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Investigation of State Test Anxiety in University Students According to Success and Social Based Variables

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Abstract: Since academic competences are essential for admission to good educational institutions and competitive markets, students face increasing pressures to meet academic expectations. This study aims to examine university students' state test anxieties based on various variables. Findings obtained from 503 university students show that state test anxiety differs based on such variables as repeated academic failures, academic achievement perception, experiencing test anxiety before and receiving help therefor, parents' evaluations on academic achievement, parents' attitudes, choosing departments willingly, paternal education level, department of education, degree, GPA, and gender while it does not, based on age, family's monthly income, maternal education level.
Keywords: [Educational Sciences; State Test Anxiety; Test Performance; University Students]

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Introduction

Modern communities tend to emphasize the importance of tests and academic achievement too much. Within this context, tests have become a determining factor in the individuals' lives. Depending on the results of the exams, selection and placement of individuals in schools, universities and even various sectors are carried out (Zeidner, 1998). This situation increases stress and anxiety among students by forcing them to be successful. Considering the determining role of the tests in the human life, tests' becoming an anxiety generating factor is not surprising (Zeidner, 1998; Khosravi and Bigdeli, 2008). Test anxiety, which has a comprehensive literature having been expanding since the 1950s, means the anxiety experienced by individuals in assessment environments in the broadest sense (Spielberger, 1980). The determining role of test anxiety on key academic outcomes and subsequent achievements has been demonstrated by empirical research (Hembree, 1988). As the tests constitute the building blocks of today's education systems, the impacts and results of the test anxiety have become a topic that is frequently dwelt on by researchers.

Test Anxiety

The concept of test anxiety, which is a psychological construct, has evolved in time based on the empirical research findings. Even if it was first defined as a reflection of general anxiety in situations requiring assessment (Taylor, 1956), some changes were observed in the concept itself with the transition from behaviorism to cognitivism (Hembree, 1988). These changes observed in the paradigms of the test anxiety, which are taught to be formed in the worry dimension, including cognitive components such as self-depreciation, comparison of one's success with that of others as well as emotionality dimension, including physical symptoms such as increase in heart rate, nausea, perspiration (Spielberger, 1972; Spielberger, Gonzales, Taylor, Algaze and Anton, 1978) have today left their places to the understanding that text anxiety, in fact, is a very complex construct. New conceptualizations for test anxiety, which is believed to bear a multidimensional nature, include not only cognitive but also psychosocial dimensions (Meijer, 2001; Lowe, Lee, Witteborg, Pritchard, Luhr, Cullinan and Janik, 2008). For example, Friedman and Bendas-Jacob (1997) recommended a biopsychosocial model. They stated that apart from worry and emotionality dimensions, test anxiety has another and a social component, as well, comprising the thoughts arising from negative opinions that may come from the social circle and increasing the anxiety in the individual. This dimension, called as social derogation, is the fear of losing one's social status in the eye of the important persons for oneself as well as derogation in cases where the person fails. Tests may endanger the social positions of the students in the eye of other people

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that they attach importance to. Hence, individuals may perceive assessment as a thread or a challenge to their existence (Mandler and Sarason, 1952; Bamber, 1979; Cited by Friedman and Bendas-Jacob in 1997 from Schopler and Matthews,1965). In other words, social systems (society, family/parents, school, peers) have determining roles in test anxiety. Friedman and Bendas-Jacob (1997:1045) redefined test anxiety as "a worry of suffering a reduction in one's self-image and self-efficacy, particularly its reflection in the eyes of significant others, concurrently with obstruction of cognitive processes and outstanding physical and mental discomfort" with the addition of the third component.

In his article dated 1959, the most striking aspect of the statement of Sarason, who has an important place in the literature of test anxiety, which is "We live in a test-conscious, test-giving culture in which the lives of people are in part determined by their test performance" (1959:26), is that it has been still valid today for the academic lives of the students in Turkey. The research studies conducted have demonstrated that test anxiety increases the level of importance attached to the test in the student's country (McDonald, 2001). When tests become a determining factor on the turning points of the human life such as selection of profession, the anxiety tests cause increase (Peleg Popko, 2004). Discussing the issue within the framework of Turkish education system and social structure, it is seen that achieving necessary success in courses and tests is critical in an individual's life, from having a good job in the future to living a good life. Furthermore, there are observations pointing out that the need for feeling the appreciation of, getting approval from, and being praised by others is common in Turkish culture (Karaşar and Öğülmüş, 2016). It is possible to define the exams on the national level where students in Turkey struggle for existence (Büyüköztürk, 2016) as 'highly risky' due to the expectations they evoke in individuals and to corresponding pressures (Cited by Büyüköztürk in 2016 from Kutlu, 2914). Evaluating tests in the particular context of Turkey, the reason why the tests are 'highly risky' may be due to the fear of a potential negative change in the social status as a result of tests. Considering the importance attached to the social context in Turkish culture, test anxiety has been examined in this research study based on biopsychosocial model (Friedman and Bendas-Jacob, 1997), which includes social systems, as well. Test anxiety becomes a common and important issue that is under the responsibility of educators in our country, considering both the importance given to tests throughout the country and the fact that tests play a key role in the turning points in individuals' lives.

Test Anxiety and Previous Learning Experience

The studies show that individuals' perceptions and beliefs about achievement may be a determining factor in test anxiety. It can be stated that previous learning experience (Hembree, 1988) that leads to failures play a role in the development of test anxiety. In addition, individuals'

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perceptions on self-efficacy in relation to the knowledge and competences related to tests are also a determinant in their test anxiety (Carveth, Gesse and Moss, 1996; Pajares, 1996; Ryan, Ryan, Arbuthnot and Samuels, 2007; Kapıkıran, 2002). However, according to Bandura (1997), the perception of self-efficacy is a construct specific to a context and can be affected by external factors and demographic variables. A relatively successful student among a very successful group of students can feel less competent because of the competitive structure of the leraning climate, which may trigger test anxiety (Marsh, Trautwein, Ludtke and Koller, 2008).

Test Anxiety and Social Context

Examining the test anxiety within the framework of social systems, it is seen that adverse peer or adult evaluations have a determining role in test anxiety (Öner, 1989). Failures in the previous learning experience impact the self-efficacy perception of the individuals because of adverse evaluations made by others and lead to the perception that situations involving evaluation pose a threat. It is not surprising that the children of parents who have high expectations for them and react critically towards their performance suffer from test anxiety (Sarason, Davidson, Lighthall, Waite, and Ruebush, 1960). Accordingly, it may be expected from children suffering from test anxiety to have a 'strong feeling of guilt' (Sarason, Davidson, Lighthall, Waite, and Ruebush, 1960: 19). To illustrate, in a study where the association between parental attitudes and test anxiety is examined, it has been established that there is a positive correlation between test anxiety and protective-demanding and authoritarian parental attitudes (Bilir, 2019) while there is a negative correlation between test anxiety and democratic parental attitude (Bilir, 2019; Thergaonka and Wadkar, 2007).

Test Anxiety and Demographic Characteristics

Reviewing the literature, it is seen that there is more than one demographic variable being associated with test anxiety. When the literature is reviewed in terms of gender differences in test anxiety, it is seen that there is a general opinion that female students suffer from test anxiety more frequently than male ones (Hembree, 1988; Chapell, Blanding, Silverstein, Takahashi, Newman, Gubi and McCann, 2005; Bilir, 2019; Kapıkıran, 2002). However, in a study conducted with 4,000 undergraduate students and 1,414 graduate students, it has been observed that although female students outnumber male students in test anxiety, there is not a significant difference between their academic performances (Chapell, Blanding, Silverstein, Takahashi, Newman, Gubi and McCann, 2005). This situation related to gender differences can be explained with female students' perception of evaluations being more threating than the perception of the male students in this regard (Cassady and Johnson, 2002). Examining the studies focusing on the age differences within the context of test anxiety, it is seen in the literature that there are studies establishing that age does not play an important role in test anxiety (Ebrahimi & Khoshsima, 2014; Umuzdaş, 2020;

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Büyükahıska, 2015). As for the role of socioeconomic level in test anxiety, it is observed that monthly income of the family is not a determinant on test anxiety (Bilir, 2019). Examining the changes in test anxiety based on parental education level, it has been established that while maternal education level has not a determining role in test anxiety (Bilir, 2019; Umuzdaş, 2020), paternal education level has an impact on it (Umuzdaş, 2019). Evaluating all these findings in tandem, it is seen that demographic variables may also influence test anxiety, apart from other factors.

Test Anxiety and Academic Performance

Reviewing the literature, it is possible to state that test anxiety is associated with low academic performance and that there is an agreement on the fact that there is a direct proportion between anxiety and academic performance (Zeidner, 1990). However, conflicting results have come out about the nature of this correlation. Test anxiety can play a positive role on academic performance by playing a triggering role on executive functions, target-oriented behaviors, and intrinsic motivation to achieve (Alpert and Haber, 1960; Mandler and Sarason, 1952). Especially optimal test anxiety supports obtaining positive results (Gregor, 2005). It is possible to state that in studies on test anxiety, this facilitating effect for success is often overlooked and emphasis is placed on examining its negative effects (Sarason, 1984). When the literature is reviewed, it is observed that there are recurrent findings indicating that high level of test anxiety is associated with poor performance in evaluation processes (Spielberger and Vagg, 2005; Gregor, 2005; Cassady, 2004). In response to these recurrent findings, in the studies assessing test anxiety based on worry and emotionality components and using TAI for different groups of age and cultural backgrounds (Spielberger, 1980; Spielberger, Gonzales, Taylor, Algaze and Anton, 1978), only 5% of test performance is explained by test anxiety, and its effect size is mostly small (Chapell, Blanding, Silverstein, Takahashi, Newman, Gubi and McCann, 2005; Musch and Bröder, 1999). However, gender differences play a significant role in the anxiety level and academic performance (Bilir, 2009).

Importance of Research

The participation of students from different departments of different faculties and colleges in this study is considered to consolidate the generalizability of the research. In addition, using STAS (Şahin, 2019), which was originally developed in Turkey and which addresses biopsychosocial aspect of the test anxiety, is thought to constitute the strengths of the study in terms of evaluation of students' test anxiety. Moreover, this research can contribute to the development of methods and practices that can help students understand the anxiety they experience during a test and positively affect student motivation and performance. More successful students can play a role in social and economic development as a human capital. In this

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regard, it is believed that this study will contribute to the literature.

Purpose

In this study, which aims to examine the state test anxiety of university students in terms of various variables, answers to the following research question have been sought:

1- Does *state test anxiety* in university students differ according to;
   a. previous learning experience?
   b. social context?
   c. demographic characteristics?
   d. academic performance?

Method

Research Model and Data Collection

In this study, which aims to examine the state test anxiety of university students in terms of various variables, relational screening model, which is a research model that aims to determine whether there is a change between two or more variables and the degree of change (Karasar, 2013) was applied.

Before the research, the authorization of Sub-Committee of Ethics for Social Sciences in Afyon Kocatepe University was sought and granted (Decision: 2020/41). Data were collected from the final examinations during the Fall Semester of 2019-2020 Academic Year. The researchers explained the purpose of the research to the students by entering the classes in various faculties and colleges affiliated to Afyon Kocatepe University during the week of the final exams just before the exams started, and the volunteering students participated in the research. The process of data collection took approximately two weeks. It was observed that the students completed the measurement tools in approximately 15 minutes.

Data Collection Tools

Questions on previous learning experience, social context and academic performance, which are believed to have an impact on state test anxiety, are included in the Personal Information Form. Participants were asked, in relation to their previous learning experience, questions as to whether there was a repeated academic failure (such as semester repetition/course retake, previous failure to be placed in a university with the score of national university entrance exam), how the students perceive themselves in terms of academic achievement, whether the students have ever experienced any problems related to test anxiety ("*Have you ever experienced a problem related*

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to test anxiety?") and whether they have received any help related thereto. In order to collect information regarding social context, questions as to how their parents evaluate the students in terms of academic achievement ("*How do your parents evaluate you in terms of your academic achievement?"*), whether the students chose the department they study willingly, and parental attitude were asked to the participants. Information related to age, gender, maternal and paternal education levels, monthly income of the family, department of education, diploma degree of the department of education (bachelor's/college degree) were collected within the scope of demographic characteristics. As for academic performance, information on grade point average (GPA) as of the date of participation in this research was obtained.

State Test Anxiety Scale (STAS)

State Test Anxiety Scale (STAS), which was developed by Şahin (2019: 87) with a view to identifying the anxiety levels of the university students instantly before every test, comprises 3 sub-dimensions and 22 items. The scale is applied just before the tests due to its nature (Şahin, 2019: 88). Cognitive sub-dimension of the scale comprises 9 items related to students' expressions on their cognitive concerns, psychosocial sub-dimension comprises 5 items related to their expressions on environmental factors in relation to tests, and physiological sub-dimension comprises 8 items related to physical reactions before tests. Some of the items in the scale are as follows: *"I feel nauseous", "I'm afraid of failing the exam".* In the scale, where there are no items requiring reverse coding, answers are taken based on 4-point Likert-type scale (1= Poor - 4= Very). The lowest total point that can be obtained on the scale is 22 while the highest total point is 88. As a result of CFA conducted with the results collected before the midterm with the participation of 312 university students, it was established that the factorial structure of the scale was validated ($\chi 2/sd=1.72$, CFI=.96, NNFI=.96, IFI=.96, RMSEA=.05, SRMR=.05). In order to determine the reliability of the scale, Cronbach's Alpha Spearman-Brown split half reliability and test-retest techniques were used. Cronbach's Alpha values were .93 for the Cognitive sub-dimension, .84 for the Psychosocial sub-dimension, .85 for the Physiological sub-dimension, and .94 for the whole scale. Other used techniques validated the reliability of the scale, as well (Şahin, 2019).

Data Analysis

The data were analyzed with IBM SPSS statistical software (version 21) and worked with 95% CI. Examining the Descriptive Statistics of State Test Anxiety Scale, Students' Perceptions on Their Competences and Test Performance Points in Table 1, it was observed that coefficients of skewness and kurtosis are in the range between +3 and -3 (skewness, min:-.113 max:1.380 ; kurtosis, min: -.062 max:1.893) and it was determined that the data were suitable for normal distribution (Groeneveld and Meeden, 1984; Moors, 1986; Hopkins and Weeks, 1990; De Carlo, 1997).

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Hence, parametric techniques were used in the analyses. The situation of university students' state test anxiety differences in terms of demographic variables was analyzed by using t test and ANOVA, which are parametric test techniques.

Study Group

This study was carried out with 503 students, who studied at the undergraduate and associate degree levels in different faculties and colleges affiliated to Afyon Kocatepe University and who were determined based on *appropriate sampling*.

The demographic characteristics of the participants in the study group are summarized in this section to give the reader an idea of who the study findings can be generalized to. It is identified that, 31.6% of the participants are 19 years old; 28.4 % of the participants are female and 76.7% study bachelor's degree. Additionally, the rate of the participants choosing their departments willingly is 79.1% while the rate of the students happy about studying their current departments is 70.8%. The rate of the participants finding themselves successful in terms of academic achievement is 76.1% while the rate of those with a GPA ranging between 2,26 and 2,50 is 28.8%. 61.0% of the participants do not have any repeated failures.

The rate of those experiencing a problem related to test anxiety is 59.4% while the rate of the participants receiving psychological counselling support thereon is 11,1%. When the demographic information about the families of the participants in the study group is examined, it has been seen that the rate of those whose mothers are primary school graduates is 49.5% while the rate of those whose fathers are primary school graduates is 35,0%.

The rate of the participants whose families' total monthly income is between 2001 TL and 3000 TL is 38.0%. The rate of the participants whose mother's attitude is democratic is 66.0% whereas the rate of the participants whose father's attitude is democratic is 56.9%. As for the rate of the participants whose parents evaluate their academic achievement as successful, it is 78.5%.

Results

Results Related to Previous Learning Experience

The results of ANOVA test, which was carried out to examine the State Test Anxiety Scale and its sub-dimensions with regards to *self-evaluation in terms of academic achievement*, have been provided in Table 1.

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Table 1. Examining State Test Anxiety Scale and its Sub-Dimensions with Regards to Self-Evaluation in Terms of Academic Achievement

How do you evaluate yourself in terms of your academic achievement?		**n**	$\bar{x}$	**Sd**	***F***	***p***
Cognitive	Very unsuccessful	10	22.20	5.20	8.295	.000*
	Unsuccessful	94	24.83	5.97		
	Successful	383	22.20	6.65		
	Very successful	16	16.75	8.63		
Psychosocial	Very unsuccessful	10	7.50	2.17	5.237	.001*
	Unsuccessful	94	8.82	3.47		
	Successful	383	7.81	2.94		
	Very successful	16	6.00	1.37		
Physiological	Very unsuccessful	10	12.20	5.43	2.300	.076
	Unsuccessful	94	14.30	5.94		
	Successful	383	12.99	4.82		
	Very successful	16	11.69	4.48		
State Test Anxiety Scale	Very unsuccessful	10	41.90	11.12	7.228	.000*
	Unsuccessful	94	47.95	12.18		
	Successful	383	43.00	12.35		
	Very successful	16	34.44	12.85		

*$p<0.05$

In terms of *Cognitive* and *Psychosocial* sub-dimensions as well as the *total point of State Test Anxiety Scale*, there are significant statistical discrepancies among those whose departments differ ($p<0.05$). Accordingly, while the average point of those who evaluate themselves as *"unsuccessful"* in terms of *Cognitive* and *Psychosocial* sub-dimensions along with the total point of State Test *Anxiety Scale* is the highest, the average of those who evaluate themselves as *"very successful"* is the lowest (Table 1). The results of t test, which was performed to examine State Test Anxiety Scale and its sub-dimensions in terms of *repeated academic failures* have been provided in Table 2.

Table 2. Examining State Test Anxiety Scale and Its Sub-dimensions in Terms of Repeated Academic Failures

Do you have any repeated academic failures?		**n**	$\bar{x}$	**sd**	***t***	***p***
Cognitive	Yes	196	23.44	6.51	2.478	.014*
	No	307	21.93	6.79		
Psychosocial	Yes	196	8.24	3.41	1.816	.070
	No	307	7.74	2.77		
Physiological	Yes	196	13.79	5.73	2.165	.031*
	No	307	12.79	4.56		
State Test Anxiety Scale	Yes	196	45.47	13.41	2.647	.008*
	No	307	42.45	11.82		

*$p<0.05$

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In terms of *Cognitive* sub-dimension, *Physiological* sub-dimension and *total point of State Test Anxiety Scale*, there are significant statistical discrepancies among those who have different cases in relation to having a repeated academic failure ($p<0.05$). Accordingly, average point of those who experienced repeated academic failures is higher in terms of *Cognitive* and *Physiological* sub-dimensions, as well as *the total point of State Test Anxiety Scale* (Table 2). The results of t test, which was performed to examine State Test Anxiety Scale and its sub-dimensions in terms of *experiencing a problem related to test anxiety* have been provided in Table 3.

Table 3. Examining State Test Anxiety Scale and Its Sub-Dimensions in Terms of Experiencing A Problem Related to Test Anxiety

Have you ever experienced a problem related to test anxiety?		**n**	$\bar{x}$	**sd**	***t***	***p***
Cognitive	Yes	299	24.00	6.11	6.211	.000*
	No	204	20.34	6.98		
Psychosocial	Yes	299	8.47	3.17	4.895	.000*
	No	204	7.15	2.66		
Physiological	Yes	299	14.30	5.42	6.223	.000*
	No	204	11.54	3.97		
State Test Anxiety Scale	Yes	299	46.77	12.30	7.123	.000*
	No	204	39.03	11.44		

*$p<0.05$

In terms of the total point of *Cognitive*, *Psychosocial* and *Physiological* sub-dimensions as well as the *total point of State Test Anxiety Scale*, there are significant statistical discrepancies among those having different cases in relation to experiencing a problem related to test anxiety ($p<0.05$). Accordingly, in terms of all sub-dimensions and the total point of State Test Anxiety Scale, average point of those having experienced a relative problem is higher (Table 3).The results of t test, which was performed to examine State Test Anxiety Scale and its sub-dimensions in terms of *receiving psychological counselling support* have been provided in Table 4.

Table 4. Examining State Test Anxiety Scale and Its Sub-Dimensions in Terms of Receiving Psychological Counselling Support

Have you received any psychological counselling support on test anxiety?		**n**	$\bar{x}$	**sd**	***t***	***p***
Cognitive	Yes	33	24.88	6.21	.851	.396
	No	265	23.92	6.09		
Psychosocial	Yes	33	8.55	3.19	.132	.895
	No	265	8.47	3.17		
Physiological	Yes	33	16.48	7.05	2.451	.015*
	No	265	14.05	5.14		
State Test Anxiety Scale	Yes	33	49.91	14.26	1.533	.126
	No	265	46.44	11.99		

*$p<0.05$

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In terms of *Physiological* sub-dimension, there are significant statistical discrepancies among those having different cases in relation to receiving psychological counselling support related to test anxiety ($p<0.05$). Accordingly, the point average of those receiving support is higher (Table 4).

Results Related to Social Context

The results of t test, which was performed to examine State Test Anxiety Scale and its sub-dimensions in terms of *students' cases in relation to choosing their departments willingly* have been provided in Table 5.

Table 5. Examining State Test Anxiety Scale and Its Sub-dimensions in Terms of Students' Cases in Relation to Choosing Their Departments Willingly

Did you choose the department that you study willingly?		**n**	$\bar{x}$	**sd**	***T***	***p***
Cognitive	Yes	398	22.27	6.69	-1.569	.117
	No	105	23.43	6.77		
Psychosocial	Yes	398	7.77	2.95	-2.287	.023*
	No	105	8.53	3.29		
Physiological	Yes	398	13.11	5.02	-0.649	.516
	No	105	13.47	5.27		
State Test Anxiety Scale	Yes	398	43.15	12.25	-1.657	.098
	No	105	45.43	13.49		

*p<0.05

In terms of *Psychological* sub-dimension, there are significant statistical discrepancies among those having different cases as to whether they chose their departments willingly or not ($p<0,05$). Accordingly, the point average of those who did not choose their departments willingly is higher (Table 5).

The results of ANOVA test, which was performed to examine State Test Anxiety Scale and its sub-dimensions in terms of *parents' evaluation on the academic achievement* have been provided in Table 6.

Table 6. Examining State Test Anxiety Scale and its Sub-Dimensions in Terms of Parents' Evaluation on Academic Achievement

How do your parents evaluate you in terms of your academic achievement?		**n**	$\bar{x}$	**sd**	***F***	***p***
Cognitive	Very unsuccessful/unsuccessful	34	23.06	6.02	8.127	.000*
	Successful	395	23.01	6.47		
	Very successful	74	19.65	7.62		
Psychosocial	Very unsuccessful/unsuccessful	34	9.29	3.30	10.095	.000*
	Successful	395	8.05	3.08		
	Very successful	74	6.70	2.21		

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	Very unsuccessful/unsuccessful	34	13.32	5.23		
Physiological	Successful	395	13.30	5.10	0.847	.430
	Very successful	74	12.47	4.81		
	Very unsuccessful/unsuccessful	34	45.68	11.83		
State Test Anxiety Scale	Successful	395	44.35	12.43	6.690	.001*
	Very successful	74	38.82	12.48		

*p<0.05

According to Table 6, in terms of *Cognitive sub-dimension, Psychosocial sub-dimension, the total point of State Test Anxiety Scale*, there are significant statistical discrepancies (p<0.05). Accordingly, the point average of those whose parents evaluate their academic achievement as "very unsuccessful/ unsuccessful" is the highest in terms of *Cognitive sub-dimension, Psychosocial sub-dimension*, and *the total point of State Test Anxiety Scale*, and as the level of success in the evaluation increases, the point averages decrease.

The results of ANOVA test, which was performed to examine State Test Anxiety Scale and its sub-dimensions in terms of *Students' perception of their mothers' attitudes towards themselves* have been provided in Table 7.

Table 7. Examining State Test Anxiety Scale and Its Sub-Dimensions in Terms of Students' Perception of Their Mothers' Attitudes Towards Themselves

How do you perceive the attitude of your mother towards you?		**n**	$\bar{x}$	**sd**	***F***	***p***
	Authoritarian	143	22.52	6.53		
Cognitive	Protective/Demanding	28	23.61	7.55	.401	.670
	Democratic	332	22.42	6.73		
	Authoritarian	143	8.28	3.15		
Psychosocial	Protective/Demanding	28	8.86	3.42	3.188	.042*
	Democratic	332	7.70	2.94		
	Authoritarian	143	13.24	4.94		
Physiological	Protective/Demanding	28	14.04	5.72	.473	.624
	Democratic	332	13.08	5.07		
	Authoritarian	143	44.04	12.27		
State Test Anxiety Scale	Protective/Demanding	28	46.50	14.42	.999	.369
	Democratic	332	43.21	12.49		

*p<0.05

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In terms of *Psychosocial sub-dimension*, which is one of the sub-dimensions of State Test Anxiety Scale, there are significant statistical discrepancies among those having different perceptions of their mothers' attitude towards themselves ($p<0.05$). Accordingly, while the point average of those perceiving their mothers' attitude as Protective/Demanding is the highest, that of the ones perceiving their mothers' attitude as democratic is the lowest (Table 7).

The results of ANOVA test, which was performed to examine State Test Anxiety Scale and its sub-dimensions in terms of *students' perception of their fathers' attitudes towards themselves* have been provided in Table 8.

Table 8. Examining State Test Anxiety Scale and Its Sub-Dimensions in Terms of Students' Perception of Their Fathers' Attitudes Towards Themselves

How do you perceive the attitude of your father towards you?		**n**	$\bar{x}$	**sd**	***F***	***p***
Cognitive	Authoritarian	171	23.10	6.92	2.071	.127
	Protective/Demanding	46	23.57	7.41		
	Democratic	286	22.00	6.45		
Psychosocial	Authoritarian	171	8.01	2.91	5.256	.006*
	Protective/Demanding	46	9.22	3.91		
	Democratic	286	7.68	2.91		
Physiological	Authoritarian	171	13.28	5.33	0.333	.717
	Protective/Demanding	46	13.65	5.25		
	Democratic	286	13.05	4.88		
State Test Anxiety Scale	Authoritarian	171	44.39	12.87	2.230	.109
	Protective/Demanding	46	46.43	14.29		
	Democratic	286	42.72	11.98		

*$p<0.05$

According to Table 8, in terms of *Psychosocial sub-dimension*, which is one of the sub-dimensions of State Test Anxiety Scale, there are significant statistical discrepancies among those having different perceptions of their fathers' attitude towards themselves ($p<0.05$). Accordingly, while the point average of those perceiving their fathers' attitude as Protective/Demanding is the highest, that of the ones perceiving their fathers' attitude as democratic is the lowest.

Results Related to Demographic Characteristics

The results of ANOVA test, which was performed to examine State Test Anxiety Scale and its sub-dimensions in terms of *the department of education*, have been provided in Table 9.

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Table 9. Examining State Test Anxiety Scale and Its Sub-Dimension in Terms of Department of Education

Department of Education		**n**	$\bar{x}$	**Sd**	***F***	***p***
Cognitive	Child Development	88	25.69	6.00	6.137	.000*
	Social Work	143	23.37	6.24		
	Physical Education and Sports Teaching	42	18.50	6.34		
	Turkish Teaching	47	21.49	6.36		
	Pre-school Teaching	42	22.69	6.77		
	Science Teaching	24	24.00	6.74		
	Map Cadastre	31	20.74	5.73		
	Tourism Hotel Management	19	20.53	6.39		
	Public Relations Publicity	53	21.51	7.08		
Psychosocial	Child Development	88	8.41	3.31	1.447	.175
	Social Work	143	7.88	3.09		
	Physical Education and Sports Teaching	42	7.45	2.70		
	Turkish Teaching	47	6.87	2.59		
	Pre-school Teaching	42	8.00	3.16		
	Science Teaching	24	8.00	3.05		
	Map Cadastre	31	7.68	2.14		
	Tourism Hotel Management	19	8.47	3.26		
	Public Relations Publicity	53	8.47	3.21		
Physiological	Child Development	88	14.28	5.59	3.017	.003*
	Social Work	143	14.11	5.67		
	Physical Education and Sports Teaching	42	11.19	3.70		
	Turkish Teaching	47	12.89	5.26		
	Pre-school Teaching	42	12.81	4.90		
	Science Teaching	24	13.79	3.92		
	Map Cadastre	31	11.16	3.17		
	Tourism Hotel Management	19	11.42	3.61		
	Public Relations Publicity	53	12.96	4.36		
State Test Anxiety Scale	Child Development	88	48.39	12.78	4.508	.000*
	Social Work	143	45.36	12.38		
	Physical Education and Sports Teaching	42	37.14	11.22		
	Turkish Teaching	47	41.26	12.13		
	Pre-school Teaching	42	43.50	12.79		
	Science Teaching	24	45.79	11.44		
	Map Cadastre	31	39.58	9.27		
	Tourism Hotel Management	19	40.42	10.92		
	Public Relations Publicity	53	42.94	12.26		

*p<0.05

In terms of *Cognitive* sub-dimension, *Physiological* sub-dimension and *the total point of State Test Anxiety Scale*, there are significant statistical discrepancies among those whose departments differ (p<0.05). Accordingly, in terms of *Cognitive* sub-dimension and *the total point of State Test Anxiety Scale*, the point average of those studying Child Development is the highest while that of those studying Physical Education and Sports Teaching is the lowest. In terms of

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Physiological sub-dimension, the point average of those studying Child Development is the highest, the point average of those studying Map Cadastre is the lowest (Table 9).

The results of ANOVA test, which was performed to examine State Test Anxiety Scale and its sub-dimensions in terms of *the diploma degree of the department of education*, have been provided in Table 10.

Table 10. Examining State Test Anxiety Scale and Its Sub-Dimensions in Terms of The Diploma Degree of The Department of Education

Diploma Degree		**n**	$\bar{x}$	**sd**	***F***	***p***
Cognitive	Associate Degree	117	20.56	6.78	-3.630	.000*
	Bachelor's Degree	386	23.11	6.59		
Psychosocial	Associate Degree	117	8.20	2.95	1.073	.284
	Bachelor's Degree	386	7.85	3.07		
Physiological	Associate Degree	117	12.05	4.01	-2.771	.006*
	Bachelor's Degree	386	13.52	5.30		
State Test Anxiety Scale	Associate Degree	117	40.81	11.68	-2.792	.005*
	Bachelor's Degree	386	44.48	12.68		

*$p<0.05$

In terms of *Cognitive* sub-dimension, *Physiological* sub-dimension and *the total point of State Test Anxiety Scale*, there are significant statistical discrepancies among those who study bachelor's and associate degrees ($p<0.05$). Accordingly, average point of those studying associate degree is higher in terms of *Cognitive* sub-dimension, *Physiological* sub-dimension and *the total point of State Test Anxiety Scale* (Table 10). The results of ANOVA test, which was performed to examine State Test Anxiety Scale and its sub-dimensions in terms of *age*, have been provided in Table 11.

Table 11. Examining State Test Anxiety Scale and Its Sub-Dimension in Terms of Age

Age		**n**	$\bar{x}$	**sd**	***F***	***p***
Cognitive	18	55	22.15	6.05	.310	.907
	19	159	22.67	6.51		
	20	125	22.69	6.86		
	21	68	22.19	7.22		
	22	35	21.54	7.24		
	23 years and above	61	23.02	6.82		
Psychosocial	18	55	7.75	2.78	.265	.932
	19	159	8.09	2.83		
	20	125	7.76	3.11		
	21	68	8.04	3.49		
	22	35	7.74	2.51		
	23 years and above	61	8.02	3.43		
Physiological	18	55	12.22	4.19	.565	.727

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	19	159	13.25	4.89		
	20	125	13.49	5.52		
	21	68	13.24	5.00		
	22	35	12.77	5.51		
	23 years and above	61	13.41	5.17		
State Test Anxiety Scale	18	55	42.11	10.71	.368	.871
	19	159	44.01	12.17		
	20	125	43.94	12.87		
	21	68	43.47	13.69		
	22	35	42.06	13.40		
	23 years and above	61	44.44	12.80		

*p<0.05

In terms of State Test Anxiety Scale and its sub-dimensions, there are not significant statistical discrepancies among the different groups of age (p>0.05) (Table 11).

The results of t test, which was performed to examine the State Test Anxiety Scale and its sub-dimensions in terms of *gender*, have been provided in Table 12.

Table 12. Examining State Test Anxiety Scale and Its Sub-Dimension in Terms of Gender

Gender		**n**	$\bar{x}$	sd	***t***	***p***
Cognitive	Female	379	23.70	6.50	7.244	.000*
	Male	124	18.90	6.07		
Psychosocial	Female	379	8.01	3.21	1.042	.298
	Male	124	7.69	2.46		
Physiological	Female	379	13.88	5.38	5.535	.000*
	Male	124	11.06	3.12		
State Test Anxiety Scale	Female	379	45.59	12.70	6.357	.000*
	Male	124	37.65	9.90		

*p<0.05

According to Table 12, in terms of *Cognitive* sub-dimension, *Physiological* sub-dimension and the *total point of State Test Anxiety Scale*, there are significant statistical discrepancies among male and female participants (p<0.05). Accordingly, average point of female participants is higher in terms of *Cognitive* sub-dimension, *Physiological* sub-dimension and the *total point of State Test Anxiety Scale.*

The results of ANOVA test, which was performed to examine State Test Anxiety Scale and its sub-dimensions in terms of *maternal education level*, have been provided in Table 13.

Table 13. Examining State Test Anxiety Scale and Its Sub-Dimensions in Terms of Maternal Education Level

Maternal Education Level	**n**	$\bar{x}$	**sd**	***F***	***p***

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Cognitive	Illiterate	62	23.13	6.04	1.539	.190
	Primary School	249	23.08	6.77		
	Secondary School	111	21.56	6.89		
	High School	65	21.80	6.57		
	University / Postgraduate	16	20.94	7.33		
Psychosocial	Illiterate	62	8.06	3.35	0.329	.858
	Primary School	249	8.05	3.08		
	Secondary School	111	7.72	2.92		
	High School	65	7.75	2.98		
	University / Postgraduate	16	7.75	2.18		
Physiological	Illiterate	62	13.42	4.94	0.095	.984
	Primary School	249	13.23	5.00		
	Secondary School	111	12.96	5.51		
	High School	65	13.18	4.93		
	University / Postgraduate	16	13.00	4.52		
State Test Anxiety Scale	Illiterate	62	44.61	11.63	0.821	.512
	Primary School	249	44.36	12.41		
	Secondary School	111	42.24	13.33		
	High School	65	42.74	12.50		
	University / Postgraduate	16	41.69	12.77		

*p<0.05

According to Table 13, in terms of State Test Anxiety Scale and its sub-dimensions, there are not significant statistical discrepancies among those whose mothers have different education levels (p>0,05).

The results of ANOVA test, which was performed to examine State Test Anxiety Scale and its sub-dimensions in terms of *paternal education level*, have been provided in Table 14.

Table 14. Examining State Test Anxiety Scale and Its Sub-Dimensions in Terms of Paternal Education Level

Paternal Education Level		**n**	$\bar{x}$	**sd**	***F***	***p***
Cognitive	Illiterate	13	25.92	6.56	2.288	.045*
	Primary School	176	22.44	6.74		
	Secondary School	145	23.06	6.65		
	High School	112	22.49	6.73		
	University	47	19.98	6.79		
	Postgraduate	10	23.60	4.01		
Psychosocial	Illiterate	13	7.92	3.35	1.441	.208
	Primary School	176	7.99	2.98		
	Secondary School	145	8.28	3.55		
	High School	112	7.86	2.61		
	University	47	7.04	2.36		

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	Postgraduate	10	6.90	2.42		
Physiological	Illiterate	13	15.85	4.74	2.874	.014*
	Primary School	176	12.76	5.04		
	Secondary School	145	13.83	5.30		
	High School	112	13.21	4.79		
	University	47	11.51	4.45		
	Postgraduate	10	15.30	5.89		
State Test Anxiety Scale	Illiterate	13	49.69	11.62	2.751	.018*
	Primary School	176	43.19	12.40		
	Secondary School	145	45.17	13.34		
	High School	112	43.55	11.91		
	University	47	38.53	11.19		
	Postgraduate	10	45.80	11.05		

*$p<0.05$

In terms of *Cognitive* sub-dimension, *Physiological* sub-dimension and *the total point of State Test Anxiety Scale*, there are significant statistical discrepancies among those whose fathers have different education levels ($p<0.05$). Accordingly, in terms of *Cognitive* sub-dimension, *Physiological* sub-dimension and *the total point of State Test Anxiety Scale*, the point average of those whose fathers are illiterate is the highest, whereas the point average of those whose fathers are university graduates are the lowest (Table 14). The results of ANOVA test, which was performed to examine State Test Anxiety Scale and its sub-dimensions in terms of *total monthly income of the family*, have been provided in Table 15.

Table 15. Examining State Test Anxiety Scale and Its Sub-Dimensions in Terms of Total Monthly Income of The Family

Family's Total Monthly Income (Turkish Liras)		**n**	$\bar{x}$	**sd**	***F***	***p***
Cognitive	1000-2000	117	23.29	6.83	1.531	.178
	2001-3000	191	22.57	6.82		
	3001-4000	73	23.19	6.45		
	4001-5000	64	21.63	6.92		
	5001-6000	29	20.10	5.79		
	More than 6000	29	21.69	6.25		
Psychosocial	1000-2000	117	8.45	3.43	1.774	.117
	2001-3000	191	7.90	3.08		
	3001-4000	73	7.96	2.94		
	4001-5000	64	7.84	2.99		
	5001-6000	29	6.79	1.86		
	More than 6000	29	7.31	2.04		
Physiological	1000-2000	117	13.32	5.06	0.714	,613
	2001-3000	191	13.43	5.31		

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	3001-4000	73	13.14	4.92		
	4001-5000	64	12.52	4.97		
	5001-6000	29	12.00	4.38		
	More than 6000	29	13.72	4.77		
State Test Anxiety Scale	1000-2000	117	45.06	12.70	1.447	.206
	2001-3000	191	43.91	13.08		
	3001-4000	73	44.29	12.28		
	4001-5000	64	41.98	12.56		
	5001-6000	29	38.90	9.94		
	More than 6000	29	42.72	10.39		

*p<0.05

According to Table 15, in terms of State Test Anxiety Scale and its sub-dimensions, there are not significant statistical discrepancies among the groups whose families have different total monthly incomes (p>0.05).

Results Related to Academic Performance

The results of ANOVA test, which was performed to examine State Test Anxiety Scale and its sub-dimensions in terms of *grade point average (GPA)*, have been provided in Table 16.

Table 16. Examining State Test Anxiety Scale and Its Sub-Dimensions in Terms of Grade Point Average (GPA)

As of the date you participate in this research study, your grade point average (GPA)		n	Mean	sd	F	p
Cognitive	2,25 and below	77	22.14	6.64	1.861	.100
	2,26-2,50	145	22.38	6.50		
	2,51-2,75	90	22.37	7.02		
	2,76-3,00	85	22.48	7.38		
	3,01-3,25	40	20.75	6.66		
	3,26 and above	66	24.56	5.67		
Psychosocial	2,25 and below	77	8.09	3.13	1.783	.115
	2,26-2,50	145	7.93	3.13		
	2,51-2,75	90	8.27	3.11		
	2,76-3,00	85	8.06	2.98		
	3,01-3,25	40	6.63	2.49		
	3,26 and above	66	7.92	2.92		
Physiological	2,25 and below	77	13.25	5.03	2.380	.038*
	2,26-2,50	145	12.60	4.52		
	2,51-2,75	90	13.36	5.57		
	2,76-3,00	85	13.24	5.16		
	3,01-3,25	40	11.90	4.45		

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	3,26 and above	66	14.85	5.47		
State Test Anxiety Scale	2,25 and below	77	43.48	12.61	2.259	.048*
	2,26-2,50	145	42.91	11.64		
	2,51-2,75	90	43.99	13.28		
	2,76-3,00	85	43.78	13.68		
	3,01-3,25	40	39.28	11.51		
	3,26 and above	66	47.33	11.75		

*p<0.05

In terms of *Cognitive* sub-dimension, *Physiological* sub-dimension and the *total point of State Test Anxiety Scale*, there are significant statistical discrepancies among the groups having different grade point averages (p<0.05). Comparisons regarding post-hoc tests demonstrate that in terms of *Physiological* sub-dimension and the *total point of State Test Anxiety Scale*, the point average of those with a grade point average of 3,26 and above is the highest whereas the point average of those with a grade point average between 3,01 and 3,25 is the lowest (Table 16).

Discussion and Conclusions

The research studies demonstrate that the periods where the youngsters get prepared for tests and wait for the test results are the most frequent stress factors (Kouzma and Kennedy, 2004). Thus, this study aimed at examining the state test anxiety of the university students in terms of various variables. Findings obtained as a result of this research study were discussed under the categories of previous learning experience, social context, demographic variables and academic performance.

Students evaluating themselves as 'unsuccessful' had higher points in the cognitive and psychosocial sub-tests of STAS and STAS itself. This situation is in parallel with other studies in the literature that found a significant difference between test anxiety points and perception of academic achievement (Kapıkıran, 2002). Perceived level of success has a determining role in test anxiety (Başpınar, 2007).

The students *having repeated academic failures* (such as semester repetition/course retake, previous failure to be placed in a university with the score of national university entrance exam) had higher points in cognitive, physiological sub-tests and in STAS. This situation is similar to the findings in the literature (Hembree, 1988; Alyaprak, 2006). Repeated academic failures may cause students failing to achieve the desired result to perceive more threats to their future and self-worth as well as increasing students' state test anxiety. In this context, it can be said that the repetition of the failures will cause the student's success goals for future exams to disappear. It can be claimed that the state exam anxiety level of the student, who is more likely to think that he will

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fail in every exam he enters, will also increase. The focus of self-value on academic achievement may result in the student's physiological anxiety symptoms as well as evaluating his situation within the framework of cognitive bias. The more student failures are repeated, the more they may feel worthless.

It was established that the students experiencing a problem related to test anxiety had higher points in STAS and all its sub-tests. However, students *receiving support for test anxiety* had higher points in terms of Physiological sub-test, which is one of the sub-dimensions of State Test Anxiety Scale. According to the findings, the rate of the students having experienced a problem related to test anxiety before is 59.4%; however, the rate of those having received a structured help in this regard is only 11.1%. These findings suggest that the problem may have become chronic since the students participating in the study did not receive any help for test anxiety. Within this context, the necessity of conducting prevention studies as well as intervention studies for test anxiety comes to the fore. Reviewing the literature, it has been observed that cognitive-behavioral approaches are predominantly used in interventions for test anxiety over the past decade (von der Embse, Bartarian and Segool, 2013). However, the findings of this study demonstrate that the students previously receiving help had higher points in terms of physiological sub-test than participants who did not. This situation urges us to think that when determining intervention methods for test anxiety, researchers should carry out their works within the framework of a more personalised plan and take into account the factors that trigger anxiety in the individual (such as self-efficacy perception, gender, previous learning experience).

It has been observed that the students who are evaluated as 'very unsuccessful / unsuccessful' in terms of academic achievement have higher points in STAS cognitive and psychosocial sub-tests as well as STAS. This situation is parallel with the research findings in the literature suggesting that negative adult evaluations have a determining role in test anxiety (Öner, 1989).

In this study, based on the theories that argue the opinion that parents may have different relationships with the child (Goldenberg & Goldenberg, 2000), the mother and father attitudes were evaluated separately. It has been seen that students perceiving their both mother's and father's attitude towards themselves as 'protective/demanding' have higher points obtained from STAS psychosocial sub-test. In the protective-demanding parental attitude, parents protect their children too much and create a control mechanism over them. It is likely that children who grow up in this way end up being dependent on other people and have poor self-esteem (Yavuzer, 2010). Studies have found that young people's perceptions of themselves are negative as a result of the protective-demanding parental attitude (Sezer, 2010; Emir, 2014). Test anxiety is observed in the children of parents who have high expectations for their children and critically evaluate their performance

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(Sarason, Davidson, Lighthall, Waite, and Ruebush, 1960) because test anxiety is mainly related to the fear of being evaluated (Kapıkıran, 2002). Not only parents can transfer their own anxiety to the child in the process of raising them, but also continuous emphasis on success, determining the value of the child based on academic achievement, and parental attitudes and behaviors during the process of raising a child can also lead to the development of test anxiety (Cited by Kapıkıran in 2002 From Kapıkıran, 1999). The findings obtained from the research in Turkey reveal, as a result of literature reviews, that parental attitudes have determining roles in test anxiety (Duman, 2008; Yıldız, 2007). Similarly, another study has demonstrated that there is a positive correlation between test anxiety and protective-demanding and authoritarian parental attitudes, while there is a negative correlation between test anxiety and democratic parental attitude (Bilir, 2019).

Those who did not choose their departments willingly obtained higher points than those choosing their departments willingly in terms of STAS psychosocial sub-test. Both social and economic status of the family may influence students' choices. Therefore, not choosing the department willingly may result from environmental factors. The level of test anxiety of the students whose decisions are respected is lower than that of the students whose decisions are not respected (Acar, 2018). Accordingly, it is possible for students to avoid negative reactions and comments from the environment and to experience test anxiety, since they do not feel in a position to express themselves freely and make decisions.

With the assessments carried out within the scope of this research, it has been seen that age does not make any differences in state test anxiety. There are findings in the literature supporting this situation (Ebrahimi and Khoshsima, 2014; Umuzdaş, 2020; Büyükahıska, 2015). Age may not be a determining variable for test anxiety, or it can be thought that there are other mediating or regulatory variables that may affect the research findings.

Examining state test anxiety in terms of gender, it has been identified that point averages obtained from STAS cognitive, physiological sub-tests and STAS are higher among female participants. This situation is similar to the findings of other research studies in the literature (Hembree, 1988; Chapell, Blanding, Silverstein, Takahashi, Newman, Gubi and McCann, 2005; Bilir, 2019; Kapıkıran, 2002; Hanımoğlu, 2010; Erözkan, 2004). In the studies, it is stated that the sample is mostly composed of women (Peleg Popko, 2004). It is thought that the fact that the study group of this research study also consists mostly of women may have a role in the determination of female students as more anxious. While female students perceive evaluations more threatening than male students do (Cassady and Johnson, 2002), male students can see evaluations as a challenge and are able to turn this stimulation they experience during tests into an opportunity (Peleg Popko, 2004).

Maternal education level does not make a difference in state test anxiety. It has been

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identified that point averages obtained from STAS cognitive, physiological sub-tests and STAS itself of those whose fathers are illiterate are higher. In a research study carried out by Umuzdaş (2020), it was observed that 1/3 of the participants had a mother who was a primary school graduate and there was no difference among the participants in terms of test anxiety in this sense. On the other hand, it was observed that paternal education level was a determinant factor in test anxiety (Umuzdaş, 2020). As for the studies conducted by Yıldırım (2008) and Hanımoğlu (2010), it was seen that neither maternal nor paternal education levels make a difference in test anxiety. These findings contradict the results obtained from the research.

Total monthly income of the family does not make a difference in terms of STAS and its sub-tests. This situation is similar to the research findings in the literature (Bilir, 2019; Hanımoğlu, 2010). Since the sample in which this study was conducted comprised state university students and they did not pay an education fee, there may not have been a change in state test anxiety due to income level. Besides, students have working opportunities during their university education, as well. No information was requested from the students related to their working status in the study. However, if the study group was composed of students working and generating income for the household, this would explain why family income has no effect on test anxiety. After all, considering that the most basic human needs are physical needs (Maslow, 1943), income has a large share in fulfilling them.

It has been seen that students in the department of Child Development have the highest points in STAS cognitive, physiological sub-tests as well as STAS itself. This may be because of the fact that the number of female students in the department is higher since when state test anxiety was examined in terms of gender, it was found out that state test anxiety levels of the female students were higher. Additionally, it is also believed that it may be due to the test, the data of which were collected. The data in the department of Child Development were collected before the final exams of the core courses such as Introduction to Child Development and Child Development-I. Especially, it can be thought that these courses, which have an intensive theoretical basis and constitute the building blocks of the department, play a role as a factor increasing the level of anxiety in students. Furthermore, depending on the grade level, the lack of an idea about the test method for first-year students may have been a factor that increased anxiety. In a study conducted by Kapıkıran (2002), it was found out that first-year students had higher total points of test anxiety.

Examining the situation in terms of the nature of the department of education, it has been identified that point averages of STAS cognitive, physiological sub-tests and STAS itself are higher among those studying bachelor's degree. Test anxiety is a condition seen at all educational levels (Kapıkıran, 2002; Kaçan-Softa, Ulaş-Karaahmetoğlu, Çabuk, 2015; Hanımoğlu and İnanç,

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2011; Umuzdaş, 2020; Hanımoğlu, 2010). However, test anxiety also increases depending on the level of difficulty and future expectations that increase in parallel with the education level (Yerin, 1995; Umuzdaş, 2020).

It has been seen that the point averages obtained from STAS physiological sub-test and STAS are the highest in the groups having a GPA of 3,26 and above. In other words, as the grade points of the students increase, their level of expectation increases, which causes anxiety in them. Similarly, in a study conducted by Acar (2018), it was observed that as the point average increased, the anxiety point averages of the students also increased. It is known that optimal test anxiety supports success (Gregor, 2005). Additionally, relatively successful students are individuals being highly interested in school subjects with high self-confidence (Temel and Aksoy, 2001). The possibility of losing such self-confidence can cause an uneasiness in the individual that turns into anxiety (Soner, 1995). Due to the fear of losing their social status in the eyes of the individuals important to them, the state test anxiety levels of the relatively successful group of students may have been high. On the other hand, gender also plays an important role in test anxiety and academic performance (Bilir, 2019). Considering that this research is mostly composed of female students, it can be considered that gender may have a prominent impact on this finding.

Limitations of The Research and Recommendations

There are some limitations to this research. Hawthorn effect may be a limitation to this study. Students may have wanted to show their test anxieties at a more "desired" level for the researchers because there were expressions about test anxiety in the data collection forms presented to the students and in the explanation made just before the test. Information to be collected from external observers and / or teachers can be used in future studies instead of using the information collected from the students as the only source of information. To ensure an in-depth examination of test anxiety within the context of biopsychosocial model, classroom observations and individual semi-structured interviews can be utilized. In addition, since this research is a screening model that aims to describe the situation as it is, there are not any findings regarding causality. Accordingly, the effectiveness of an intervention program that also addresses the biopsychosocial dimension of test anxiety can be evaluated in subsequent studies. In order to strengthen generalizability of the research, this study can be repeated with students of different ages and socioeconomic status from different geographical regions of the country. Considering that the determining effect of parental attitude on test anxiety is valid for all age groups, providing seminars for parents may be recommended.

In conclusion, tests play a substantial role in education and professional lives of the

individuals. Therefore, it is not surprising that test environments create a range of concerns in individuals. In this study, which aims to examine the state test anxiety in terms of various variables, it has been observed that the cognitive, physiological, and psychosocial components of test anxiety function as a separate but interacting systems. Test anxiety is one of the factors preventing students from presenting their knowledge and skills in evaluation settings by hindering their full performance. For the interventions to be implemented to reduce test anxiety, it may be recommended to plan a study also considering the psychosocial components that trigger anxiety in the individual.

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