The Use of Mind Mapping Technique in Acquisition of Grammar Structures in Foreign Language Teaching

Yabancı Dil Öğretiminde Dil Bilgisi Yapılarının Kazandırılmasında Zihin Haritalama Tekniğinin Kullanımı[1]

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Abstract

Purpose: As in other languages, Turkish also consists of words formed by the combination of sounds and sounds and meaningful integrity formed by the combination of words in a ruleful way. Therefore, it needs some rules for both the formation of sounds, the formation of words and the formation of sentences, which constitutes grammar. In order to learn a foreign language fully and properly, it is necessary to master the rules of grammar. Methods and techniques designed for learning something in the best and shortest time are important and necessary for teaching grammar in foreign language teaching. The aim of this study is to examine the effectiveness of mind mapping technique, which is a different and new technique, in teaching grammar structures in teaching Turkish as a foreign language.

Design/Methodology/Approach: In the study, mind mapping diagrams were used to teach grammar structures in teaching Turkish as a foreign language. According to this diagram, language consists of three components: form, function and use. For this reason, all grammar structures to be explained in the lesson were organized according to these three components and diagrams were prepared. Grammar structures were taught through the diagrams whose instructor opinions were taken. "Interview technique", one of the qualitative data collection tools, was used in the study. For this, a semi-structured interview form was used. At Sakarya University TÖMER, a total of 22 learners at the A2 level were taught with the mind mapping technique for 7 weeks, and then the learners were interviewed one by one with a semi-structured interview form. Content analysis was used to analyze the data. The data obtained through content analysis were divided into themes and sub-themes.

Findings: When the mind mapping technique in teaching grammar structures in teaching Turkish as a foreign language was analyzed according to learner opinions, 5 themes and 23 sub-themes were identified.

Highlights: According to the opinions of the learners, positive results such as the mind mapping technique being effective in grammar teaching, being useful, having a structure that offers ease of teaching as well as contributing to recall and developing a positive attitude towards the lesson were determined.

Öz

Çalışmanın amacı: Diğer dillerde olduğu gibi Türkçe de ses ile seslerin bir araya gelmesiyle oluşan kelimelerden ve kelimelerin kurallı bir şekilde bir araya gelmesiyle oluşan anlamlı bütünlükten oluşmaktadır. Dolayısıyla hem seslerin oluşumu hem kelimelerin oluşumu hem de cümlelerin oluşumu için birtakım kurallara ihtiyaç duymaktadır ki bu dil bilgisini oluşturmaktadır. Yabancı bir dili dili tam ve düzgün bir şekilde öğrenebilmek için dil bilgisi kurallarına hâkim olmak gerekmektedir. Bir şeyin en iyi ve en kısa sürede öğrenilmesi için tasarlanan yöntem ve teknikler yabancı dil öğretiminde dil bilgisi öğretimi için önemli ve gereklidir. Bu çalışmanın amacı yabancı dil olarak Türkçe öğretiminde dil bilgisi yapılarının kazandırılmasında farklı ve yeni bir teknik olan zihin haritalama tekniğinin etkinliğini incelemektir.

Materyal ve Yöntem: Çalışmada yabancı dil olarak Türkçe öğretiminde dil bilgisi yapılarının kazandırılması amacıyla zihin haritalama diyagramları kullanılmıştır. Bu şemaya göre dil; şekil, işlev ve kullanım olmak üzere üç bileşenden oluşmaktadır. Bu sebeple derste anlatılacak tüm dil bilgisi yapıları bu üç bileşene göre düzenlenerek diyagramlar hazırlanmıştır. Öğretici görüşleri alınan diyagramlar üzerinden dil bilgisi yapıları işlenmiştir. Araştırmada nitel veri toplama araçlarından biri olan "görüşme tekniği" kullanılmıştır. Bunun için yarı-yapılandırılmış görüşme formu kullanılmıştır. Sakarya Üniversitesi TÖMER'de A2 seviyesinde toplam 22 öğrenene 7 hafta boyunca zihin haritalama tekniği ile ders anlatılmış ardından yarı yapılandırılmış görüşme formuyla öğrenenlerle tek tek görüşülmüştür. Verilerin analizinde içerik analizi kullanılmıştır. İçerik analizi ile elde edilen veriler tema ve alt temalara ayrılmıştır.

Bulgular: Yabancı dil olarak Türkçe öğretiminde dil bilgisi yapılarının kazandırılmasında zihin haritalama tekniğinin öğrenen görüşlerine göre incelendiğinde 5 tema ve 23 alt tema tespit edilmiştir.

Önemli Vurgular: Öğrenenlerin görüşlerine göre zihin haritalama tekniğinin dil bilgisi öğretiminde etkili, faydalı, öğretim kolaylığı sunan bir yapısının olmasının yanı sıra hatırlamaya katkısını olması ve derse karşı olumlu tutum geliştirmesi gibi olumlu sonuçlar tespit edilmiştir.

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INTRODUCTION

Today, with the developing and changing living conditions, the borders of the states have been removed and replaced by the fields of activity of commercial agreements. These commercial activities have made it compulsory to know and teach foreign languages due to internationalization. Foreign language learning is becoming more and more important, and even knowing a foreign language has become a feature that everyone should have, rather than a privilege (Göçer, 2009). In this respect, teaching Turkish as a foreign language is an area of increasing importance day by day. In this context, we can say that various studies have been carried out to improve the quality of education in teaching Turkish as a foreign language.

Although language consists of the usable integrity of listening, speaking, reading and writing skills (Demirel, 2008), there should be a good grammar education in order to develop these skills (Polatcan, 2014). It is even argued that grammar teaching is a vital component in foreign language teaching (Rossiter, 2021). Aytaş and Çeçen (2010) state that grammar is a field that concerns and covers all of these skills in addition to listening, speaking, reading and writing, which are the basic skills of language.

Korkmaz (1992) explained grammar as a science that examines all units of a language starting from sound and the meaning relations between these units and explains the rules and functioning features related to them. Therefore, grammar is an important and necessary science that examines all the rules of the language starting from its most basic features such as sound and its usage features depending on these rules. Grammar teaching improves learners' comprehension and expression skills. Güneş (2013) emphasizes that grammar is the most important key to producing as well as reading and understanding a text. Especially considering the fact that a language like Turkish, which has very few exceptions, is one of the additive languages, grammar teaching is of great importance (Benhür, 2002).

Wang (2010) in his research emphasizes the importance of grammar in foreign language teaching when he says that grammar plays an important role as a set of rules for selecting words and then putting them together to express meaning. He even states that it is necessary to explore grammar teaching methods and techniques for effective grammar teaching. Instead of learning grammar structures by memorizing them, students are directed to understand and comprehend what they learn (Yoğurtçu, 2009). Thus, what they learn can be meaningful and permanent.

In order to learn a language in the best way, grammar teaching should be diversified, blended with today's technology and new methods and techniques should be used. Because it should not be forgotten that grammar teaching does not only consist of teaching rules. In Demirel's (1999) study, the aims of grammar teaching in line with contemporary developments are listed as follows: to make students comprehend the functioning order of language, to enable students to use language correctly and effectively as a means of communication. Hudson (1992), on the other hand, states the aims of grammar teaching as follows: to build self-confidence in the language by increasing language achievement, to increase the general level of knowledge about the language, and to facilitate the learning of other languages. Banguoğlu (1990) also states that we can get used to more accurate and perfect thinking thanks to grammar. Therefore, grammar teaching should not only be seen as the teaching of the rules of language, but should be seen as one of the most important parts of language. However, the status of grammar teaching in foreign language teaching has weakened and even partially disappeared (Ling, 2015).

Studies support the view that grammar teaching is done in traditional ways, that is, in the ways that our teachers have learned or by sticking to textbooks (Taylor, 1986; Syafiqah Yaccob & Yunus, 2019). However, it is a known fact that it would be wrong to stick to the past and not to go beyond the traditional in education while everything is developing and changing today.

In this study, teaching grammar with mind mapping technique, which is one of the contemporary techniques in teaching Turkish as a foreign language, is discussed. It was investigated whether the mind mapping technique is effective on learners' academic achievement, retention of what is learned and attitudes towards grammar. In the study, the answer to the question "What are the students' opinions about the mind mapping technique in teaching grammar structures in teaching Turkish as a foreign language?" will be sought.

In the information age, education and training activities are developing and diversifying day by day and accordingly, both educational processes and educational programs are differentiated. Various strategies, methods and techniques are used to make education more quality, efficient and enjoyable. In grammar teaching, methods and techniques should be used to help students acquire basic language skills. The traditional teaching and learning process with chalk and talking has lost its validity in the lessons (Syafiqah Yaccob & Yunus, 2019). There are not enough publications and research on the methods to be used in grammar teaching. There is a need for more research, articles and graduate theses in this field (Göçer & Arslan, 2018). With this study, it is thought that both students and instructors will gain a new alternative technique in teaching grammar structures in teaching Turkish as a foreign language.

The fact that new and different methods and techniques cannot be implemented in grammar teaching causes problems in teaching the subjects (Güven, 2013). This study is important in terms of bringing a breath of fresh air to the acquisition of grammar structures that are difficult to teach and learn in teaching Turkish as a foreign language and using it as an alternative technique. In addition, the fact that this technique will be used for the first time in the field of teaching Turkish as a foreign language and that it will be used for the first time in a grammar study in the field of teaching Turkish is another important point of the study. For the reasons mentioned above, the study is expected to contribute to the Turkish literature.

When we look at the theses prepared on grammar teaching, we see that the researches are quite insufficient. Because academic studies are mostly focused on four basic skills (Göçer & Arslan, 2018). Although listening, speaking, reading and writing are the four basic skills in language teaching, it is grammar that will connect them and strengthen their use and expression. In foreign language teaching, it is not possible to use the basic skills of the language effectively and to benefit from the expressive power of the language without learning the grammar structures completely and correctly. Because every language has its own rules and that language cannot be fully learned without learning these rules. According to Özbay (2006), the correct and rapid learning and use of language depends on grammar teaching. Since this situation is the same in teaching Turkish as a foreign language, grammar teaching should be given importance.

In various studies, it has been stated that grammar is the basis of language (Langacker, 2008; Ataboyev & Rustamov, 2023). For this reason, various visual and written activities should be included in the materials to be used in grammar teaching. Mind mapping technique basically consists of diagrams created with colors, pictures and writings. Therefore, in this study, there are mind maps in which grammar structures are combined with various colors, pictures and writings.

In his study, Aydın (1999) found that 93.10% of the teachers concluded that grammar is important and necessary. In their study, Hançer and Dilidüzgün (2021) found that 83.3% of 48 instructors stated that grammar teaching is important. In addition, in various studies conducted on students, it is seen that the subject that students have the most difficulty in language lessons is grammar subjects (Karababa Candaş, 2009; Maden & İşçan, 2011; Gürbüz & Güleç, 2009). However, Mostafa (2021) reveals in his study that mind mapping technique increases grammar achievement.

This study is important for learners of Turkish as a foreign language to learn grammar structures completely and accurately and to minimize rule errors. For learners of Turkish as a foreign language, how grammatical structures are written and pronounced and when and how to use these structures are important rather than their names. The function(s) of the grammar structure is important here. At the point of learning these functions, the mind mapping technique both stays in the memory more with its structure consisting of visuals and establishes a connection between information (Brandner, 2015). In this way, it accelerates learning and facilitates recall (Süğümlü & Sulak, 2019). In addition, Brandner (2019) states that the mind mapping technique summarizes the topics with pictures/photos and keywords, which shows that grammar topics can be learned in a shorter and faster way. Preferring new methods and techniques that appeal to different sensory organs will provide more qualified and more permanent learning, so that the subjects will be better understood (Özbay, 2006).

When the literature was examined, it was seen that although the effectiveness of mind mapping technique in different subjects was examined, there was no study on the acquisition of grammar structures in teaching Turkish as a foreign language. The aim of this study is to answer the question "What is the effect of mind mapping technique on the acquisition of grammar structures in teaching Turkish as a foreign language?" according to student opinions.

METHOD/MATERIALS

Research and Design

Phenomenology, one of the qualitative research methods, was used in the design of the study. Phenomenology is used to determine the common experiences of a group of individuals (Eberle, 2014). In the study, the views of 22 students learning Turkish as a foreign language on grammar teaching with mind mapping technique were determined. The descriptive approach, one of the phenomenology designs, was preferred in the study. In this approach, data are obtained from individuals who have experienced the research subject, provided that they maintain their objectivity (Merriam, 2014). The data obtained were combined under themes and sub-themes (Yalçın, 2022). In this way, information was obtained about the role of mind mapping technique in the acquisition of grammar structures by Turkish as a foreign language learners.

Study Group

The population is a large group of living or non-living beings from which the data needed to answer the questions for a research are obtained (Büyüköztürk et al. 2009). The population of this study consists of A2 level students who learn Turkish as a foreign language. Purposive sampling method was preferred for the sample of the study. Purposive sampling methods are useful in discovering and explaining phenomena and events in many situations (Yıldırım & Şimşek, 2018). In the study, maximum diversity sampling was preferred among purposive sampling methods. The purpose of creating a sample based on maximum diversity is to try to find out whether there are any common or shared phenomena among diverse situations and to reveal different dimensions of the problem according to diversity (Yıldırım & Şimşek, 2018). The quantitative research group of this study consists of 22 learners who learned Turkish at A2 level at Sakarya University TÖMER in the academic year 2022 - 2023. The implementation part of the study started on January 23, 2023 and ended on March 10, 2023. The implementation was carried out in the normal periods determined by the institution and lasted seven weeks.

These study groups were selected from learners whose readiness and language skills were at similar levels, taking into account the course scores obtained from the A1 exam. For this purpose, classes were formed on the basis of the learners' total scores of the A1 exams conducted by the institution and their individual scores according to skills.

Table 1. Demographic Information of the Qualitative Study Group

Participant Information		Experimental Group	
		f	%
Gender	Male	10	45,45%
	Female	12	54,55%
Age	17-20	13	59,09%
	21-25	7	31,82%
	26-30	1	4,55%
	30+	1	4,55%
Education	License	19	86,36%
	Master's Degree	2	9,09%
	PhD	1	4,55%
Countries	Azerbaijan	1	4,55%
	Djibouti	1	4,55%
	Indonesia	3	13,64%
	Ethiopia	1	4,55%
	Palestine	1	4,55%
	Iraq	1	4,55%
	Iran	2	9,09%
	Kazakhstan	1	4,55%
	Libya	1	4,55%
	Egypt	1	4,55%
	Niger	1	4,55%
	Uzbekistan	1	4,55%
	Pakistan	1	4,55%
	Russian Federation	2	9,09%
	Sudan	1	4,55%
	Syria	1	4,55%
	Jordan	1	4,55%
	Yemen	1	4,55%
Total		22	100

Table 1 shows that there are 12 female and 10 male learners. There are 13 learners between the ages of 17-20, 7 learners between the ages of 21-25, 26-30 and 30+. It is seen that 19 of the participants will receive undergraduate, 2 master's and 1 doctorate education. It is seen that the majority of the participants are from different countries (18 different countries) and the highest number of students is from Indonesia with 3 participants. There are also two participants each from Iran and Russia. The other participants are from different countries with one participant each.

Data Collection Tools and Data Collection Process

The data were collected at the end of the course in the A2 level class learning Turkish as a foreign language. "personal information form" and "mind mapping technique semi-structured interview form" were used as data collection tools. In line with the purpose of the study, the research question was organized as follows: "What do you think about the use of mind mapping technique in teaching grammar structures in teaching Turkish as a foreign language?" The data were obtained in writing through these forms in approximately one class hour (40 minutes).

Data Analysis

"Content analysis" was used to analyze the data obtained. Content analysis is the systematic analysis of written and oral materials (Balcı, 2018). Content analysis can be used to analyze visual and verbal data (Harwood & Garry, 2003). Content analysis is a rich source of data with the potential to reveal valuable information about specific phenomena in texts (Kondracki, Wellman, & Amundson, 2002). In order to make the research more concise and meaningful by bringing together similar content and information, the information revealed in the content analysis was divided into codes, categories and themes and subjected to re-analysis. Corbin and Strauss (2008) define coding as the categorization of data into various headings by taking into account certain characteristics. The coding process starts with conceptualization (Özdemir, 2010). Then the category obtained from the codes is determined. It is quite difficult to determine categories. In addition, themes related to the categories can be written on the other side of the categories to analyze the interviews (Büyüköztük, et al. 2016). For this reason, themes were first identified and then interrelated sub-themes were identified. In this way, themes and sub-themes were created. Sub-themes were combined according to the participants' statements and the same statements increased the frequency value of the sub-theme. These are shown in Table 2. Within the scope of the research, themes and sub-themes were not planned in advance. Themes and sub-themes were drafted.

Validity and Reliability of the Data

In analyzing the data collected from the students, it is important to analyze the similarities and differences in both surface and deep structures correctly. For this purpose, two researchers examined and analyzed the texts separately in coding the themes and sub-themes. After the researchers completed the coding, they came together and disagreements were observed. Different opinions may emerge in the analysis of qualitative data. This is a natural situation. In such cases, researchers are expected to reach consensus on themes and sub-themes (Miles & Huberman, 1994). Validity and reliability in qualitative studies are slightly different from quantitative studies. The validity and reliability of the study are explained by the reliability of the researcher, the accuracy of the results and the expertise of the research (Krefting, 1991). Although they are experts in the field of research and in the field, draft themes and sub-themes were sent to 3 more experts to test the accuracy of the data. In case of disagreement between the experts, they were asked to reach a consensus again. In this way, the final version of the data obtained within the scope of the research was formed with the opinions of two researchers and two external experts.

FINDINGS

When the data obtained according to the opinions of the learners in the study were analyzed, the teaching features of grammar structures with the mind mapping technique were grouped under the following themes and sub-themes as shown in Table 2.

Since all of the learners found the technique effective in teaching grammar structures, similar expressions were given only once. However, the frequency value was increased each time the same statement was repeated. The frequency values of the themes and sub-themes were determined in this way.

Table 2. The Effect of Mind Mapping Technique on the Acquisition of Grammar Structures in Teaching Turkish as a Foreign Language

Themes and Subthemes	ƒ
Being Effective in the Acquisition of Grammar Structures	48
Since grammar structures are given in an organized way on the diagram	9
Because it is so amenable to repetition	8
As it gives all the information about a grammar structure in a diagram	7
Because there are many examples and exceptions in the diagrams	6
Because diagrams are simple but detailed information	5
For not enabling faster note-taking	4
Because the colorful structure and branches of the technique are effective in learning	4
Because it is fast and easy to understand	3

Because the mind mapping technique is fun	2

When the table is examined, 9 sub-themes belonging to the theme of being effective in the acquisition of grammar structures were identified. These are: grammar structures are given in a regular way in diagrams (9), it is suitable for the repetition of the lesson (8), it gives all the information about the grammar structure in a diagram (7), there are many examples and exceptions in diagrams (6), there is simple but detailed information in diagrams (5), it is not necessary to take notes quickly (4), the colorful structure of the technique and the branches are effective in learning (4), it is fast and easy to understand (3), mind mapping technique is fun (2).

Table 3. The Benefit of Mind Mapping Technique on the Acquisition of Grammar Structures in Teaching Turkish as a Foreign Language

Themes and Subthemes	*f*
Being Useful in the Acquisition of Grammar Structures	30
Useful for faster learning	13
Useful because it has a planned narrative	11
Useful for taking notes on diagram	6

When the table is examined, it is stated that it is useful in terms of faster learning (13), having a planned narration (11) and taking notes on diagrams (6).

Table 4. Mind Mapping Technique facilitates the acquisition of grammar structures in teaching Turkish as a foreign language

Themes and Subthemes	*f*
Being Useful in the Acquisition of Grammar Structures	35
Maps provide easy and fast learning	14
How to write their topics, examples and exceptions	9
For the use of different colors and short information	7
Because it is explained in a simple and organized way	5

The table shows that there are four sub-themes that enable students to learn easily. These are; the maps provide easy and fast learning (14), the topics, examples and exceptions are written and explained separately (9), the use of different colors and short information (7), and a simple and organized narrative (5).

Table 5. Contribution of Mind Mapping Technique to Recall in Acquisition of Grammar Structures in Teaching Turkish as a Foreign Language

Themes and Subthemes	*f*
Contribution to Recall in the Acquisition of Grammar Structures	40
For easy recall	22
Because it reduces forgetting	10
As the topics are memorized on the diagram like a photograph	4
As different colors and branches are used	4

When the table is analyzed, it is seen that all of the learners stated that the technique facilitated recall. Apart from this, there are (10) learners who stated that it reduced forgetting, (4) learners who stated that it helped memorization by taking the subjects on the diagram like a photograph, and (4) learners who stated that the use of different colors and branches was effective in remembering.

Table 6. The Effect of Mind Mapping Technique on Class Participation in Acquisition of Grammar Structures in Teaching Turkish as a Foreign Language

Themes and Subthemes	*f*
The Effect of Lesson Participation on the Acquisition of Grammar Structures	22
Because the lessons are very fun and easy	11
Since the examples are mostly given by learners	7
Because it is relaxing to learn subjects easily	4

When the table is analyzed, it is seen that 3 sub-themes emerged. These are: 11 frequency values for the lessons being very fun and easy, 7 frequency values for the examples being mostly given by the students and 4 frequency values for the subjects being easy to learn.

DISCUSSION AND CONCLUSION

When analyzed according to learner opinions about the mind mapping technique in teaching grammar structures in teaching Turkish as a foreign language, 5 themes and 23 sub-themes were identified. It was determined that there were 175 frequencies belonging to these themes and sub-themes.

The first theme identified in the research is the effect of mind mapping technique on the acquisition of grammar structures in teaching Turkish as a foreign language. In this theme, 9 sub-themes were identified. These are: grammar structures are given regularly on the diagram, it is very suitable for repetition, all information about a grammar structure is given in a diagram, there are many examples in the diagrams and there are no exceptions, the diagrams contain simple but detailed information, there are many examples in the diagrams and there are exceptions, the diagrams contain simple and detailed information, it provides faster note-taking, the colorful structure of the technique and it is effective in branch learning, it is fast and easy to understand, the mind mapping technique is fun. When the literature was examined, many studies were found that the mind mapping technique is effective when used in lessons (Aslan, 2006; Aydın, 2009; Tağa, 2013). Ede (2012) in his research on the effect of mind mapping technique on students' comprehension of Turkish reading texts, Uysal (2018) in his research examining the story writing skills of primary school 4th grade students with mind mapping method, Aksoy (2022) in his research examining the effect of mind mapping technique on reading comprehension and summarization skills of primary school 3rd grade students found the mind mapping technique more successful.

The second theme identified in the research is that the technique is useful for the acquisition of grammar structures in teaching Turkish as a foreign language. In this theme, 3 sub-themes were found: it is useful for faster learning, it is useful because it has a planned narration and it is useful for taking notes on the diagrams. When the literature was examined, it was seen in different studies that the mind mapping technique was beneficial to the learners (Kan, 2012; Çelik, 2016). Fiktorius (2013) concluded that the mind mapping technique was effective in the success of learners in his study conducted in EFL classrooms. Fitriani (2015) states that using the mind mapping technique to improve tenth grade students' language knowledge was found successful.

The 3rd theme in the study is the easy acquisition of grammar structures in teaching Turkish as a foreign language with mind mapping technique. In this theme, 4 sub-themes were found. These themes are maps provide easy and fast learning, showing how to write the topics, examples and exceptions, using different colors and short information, explaining in a simple and organized way. In the literature, there are various studies showing that mind mapping technique facilitates teaching in different fields (Şeyihoğlu & Kartal, 2010).

It was determined that the mind mapping technique has an effect on recall in the acquisition of grammar structures in teaching Turkish as a foreign language. In 4 sub-themes, it was concluded that it has an effect on recall by providing easy recall, reducing forgetting, keeping the subjects in mind like a photograph on the diagram, and using different colors and branches (Farrand, Hussain, & Hennessy, 2002; Çamlı, 2009; Gömleksiz & Fidan, 2013; Harbi, 2013; Bawaneh, 2018; Normawati, 2020; Serevina & Heluth; 2022).

In the fifth and final theme of the research, the effect of mind mapping technique on lesson participation in teaching grammar structures in teaching Turkish as a foreign language is seen. 16 out of 22 learners (72.64 in %) stated that their participation in the lesson increased. In the sub-themes, it was stated that the lessons were very fun and easy, the examples were mostly given by the learners and the individuals who learned the subjects easily participated in the lesson comfortably. It is seen in different studies that mind mapping technique develops positive attitudes towards the lesson (Trevino, 2005; Hariri & Tahiri, 2013; Olufunke & Blessing, 2014; Mahasneh, 2017; Aljaser, 2017; Saed & Al-Omari; 2017; Al Kamli, 2019).

RECOMMENDATIONS

In the research, it is seen that the mind mapping technique is liked by the learners in teaching grammar structures in teaching Turkish as a foreign language. For this reason, grammar teaching can be done with mind mapping technique not only for A2 level but also for other levels.

Since the mind mapping technique is basically a note-taking technique, it can be the subject of research not only in grammar teaching but also in other skills and fields of study. Thus, it can be investigated whether it is suitable for other skills or fields of study.

When the results of the research are examined, it is seen that the mind mapping technique in teaching Turkish as a foreign language is effective in both academic achievement, retention and attitude. It was determined that it was successful in the field. Since this technique, which is successful in the field, is basically a note-taking technique, it can be investigated in other skills and fields of study in teaching Turkish as a foreign language. Thus, it can be determined whether it is suitable for other skills or fields of study.

All grammar structures created with the mind mapping technique can be uploaded to a website that will be created with interdisciplinary studies with the funds received from various project support funds. In fact, a program can be prepared in which teachers and learners can create their own mind maps, and a site can be created in such a way that these can be open to sharing.

According to the results of the research, this technique, which is successful in teaching Turkish as a foreign language, can be used by the instructors of the field in grammar teaching. After reviewing the textbooks and related literature and taking into

account the situation of the learners, the instructors can prepare their own course materials with the mind mapping technique for their own lectures or they can train the learners on the mind mapping technique and ask them to make their own diagrams during the lectures.

In teaching Turkish as a foreign language, in addition to academic success, retention and attitude mind mapping, which was found to contribute positively in this research. technique can be used in the grammar sections of textbooks.

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Statements of publication ethics

I/We hereby declare that the study has not unethical issues and that research and publication ethics have been observed carefully.

Researchers' contribution rate

The study was conducted and reported with equal collaboration of the researchers.

Ethics Committee Approval Information

As of 2020, researchers applying are required to upload the Ethics Committee Approval Document. Such information as institution name, date, number, etc. regarding the "Ethics Committee Approval Document" should be presented here.

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ANNEX 1: Diagram Example Prepared with Mind Mapping Technique