

A Study About Terms Used by International Students Taking Academic Turkish Courses in Their Written Expression*

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Abstract. One of the primary goals of individuals who learn a language as a foreign language is to learn the most frequently used words in that language. In line with this goal, it is very important that the words with the highest frequency of use are included in the education and training process and that the course materials to be used are created according to this purpose. For this reason, it is important to examine the terms frequently used by learners of Turkish as a foreign language. The aim of this study is to determine the terms used in the written expressions of international students who learn Turkish as a foreign language and receive academic Turkish education. For this purpose, the survey model, one of the quantitative research designs, was used in the study. The sample of the study was formed by identifying 125 foreign students attending the academic Turkish course at Sakarya University TÖMER by criterion sampling method. Semi-structured interview forms created by the researchers were used as data collection tools. The data were analyzed using descriptive (quantitative) statistics. As a result of the study, it was observed that the most vocabulary items and terms in students' written expressions were found in social subject area texts. A total of 34 different terms were found to be used in common in all social, science and health subject areas.

Keywords: Teaching Turkish as a foreign language, vocabulary, academic Turkish, terms

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1. INTRODUCTION

Vocabulary teaching is one of the most important topics to be emphasized in the process of foreign language learning. Even, Susanto (2017) evaluates vocabulary learning as the most important part of the foreign language learning process. The primary goal in the vocabulary learning process is to teach individuals the words that they will frequently need during communication. By learning these words, individuals at the beginning level in the target language will be able to easily overcome any potential obstacles in the target language communication process. The path to be followed in this regard is that, as stated by Comenius (Demircan, 1983) and other researchers, it is necessary to primarily teach the words that are frequently and widely encountered in the foreign language (Vandewalle, 1999; Demirel, 2012; Aık, 2013; İnce, 2013; Bacı & Bařar, 2013; Gzel & Barın, 2013, Demirel, 2011; Gen & Okur, 2017)).

In the language learning process, the words to be taught, the priority given to them, may differ depending on the needs analysis to be made according to the goals, expectations, profiles, etc. of those who want to learn the language. At the basic level, the words that are frequently used in daily life for communication are mostly targeted to be learned, while the words targeted to be learned at higher levels show differences according to communication needs. At this stage, frequency studies conducted to determine the frequency of use of words in a language are important reference sources for students and teachers because they provide experimental results away from intuition."

1.2 Academic Language and Terms

The Common European Framework of Reference for Languages (CEFR) has established a system of classification to eliminate complexity in determining the level of language proficiency. According to this classification, language usage is divided into three stages: Basic Language Usage (A1-A2), Independent Language Usage (B1-B2), and Proficient Language Usage (C1-C2). After achieving independent language usage level, the needs of learners in terms of the areas they will pursue education in become prominent. Kocaman-Grata and Durmuř (2020) define this stage as academic language teaching and state that it is a sub-branch of special-purpose language teaching tailored to the needs of learners in academic contexts such as education or workplace. The difference between language teaching for academic purposes and general-purpose language teaching lies in the fact that the curriculum is designed to focus on the specific communication needs of learners in a particular academic context, rather than general language teaching.

In the process of special purpose language learning, learning the vocabulary related to the field of the individual and mastering the terms specific to this field supports the individual's communication skills and contributes positively to his/her academic and social success (Gneř, 2013). August, Carlo, Dressler, and Snow (2005), who define the academic failure of students who are weak in terms of vocabulary in the language teaching process as a learning disability, emphasize that fewer students will be diagnosed with learning disabilities with effective methods to improve vocabulary.

Vocabulary is an important factor in understanding what is read or heard (Nelson and Stage, 2007; Okur, 2013). Because the more extensive an individual's vocabulary capacity, the better their comprehension skills will be (Zhang & Anual, 2008). For individuals who wish to learn a foreign language for specific purposes, mastery of terms specific to their field will allow them to effectively use their comprehension and expression skills. For this reason, in the process of teaching a foreign language, when a foreign language is learned for special purposes such as education, work, etc. rather than daily communication needs, terms should be included in the education process. Because, as Demir (2017) states, the skills that students who learn Turkish as a foreign language have the most difficulty with are listening and reading skills. Additionally, the reason for the problems experienced by foreign students studying in their departments in the department courses is the lack of vocabulary knowledge, especially the lack of terminology knowledge. From this point of view, the terms used by international students in their written expressions are discussed in this study. The aim of the study is to determine which terms are used by international students receiving academic Turkish education in their written expressions. For this purpose, the following questions were addressed:

- What are the terms used by international students receiving academic Turkish education in their written expressions in the subject area of science? What is the frequency of use of these terms?
- What are the terms used by international students receiving academic Turkish education in their written expressions in the field of social subjects? What is the frequency of use of these terms?
- What are the terms used by international students receiving academic Turkish education in their written expressions in the subject area of health? What is the frequency of use of these terms?

2. METHOD

2.1 Research Design

In order to determine the terms used by international students receiving academic Turkish education in their written expressions, the survey model, one of the quantitative research designs, was used. Survey models are research approaches that aim to describe a past or current situation as it exists. The event, individual or object that is the subject of the research is tried to be defined in its own conditions and as it is. No effort is made to change or influence them in any way. The thing to be known exists and is there (Karasar, 2013, p. 77).

2.2 Population- sample

The sample of the study was composed of international students attending academic Turkish education at Sakarya University TÖMER by using the criterion sampling method. Criterion sampling is the study of all situations that meet a set of predetermined criteria (Yıldırım & Şimşek, 2013, p.140). The criterion for this study is students who have successfully completed all courses from level A1 to level C1 and continue their academic Turkish lessons. Accordingly, 125 students who completed the C1 course at Sakarya University TÖMER and were attending the academic Turkish course were selected. Information about the demographic characteristics of the students is presented in Table 1. Ethical approval was obtained from Sakarya University Rectorate Educational Research and Publication Ethics Committee with decision number 03/12 and dated 11.01.2022.

Table 1

Information on the Fields of the Students in the Sample

Field	n	%
Social Sciences	93	74,4
Natural Sciences	27	21,6
Health Sciences	5	4
Total	125	100

Of the 125 students in the sample of the study, 93 will study in Social Sciences, 27 in Natural Sciences and 5 in Health Sciences. The majority of the students (74.4%) are in the field of Social Sciences.

Table 2

Information on the Education Level of the Students in the Sample

Education level	n	%
Undergraduate	71	56,8
Graduate	36	28,8
PhD	18	14,4
Total	125	100

Of the 125 students in the sample of the study, 71 will study at the undergraduate, 36 at the graduate, and 18 at the doctoral level.

Table 3

Information on the Ages of the Students in the Sample

Age	n	%
17	1	0,8
18	17	13,6
19	25	20
20	19	15,2
21	5	4
22	4	3,2
23	6	4,8
24	12	9,6
25	13	10,4
26	9	7,2
27	3	2,4
28	2	1,6
29	2	1,6
30	4	3,2
31	1	0,8
32	2	1,6
Total	125	100

The age range of the 125 students in the sample of the study varies between 17-32. Students aged 18, 19 and 20 constitute approximately half of the sample with a total of 48.8%.

Table 4

Information on the Gender of the Students in the Sample

Gender	n	%
Female	57	45,6
Male	68	54,4
Total	125	100

Of the 125 students in the sample of the study, 57 were female and 68 were male.

Table 5

Information on the Countries of the Students in the Sample

Country	n	%
Afghanistan	10	8
Albania	2	1,6
Bangladesh	5	4
Benin	1	0,8
Bosnia and Herzegovina	1	0,8
Burkina Faso	1	0,8
Burundi	1	0,8
Algeria	2	1,6
Djibouti	1	0,8
Chad	5	4
Indonesia	4	3,2
Morocco	1	0,8
Ivory Coast	1	0,8
Palestine	6	4,8
Gambia	1	0,8
Ghana	1	0,8
Guinea	3	2,4
Georgia	2	1,6

India	1	0,8
Iraq	3	2,4
Iran	2	1,6
Cameroon	1	0,8
Montenegro	1	0,8
Kazakhstan	6	4,8
Kenya	1	0,8
Kyrgyzstan	3	2,4
Kosovo	1	0,8
Lebanon	1	0,8
Macedonia	2	1,6
Malaysia	1	0,8
Mali	2	1,6
Egypt	1	0,8
Mongolia	2	1,6
Moldova	3	2,4
Myanmar	1	0,8
Niger	1	0,8
Nigeria	1	0,8
Central African Republic	1	0,8
Uzbekistan	1	0,8
Pakistan	1	0,8
Russia	3	2,4
Senegal	1	0,8
Sierra Leone	1	0,8
Somalia	2	1,6
Sudan	9	7,2
Syria	2	1,6
Tajikistan	3	2,4
Tanzania	3	2,4

Thailand	4	3,2
Tunisia	4	3,2
Jordan	4	3,2
Yemen	3	2,4
Zimbabwe	1	0,8
Total	125	100

The sample of the study includes 125 students from 53 different countries. Most of the students are from Afghanistan (10), Sudan (9), Palestine and Kazakhstan (6).

2.3 Data collection tools

Semi-structured interview forms created by the researchers were used to determine the terms in the written expressions of international students who learn Turkish as a foreign language and receive Academic Turkish education, and the frequency and prevalence of their use. These forms consist of open-ended questions on the themes of "education, health, technology, religion, environment, economy" which were decided after consulting expert opinions. These open-ended questions were evaluated in 3 categories as "social, health and science" subject areas.

2.4 Data analysis

The data were analyzed using descriptive (quantitative) statistics. The CİBAKAYA program was used to determine the number of terms in the written expressions of international students receiving academic Turkish education and to reveal the frequency of use of the vocabulary obtained with the data. The procedures carried out in the process of determining the terms within the content of the study are as follows:

- 1- Terms are treated as bases. The inflectional suffixes in the terms were deleted and the terms were evaluated with their root and stem forms
- 2- In the working principle of the CİBAKAYA program used within the scope of the study, each data between two spaces is considered as a separate word. For this reason, by placing a "+" sign between the terms written separately, the program is enabled to perceive these terms as a single word.
- 3- After the lists were obtained, the words were transferred to the Microsoft Excel program and necessary analyses were made.
- 4- All vocabulary items in the written expressions of international students receiving academic Turkish education were examined, and then the terms in

10% of the total different vocabulary items were included in the scope of the research. If the vocabulary items in the 10% segment were not whole numbers, the numbers were determined by rounding up to the next higher number.

- 5- When determining the terms in the 10% segment of the vocabulary, each word was searched one by one in the TÜBA Dictionary of Turkish Science Terms, and each word in the dictionary was evaluated as a term. It was not taken into account whether the word was used as a term in the text or not.

3. FINDINGS

The findings regarding the vocabulary in the written expressions of international students receiving academic Turkish education are shown in Table 6.

Table 6

Vocabulary Statistics in Written Expression of International Students Receiving Academic Turkish Education

	Text in Science Subject Area	Text in Health Subject Area	Text in Social Subject Area	\bar{X}
Total Number of Vocabulary	45.139	24.082	74.260	47.827
Total Number of Different Vocabulary	4.664	2.976	6.224	4.621,66
Repetition Rate of Different Vocabulary*	9,678	8,092	11,931	10,34

* Calculated with the ratio Total Vocabulary / Total Different Vocabulary

According to the results in Table 6, the total number of students' vocabulary is 45.139 in science texts, 24.082 in health texts and 74.260 in social texts. The average number of vocabulary in all these different subject areas is 47.827. The highest number of vocabulary items was in the social subject area texts, while the lowest number of vocabulary items was in the health subject area texts. The students' total number of vocabulary items in only the social subject area texts is above the average. When the total number of different vocabulary items was analyzed, it was seen that the students included 4.665 different vocabulary items in science subject area texts, 2.976 in health subject area texts and 6.224 in social subject area texts. The average number of different vocabulary items in all these different subject areas is 4,621.66. While the highest number of different vocabulary items belongs to the social subject area texts, the lowest number of different vocabulary items belongs to the health subject area texts. The

students' total number of different vocabulary items in the health subject area texts is below the average. The ratio of the total number of different vocabulary items to the total number of different vocabulary items in the social subject area texts is higher than the texts in all other subject areas. In addition, the ratio of the total number of different vocabulary items to the total number of different vocabulary items in only the social subject area texts is higher than the average ratio of all books.

3.1 Terms Used in Students' Written Expression

The findings regarding the terms used in students' written expressions are shown in Table 7.

Table 7

The Terms in the Top 10% of the Total Different Vocabulary in Students' Written Expression and Their Frequencies

Terms		Text in Social Subject Area	Text in Health Subject Area	Text in Science Subject Area	\bar{X}
açı	angle	60	20	21	33,67
açık	open	24	0	0	8,00
ağaç	tree	0	0	75	25,00
ahlak	morality	37	0	0	12,33
aile	family	305	16	45	122,00
akıl	mind	41	81	0	40,67
akıllı telefon	smartphone	0	0	25	8,33
aktivite	activity	0	0	23	7,67
alan	field	159	0	189	116,00
alet	tool	0	0	43	14,33
alışkanlık	habit	0	43	0	14,33
alkol	alcohol	0	40	0	13,33
Allah	Allah	74	44	0	39,33
amaç	objective	91	0	37	42,67
anaokulu	kindergarten	49	0	0	16,33
anlam	meaning	39	0	0	13,00
araç	vehicle	19	0	103	40,67
araştırma	research	36	21	33	30,00
atık	waste	0	0	34	11,33
atmosfer	atmosphere	0	0	175	58,33
bağımlılık	addiction	0	0	19	6,33
bağışıklık	immunity	0	14	0	4,67
bağışıklık sistemi	immune system	0	19	0	6,33

Terms		Text in Social Subject Area	Text in Health Subject Area	Text in Science Subject Area	\bar{X}
banka	bank	39	0	0	13,00
barış	peace	20	0	0	6,67
baş	head	0	0	26	8,67
başarı	success	59	0	0	19,67
beceri	skill	27	0	0	9,00
beden	size	26	0	0	8,67
besin	nutrition	0	20	0	6,67
beslenme	nourishment	0	56	0	18,67
biçim	format	37	0	0	12,33
bilgi	information	108	24	141	91,00
bilgisayar	computer	0	0	529	176,33
bilim	science	35	0	18	17,67
birey	individual	58	0	0	19,33
borç	debt	21	0	0	7,00
boyut	size	22	0	0	7,33
bozulma	deterioration	0	0	48	16,00
bölge	region	45	0	18	21,00
bölüm	chapter	64	0	0	21,33
buz	ice	0	0	18	6,00
buzul	glacier	0	0	29	9,67
büyüme	growth	53	0	0	17,67
canlı	live	38	211	36	95,00
cihaz	device	0	0	63	21,00
çağ	age	23	0	32	18,33
çalışma	study	82	28	29	46,33
çeşitli	various	38	0	0	12,67
çevre	environment	107	18	137	87,33
çevre kirliliği	environmental pollution	0	0	38	12,67
çocuk	child	564	17	97	226,00
çölleşme	desertification	0	0	16	5,33
çöp	garbage	0	0	25	8,33
çözüm	solution	0	0	31	10,33
dakika	minute	0	20	0	6,67
davranış	behavior	85	0	0	28,33
değer	value	74	0	0	24,67
değişiklik	change	0	0	30	10,00
değişim	change	0	0	19	6,33
deneyim	experience	27	0	0	9,00

Terms		Text in Social Subject Area	Text in Health Subject Area	Text in Science Subject Area	\bar{X}
denge	balance	0	0	47	15,67
deniz	sea	0	0	55	18,33
derece	degree	32	0	35	22,33
ders	lesson	79	0	27	35,33
devlet	state	117	0	19	45,33
din	religion	1090	15	0	368,33
doğa	nature	0	26	56	27,33
doğal	natural	26	14	81	40,33
doğal gaz	natural gas	0	0	21	7,00
dönem	period	83	0	0	27,67
duman	smoke	0	0	31	10,33
durum	situation	149	34	57	80,00
duygu	emotion	66	41	0	35,67
dünya	world	260	58	383	233,67
düşünce	thought	46	32	0	26,00
düşünme	thinking	0	21	0	7,00
düzey	level	43	0	19	20,67
eğitim	education	721	0	106	275,67
eğitim sistemi	education system	139	0	0	46,33
ekolojik denge	ecological balance	0	0	40	13,33
ekonomi	economy	379	0	0	126,33
ekosistem	ecosystem	0	0	17	5,67
elektrik	electricity	0	0	50	16,67
emisyon	emission	0	0	25	8,33
endüstri	industry	31	0	0	10,33
enerji	energy	0	40	84	41,33
enflasyon	inflation	30	0	0	10,00
erkek	male	19	0	0	6,33
etki	impact	157	14	126	99,00
faaliyet	activity	50	0	42	30,67
fabrika	factory	0	0	69	23,00
fırtına	storm	0	0	17	5,67
finans	finance	26	0	0	8,67
firma	company	28	0	0	9,33
fiyat	price	43	0	0	14,33
fiziksel	physical	0	22	19	13,67
fonksiyon	function	31	0	0	10,33
fosil yakıt	fossil fuel	0	0	35	11,67
gaz	gas	0	0	138	46,00

Terms		Text in Social Subject Area	Text in Health Subject Area	Text in Science Subject Area	\bar{X}
gece	night	0	0	18	6,00
gelenek	tradition	21	0	0	7,00
gelir	income	41	0	0	13,67
gelişim	development	57	0	32	29,67
gelişme	development	73	0	131	68,00
gerçek	real	39	0	26	21,67
geri dönüşüm	recycling	0	0	24	8,00
gezegen	planet	0	0	30	10,00
gıda	food	0	24	0	8,00
görev	mission	24	28	0	17,33
görüş	opinion	21	0	0	7,00
göz	eye	0	0	24	8,00
grup	group	26	0	0	8,67
güç	power	45	15	17	25,67
gün	day	138	0	218	118,67
güneş	sun	0	20	39	19,67
günlük	daily	28	24	0	17,33
hak	right	31	0	0	10,33
hâl	state	67	23	28	39,33
halk	people	28	0	0	9,33
harcama	spending	19	0	0	6,33
hareket	movement	0	31	0	10,33
hastalık	disease	0	94	65	53,00
hava	air	0	0	84	28,00
hayat	life	383	260	338	327,00
hizmet	service	52	0	22	24,67
hormon	hormone	0	16	0	5,33
hukuk	law	24	0	0	8,00
hücre	cell	0	21	0	7,00
hükûmet	government	54	0	0	18,00
ısı	heat	0	0	49	16,33
ışın	beam	0	0	22	7,33
ibadet	worship	30	0	0	10,00
icat	invention	0	0	24	8,00
ihracat	exports	48	0	0	16,00
ihtiyaç	need	97	20	43	53,33
iklim	climate	0	0	43	14,33
iklim değişikliği	climate change	0	0	61	20,33
ilaç	medicine	0	0	28	9,33

Terms		Text in Social Subject Area	Text in Health Subject Area	Text in Science Subject Area	\bar{X}
ilahi	divine	24	0	0	8,00
iletiřim	communication	21	14	62	32,33
iliřki	relationship	85	0	23	36,00
ilkokul	primary school	128	0	0	42,67
ilköğretim	primary education	26	0	0	8,67
inanç	faith	196	0	0	65,33
insanlık	humanity	43	0	28	23,67
internet	internet	0	0	161	53,67
irade	will	0	18	0	6,00
İslam	Islam	91	0	0	30,33
iř	work	171	0	137	102,67
iřçi	worker	26	0	0	8,67
iřlem	transaction	0	0	23	7,67
iřletme	business	32	0	0	10,67
iřsizlik	unemployment	19	0	0	6,33
ithalat	imports	23	0	0	7,67
kadın	woman	26	0	0	8,67
kalite	quality	31	0	0	10,33
kalkınma	development	25	0	0	8,33
kamu	public	28	0	0	9,33
kanun	law	20	0	0	6,67
karbondioksit (CO ₂)	carbon dioxide (co ₂)	0	0	115	38,33
kavram	concept	41	0	0	13,67
kaynak	source	74	0	52	42,00
kelime	word	21	0	0	7,00
kısa	short	0	0	29	9,67
kiři	person	136	52	56	81,33
kitap	book	61	0	28	29,67
konu	subject	138	25	90	84,33
kömür	coal	0	0	30	10,00
kullanım	usage	0	17	133	50,00
kullanma	using	0	0	64	21,33
kuraklık	drought	0	0	34	11,33
kural	rule	71	0	0	23,67
kurum	institution	60	0	0	20,00
kutsal	sacred	55	0	0	18,33
küçük	small	34	0	42	25,33
kültür	culture	128	0	0	42,67

Terms		Text in Social Subject Area	Text in Health Subject Area	Text in Science Subject Area	\bar{X}
küresel ısınma	global warming	0	0	490	163,33
lisans	license	30	0	0	10,00
lise	high school	137	0	0	45,67
litre	liter	0	18	0	6,00
maaş	salary	25	0	0	8,33
madde	matter	0	23	24	15,67
matematik	mathematics	34	0	0	11,33
meslek	profession	33	0	0	11,00
metabolizma	metabolism	0	53	0	17,67
metan	methane	0	0	40	13,33
meyve	fruit	0	49	0	16,33
millet	nation	25	0	0	8,33
mutluluk	happiness	0	18	0	6,00
mümkün	possible	28	0	23	17,00
Müslüman	muslim	65	0	0	21,67
müşteri	customer	47	0	0	15,67
neden	reason	120	34	142	98,67
nitelik	quality	0	16	0	5,33
nüfus	population	32	0	28	20,00
okul	school	335	0	24	119,67
okuma	reading	64	0	0	21,33
olay	event	23	0	53	25,33
oran	ratio	56	0	23	26,33
organizma	organism	0	23	0	7,67
orman	forest	0	0	49	16,33
ormansızlaşma	deforestation	0	0	26	8,67
ortak	partner	48	0	0	16,00
ortalama	average	0	0	56	18,67
ortam	environment	45	0	18	21,00
ortaokul	middle school	89	0	0	29,67
ortaöğretim	secondary education	35	0	0	11,67
oyun	game	0	0	28	9,33
öğrenci	student	309	0	61	123,33
öğrenme	learning	72	0	0	24,00
öğretmen	teacher	44	0	0	14,67
ömür	life	0	18	0	6,00
örnek	example	22	0	26	16,00
özel okul	private school	23	0	0	7,67

Terms		Text in Social Subject Area	Text in Health Subject Area	Text in Science Subject Area	\bar{X}
özellik	feature	57	125	23	68,33
özgürlük	freedom	21	0	0	7,00
para	money	158	0	28	62,00
para birimi	currency	23	0	0	7,67
parça	part	28	24	22	24,67
pazar	market	32	0	0	10,67
pazarlama	marketing	25	0	0	8,33
petrol	oil	59	0	43	34,00
piyasa	market	19	0	0	6,33
plan	plan	35	0	0	11,67
plastik	plastic	0	0	19	6,33
politika	politics	44	0	0	14,67
problem	probleme	48	0	76	41,33
program	program	35	0	0	11,67
proje	project	28	0	0	9,33
puan	score	35	0	0	11,67
radasyon	radiation	0	0	24	8,00
rekabet	competition	34	0	0	11,33
rol	role	36	0	0	12,00
ruh	soul	26	22	0	16,00
saat	clock	0	110	27	45,67
sanayi	industry	38	0	36	24,67
sanayi devrimi	industrial revolution	0	0	21	7,00
savaş	war	46	0	21	22,33
sayı	number	47	0	32	26,33
sektör	sector	115	0	31	48,67
sel	flood	0	0	26	8,67
sera etkisi	greenhouse effect	0	0	85	28,33
sera gazı	greenhouse gas	0	0	110	36,67
sermaye	capital	23	0	0	7,67
sıcak	hot	0	0	34	11,33
sıcaklık	temperature	0	0	119	39,67
sınav	examination	139	0	0	46,33
sınıf	classroom	84	0	0	28,00
sıra	order	21	0	0	7,00
sistem	system	115	38	50	67,67
soğuk	cold	0	0	18	6,00
sonuç	conclusion	59	17	122	66,00

Terms		Text in Social Subject Area	Text in Health Subject Area	Text in Science Subject Area	\bar{X}
soru	question	53	0	0	17,67
sorun	problem	50	0	105	51,67
söz	speech	22	0	0	7,33
spor	sport	0	81	0	27,00
strateji	strategy	20	0	0	6,67
stres	stress	0	39	0	13,00
su buharı	water vapor	0	0	18	6,00
süre	duration	62	15	38	38,33
süreç	process	61	0	32	31,00
sürekli	continuous	38	21	34	31,00
şehir	city	40	0	0	13,33
şekil	shape	197	85	158	146,67
şirket	company	445	0	22	155,67
talep	demand	23	0	0	7,67
tanım	definition	33	0	0	11,00
tanrı	god	87	0	0	29,00
tarım	agriculture	67	0	24	30,33
tarih	history	84	0	26	36,67
tarz	style	25	0	0	8,33
teknoloji	technology	59	19	978	352,00
televizyon	television	0	0	27	9,00
temel	basic	107	29	39	58,33
tıp	medicine	0	0	21	7,00
ticaret	trade	47	0	0	15,67
toplam	total	21	0	0	7,00
topluluk	community	35	0	0	11,67
toplum	society	237	0	20	85,67
toprak	soil	0	0	59	19,67
turizm	tourism	30	0	0	10,00
tutum	attitude	25	0	0	8,33
tüketim	consumption	23	0	36	19,67
tür	type	33	23	24	26,67
ulaşım	transportation	0	0	45	15,00
uygulama	application	29	0	17	15,33
uzun	long	54	59	36	49,67
ülke	country	909	0	79	329,33
üniversite	university	198	0	0	66,00
üretim	production	64	0	25	29,67
ürün	product	101	0	56	52,33

Terms		Text in Social Subject Area	Text in Health Subject Area	Text in Science Subject Area	\bar{X}
varlık	asset	81	84	17	60,67
vergi	tax	101	0	0	33,67
video	video	0	0	24	8,00
yabancı	foreign	179	0	0	59,67
yabancı dil	foreign language	41	0	0	13,67
yağ	oil	0	16	0	5,33
yağış	precipitation	0	0	19	6,33
yakıt	fuel	0	0	30	10,00
yapı	structure	29	0	0	9,67
yasa	law	26	0	0	8,67
yatırım	investment	21	0	0	7,00
yazma	writing	24	0	0	8,00
yer	location	109	0	129	79,33
yer kabuğu	earth crust	0	0	20	6,67
yeryüzü	earth	0	0	24	8,00
yetenek	talent	36	20	0	18,67
yıl	year	359	23	102	161,33
yıllık	annual	37	0	0	12,33
yönetim	management	26	0	0	8,67
yöntem	method	23	0	21	14,67
yüksek lisans	master's degree	27	0	0	9,00
yükseköğretim	higher education	28	0	0	9,33
yüzde	percent	61	0	22	27,67
zaman	time	224	63	170	152,33
zarar	harm	0	0	148	49,33
zihin	mind	0	16	0	5,33

When the results in Table 7 are analyzed, it is seen that the number of different terms in the first 10% of the total different vocabulary in the students' written expressions in the social, health and science subject areas is 318. The number of common terms used in all subject areas is 34. These terms and their average usage are as follows: technology (352), life (327), world (233,67), child (226), year (161,33), time (152,33), shape (146,67), family (122), effect (99), cause (98,67), living (95), knowledge (91), environment (87,33), subject (84,33), person (81,33), situation (80), feature (68,33), system (67, 67), result (66), existence (60,67), basic (58,33), need (53,33), long (46,67), study (46,33), natural (40,33), state (39,33), duration (38,33), angle (33,67), communication (32,33), continuous (31), research (30), type (26,67), power (25,67), part (24,67).

A total of 211 different terms were used in the social subject area, the top 25 most frequently used terms are: religion (1090), country (909), education (721), child (564), company (445), life (383), economy (379), year (359), school (335), student (309), family (305), world (260), society (237), time (224), university (198), shape (197), belief (196), foreign (179), work (171), field (159), money (158), influence (157), situation (149), education system (139), exam (139).

A total of 75 different terms were used in the health subject area, the top 25 most frequently used terms are as follows: life (260), living (211), feature (125), clock (110), disease (94), shape (85), being (84), mind (81), sport (81), time (63), long (59), world (58), nutrition (56), metabolism (53), person (52), fruit (49), God (44), habit (43), emotion (41), energy (40), alcohol (40), stress (39), system (38), situation (34), cause (34).

A total of 169 different terms were used in the science subject area, the top 25 most frequently used terms are as follows: technology (978), computer (529), global warming (490), world (383), life (338), day (218), area (189), atmosphere (175), time (170), internet (161), shape (158), damage (148), cause (142), information (141), gas (138), environment (137), work (137), use (133), development (131), place (129), effect (126), result (122), temperature (119), carbon dioxide CO₂ (115), greenhouse gas (110).

4. RESULTS, DISCUSSIONS AND SUGGESTIONS

The data obtained in this study are based on the students' written answers to the questions in the relevant subject areas, and do not measure the students' total vocabulary knowledge. In addition, the aim of the study was to determine the terms that foreign students use in their written expressions in the relevant subject area, which are different from the vocabulary items of daily language.

When the written expressions of international students receiving academic Turkish education are analyzed in terms of the total number of vocabulary according to the subject areas, it is seen that the highest number (74,260) is in the social subject area texts. Şimşek (2021) also concluded that the social sciences are emphasized and science and health sciences are neglected. The reason why the number of vocabulary used in the social subject area is very high compared to other subject areas may be that 93 of the 125 students in the sample will receive education in the field of social sciences.

The method followed while determining the terms in the students' written expressions is as follows: All the lexical items in the students' written expressions were analyzed, repetitive lexical items were identified and in this way the total number of different lexical items was determined. Then, the terms within 10% of the total number of different vocabulary items were identified. A total of 318 different terms were identified

to be in the first 10% of the total number of different vocabulary in students' written expressions in social, health and science subject areas. In all subject areas, 34 terms used in common were identified. When these 34 terms were compared with Tüfekçioğlu's (2021) study, only 3 terms "*cause (neden), result (sonuç) and study (çalışma)*" were seen to be common. When the 34 terms commonly used in all subject areas were compared with the academic terms in the textbooks used at C1 level in Şimşek's (2021) study, it was seen that the terms "*environment (çevre), communication (iletişim), research (araştırma)*" were common.

When the terms used in students' written expressions in the social subject area were analyzed, 211 different terms were found to be used. The first 25 terms most frequently used by students in the social subject area were identified and it was seen that these terms were not included in Tüfekçioğlu's (2021) study. Among these 25 terms, the terms "*education (eğitim), economy (ekonomi), university (üniversite), foreign (yabancı) and Money (para)*" were found to be in common with Şimşek's (2021, p.352) study in which he identified the terms in the academic Turkish textbook for social sciences.

When the terms used in students' written expression in the health subject area were analyzed, it was found that 75 different terms were used. The first 25 terms most frequently used by students in the health subject area were identified and it was seen that only the term "*reason (neden)*" was included in Tüfekçioğlu's (2021) study.

When the terms used in students' written expressions in the science subject area were analyzed, 169 different terms were found to be used. The first 25 terms most frequently used by students in the science subject area were identified and it was seen that only "*cause (sebep) and result (sonuç)*" was included in Tüfekçioğlu's (2021) study. Based on the data obtained as a result of comparing the terms in students' written expressions with other studies in which academic terms were identified (Tüfekçioğlu, 2021; Şimşek, 2021), it can be said that there is no common understanding about which academic terms should be taught in teaching Turkish as a foreign language.

It was determined that the students used 211 different terms in the social subject area, 169 in the science subject area and 75 in the health subject area in their written expressions in three different subject areas. In this context, it can be said that the term knowledge in the social subject area is richer in terms of the number of terms used.

It has been stated by researchers that frequency studies should be carried out to determine which words/concepts and terms will be taught to students and studies should be carried out to determine the minimum words/concepts that students should have (Açık, 2013; Barın, 2003, Demir, 2006). Based on the data obtained as a result of

the written expressions of 125 students within the framework of different subjects in three basic fields; which vocabulary items the students use in their written expressions, what is the frequency of use of these vocabulary items, the terms used were determined and presented as an example to researchers working in this field. It is necessary to identify the terms used by the students and to determine the terms that should be taught primarily according to the fields. For this purpose, a criterion for the terms/concepts that need to be taught can be established thanks to the data to be obtained from the written expression studies to be carried out on various subjects with students from different fields. It is thought that teaching terms not only in writing skills but also in the four basic language skills and conducting studies on their functional use will contribute positively to the adaptation process of students in their departments.

References

- Açık, F. (2013). Dil politikaları bağlamında Türkçenin Öğretimi [Teaching Turkish in the context of language policies]. M. Durmuş & A. Okur (Eds.), *Yabancılara Türkçe Öğretimi El Kitabı*. (pp. 483-492). Ankara: Grafiker Yayınları.
- August, D., Carlo, M. Dressler, C., & Snow, C. (2005) The critical role of vocabulary development for english language learners. *Learning Disabilities Research & Practice*, 20(1), 50–57. Retrieved from: <https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1540-5826.2005.00120.x>.
- Bağcı, H., & Başar, U. (2013). Yazma öğretimi [Writing instruction]. M. Durmuş & A. Okur, (Eds.), *Yabancılara Türkçe Öğretimi El Kitabı* (pp. 309-331) Ankara: Grafiker Yayınları.
- Barın, E. (2003). Yabancılara Türkçe öğretiminde temel söz varlığının önemi [The importance of basic vocabulary in teaching Turkish to foreigners]. *TÜBAR XIII*, 311-317.
- Demir, C. (2006). Türkçe/Edebiyat eğitimi ve kişisel kelime serveti [Turkish/Literature education and personal vocabulary]. *Millî Eğitim*, 1(169), 1-34.
- Demir, D. (2017). Uluslararası öğrencilerin akademik Türkçe ihtiyaçları [Academic Turkish needs of international students]. (Unpublished Doctoral Dissertation). Hacettepe University, Ankara.
- Demirel, Ö. (2011). *Yabancı dil öğretimi dil pasaportu dil biyografisi dil dosyası [Foreign language teaching language passport language passport language biography language file]*. Ankara: Pegem Akademi Yayınları.
- Demirel, Ö. (2012). *Yabancı dil öğretimi [Foreign language teaching]*. Ankara: Pegem Akademi.
- Göçen, G., & Okur, A. (2017). Türkçeyi Yabancı Dil Olarak Öğrenenlerin Yazılı Anlatımlarındaki Sözcüklerin Kullanım Sıklığı [Frequency of Use of Words in Written

- Expression of Turkish as a Foreign Language Learners]. *Erzincan Üniversitesi Eğitim Fakültesi Dergisi*, 19(3), 119-136. DOI: 10.17556/erziefd.336484
- Güneş, F. (2013). Kelimelerin gücü ve zihinsel sözlük [The power of words and the mental dictionary]. *Siirt Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 1, 1-30. Retrieved from: <https://dergipark.org.tr/tr/pub/susbid/issue/17335>
- Güzel, A., & Barın, E. (2013). *Yabancı dil olarak Türkçe öğretimi [Teaching Turkish as a foreign language]*. Ankara: Akçağ Yayınları.
- İnce, B. (2013). Yabancı dil öğretiminin temel ve genel ilkeleri [Basic and general principles of foreign language teaching]. M. Durmuş & A. Okur, (Eds.), *Yabancılar Türkçe Öğretimi El Kitabı* (pp. 143-156), Ankara: Grafiker Yayınları.
- Karasar, N. (2013). *Bilimsel Araştırma Yöntemleri [Scientific Research Methods]*. Ankara: Nobel Akademi Yayıncılık.
- Kocaman Gürata, E., & Durmuş, M. (2020). Özel amaçlı yabancı/ikinci dil öğretimi kapsamında akademik amaçlı Türkçenin yeri [The position of Turkish for academic purposes within the scope of foreign/second language teaching for specific purposes]. In B. Tüfekçioğlu (Ed.), *Akademik amaçlar için Türkçe öğretimi*, (pp. 41-66). Pegem Akademi.
- Nelson, J. R., & Stage, S. A. (2007). Fostering the development of vocabulary knowledge and reading comprehension through contextually-based multiple meaning vocabulary instruction. *Education and treatment of children*, 6, 1-22. Retrieved from: <https://www.jstor.org/stable/42899916#metadatainfotabcontents>
- Okur, A. (2013). Yaşam boyu okuma için okuma öğretimi [Teaching reading for lifelong reading]. A. Okur (Eds.), *Yaşam Boyu Okuma Eğitimi*. (pp. 1-45). Ankara: Pegem Akademi Yayınları.
- Susanto, A. (2017). The teaching of vocabulary: a perspective. *Jurnal Kata: Penelitian Tentang Ilmu Bahasa Dan Sastra*, 1(2), 182-191. doi: <http://doi.org/10.22216/jk.v1i2.2136>.
- Şimşek, R. (2021). Yabancı dil olarak Türkçe eğitiminde kullanılan materyallerin akademik söz varlığı bakımından derlem tabanlı incelenmesi [A corpus-based analysis of materials used in teaching Turkish as a foreign language in terms of academic vocabulary]. *Çukurova Üniversitesi Türkoloji Araştırmaları Dergisi*, 6(1), 345-364. <https://doi.org/10.32321/cutad.909625>
- TUBA (2013). TÜBA Türkçe bilim terimleri sözlüğü [TÜBA Dictionary of Turkish science terms]. Retrieved from: <http://terim.tuba.gov.tr/>
- Tüfekçioğlu, B. (2021). Analysis Of Pedagogical Texts Prepared for Academic Turkish As a Foreign Language in Terms of Academic Vocabulary. *Dil Eğitimi ve Araştırmaları Dergisi*, 7(2), 405-425.

- Vandewalle, J. (1999). Pratik Türkçe öğretiminde karşılaşılan bazı sorunlar ve çözümleri [Some problems encountered in practical Turkish teaching and their solutions]. *A. Ü. Tömer Dil Dergisi*, 82, 6-15. Retrieved from: <http://users.telenet.be/orientaal/pratik.html>.
- Yıldırım, A., & Şimşek, H. (2013). *Sosyal bilimlerde nitel araştırma yöntemleri [Qualitative research methods in social sciences]*. Seçkin Yayıncılık.
- Zhang, J. L., & Anual, S. B. (2008). The role of vocabulary in reading comprehension: The case of secondary school students learning English in Singapore. *RELC Journal*, 39(1), 51-76. Doi: <https://doi.org/10.1177/0033688208091140>.

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