Investigating the Strategic Approaches of Turkish as a Second Language Learners: A Multi-University Study[1]

İkinci Dil Olarak Türkçe Öğrenenlerin Stratejik Yaklaşımlarının İncelenmesi: Çok Üniversiteli Bir Araştırma

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Abstract

The aim of this study is to ascertain how Turkish language learners make sense of the target language in connection to the strategies for language acquisition they employ. To ascertain this association, the interpretative processes of the participating students for the relevant dimensions of vocabulary, grammar, and pragmatics, together with the findings related to their demographic information, were investigated respectively. A comprehensive analysis was carried out regarding the preferred language strategies for learning Turkish as a second language by students at 10 different Turkish universities. The research employed the Strategy Inventory for Language Learning (SILL) created by Oxford (1990). The gathered data were examined utilizing descriptive statistics, T-tests, one-way ANOVA, and post-hoc analyses. The study's findings indicated that students had the greatest challenges in learning Turkish as a second language in contrast to the grammatical and pragmatic dimensions of language learning.

Öz

Bu çalışmanın amacı, Türkçe öğrenenlerin kullandıkları dil öğrenme stratejileriyle ilintili olarak hedef dili nasıl anladıklarını belirlemektir. Bu ilişkiyi tespit etmek için, katılımcı öğrencilerin kelime bilgisi, dilbilgisi ve edim bilim ile ilgili boyutlara yönelik yorumlama süreçleri ile demografik bilgileriyle ilgili bulgular ayrı ayrı incelenmiştir. On farklı üniversitede Türkçeyi ikinci dil olarak öğrenen öğrencilerin tercih ettikleri dil stratejileri üzerine kapsamlı bir araştırma yapılmıştır. Araştırma kapsamında Oxford (1990) tarafından oluşturulan Dil Öğrenme Stratejileri Envanteri (SILL) uygulanmıştır. Söz konusu veriler tanımlayıcı istatistikler, tek yönlü ANOVA, T-testleri ve post-hoc analizler kullanılarak incelenmiştir. Araştırmanın bulguları, öğrencilerin dil öğreniminin gramer ve pragmatik boyutlarına kıyasla, ikinci dil olarak Türkçe öğrenmede en büyük zorlukları yaşadıklarını göstermiştir.

Introduction

The fact that a target language becomes meaningful in a mind is created with the concrete symbols and abstract expressions in the relevant language, as well as the semantic connotations of such signifiers for the language user. The combination of the superficial meaning of the language and the semantic connotations in one's own mind enables the realization of communication with the indicators

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in the language (Onan, 2011). Starting to live in a culture other than the mother tongue and making sense of the language of that culture is a challenging process, because despite the acquisition of all linguistic elements in the mother tongue through certain natural manifestations, there are indicators that are not naturally signified in the learning procedure of a foreign or a second language (Demirekin, 2023).

Research on learning a new language has consistently shown that mastering a second or foreign language entails more than mere retention; it necessitates the cultivation of understanding across interrelated domains, including vocabulary, grammar, and pragmatics (Krashen, 1982; Canale & Swain, 1980; Nation, 2001; Alyılmaz, 2010). Philosophical frameworks define "meaning" as the interplay between linguistic signs and cognitive representations; however, in applied linguistics, it is more directly regarded as the learner's capacity to comprehend novel lexical items, to utilize grammatical rules effectively, and to interpret contextual pragmatic signals (Ellis, 2008; Larsen-Freeman, 2015; Schmidt, 1990).

Making sense of a second language can be realized to the extent that the four basic language skills are used efficiently and in a holistic spiral following each other. For this reason, it is necessary to apply certain strategies in the learning process of a second language consciously (Hsieh, 2004). Learning a second language requires the deliberate application of particular techniques since it enables learners to successfully control and improve their language development processes. At this stage, strategies for learning that facilitate the comprehension of a second language with the same efficiency as one's own language become essential (Alhaisoni, 2012).

Language Learning Strategies

Strategies of learning another language play a critical role in developing language skills and gaining proficiency in the target language. Strategies developed for language learning facilitate understanding the structural and practical aspects of language. Thanks to these strategies, learners can learn new vocabulary and grammatical rules more quickly and permanently. In addition, they enhance the growth of student participation via speaking, listening, reading, as well as writing skills. It makes the learning process more meaningful and effective by applying language skills to real-life situations (Weinstein & Mayer, 1986). Learning a language increases personal motivation and ensures continuity in the learning process (Nation, 1990). Strategies address the individual's interests and needs by adapting the learning process to personal goals and needs. This makes the language learning process more motivating and satisfying. Furthermore, language learning strategies enhance the understanding of the cultural and social circumstances associated with the language. In this context, language learners can develop a more comprehensive understanding of both linguistic and cultural aspects. Thus, such strategies enable natural and effective use of language (Chanderan & Hashim, 2022).

The implementation of customized learning strategies for unique learner profiles personalizes and improves the effectiveness of the learning process. Learners can find their most effective pathways by developing strategic methods, which promotes more independent and efficient skill development (Kocaman & Kızılkaya Cumaoğlu, 2014). This perspective is supported by recent research, which illustrates that self-regulated learning (SRL) strategies are important factors that influence motivation, self-efficacy, and communication willingness (Zhang, 2024). SRL interventions significantly increase learner confidence, strategic behavior, and second language (L2) proficiency, according to a recent meta-analysis (de Boer et al., 2014; Teng; 2022; Chen, 2022). Furthermore, it has been demonstrated that integrating technology, such as mobile and online environments, increases strategic engagement (Yalçın, 2024; Hunutlu, 2023). Likewise, the combination of self-regulation with cutting-edge

pedagogical models, such as the flipped classroom, results in superior skill development (Öztürk & Çakıroğlu, 2021).

Research on learning strategies used to ensure productive language learning processes has been applied in the teaching of many languages. When previous research on learning strategies is analyzed, one can see that most of them were conducted on the teaching /learning of English and other languages as foreign or second languages (Chamot & O'Malley, 1994; Hsiao & Oxford, 2002; Hong-Nam & Leavell, 2007; Sulaiman, 2018). However, there is a need for more studies that include the typical characteristics and cultural contexts of different languages.

For learners to be guided toward individualized and successful second-language development, it is essential to establish and use appropriate language learning strategies. More effective internalization of linguistic input is supported by the employment of strategies catered to individual learning styles (Oxford, 2017). Similarly, comprehending a second language necessitates the coordinated application of the four fundamental abilities, which is only achievable when students intentionally adopt retention and retention-promoting techniques (Hsiao & Oxford, 2002). Deliberate and purposeful learning behaviors are crucial for tracking, assessing, and improving L2 performance because students need to self-manage their language development (Rubin, 2014). Recent research additionally illustrates that using collaborative strategies promotes more effective communication (Jang & Jiménez, 2011), self-regulated learning increases autonomy and sustained engagement (Ismail et al., 2024).

Many studies on foreign or second language learning / acquisition process emphasize that language learning strategies (Chamot & O'Malley, 1994; Goh, 2017; Kurtz, 2011; Oxford, 1990; Rubin, 2005; Uzun, 2004; Yalçın, 2006; Smith-Keita, 2018; Teng, 2020) are effective in learning another language effectively by making sense of it. In these studies, however, the preferences of learning strategies differ according to many variables such as gender, achievement, proficiency level, and motivation. On the other hand, there are no holistic studies on language learning strategies that can be used from vocabulary level to pragmatic language learning levels. This is also apparent when instructing Turkish as a second language, an area that is still emerging in terms of research and teaching methodologies.

On the other hand, language is a highly complex mechanism that is generated in the brain and is activated through reading, writing, listening, and speaking, accompanied by structural units made up of sounds, meanings and forms formed by the consensus of individuals, and is both systematic and human-oriented in every aspect (Onan, 2011). For this reason, to make these skills effective, it is essential how learners of a second language can systematically make sense of the texts of the target language. Research on learning strategies used for better language comprehension is applied in the teaching and learning process of many languages. It is highly important that a study be conducted on the best strategies to teach Turkish to non-native speakers and the methods that foreign students should employ.

The comprehension in vocabulary learning can be viewed as recognizing and using affixes in Turkish agglutination, conceptual comprehension as applying vowel harmony rules in morphosyntax, and pragmatic comprehension as understanding culturally associated speech acts such as honorifics or indirect requests. By framing meaning in these concrete ways, the study can better clarify how learners go from abstract exposure to functional proficiency in Turkish as a foreign or second language. A major theme focus has been formed in academic research on the vocabulary acquisition of Turkish as a second language. The vocabulary learning strategies (VLS) that these learners use have been thoroughly examined in a number of empirical studies. Fundamental research (Göçen, 2020; Kocaman, 2018)

demonstrates which the main research trajectory is bifocal. The main goal of research is to quantify the prevalence and preference of particular strategy types, such as memory-based and metacognitive methods. Second, a significant amount of this study looks for correlations between these technique preferences and important demographic factors including gender, motivation, competence level, and cultural-linguistic background.

Recent research over the past five years has revealed three significant trends in the examination of language learning strategies:

1. *Self-Regulation and Metacognition:* Research consistently indicates a strong connection between self-regulated learning (SRL), metacognitive awareness, and effective language acquisition, especially for motivational and outcome-related measures (Teng et al., 2022; Li, 2024; Zhang & Zhang, 2024).

2. *Strategy Use for Productive Skills:* Previous studies suggest that the enhancement of speaking and writing abilities is predominantly linked to the use of cognitive, metacognitive, and social strategies, as evidenced by comprehensive studies, including meta-analyses and systematic reviews (Kehing &Yunus, 2021; Wong & Hashim, 2023).

3. *Instrument Validation and Digital Contexts:* The present research agenda focuses on the re-validation of traditional assessment scales, such as Oxford's 1990 SILL, and the examination of the adaptability and effects of self-regulated learning strategy training in digital learning environments as well artificial intelligence (Ranjan & Philominraj, 2020;Wei, 2023; Youssef & Alibraheim, 2025).

When 118 thesis studies conducted in 21 universities in the field of teaching or learning Turkish by foreigners were analyzed, one can recognize that a significant number of them were conducted on teaching grammatical structures and a small number on teaching language skills (Demirekin, 2017). Furthermore, most of these theses do not have a method section, and those with a method section are generally qualitative studies with a focus on document analysis (Ercan, 2015). For this reason, this current research is expected to make a significant contribution to the literature on interpretation and learning strategies in the process of learning Turkish as a second language. This study particularly investigates the utilization of metacognitive and cognitive processes to address comprehension difficulties in Turkish, a language with limited resources in strategic research (Cesur & Fer, 2007; Bölükbaş, 2013; Boylu, 2015; Demirekin, 2017), hence providing an in-depth understanding of the learning mechanism rather than merely its superficial patterns.

Studies on methods for teaching Turkish to non-native learners and strategies which foreign students should adopt seems notably scarce in the relevant literature. It is also noteworthy that previous research studies on the learning strategies of Turkish as second language (Cesur & Fer, 2007; Bölükbaş, 2013; Boylu, 2015; Demirekin, 2023) are not inclusive enough to cover language skills, vocabulary, grammar, and cultural contexts. Whether the language learnt is a first language, foreign language, or second language, there may be limitations in studies that are only inspired by the use of learning strategies of various languages without considering the typical linguistic features specific to the language. Hence, corresponding to the traits of language of the acquired language, it becomes increasingly crucial to know how an individual makes sense of a certain text in a holistic manner within the context and discourse framework.

The literature review of language learning strategy studies looks at how instructional practices and textbooks shape students' usage of strategies. It is based on research into the pedagogical influences on learner behaviors. The integration of explicit strategy instruction within core teaching materials is often either limited or treated superficially, which might hinder the development of learner autonomy

and metacognitive awareness, according to empirical research that consistently show a considerable gap (Bayezit & Çubukçu, 2015; Domínguez & Juanías, 2024). A distinct research gap exists regarding the empirical demonstration of the efficacy of strategy instruction through rigorous experimental or longitudinal methods, particularly in the context of teaching Turkish as a second language. The majority of the existing literature is descriptive and lacks causal evidence, which calls for targeted investigation (Demirekin & Yalçın, 2023).

At this phase, it is necessary to carry out research on the methodologies for teaching Turkish to non-native speakers and the techniques that international students should employ when learning this language. An effective language learning process should be determined according to various variables that play a role in the strategy preferences of language learners (Cesur & Fer, 2007; Bölükbaş, 2013; Boylu, 2015; Demirekin, 2023) This study examines the comprehension of Turkish as a second language through the analysis of language learning processes by identifying the characteristics of the learners.

The present study contains findings on how the sense-making process of a second language is realized holistically in general and on the comprehension process of Turkish as a second language in particular through the strategies used by the learners. For this reason, examining the language learning strategies adopted by international students learning Turkish is crucial so as to reveal the level of strategy use by multicultural learners.

Method

The purpose of this study was to determine the variety of comprehension strategies used by Turkish second-language learners and how they relate to the learning methods they had selected for themselves. The investigation combined participant demographic data with findings from their interpretation of lexical, structural, and cultural contexts in order to investigate this relationship. The study explored the strategic choices of students who had studied Turkish at 10 different universities around the nation in this framework. Additionally, differences in these preferences according to other factors were extensively investigated.

In the study, language learning strategies preferred by learners of Turkish from micro to macro level are assessed, the situations experienced by learners in making sense of the language are investigated and solution suggestions are presented accordingly. Overall Objective is to examine the language comprehension characteristics of university students learning Turkish as a second language and to determine the level of language learning strategies they use or should use based on these characteristics. For this purpose, the following research questions have been taken as basis:

1. What are the language comprehension characteristics of university students who learn Turkish as a second language at vocabulary, grammar, and pragmatic levels?

2. What is and should be the level of use of language learning strategies by Turkish as a second language learners based on these characteristics?

Research Model

This study employed mixed-methods research design. Initially, quantitative data were gathered using measurement instruments to ascertain students' perspectives and attitudes regarding their learning processes. Subsequently, qualitative data were collected to further clarify the patterns identified in the quantitative findings. Overall, the integration of both sets of information facilitated the inference of cause-and-effect links and enhanced the comprehension of students' learning perspectives.

The quantitative research method involves the researcher opting for a study topic, formulating specific and focused questions, gathering measurable data from participants, analyzing the numerical results through methods of statistical analysis, and conducting inquiries via a questionnaire in an unbiased and objective perspective (Creswell, 2008, p. 46). The qualitative research approach is a model where participants are more actively engaged and open-ended questions are posed to both the researcher and the respondent, as opposed to the closed-ended questions utilized in quantitative research (Sale et al., 2002, p. 42). In this respect, qualitative research is a design in which interaction between the researcher and the participants is realized on a situation that is put forward; thus, it consists of questioning. At the same time, qualitative research is characterized by a qualitative procedure utilizing data collecting tools such as observation, interviews, and document analysis to elucidate perceptions and occurrences in a realistic and comprehensive manner within a natural setting (Yıldırım & Şimşek, 2011, p. 39).

In the mixed model, quantitative or qualitative research is not used separately, instead both are combined to better understand and scrutinize the research problem (Creswell, 2008, p. 18). In the examination and interpretation process in this model, the data obtained through quantitative methods are combined with qualitative data obtained from the participants using their own statements (Altunışık et al., 2010).

The study employed a mixed-methods framework to characterize and deduce the attitudes and beliefs of college students learning Turkish as a second language, as well as how they proceed about using language learning strategies. In order to obtain more thorough and reliable results, the statistical and demographic data was merged with the answers to open-ended student questionnaires. This method also aimed to make up for the limitations of the quantitative data in order to yield outcomes that were more credible.

Participants

The data were obtained from 505 foreign students attending preparatory classes at 10 different universities in Türkiye. The investigation was implemented with the students who were about to complete their Turkish preparatory courses at the end of the year in Turkish language teaching centers. The population of the study was the individuals who learnt Turkish in the preparatory classes of universities in Türkiye. In determining the participants from 10 universities that can represent the universe in question, geographical distribution, certain time, and application conditions were taken into consideration in terms of being located in the west, center, and east of the country and appropriate sampling was tried to be made. The inclusion of 10 centers at universities facilitated an effort to ensure adequate sample. A deliberate sampling method was utilized to select students from Turkish language education centers at the participating universities, as this cohort—those approaching the culmination of their language training-was deemed most appropriate for providing insights into advanced stages of second language comprehension and strategy utilization.

The participants were all foreign students enrolled in a university's Turkish Language Teaching Center who were learning Turkish as a second language. Thus, the 505 students who were enrolled in the applicable centers during the study period make up the study population. The institutions under the name of Turkish Language Teaching Application and Research Centers (TÖMER) of the 10 universities included in the study.

Of the students included in the analysis; 9.70% (n=49) Hacettepe University; 18.81% (n=95) Sakarya University; 13.06% (n=66) Eskişehir Osman Gazi University; 16.43% (n=83) Selçuk University; 12.67% (n=64) Konya Necmettin Erbakan University; 10. 49% (n=53) from Aksaray

University; 5.74% (n=29) from Çukurova University; 5.94% (n=30) from Mimar Sinan Fine Arts University; 3.36% (n=17) from Gaziosmanpaşa University and 3.76% (n=19) from Çanakkale Onsekiz Mart University. Figure 1 summarizes the course language levels and the number of participants conducted via the relevant centers with regard to the Common European Framework of Reference for Languages.
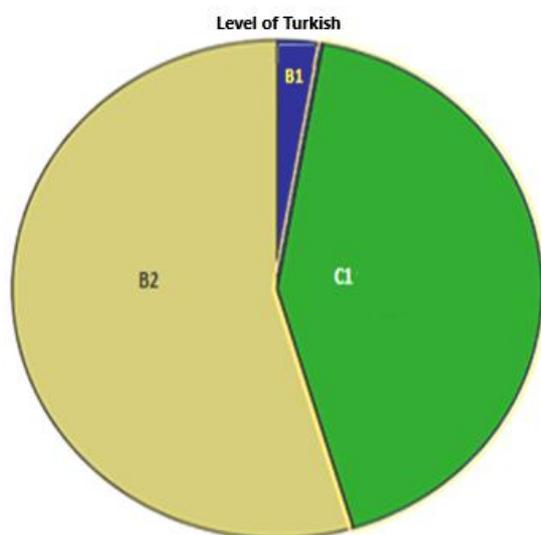

Figure 1. Number of Students Participating in the Relevant Course Centers by Course Level

There were 276 students at level B2, 215 at advanced level C1 and above, and 14 at level B1, among all students (N=505) who took part in the research. The statements by respondents were utilized as the basis for calculating the course levels.

In the study group of participants, 34.05% (n=172) were 24 years or older. Of the participants, 61.79% (n=312) were male. 46.13% (n=233) of the participants knew English as a second language other than their native language, and the other participants stated that they knew a second language at different levels. Participants (n=73) stated that they did not know a second language other than their native language. 14.45% of the participants (n=73) reported that they did not know a second language other than their first language.

Data Collection

In the preparation phase of the study, ethics committee permissions were obtained from Hacettepe University Ethics Commission with the decision dated 29.02.2016 and numbered 35853172/433-484; then the target institutions were contacted and detailed information about the research was shared. The researcher went to each institution on the dates directed by the authorities of the institutions and applied the data collection tools to the participants. After explaining the procedure of the research to the participants, data collection tools were applied to those who voluntarily joined in the research. A written consent document explaining that this research was voluntary and that participants might leave at any time was presented to the participants. Accordingly, language learning strategies questionnaires were administered under the guidance of the course teachers and conducted by the researcher.

In the first phase of the research, which lasted for a month in ten different centers and took place in an average of four institutions per week, quantitative data were collected with two different questionnaires for the research questions. After the demographic information and quantitative data were

gathered, qualitative data were collected with interview forms in the second phase. In this way, a total of fifty participants, who were also available during the quantitative data collection process, were reached, and the students were required to respond to the interview forms' questions prepared in parallel with the quantitative data.

A mixed-methods method was used in this study to gather and evaluate data in a comprehensive way. Concurrent collection of quantitative and qualitative data enabled a more comprehensive grasp of the research problem. A more thorough and comprehensive assessment of the research findings was rendered possible by the integration and analysis of the results from numerous data kinds.

Data Collection Tools

This study favored a mixed-methods implementation to collect and assess data effectively. Concurrent collection of quantitative and qualitative data enabled a more comprehensive grasp of the research problem. A more thorough and comprehensive assessment of the research findings was rendered possible by the integration and analysis of the results from numerous data contents.

Quantitative Data Collection Tools

Demographic Information Form: In the form developed to collect demographic data, students were asked about their age, gender, the institution where they learned Turkish, the level in which they think they are at, their country of citizenship, and any other language they knew in addition to the native tongue. In the relevant form, the students were also asked to choose one of the three dimensions in which they had difficulty in making sense of Turkish: "learning vocabulary, learning grammar and learning pragmatic aspects (culture-specific issues)."

Strategy Inventory for Language Learning (SILL)

In this study, the Strategy Inventory for Language Learning (SILL) developed by Oxford (1990) was utilized to determine students' language learning strategy preferences from vocabulary level to pragmatic language use. Oxford (1990) reported that the English version of the SILL went through noteworthy internal consistency, reflected by a Cronbach's alpha of .95, affirming its robust reliability. Additionally, the scale's construct validity was supported through extensive empirical studies that confirmed the six-factor structure corresponding to memory, cognitive, compensation in addition to metacognitive, affective, and social strategy categories (Hsiao & Oxford, 2002).

Adaptation to Turkish and Related Evidence

The Turkish adaptation of the SILL was carried out by Cesur and Fer (2007), who conducted a comprehensive adaptation and validation study. In their research, construct validity was tested through factor analysis; test-retest reliability was evaluated using Pearson's correlation method. The internal consistency was assessed via Cronbach's alpha. Thus, 50-item, five-point Likert-type scale showed a Cronbach's alpha of .84 in the Turkish context, indicating a satisfactory level of internal consistency for educational research.

Validity and Reliability in the Current Study Sample

Prior to data collection, permission was obtained from the original scale developer, Oxford (1990), and from the Turkish adaptation authors. The tool was tested over a cohort of 402 students in both fourth and fifth grades. To assess test-retest reliability, the scale was re-administered to 45 students ten days after the initial administration. The results indicated that the subscale reliability coefficients were consistent with those reported in the original and adaptation studies, fulfilling both reliability and

validity requirements in the context of this research. Arithmetic means were calculated for each of the six strategy categories, which functioned as dependent variables in the subsequent analysis.

Nine items for memory strategies, fourteen for cognitive strategies, six for compensating techniques, nine for metacognitive strategies, six for affective strategies, and six for social strategies comprised the final version of the SILL instrument used in this study. The demographic information form accompanied the scale to account for variables such as gender, age, and proficiency level of Turkish. Previous research has validated the effectiveness of the SILL in identifying strategy use differences across these variables (Chamot, 2005; Hsiao & Oxford, 2002).

In the current study, data collection instruments were administered based on Oxford's (1990) Language Learning Strategies model, considering that data from different participants in different settings may reveal new and interesting results. The measurement tool consists of a demographic questionnaire designed to determine the individual characteristics of the students and a questionnaire measuring the frequency of strategy use in five dimensions.

Qualitative Data Collection Tools

In the investigation process, an interview form was created in parallel with the language learning strategies questionnaires and the same questions were asked to all participants. The interviews were conducted in ten different centers for one month and took place in an average of four institutions per week. A total of fifty participants who were also present during the quantitative data collection process were reached and students were kindly asked to answer the semi-structured questions in the interview forms designed in parallel with the quantitative data. After the participants approved of the Consent Form, the questions in the Interview Form were asked. These questions were "What do you do to make grammatical structures and new words permanent in your mind in Turkish; What do you do to better understand the topics in Turkish (taking notes, summarizing, comparing with your mother tongue, etc.); What do you do when you do not understand the topics in Turkish?); Who do you ask for support when you do not understand the topics in Turkish; What do you do on your own to learn what you do not understand; What do you do outside of school to understand the topics in Turkish better and improve your Turkish; What do you do to calm yourself down and boost your morale when you do not understand the topics in Turkish and once you feel anxious; Who do you do practice with in your environment to improve your Turkish".

Data Analysis

To thoroughly manage and examine the data, the numeric data were initially processed and assessed, followed by a parallel comparison and interpretation of the qualitative data. The data obtained from the administered questionnaires and scales were entered into the SPSS (Version 21.0) statistical software, subsequent to the categorization phase. According to the answers given by the participants, demographic information and strategy preferences were sorted. The level of each strategy use was calculated by taking the arithmetic mean of the relevant section. While calculating the averages, the scores between the minimum level of "1.00" and the highest level of "5.00" were determined for the items in SILL. The histogram for Language Learning Strategies scoring distributions is illustrated in Figure 2.
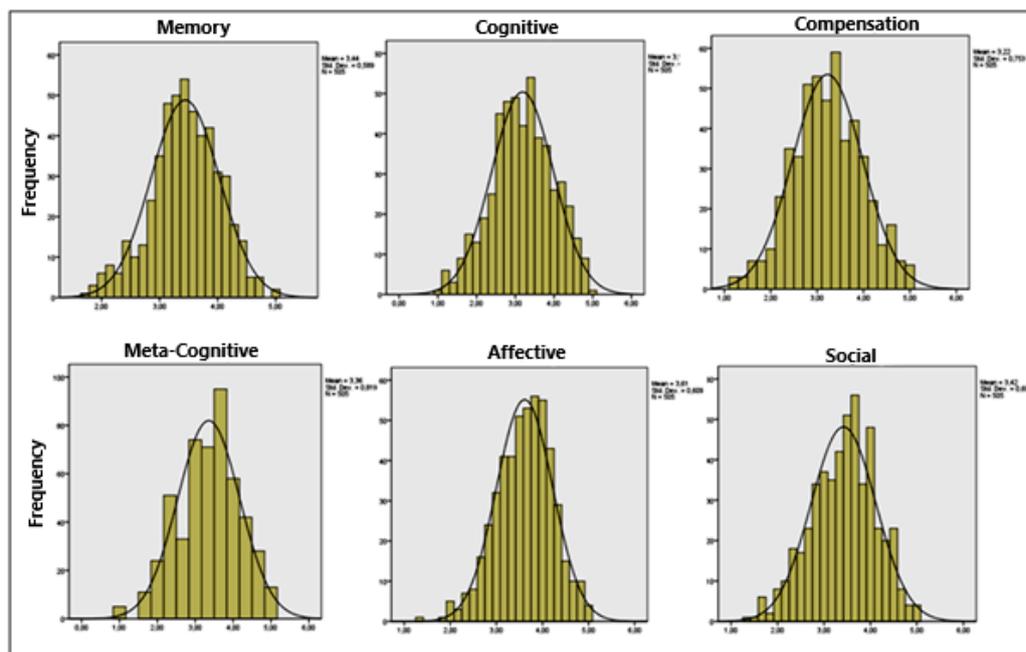
Figure 2. The histogram for Language Learning Strategies Scoring Distributions

According to Figure 2, the distribution of scores for the preference of direct strategies in the top row and indirect strategies in the bottom row show that the data do not deviate significantly from normal distribution. Thus, when the histogram graphs of language learning strategies are analyzed, the preference scores and frequency values of the strategies show a normal distribution.

In our study, after the data obtained from the students' reported statements were identified within different categories, the independent variables that may be related to these threshold levels were analyzed. These aspects were first assessed using data from the demographic questionnaire. They were designed to provide a look at the language comprehension and related strategies of people who are studying Turkish as a second language more thoroughly. The way knowledge of Turkish in lexical, structural, and social contexts affected methodologies of investigation was the first variable to be measured. As a result, the responses for the hardest topic to understand were examined as three separate sections. The subcategories of this variable were investigated under three dimensions: vocabulary,' grammar,' and 'pragmatic (cultural issues).' Since the variable in question had more than two aspects, the effect of strategies was analyzed by one-way analysis of variance. The data regarding the gender variable was measured by independent T-tests, and the level of pairwise significance was considered as <0.05. When there was a statistically significant relationship between the variables ($p<0.05$), Scheffe multiple comparison analysis was performed to clearly understand the differences.

In the study, the quantitative data on strategy use obtained from 505 students were compared with the qualitative interview form data obtained from fifty participant students. Open-ended semi-structured questions were employed using open-ended questions to understand the memory, cognitive, and compensatory learning strategies used individually by the students in direct strategies. Metacognitive, affective, and social strategies used by the same students on the quantitative scale or used by themselves were analyzed under the category of indirect learning strategies. Then, the qualitative data obtained from the interview forms were analyzed comparatively through the content and document analysis

Findings

This study, which examined the use of vocabulary and language learning strategies in making sense of Turkish as a second language, presents the qualitative and quantitative findings in this section.

Quantitative Data Results

In this study, two different quantitative data collection tools were employed. Accordingly, a demographic questionnaire and two different Likert-type quantitative scales were administered to determine the participating students' use of language comprehension and learning strategies.

Results on challenges in comprehending Turkish

The participant students (n=505) were asked: 'What is the most difficult topic you have the toughest time in making sense from vocabulary level to pragmatic language use while learning Turkish? Three distinct factors were used to analyze the responses of the international students about the Turkish language that they found most difficult to understand. Three categories of these characteristics were analyzed: "vocabulary," "grammar," and "pragmatic (cultural)" elements. Table 1 displays the concepts that the study respondents found the hardest to comprehend.

Table 1. The Primary Topics That Participants Found Most Challenging to Comprehend Turkish

Topic	N	SD	Min	Max	mean
Learning Vocabulary	204	3.43	.41	2.41	4.42
Learning Grammar	168	3.49	.45	2.08	4.55
Pragmatic Aspect	133	3.44	.42	1.87	4.34
Total	505	3.45	.42	1.87	4.55

As indicated in Table 1, most challenging issue for learners to understand in Turkish is gaining vocabulary (40%). The mastery of the target language's grammar (34%) and pragmatics (26%), respectively, follow next. Accordingly, it appears that foreign university students have the most challenges in learning vocabulary (n=204), followed by learning grammar (n=168) and pragmatic dimensions (n=133), i.e. making sense of daily language use including cultural elements. On the basis of the topics with the most difficulties in making sense of Turkish, their use of vocabulary and language learning strategies appeared at a moderate level (m=2.5-3.4). Then, one-way ANOVA analysis was conducted to determine whether these differences in learning strategy use averages were statistically significant. The findings of this analysis are displayed in Table 2.

Table 2. Analysis of ANOVA Variance According to the Most Difficult Topics in the Study Group

Strategy		Sum of Squares	SD	Mean Square	F	p
	Between groups	.326	2	.16	.74	.47
Language Learning	Within groups	109.74	502	.21		
	Total	110.07	504			

As shown in Table 2, a one-way analysis of variance (ANOVA) was conducted to determine whether the level of use of language learning strategies varied considerably based on three topics that participants found most difficult to make sense of. The results indicated that the difference was not statistically significant, $F(2, 502) = 0.74$, $p > .05$. Similarly, the ANOVA test conducted to assess whether language learning strategy use levels varied significantly depending on the aspects that posed comprehension difficulties also revealed no significant difference, $F(2, 502) = 1.13$, $p > .05$. This finding suggests that students' use of language learning resources and the subjects they find most difficult to grasp in Turkish may not directly correlate; instead, these correlations may be impacted by a number of cultural and sociocultural variables. Moreover, a person's engagement in an interactive linguistic environment, coupled with their endeavors to participate in social contexts that facilitate the practice of

the target language, will further accelerate the process of learning the language. Consequently, the employed strategies for learning may directly or indirectly represent the meaning of the language. Therefore, it is necessary to examine how students make the target language Turkish meaningful in their minds at the levels of vocabulary, grammar, and pragmatic in general, and which learning strategies they use accordingly, with the aspects of how numerous circumstances affect their learning practices.

Findings related to the usage levels of language learning strategies

The next section presents the data gathered in response to the research question: "What is the usage level of language learning strategies of university students learning Turkish as a second language?" Considering the averages for language learning strategies, research turns out that, in accordance with Oxford's (1990) criteria, usage preferences above the average were recorded in each category. Table 3 shows the averages for this data.

Table 3. Averages of Language Learning Strategies Usage

Language Learning Strategies				
N	Min.	Max.	mean	SD
505	2.11	4.81	3.54	.46733

As shown in Table 3, the usage of language learning strategies is marginally above the middle level when taking into account both pragmatic and general meaning factors (m=2.5- 3.4) (m>3.5). Table 4 presents detailed means for the subcategories of language learning strategies.

Table 4. Average usage of language learning strategies

Strategy	Mean	SD
Memory	3.31	.62375
Cognitive	3.63	.51693
Compensatory	3.46	.61642
Metacognitive	3.80	.60684
Affective	3.79	.73149
Social	3.54	.46733
Total	3.31	.62375

The participating students predominantly employed metacognitive strategies (m=3.80), followed closely by social strategies (m=3.79) within the realm of language learning procedures. The students who took part favored metacognitive strategies for self-regulation in their development, opting for indirect strategies over direct language learning strategies and social language learning strategies, by seeking assistance from their social environment.

Furthermore, the common usage of social strategies demonstrates that foreign students learning Turkish place an emphasis on social practice in order to understand the language's pragmatic and lexical aspects. The category of "affective" language learning strategies had the lowest average (m=3.24, sd=0.66) of all the categories. These results indicate that alternative ways are more preferred in the language learning process when it comes to affective strategies, which gauge students' emotional attitudes toward learning Turkish. Memory strategies were an additional category that the participating students reported using less frequently (m=3.31, sd=0.6). This might be read as students using memory procedures that are less effective than other strategies for remembering target language components while learning a language.

Qualitative Data Results

Overlapping the types of language learning strategies generated based on the quantitative data allowed for the analysis of the research's qualitative data, enabling precise identification of both included and excluded categories. In other words, components that varied or were similar depending on

quantitative parameters were analyzed. The qualitative data obtained from the interview forms were reviewed in an analysis of content, with the results in two categories. Both the direct and indirect learning strategies of each student were evaluated separately. Initially, open-ended, and informal inquiries were employed to gain a deeper understanding of each student's language learning techniques within the relevant categories.

The participating students reported "I constantly repeat what I have learned to avoid forgetting" from item 8 in the memory strategy of the Language Learning Strategies Scale in their interview forms. As a result, a large number of participants (n=18) stated that they mainly used the memory strategy "I use newly learned words in sentences to remember them," which corresponds to item 2 of the Language Learning Strategies Scale. In addition, a few students (n=12) stated that they personally used the memory strategies of writing newly learned words on cards and using body language, as described in items 6 and 7 of the Language Learning Strategies Inventory. These findings demonstrate that students frequently use personal memory strategies including word and phrase repetition, incorporating them into sentences, and using word cards and body language to encourage their memory. Furthermore, it was discovered that students applied some memory strategies from the language learning strategies in a variety of ways.

The memory strategies that the students had previously employed were identified, even though they had not been included in the scale. Table 5 lists 10 common statements with the participant the students' code names based on the memory strategies they employed, by themselves along with in conjunction with additional strategies, to help them recall the lexical items of the target language and its grammatical rules.

Table 5. Coding of Interview Forms Based on Memory Strategies

Person	Statement	Theme
B	"I watch Turkish movies and series. I read Turkish books. I talk to Turks. I do translate."	Watching Turkish movies Reading Turkish books
C	"I keep a vocabulary notebook. I talk to Turks at home. I write essays."	Talking with Turks Writing an essay
D	"I watch Turkish movies and programs. I read Turkish books. I talk to Turks."	Watching Turkish movies Reading Turkish books
E	"I work with Turks at home. I play word games. I listen to music or watch Turkish series movies."	Watching Turkish series / movies
F	"I chat with Turks. For example, I remember the word 'zıplamak (jumping)' by doing it."	Chatting with Turks
G	"To learn a new word, I start a conversation using that word, I learn it with its antonyms and synonyms."	Using antonyms and synonyms
H	"I talk to Turks. I learn ten new words every day, reading Turkish books."	Reading books in Turkish
I	"To have a rich vocabulary, I talk to Turks and practice."	Talking with Turks
İ	"I review with computer/phone applications. I talk to Turks."	Repeating, talking with Turks, using smart phone apps
J	"I learn words with their antonyms and synonyms."	Using antonyms and synonyms
K	"I study with Turks at home."	Studying with Turks
L	"I read Turkish books. I watch Turkish movies. I solve tests."	Reading books in Turkish, watching Turkish movies
M	"I keep a vocabulary notebook."	Keeping a vocabulary notebook
N	"I read Turkish books. I watch Turkish movies."	Watching Turkish movies, reading books in Turkish

Based on the content analyses, the most common memory strategies used by the participating students were practicing vocabulary and grammar and speaking with Turks (n=8), reading Turkish books (n=4), watching Turkish movies and applications (n=4), playing word games, listening to music, using body language, keeping a vocabulary notebook, and making sense of Turkish words with computer

applications. In general, the students' memory strategies for better storing the words and phrases of the target language in their thoughts varied.

The students were asked the question "What do you do to understand the topics better in Turkish?" in reference to cognitive learning strategies, which rank second among direct learning strategies and are utilized to maximize cognitive gains in the teaching and learning process. The comment "I take notes while learning Turkish words" from the 11th item of the learning strategies scale (n=5) was also found on the qualitative interview forms. Furthermore, it became apparent that students (n=4) took the most personal notes in order to cognitively understand the phrases.

Discussion & Conclusion

In a target language, meaning-making operates in a spiral, both inductively and deductively, from words composed of various morphemes derived from phonetic units to word order, to sentences, to texts, and ultimately to the pragmatic level consisting of context and discourse. In the process of learning a second language, which is acquired later in life, a certain strategic planning is required for meaning to be created from words to language learning. Therefore, learning strategies in the second language learning process need to be addressed within this scope.

There are plenty of investigations in the literature on how many second languages, particularly English, are comprehended in terms of language skills, teaching, and learning strategies. However, our study revealed crucial findings in terms of strategies for understanding Turkish as a second language. Based on the findings, mastering vocabulary is the most difficult challenge for international students trying to understand Turkish (40%). This is followed by learning grammar (34%) and learning the language in an everyday context (26%). When the responses were reviewed it was evident that foreign university students struggled most with comprehending vocabulary when learning Turkish, followed by grammar and, finally, the pragmatic dimension, which included cultural elements in daily language use. The evaluations undertaken to figure out whether the levels of usage of words and language learning strategies varied considerably from topics that were difficult to understand in Turkish demonstrated that the difference was not significant. Regarding these findings, there is no direct significant relationship found between the topics (vocabulary, grammar, and pragmatic levels) that students have difficulty understanding in the target language Turkish and the use of words and language learning strategies, and these relationships may exist due to a variety of socio-cultural factors.

Acquiring a language encompasses more than merely mastering grammar, comprehending novel vocabulary or phonetics, and attaining correct pronunciation (Pavlenko & James, 2000, p. 155). One can accelerate language development by participating in social settings where they can practice the target language on their own initiative, in addition to being in an engaging context where they may benefit from it. As a result, effective and engaging ways to learn will eventually deliver a comprehensive understanding of the language, whether directly or indirectly. Polat (2002, p. 448) and Özdemir (2016, p. 56) investigated the use of speech acts to figure out if learners of Turkish as a second language can understand pragmatic attributes. Because of the complexities of context and discourse-based comprehension processes, as well as communicative goals, both studies have found it necessary to handle grammar and vocabulary learning processes simultaneously. Hence a result, they have recommended that speech act components that are easiest to comprehend in contexts be learnt in an integrated manner by adding a module to each level, from beginner to advanced. Based on all of the above, it is believed that acquiring vocabulary, grammar, and pragmatic elements together is critical for understanding Turkish as a second language thoroughly.

The participants' utilization of language learning strategies, in relation to meaning and pragmatic aspects, is observed to exceed the average level. Thus, according to the Oxford assessment criteria (1990), the student's utilization of language learning strategies is "frequent". According to the findings of the study, students used metacognitive strategies the most when learning a language. As a result, learners favored metacognitive strategies for controlling their own development over direct language learning strategies. Furthermore, the affective strategy "I like speaking the second language I am learning" was shown to be the most commonly employed among the six categories of language learning strategies by students. This suggests that speaking the target second language helps to build the relationship between the employment of direct cognitive and metacognitive strategies.

Demirel (2012) employed the Language Learning Strategies Scale in the course of research which has shown that most students apply metacognitive strategies when learning a language. Metacognitive strategies tend to be selected while learning English as a second language, according to numerous studies conducted in this field (Hong-Nam & Leavell, 2006; İzci and Sucu, 2014). Similar to our study, Bölükbaş's (2013) investigation of the strategies used by individuals learning Turkish as a second language revealed that students primarily favored metacognitive strategies.

The high level of use of social strategies in language learning strategies in our study also shows that foreign students learning Turkish attach special importance to practicing language in social environments in order to make sense of the language in terms of vocabulary and pragmatic dimensions. On the other hand, the lowest average in the use of language learning strategies was in the category of "affective" strategies. According to these findings, it can be stated that affective strategies, which evaluate students' feelings and attitudes towards learning the target language Turkish, are preferred less than other strategies. In similar studies (Demirel, 2012; Hong-Nam and Leavell, 2007), it was revealed that affective strategies were used the least.

Upon analysis of the data, it is obvious that students belonging to other language families had higher average scores across all categories than students of Turkish descent. These results indicate that students whose native language is not Turkish use language learning strategies more than students whose native language is Turkish. Examining the language learning strategies, it is evident that students of Turkish descent employ less strategies than those from other language families. Boylu (2015), who carried out a similar analysis, found that foreign students had a higher average use of language learning strategies than students of Turkish origin. The study's data indicates that international students employ additional learning strategies due to the increased effort required to comprehend the language. This may be attributed to the fact those whose native language falls in the same language family as Turkish require fewer strategies due to shared lexical and linguistic elements; conversely, students from different language backgrounds encounter challenges in comprehending numerous components, as these may be unfamiliar, leading them to employ a greater number of learning strategies.

Conducting such studies is vital in the process of learning Turkish as a second language given that it helps you comprehend and implement strategies efficiently. Language teachers and learners can provide contextual meaning in the target language if they comprehend the strategies that are employed when necessary.

Considering the data we have obtained, we can suggest that future studies should focus more on language learning strategies. The repetition of the current study can be conducted with wider audiences in Türkiye and abroad on the language comprehension of Turkish learners as well as the learning strategies they use. In particular, it may be recommended to carry out research on male and female strategy preferences and the variables affecting them. Since the language comprehension and strategy

preferences of children and older second language learners may vary, further studies can be conducted in different age groups. The current research was applied with 505 students in 10 universities. For this reason, it is necessary to undertake research involving more institutions and participants on the interpreting situations of Turkish language learners both in Türkiye and abroad and the language learning strategies they use accordingly. Our study was conducted with students at the level of B1 and above, who were in the last months of their language preparatory courses at universities. For this reason, further research can be conducted on comprehension and language learning strategies used at different levels besides proficiency levels. Students learning Turkish in Türkiye from 82 different countries participated in our study. In new studies, both foreign and domestic students can be analyzed with the dimensions of comprehension and strategy use depending on their exposure to Turkish culture. Second language instructors should also be aware of the background and prior knowledge of language learners. The students' nationalities and the proximity of the cultures in which they have grown up to Turkish, their exposure to Turkish usage through various media channels may affect their use of direct and indirect learning strategies.

In conclusion, understanding the approaches and methods created in linguistics and language education, along with the strategies and resources that are their classroom applications, is not sufficient to be successful and effective in learning a second language. Furthermore, it is crucial to comprehend how each learner perceives the target language, Turkish, and what they understand in their unique cognitive universe. Based on this viewpoint, learners actively participate in their own learning process through the use of direct and indirect learning procedures, which improves their proficiency in languages. Therefore, effective language teaching and learning can be gained from the usage of language learning strategies in order to comprehend Turkish. Consequently, in order to be an effective facilitator in the process of second language learning, it is necessary for the instructors of Turkish as a second language to know the learning strategies that students can use. For this purpose, various seminars and trainings on interpretation and learning strategies can be conducted for teachers of Turkish.

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Informed Consent Form

Not applicable, as the study was conducted with individuals aged 18 and older.

Ethics Statement

I declare that we have complied with all the basic principles outlined in the Higher Education Institutions Scientific Research and Publication Ethics Guidelines and that no actions have been taken contrary to scientific research and publication ethics.

Ethics Committee Approval

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The article was written by a single author.

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The author declares that no conflicts of interest emerged during the execution of the current study.

Use of Artificial Intelligence

The author declares that artificial intelligence was not used in authoring the article.

Copyright

Data Sharing

Data obtained and analyzed within the scope of this study may be requested from the authors upon request.

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