



## Research Article

# Analysis of Turkish language teacher candidates' speech anxiety in terms of various variables in the context of 21<sup>st</sup> century skills

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### Abstract

The requirements of the 21<sup>st</sup> century encompass not only grammar and vocabulary but also effective communication through oral, written, and ICT-mediated processes. The teaching profession should be embraced as an art of addressing the student's soul and nurturing individuals. Speech anxiety is a common condition encountered in communication, language learning, and teaching processes, which can negatively affect students' language skills. The aim of this article is to analyze the speech anxiety of Turkish language teacher candidates in terms of various variables. The research was conducted using a survey model where the 'Speech Anxiety Scale,' a 5-point Likert-type scale, was employed. The sample of the study consisted of 200 voluntary Turkish language teacher candidates continuing their education at two different universities in the Eastern Anatolia and Central Anatolia regions in 2023. Descriptive statistics (% and f), independent samples t-test to determine changes in scores based on participants' gender, one-way ANOVA for class levels, and one-way ANOVA analyses to determine score differences based on the grade variable were used in the data analysis. After ANOVA, Dunnett C test was used for determining the differences that emerged. The research examined the levels of speech anxiety of teacher candidates and found that this anxiety was especially prevalent in items such as 'Fear of speaking in front of an audience,' 'Feeling embarrassed when talking about myself to people,' and 'Getting excited when talking to someone of the opposite sex' with 'Always' responses. While no significant differences were found between gender and class levels, factor analysis results revealed that the FF and DC groups had lower environmental-focused anxiety and overall speech anxiety compared to the BA group.

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## Introduction

Language plays a fundamental role in communication among human communities, conveying thoughts, and preserving cultural heritage. The teaching and learning of language aim to ensure the effective use of this means of communication. In particular, the teaching and learning of the native language, Turkish, are critical processes that affect individuals' communication skills and intellectual development.

The National Research Council (NRC) has identified various skills necessary to prepare individuals for life and work. These skills are categorized as cognitive skills, interpersonal skills, and intrapersonal skills. Within the framework of skill dimensions, cognitive skills encompass abstract reasoning about events, judgment, decision-making, system analysis, and system evaluation, along with abstract reasoning about how different elements of a business process interact. Interpersonal skills include active listening, effective verbal communication, clear writing, explaining one's thoughts

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effectively and respectfully without causing harm, using non-verbal skills effectively, collaborating and organizing, building trust, being sensitive to intercultural differences, respecting ideas, and creating social impact. Intrapersonal skills involve being organized, self-disciplined, self-regulating, self-improving, time management, and adaptability.

The Partnership for 21<sup>st</sup> Century Skills (P21) framework is one of the most extensively studied and accepted frameworks for competencies and skills. Among the identified skills, learning and innovation skills refer to being ready for work environments and enhancing learning and innovation related to increasingly complex life. Information, media, and technology skills are some skills that individuals need to have in rapidly evolving technological fields such as information literacy and media literacy. These two sets of skills have communication skills in common, covering a broad spectrum of areas. Communication skills encompass effectively expressing thoughts and ideas in various contexts, using verbal, written, and non-verbal communication skills, effective listening skills, and the ability to communicate effectively in different settings, including multilingualism (Partnership for 21<sup>st</sup> Century Learning, 2015).

The American Association of Colleges and Universities (AACU) has also defined 21st-century skills within specific frameworks. According to AACU, these skills can manifest differently depending on the context. For example, the communication skills used by engineers differ from those used by anthropologists. Similarly, effective writing can take different forms in different contexts. Skills should be considered appropriately within this context. Fundamental learning outcomes define capacities that will be important for every student's future and society's vitality. These skills also provide a common direction and framework for lifelong learning (American Association of Colleges and Universities, 2007).

In 2003, the North Central Regional Educational Laboratory (NCREL) examined 21st-century skills in four dimensions in line with the global and digital change. These dimensions are digital literacy, innovative thinking, effective communication, and high productivity. Effective communication emphasizes individuals' abilities to work in teams, learn together, establish positive relationships with others, behave effectively individually, and use technology responsibly in this context. High productivity highlights individuals' ability to plan and complete a project, effectively use technology to solve problems, and develop real, intellectual, informative, or material products (Cansoy, 2018; EnGauge, 2003). In the context of the requirements of the 21st century, communication and language skills encompass not only grammar and vocabulary but also effective communication processes through oral, written, and ICT-mediated means.

In our daily lives, sudden or prepared speeches aim to achieve effective communication. However, research (Akkaya, 2012; Sallabaş, 2011; Yıldız, 2008; Gündüz, 2007) sometimes shows that individuals may encounter problems in the speech process that can hinder communication. Some of these problems include unnecessary word usage, pronunciation errors, word confusions, shyness, regional dialect usage, short and incomplete speech, irregular speech, limited vocabulary, deficiencies in cognitive organization, inadequate mastery of language rules, and the inability to apply grammar rules. These speech problems may have physiological causes (problems in the mouth, teeth, vocal cords, etc.) and sociological factors (language diversity, environmental factors, etc.), as well as psychological causes such as motivation, attitude, and anxiety. Factors affecting speech motivation and attitude, self-esteem regarding speaking competence, anxiety levels before and during speaking form the emotional dimension of speaking (Hamzadayı, Bayat & Gölpınar, 2018). Anxiety is the feeling of fear and apprehension experienced by individuals. Different emotional characteristics accompany this feeling and manifest in various ways in individuals. Some examples include a feeling of tightness in the chest, palpitations, sweating, headaches, feeling of emptiness in the stomach, and an immediate need to go to the restroom (Türkçapar, 2004). Therefore, it can be stated that anxiety can have a significant impact on speech performance.

The purpose of this article is to analyze the speech anxiety of Turkish language teacher candidates in terms of various variables. The teaching profession should be embraced as an art of addressing the student's soul and nurturing individuals. Speech anxiety is a common condition encountered in communication, language learning, and teaching processes, which can negatively affect students' language skills. Therefore, examining the variables that affect the speech anxiety of Turkish language teacher candidates and strategies to reduce this anxiety can serve the purpose of improving language education and communication.

In this context, the following research questions were addressed:

- What are the levels of speech anxiety of Turkish language teacher candidates?
- Does speech anxiety of Turkish language teacher candidates differ by gender?
- Does speech anxiety of Turkish language teacher candidates differ by class level?
- Does the speech anxiety of Turkish language teacher candidates vary according to their achievements in Turkish Language, Oral Expression, and/or Speech Education?

The following hypotheses were developed for this research:

- H<sub>1</sub>: There is no significant difference in the scores obtained from the Speech Anxiety Scale between female and male Turkish language teacher candidates.
- H<sub>2</sub>: There is no significant difference in the scores obtained from the Speech Anxiety Scale between Turkish language teacher candidates studying in different classes.
- H<sub>3</sub>: There is no significant difference in the scores obtained from the Speech Anxiety Scale between Turkish language teacher candidates with different achievements in Turkish Language, Oral Expression, and/or Speech Education.

## Method

### Research Design

In this study, quantitative research was employed. Quantitative research is an approach where numerical data is collected, analyzed, and interpreted. It is commonly used when obtaining numerical results through hypothesis testing, surveys, and measurement tools (Karasar, 2009). The research design used in this study is the survey model, which aims to guide the data collection process to identify specific characteristics of large sample groups. The survey model is a research design suitable for broad participant groups and aims to collect data to "determine the characteristics of a specific group" (Büyüköztürk et al., 2011). This study selected the survey model as the most suitable research design for the nature of the research since a Likert-type scale was used to measure teacher candidates' speech anxiety.

### Sampling

The population of the research can be defined as Turkish language teacher candidates who are studying at universities in Turkey. The sample consists of a total of 200 volunteer Turkish language teacher candidates who were reached through a convenience sampling method in the year 2023, from two different universities in the Eastern Anatolia and Central Anatolia regions. The participants filled out the scale items in an online form format with informed consent, and they were provided an unlimited amount of time to do so. Demographic information of the participants is presented in Table 1.

**Table 1.** Demographic information of the participants

Variables	1	2	3	4	5	6	7	8	9	Total	
Class	First	Second	Third	Fourth						-	
	<i>n</i>	38	59	29	74					200	
	%	19	29.5	14.5	37					100	
Gender	Female	Male								-	
	<i>n</i>	96	104							200	
	%	48	52							100	
Note	AA	AB	BA	BB	BC	CB	CC	DC	FF	-	
	<i>n</i>	37	16	33	32	11	14	24	13	20	62
	%	18.5	8.0	16.5	16.0	5.5	7.0	12.0	6.5	10	100
Age	$\bar{X}$									22.21	

### Data Collection Tools

The research data was collected using the "Speech Anxiety Scale for Teacher Candidates" developed by Sevim (2012) to assess students' speech anxiety. This scale was designed using a five-point Likert scale to evaluate students' speech anxiety, offering participants rating options such as "Never, Very Little, Sometimes, Often, Always." As a result of factor analysis,

the scale items were grouped into three different factors. The first factor included items 15, 16, 19, 21, 25, 26, 27, 29, 31, and 32, while the second factor included items 1, 8, 9, 10, 11, and 12. The third factor consisted of items 23, 34, and 35. According to the reliability analysis results of the scale, the Cronbach's alpha reliability coefficient was calculated as 0.89 for the first factor, 0.82 for the second factor, and 0.87 for the third factor. The overall Cronbach's alpha reliability coefficient of the scale was found to be 0.912. These high reliability values indicate that this scale, used to assess teacher candidates' speech anxiety, is a reliable tool. The scale consists of a total of 20 items, with 19 containing positive statements and one item containing a negative statement.

### Data Analysis

In the analysis of the data obtained in the research, SPSS 26 statistical software was used. First, reverse items were organized, and checks for missing and erroneous data were conducted. Descriptive statistics (% and f), independent samples t-tests were used to determine changes in scores based on participants' gender, one-way ANOVA for class levels, and one-way ANOVA analyses were used to determine score differences based on the grade variable. The Dunnett C test was used in the Post Hoc analysis since the homogeneity of variances was not ensured after ANOVA.

## Findings

### Findings related to the first sub-problem of the research

The descriptive analysis results for the speech anxiety levels of Turkish language teacher candidates are presented in Table 2.

**Table 2.** Percentage (%) and frequency (f) findings regarding the speech anxiety levels of Turkish language teacher candidates in terms of items

Items	Never		Rarely		Sometimes		Often		Always	
	f	%	f	%	f	%	f	%	f	%
I hesitate to use body language while speaking.	0	0	12	6,0	38	19,0	48	24,0	102	51,0
I hesitate to look into the eyes of the person I'm speaking to.	4	2,0	11	5,5	27	13,5	67	33,5	91	45,5
Speaking without a text in front of me makes me anxious.	11	5,5	25	12,5	59	29,5	67	33,5	38	19,0
The thought of speaking at events like symposiums, panels, or conferences makes me tense.	24	12,0	40	20,0	92	46,0	35	17,5	9	4,5
The idea that I cannot approach the topic from different perspectives worries me.	12	6,0	15	7,5	70	35,0	73	36,5	30	15,0
The idea that I cannot approach the topic from different perspectives worries me.	0	0	27	13,5	44	22,0	83	41,5	46	23,0
The thought of seeing myself through the eyes of the listeners and facing criticism makes me uncomfortable.	4	2,0	40	20,0	43	21,5	63	31,5	50	25,0
When I cannot adjust my speaking pace properly, I become nervous.	7	3,5	30	15,0	76	38,0	58	29,0	29	14,5
I'm afraid of speaking in front of an audience.	6	3,0	30	15,0	59	29,5	65	32,5	40	20,0
I have difficulty using the right words and sentences to express what's on my mind when speaking.	3	1,5	20	10,0	75	37,5	74	37,0	28	14,0
I hesitate to participate in discussions by taking the floor.	6	3,0	29	14,5	30	15,0	58	29,0	77	38,5
I feel embarrassed when speaking in front of people I don't know.	10	5,0	19	9,5	43	21,5	71	35,5	57	28,5
I get anxious when asked to speak suddenly on a topic.	15	7,5	31	15,5	70	35,0	44	22,0	40	20,0
I get nervous when speaking with someone of the opposite gender.	0	0	5	2,5	36	18,0	62	31,0	97	48,5
I feel anxious when I need to speak with a teacher or my superior.	6	3,0	17	8,5	54	27,0	69	34,5	54	27,0
I feel anxious when talking on the phone with someone I don't know well.	2	1,0	12	6,0	48	24,0	76	38,0	62	31,0
I feel anxious when speaking with someone in an authoritative position.	6	3,0	31	15,5	67	33,5	69	34,5	27	13,5

I'm afraid that the time allocated for my speech won't be enough.	2	1,0	14	7,0	70	35,0	79	39,5	35	17,5
I feel embarrassed when talking about myself to others.	2	1,0	5	2,5	24	12,0	69	34,5	100	50,0
Being interrupted while speaking worries me.	12	6,0	46	23,0	37	18,5	60	30,0	45	22,5

As can be seen at Table 2 the speech anxiety levels of teacher candidates, it can be observed that the responses "Always" are quite prevalent for items such as "I am afraid to speak in front of an audience," "I feel embarrassed when talking to people about myself," and "I get nervous when talking to someone of the opposite sex." However, for items like "I hesitate to use body language while speaking," "The idea that I cannot approach the speech topic from different perspectives worries me," and "I get nervous when talking to someone of the opposite sex," there are no "Never" responses.

### Findings related to the second sub-problem of the research

The second sub-problem of the research, which examines the change in speech anxiety of Turkish language teacher candidates by gender and tests the H0 hypothesis created based on this problem, is presented in Table 3.

**Table 3.** Findings regarding changes in the speech anxiety levels of Turkish language teacher candidates by gender.

Factor	Gender	N	$\bar{X}$	SS	df	t	p
Environmental Concern	Female	96	40,03	8,15	198	0,58	,557
	Male	104	39,37	7,62			
Speech Psychology	Female	96	11,51	2,33	198	0,95	,342
	Male	104	11,21	2,10			
Speaker-focused anxiety	Female	96	40,03	8,15	198	0,58	,557
	Male	104	39,37	7,62			
Total	Female	96	91,57	17,82	198	0,66	,509
	Male	104	89,96	16,62			

In the Environment-Focused Anxiety factor, it can be observed that females ( $\bar{X}= 40.03$ ) have slightly higher average scores compared to males ( $\bar{X}= 39.37$ ). However, this difference is not statistically significant ( $t_{(198)}= 0.58$ ,  $p = 0.557$ ). Therefore, we can conclude that gender does not have a significant effect on environment-focused anxiety. Similarly, in the Speech Psychology factor, the difference is not statistically significant ( $t_{(198)}= 0.95$ ,  $p = 0.342$ ). The same situation applies to the Speaker-Focused Anxiety factor and the Total factor. In both factors, the score differences between genders are not statistically significant ( $p>0.05$ ). Therefore, based on these t-test results, we can conclude that gender does not have a significant effect on the speech anxiety factors examined in this study. In this context, the H0 hypothesis has been accepted.

### Regarding the third sub-problem of the research

The findings related to the research question about the potential difference in the scores obtained from the Speech Anxiety Scale by Turkish language teacher candidates who receive education in different classes and the hypothesis created for this purpose are presented in Table 4.

**Table 4.** Findings regarding the difference in scores obtained from the Speech Anxiety Scale by Turkish language teacher candidates receiving education in different classes.

Factors	Groups	N	$\bar{X}$	SS	F	p
Environmental Concern	1 <sup>st</sup> Grade	38	39,39	8,70	0,35	0,78
	2 <sup>nd</sup> Grade	59	39,50	8,33		
	3 <sup>rd</sup> Grade	29	38,72	7,98		
	4 <sup>th</sup> Grade	74	40,36	7,07		
	Total	200	39,69	7,87		
Speech Psychology	1 <sup>st</sup> Grade	38	11,52	2,00	0,58	0,62
	2 <sup>nd</sup> Grade	59	11,08	2,50		
	3 <sup>rd</sup> Grade	29	11,20	2,17		
	4 <sup>th</sup> Grade	74	11,54	2,09		
	Total	200	11,35	2,21		
Speaker-focused anxiety	1 <sup>st</sup> Grade	38	39,39	8,70	0,35	0,78
	2 <sup>nd</sup> Grade	59	39,50	8,33		
	3 <sup>rd</sup> Grade	29	38,72	7,98		
	4 <sup>th</sup> Grade	74	40,36	7,07		
	Total	200	39,69	7,87		
Total	1 <sup>st</sup> Grade	38	90,31	18,81	0,36	0,77
	2 <sup>nd</sup> Grade	59	90,10	18,43		
	3 <sup>rd</sup> Grade	29	88,65	17,25		
	4 <sup>th</sup> Grade	74	92,27	15,39		
	Total	200	90,73	17,18		

As can be seen at Table 4 in the context of the Environment-Focused Anxiety factor, there is no significant difference in the average scores among students at different class levels ( $F_{(196,3)} = 0.35$ ,  $p = 0.78$ ). Similarly, in the context of the Speech Psychology factor, there is no significant difference in the average scores among students at different class levels ( $F_{(196,3)} = 0.58$ ,  $p = 0.62$ ). Additionally, in the context of the Speaker-Focused Anxiety factor, there is no significant difference in the average scores among students at different class levels ( $F_{(196,3)} = 0.35$ ,  $p = 0.78$ ). There is also no significant difference in the total scale ( $F_{(196,3)} = 0.36$ ,  $p = 0.77$ ). Therefore, students' class levels do not create a significant difference in these speech anxiety factors. In this context,  $H_0$  has been accepted.

#### Findings for the fourth sub-problem of the study

The ANOVA results related to the potential differences in the scores obtained from the Speech Anxiety Scale by Turkish language teacher candidates with varying levels of achievement in Turkish Language, Oral Expression, and/or Speech Education are presented in Table 5.

**Table 5.** Findings regarding the differences in scores obtained from the Speech Anxiety Scale by Turkish language teacher candidates with varying levels of achievement in Turkish Language, Oral Expression, and/or Speech Education.

Factors	Groups	N	$\bar{X}$	SS	F	p	Differences
<b>Environmental Concern</b>	FF	20	39,1000	7,77242	2.88	0,005*	FF<BA DC<BA CC<BA CC<BB CC<AA CB<BA CB<AA BB<BA
	DC	13	36,7692	7,51835			
	CC	24	35,6250	9,71244			
	CB	14	36,2143	5,10171			
	BC	11	40,1818	5,51032			
	BB	32	39,8750	6,36903			
	BA	33	43,7879	7,86510			
	AB	16	39,2500	7,21572			
	AA	37	41,2162	8,06961			
	Total	200	39,6900	7,87170			
<b>Speech Psychology</b>	FF	20	11,4000	1,90291	1.296	0.248	
	DC	13	10,8462	2,15430			
	CC	24	10,3750	2,79460			
	CB	14	10,9286	,91687			
	BC	11	11,3636	2,06265			
	BB	32	11,9688	2,02380			
	BA	33	11,8485	2,33347			
	AB	16	11,5625	2,09662			
	AA	37	11,2432	2,36180			
	Total	200	11,3550	2,21438			
<b>Speaker-focused anxiety</b>	FF	20	39,1000	7,77242	2.88	0,005*	FF<BA DC<BA CC<BB CC<BA CC<AA CB<BA CB<AA
	DC	13	36,7692	7,51835			
	CC	24	35,6250	9,71244			
	CB	14	36,2143	5,10171			
	BC	11	40,1818	5,51032			
	BB	32	39,8750	6,36903			
	BA	33	43,7879	7,86510			
	AB	16	39,2500	7,21572			
	AA	37	41,2162	8,06961			
	Total	200	39,6900	7,87170			
<b>Total</b>	FF	20	89,6000	16,38485	2.79	0,006*	FF<BA DC<BA CC<BB CC<BA CC<AA CB<BA CB<AA
	DC	13	84,3846	16,07036			
	CC	24	81,6250	21,96403			
	CB	14	83,3571	10,58742			
	BC	11	91,7273	12,62609			
	BB	32	91,7188	13,56997			
	BA	33	99,4242	17,73068			
	AB	16	90,0625	15,07523			
	AA	37	93,6757	17,55793			
	Total	200	90,7350	17,18755			

### Discussion and Conclusion

This study presents the findings of research aimed at examining the speech anxiety levels of teacher candidates. According to the findings, for items such as "I am afraid to speak in front of a group," "I feel embarrassed when talking about myself to people," and "I get nervous when talking to someone of the opposite sex," teacher candidates often responded with "Always." However, for items like "I am hesitant to use body language while speaking," "The thought of not being able to approach the speech topic from different perspectives worries me," and "I get nervous when talking to someone of the opposite sex," there were no "Never" responses.

The gender analysis indicated that there was no significant difference in speech anxiety levels among teacher candidates. In other words, there was no statistically significant difference in these speech anxiety factors between male

and female teacher candidates. This finding does not align with the results of the study conducted by Kumar, Kaur & Thakur (2017), where they found no significant difference in speech anxiety concerning gender and age but did find significant differences in speech anxiety among students of different socioeconomic levels. Similarly, Özkan & Kınay (2015) and Gaibani & Elmenfi (2014) found in their studies that being male or female did not have an impact on speech anxiety.

Furthermore, there was no significant difference in speech anxiety factors among students at different class levels. This suggests that students, regardless of their class level, had similar levels of speech anxiety. However, according to the factor analysis results, there were significant differences among different subgroups in "Environment-Focused Anxiety" and "Total Factor." Specifically, the FF and DC groups had lower environmental anxiety levels than the BA group, and the FF, DC, and CC groups had lower total speech anxiety compared to the BA group. This finding is consistent with the results of the study conducted by Menzel & Carrell (1994), which found a negative and significant relationship between speech anxiety and speech performance quality.

In conclusion, these findings indicate that teacher candidates generally have similar levels of speech anxiety, but some subgroups are less anxious in this regard. These findings can guide the development of educational programs to help teacher candidates cope with speech anxiety and enhance their speaking skills.

### Recommendations

Based on the results of this study, the following recommendations can be made to researchers, linguists, teacher candidates, and program developers:

*Program Sensitivity;* It is important for educational programs to be sensitive to alleviating this anxiety. Special classes or workshops that include elements such as improving speech skills, increasing self-confidence, and teaching relaxation techniques can help teacher candidates overcome this anxiety.

*Understanding Individual Differences;* Although the findings show no general differences in terms of gender or class level, they emphasize significant differences among subgroups. Therefore, program developers and educators should understand students' individual differences and develop approaches that are sensitive to these differences.

*Support and Counseling Services;* Providing support and counseling services to teacher candidates in coping with speech anxiety is important. These services can guide students in understanding, managing, and overcoming their anxieties. Additionally, by providing opportunities to boost students' confidence, they can strengthen their speaking skills.

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