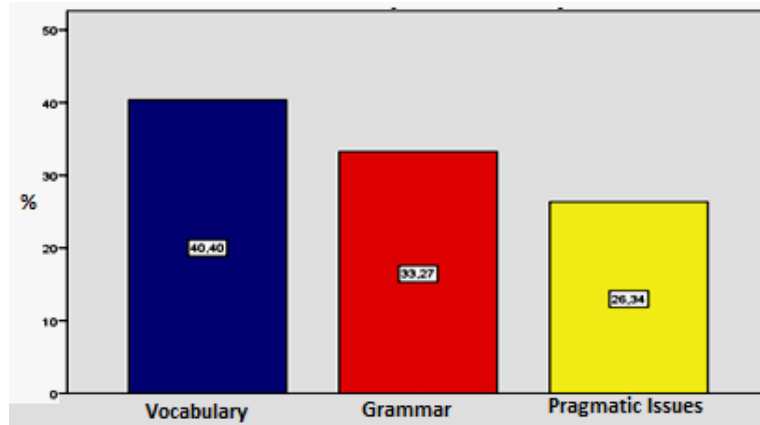


Figure 4. Number of Students Participating in the Research by Course Levels

The responses of foreign students regarding the topic they had the most difficulty in making sense of while learning Turkish were analyzed as three different variables. These dimensions were analyzed in three categories as “vocabulary”, “grammar” and “pragmatic (cultural)” dimensions. Figure 2 demonstrates that vocabulary learning (40%) is the most difficult subject for foreign students in making sense of Turkish. This is followed by grammar learning (34%) and pragmatic/ cultural learning of the target language (26%). On the other hand, Table 2 shows how frequently vocabulary strategies for acquisition are employed.

Following the one-factor analysis of variance test, which was used to figure out whether the use levels of vocabulary learning strategies differed significantly with the titles that were difficult to make sense of the language, it was revealed that the difference was not significant ($F_{505} = .1126, p > .05$).

The findings demonstrate that there is no direct significant correlation between the titles with which students struggle to comprehend the Turkish language and their utilization of vocabulary learning strategies; these relationships may be influenced by various cultural and social variables. Consequently, the employed vocabulary building strategies, whether direct or indirect, will ultimately convey the meaning of the language. With the dimensions of the effects of numerous variables on their learning processes, it becomes essential to investigate how students comprehend the target language, Turkish, at the vocabulary, grammar, and pragmatic levels in general, as well as the learning strategies they employ in accordance with these perceptions.

Table 2. Average uses of Vocabulary learning strategies

| Vocabulary learning strategies | | | | |
|--------------------------------|------|------|------|--------|
| N | Min. | Max. | Mean | SD |
| 505 | 1.52 | 4.67 | 3.37 | .48437 |

Table 3 demonstrates that the usage frequency of vocabulary learning strategies, when considering both general meaning and pragmatic features, is somewhat above the moderate range ($M=2.5-3.4$), with an overall mean of more than 3.5. Table 3 provides a more extensive breakdown, providing the average scores for each subcategory of vocabulary learning strategies, allowing for a better understanding of how students employ these strategies in different situations.

Table 3. Average uses of Vocabulary Learning Sub-Strategies

| Strategy | N | Mean | SD |
|---------------|-----|------|--------|
| Memory | 505 | 3.44 | .58936 |
| Cognitive | 505 | 3.18 | .79961 |
| Compensation | 505 | 3.22 | .75348 |
| Metacognitive | 505 | 3.35 | .81927 |
| Affective | 505 | 3.61 | .60883 |
| Social | 505 | 3.41 | .69761 |
| Overall | 505 | 3.37 | .48437 |

Table 3 illustrates that the categorization of vocabulary learning strategies used at the highest rate ($X>3.50$) is affective strategies ($X=3.61$). This data implies that students are more effective in controlling their emotional states when learning new vocabulary than in other strategies. In addition, the students who participated in the study preferred the least cognitive strategies ($X=3.18$) and compensation strategies ($X=3.22$). This shows that students are less efficient in cognitively making sense of the vocabulary they learn in the lessons and making up for their deficiencies compared to other strategies.

Table 4. One-Way Analysis of Variance by Course Levels

| | | Sum of Squares | Sd | Mean Squares | F | p |
|---------------------|----------------|----------------|-----|--------------|------|------|
| Vocabulary Learning | Between groups | .223 | 2 | .112 | .475 | .622 |
| | Within groups | 118.02 | 502 | .235 | | |
| | Total | 118.24 | 504 | | | |

In the study, the general averages of students' use of vocabulary learning strategies at different levels were investigated. It was found that the rate of vocabulary learning strategies used by students at levels intermediate (B) and advanced (C) level-classes determined based on the Common European Framework of Reference (CEFR) was found to be at an upper-intermediate level ($AO=2.5 - 3.4$). Accordingly, due to the one-way analysis of variance that was performed to ascertain whether the use of vocabulary and language learning strategies of target language Turkish learners differ significantly with the level of the course they were in; no significant difference was detected between the rate of vocabulary learning strategies and the level of the course the students were in. Thus, the vocabulary and language learning strategies used by the students while learning the target language Turkish were not significantly differentiated in terms of course levels.

In the analysis of quantitative data in our study, how university students learning Turkish as a second language from the vocabulary dimension to the general understanding of the language was examined. These quantitative analyses provide data on how students make sense of language by using strategies in terms of considering various variables regarding the degree to which they use vocabulary learning strategies. Individual strategy use is understood through qualitative findings.

Qualitative Data

The qualitative data in the research was examined by comparing the categories of vocabulary learning strategies identified through the quantitative data, allowing for a clear picture of which categories were investigated, and which could have been excluded. In other words, areas with quantitatively significant variances or similarities were contrasted. The data from the interview replies were examined using content analysis, with the findings divided into two groups. The students' personal strategies for direct and indirect learning were reviewed. Initially, open-ended and semi-structured questions were utilized to elicit more information about each student's language learning strategies within the memory, cognitive, and compensating components of the direct strategies.

During the interviews, the students mentioned the memory strategy "I frequently repeat what I have learned to help me remember," which is item 8 on the Vocabulary Learning Strategies Scale. A large proportion of participants (n=8) also indicated employing the method "I incorporate newly learned words into sentences to help me recall the issues," which corresponded to item 2 on the same scale. A few students (n=2) also reported adopting memory techniques including writing new vocabulary on flashcards and adding gestures. The data shows that learners frequently rely on personal memory strategies such as word repetition and sentence integration, as well as resources like flashcards and gestures.

Participants studying Turkish have varying degrees of engagement with different learning vocabulary procedures, as Table 5 shows.

Table 5. Qualitative Findings of Vocabulary Learning Strategies

| A. Memory Strategy | Top Score |
|--|------------------|
| <i>"When I forget a Turkish word, I try to recall its synonym."</i> | 3,62 |
| B. Cognitive Strategy | |
| <i>"I practice the Turkish words I want to learn by taking notes."</i> | 3,86 |
| C. Compensation Strategy | |
| <i>"While focusing Turkish words, I try to learn the pronunciation as well as their meanings."</i> | 3,80 |
| D. Metacognitive Strategy | |
| <i>"When learning Turkish vocabulary, I try to discover the most appropriate method."</i> | 3,70 |
| E. Affective Strategy | |
| <i>"Once I increase my knowledge of Turkish vocabulary, I feel more comfortable in class."</i> | 4,19 |
| F. Social Strategy | |
| <i>"When I pronounce the Turkish words, I have learnt incorrectly, I often demand my friends to correct my wording."</i> | 3,89 |

Table 5 demonstrates that students' various levels of engagement with different learning vocabulary strategies. Affective strategies had the highest score (M=4.19), indicating that students feel more competent in class as their vocabulary grows. Social strategies came in second (M=3.89), with peer support being an essential variable in pronunciation adjustment. Cognitive strategies (M=3.86) and compensatory strategies (M=3.80) emphasize active notetaking and attention to word meanings. Metacognitive strategies (M=3.70) demonstrate an intentional dedication to choosing successful learning strategies. Memory strategies (M=3.62) rated the lowest, indicating a lower reliance on recalling synonyms.

Conclusion & Discussion

This study has shown that the most difficult issue for foreign students to make sense of Turkish is vocabulary learning (40%). This is followed by grammar learning (34%) and pragmatic learning of the language (26%). Due to socio-cultural factors that vary based on the individual's exposure to language, language learning does not only consist of learning grammar, new words, or new sound systems and becoming able to vocalize the language. Depending on the intensity of engagement with the language in the environment, it should not be forgotten that language learning is also an endeavor to be included in a society (Pavlenko & Lantolf, 2000: 155). Accordingly, in addition to being in an interactive environment in using the target language, an individual's involvement in social environments where he/she can find the opportunity to practice and focus on the target language with his/her own efforts will also accelerate the development of vocabulary learning.

The current research results show that students' use of vocabulary learning strategies is at a moderate level. Therefore, university students learning Turkish as a second language use vocabulary learning strategies 'sometimes' according to the threshold levels determined by Oxford (1990). The highest rate of use of vocabulary learning strategies was found to be affective strategies. This means that students are more successful in controlling their emotional states while learning new words than other strategies.

On the other hand the relevant findings of the current research indicate that the participant students in our study were more effective in controlling their emotional states while learning vocabulary contrary to many studies in the literature (Oxford, 1990; Park, 1995; Bozatlı, 1998; El-Dip, 2004; Khalil, 2005; Tam, 2013; Hasram & Singh, 2021). However, Bölükbaş (2013) examined the vocabulary acquisition strategies employed by Turkish as second-language learners and uncovered that students had the least preference for affective strategies. By lowering fear and encouraging participation, affective strategies like emotional control and self-motivation greatly improve learning a language (Oxford, 1990). According to Dewaele & MacIntyre (2016), peer cooperation and positive reinforcement help maintain learner resilience. In line with research on the success of second language learners, Gregersen & MacIntyre (2014) highlight their function in establishing supportive environments.

Many researchers (Oxford, 1993; Dörnyei, 2001; White, 2003; Griffiths, 2008; Hurd, 2008) recognize the critical importance of affective factors in a successful second and foreign language learning process. Based on the finding that the most frequently used strategies of the foreign students participating in our study are affective strategies, it is noteworthy that students are more successful in controlling their emotional states while learning vocabulary compared to other strategies; nevertheless, they seem to need support in the cognitive contextualization of words.

The least used vocabulary learning strategies of the students in our study were found to be cognitive strategies. This demonstrates that students are less effective than other strategies in cognitively making sense of the words they have learned during the lessons. Similarly, other studies have also found that cognitive strategies are the least used vocabulary learning strategies (Meara, 1995; Kulikova, 2015). However, Malaysian EFL learners (Hasram & Singh, 2021), Tok and Yiğın's (2014) findings with Turkish as a second language learners demonstrated that students mostly used cognitive strategies to make sense of words.

The findings obtained in our study also support the assumption that female students are more effective than male students in the use of vocabulary learning strategies in general. According



to Ellis, women's higher language learning abilities may be due to the fact that women are more open to the reception of new linguistic elements and protect themselves from the cross-linguistic effects of the rules of the target language (2008). In our study, we found that female students utilized more strategies than male students in general. In our study, we found that female students utilized more strategies than male students in general. This result is in line with the findings of many previous studies on strategy use in foreign language learning (Green & Oxford, 1995; Ma, 1999; Khalil, 2005; Tok, 2007; Kayaoğlu, 2012; Özmen & Gülleroğlu, 2013; Barut, 2015).

In the present study, however, the cognitive and compensatory strategies used by students aged 24 and above are higher than that of those used by younger students. This finding refers to the fact that in the language learning process, students in the older age group are more successful in cognitively making sense of the words in their minds and compensating for their deficiencies. Peacock and Ho (2003) examined the relationship between age and learning strategy use among 1006 university students and found that older students used more strategies. Therefore, various theories have been put forward regarding the age variable in the vocabulary learning process. In this case, one can argue that the ability to automatically make sense of language at a young age becomes particularly demanding for adult university students learning a foreign language (Lenneberg, 1967). Therefore, it seems more important to apply learning strategies more effectively in foreign language teaching to facilitate this difficult process of making sense for students of different ages. Although experts assert that the earlier one starts learning a language, the more effective learning takes place, some studies examining the relationship between age and language learning process (Snow, 1983; Sadeghi & Attar, 2013) also demonstrate that more aged students are more effective in strategy use than younger students. The relationship between the age of the older students participating in our study and their use of vocabulary learning strategies was found to be significant.

Language teachers should also have prior knowledge about the vocabulary learning strategies that can be used in different age groups. Each language learner can make sense at different levels at children, young and older ages. Older students were found to use better strategies in our research. Accordingly, the earlier teachers encourage students to use strategies, the more effective results can be obtained.

When language learning strategies are analyzed, it is noteworthy that students from other language families use more strategies than those whose native tongues are in the language family of Turkic. Boylu (2015), who conducted a similar study, found that the average use of learning strategies by foreign students was higher than that of Turkic-origin students. According to the data revealed in our study, the students use more learning strategies since they need to make more effort in making sense of the language. The reason for this is that Turkish-speaking students need to use fewer strategies since there are common elements in the vocabulary dimension; on the other hand, students from other languages tend to have difficulty in making sense because many elements seem foreign to them, and they use more learning strategies.

The statement that "I endeavor to acquire Turkish vocabulary by writing it on cards and keeping them inside my pockets." is recognized as the cognitive approach employed at the lowest level in our study. Similarly, writing on cards was the least popular strategy among prospective Turkish instructors, according to a study by Gömleksiz (2013). To guarantee the long-term retention of the learned words' memorization through repetition, it is crucial that instructors support this approach. Students did, however, note in the interview forms how inadequate smartphone apps are, particularly when it comes to learning Turkish language. It's also critical

that software developers in the education sector expand the quantity of these applications.

According to Harmer (2007), in order for students to become as independent as possible, they must be encouraged to devise their own learning strategies. With an emphasis on how learners use a variety of tactics to make sense of Turkish as a second language, this study offers insights into the process of fully comprehending a second language. Hence, learning English as a second target language has been the focus of a substantial amount of research on gaining vocabulary strategies. To be able to figure out the degree of strategy utilization among these culturally different learners, it is imperative to examine the vocabulary strategies used by international students learning Turkish.

Consequently, it is necessary to know what each learner experiences in his/her own mental world and thus how he/she makes sense of the target language Turkish. From this point of view, direct and indirect strategies for learning employed by the students themselves enable the students to gain vocabulary better by making them active in their own learning process. Therefore, vocabulary learning strategies to be used effectively for the full comprehension of Turkish will bring about an effective language teaching and learning eventually.

Declarations

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Ethics Statements: This study received approval from the Hacettepe University, Research Ethics Committee on January 29, 2016, numbered 433-484.

Conflict of Interest: The author has no conflict of interest.

Informed Consent: Every participant in the study provided their consent to engage in the data collecting process, and they were informed that they could cease participating at any moment. Every participant confirmed their consent.

Data availability: Data might be obtained from the author upon request.

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