

## The Relationship between Teachers' Levels of Organizational Vulnerability and Self-Confidence<sup>1</sup>

Nuriye KARABULUT<sup>2</sup> Ali BALCI<sup>3</sup>

### To cite this article:

Karabulut, N. & Balcı, A. (2024). The relationship between teachers' levels of organizational vulnerability and self-confidence. *e-Kafkas Journal of Educational Research*, 11, 95-123. doi: 10.30900/kafkasegt.1411532

Research article

Received: 28.12.2023

Accepted: 10.04.2024

### Abstract

In this study, it was aimed to determine the relationship between the organizational vulnerability and the self-confidence levels of teachers working in public secondary schools in Ankara. The study employed the relational survey model, one of the survey models and causal comparative model. The population of the study consisted of 16171 teachers working in nine central districts of Ankara, and the sample consisted of 377 teachers determined by using the stratified sampling method. Research data were collected with the Organizational Vulnerability Scale and the Self-Confidence Scale. In the analysis of the data, the statistics such as percentage, frequency and arithmetic mean were used to describe the situations related to the variables. In order to test whether the teachers' organizational vulnerability and the self-confidence levels varied significantly depending on the independent variables, t-test and one-way analysis of variance were used. The degree and the direction of the relationship between organizational vulnerability and self-confidence were determined by using the Pearson correlation coefficient, and whether self-confidence predicted organizational vulnerability was determined through multiple regression analysis. According to the analysis results, the teachers' level of defenselessness was relatively higher than their levels of sadness, incompetence and intolerance. The teachers' organizational vulnerability was found to not vary significantly depending on the variables of gender, school type, professional experience and union membership. However, their levels of defenselessness, sadness and general vulnerability were found to vary significantly depending on their education level and their level of incompetence was found to vary significantly depending on their branch. The teachers' level of self-confidence was found to not vary significantly depending on the variables of gender, union membership, education level and school type; however, their levels of intrinsic and general self-confidence were found to vary significantly depending on their branch and their levels of extrinsic self-confidence and general self-confidence were found to vary significantly depending on the variable of professional experience. There was low and negative correlation between the level of incompetence and the levels of intrinsic and extrinsic self-confidence. Self-confidence does not significantly predict organizational vulnerability.

**Keywords:** Vulnerability, Organizational Vulnerability, Intrinsic Self-Confidence, Extrinsic Self-Confidence, Teacher.

<sup>1</sup> This article was produced from Nuriye Karabulut's doctoral dissertation titled " The organizational vulnerability of teachers and its relationship with self-confidence ", prepared under the supervision of Prof. Dr. Ali Balcı.

<sup>2</sup>  Corresponding Author, nuriyekarabulut@gmail.com, Kafkas University.

<sup>3</sup>  Author, alibalci@gmail.com, Emeritus professor at Ankara University.

## **Introduction**

Teachers bear significant responsibility for ensuring that the social, economic, political, and individual development that are expected of education is fulfilled. They play a pivotal role in the efficacy of education and the development of pupils academically and morally. In the case of students' failure, teachers are often declared as one of the parties having the greatest responsibility. In addition, rapid changes and developments in technology and knowledge production make it necessary for teachers to constantly improve themselves professionally. In fact, in an environment such as the internet where access to information is open to everyone, the authority of the teacher arising from being the only source of information is shaken. Especially the transformation of education into a competitive, exam-based system increases the pressure on teachers. With all these developments, the expectations of students, administrators and society from teachers can cause teachers to feel under threat, inadequate and vulnerable. This situation is addressed as vulnerability in the literature.

### **Vulnerability**

The word "vulnerability" comes from the Latin root "vulnerare" meaning "to be injured" and generally means "susceptibility to danger or attack" or "susceptibility to injury" (Brown, 2012; Lasky, 2004). In everyday language, the concept of vulnerability is commonly used to describe someone as more sensitive or fragile than others. It is commonly used to describe people who have little or no capacity to protect themselves, are likely to be exposed to risk and are susceptible to harm (Sellman, 2005). However, vulnerability is an inborn characteristic of human beings and it exists throughout every individual's entire life and in all social conditions. All individuals, and even organizations and governments, are continuously and universally vulnerable; they are sensitive to all changes related to their physical and social well-being, whether these changes are positive or negative (Fineman, 2018). In this context, vulnerability refers to the state where an individual, society, organization, or government feels open to attacks or potential harm. Vulnerability can be considered in a wide variety of contexts. Physical vulnerability as seen in extreme sports, financial vulnerability resulting from irrational financial choices, or technical vulnerability referring to the susceptibility of computers to hacker attacks can be given as examples (Hamilton and Pinnegar, 2015). Based on the discussions above, vulnerability can be defined as the state of being open to risks and dangers, feeling incompetent, powerless, or defenseless, whether it applies to an individual, group, organization, or system. In short, vulnerability is the state of being susceptible to harm and defenseless.

### **Organizational vulnerability**

Like all employees, managers/employers are also vulnerable, but they are not equally or similarly vulnerable. Although vulnerabilities may differ, they are intertwined within the organization because both employees and employers are part of complex work relationships. Both groups suffer if business relationships fail (Fineman, 2018). According to Bunker (1997), vulnerability emerges when the changing environment threatens an individual's expectations regarding his/her job and career within organizational life. Organizational vulnerability refers to the inability to create and coordinate flexible responses to expectations and the inability to take advantage of opportunities in the social environment. Organizational vulnerability hinders effective adaptation in various contexts as it restricts the individual's ability to proactively respond to new stimuli and be flexible in his/her reactions (Bennett, 1998).

### **Teachers' organizational vulnerability**

The questioning of a teacher's professional identity and moral integrity by principals, parents and others, as well as the loss of control over the tasks and processes he/she feels responsible for, constitute the foundation of a teacher's organizational vulnerability (Kelchtermans, 1996). In general, teacher vulnerability results from criticism and attacks from others. The expectations, demands and behaviors of both school administrators and families are extremely important in teacher vulnerability. In addition to these, inspectors, school boards and legal regulations are also factors that affect teacher vulnerability (Blase, 1988).

According to Gao (2008), the professional vulnerability of the teacher is related to the experiences in which the teacher feels threatened. Teachers don't just feel positive emotions such as pride, curiosity and enthusiasm. Teaching also includes emotions such as disappointment, powerlessness, disillusionment, fear and anger (Kelchtermans, 1996). According to Gao (2008), teacher vulnerability

is related to teacher experiences as well as emotions. Teachers' experiences of organizational vulnerability are generally mediated by the socio-cultural context they are in. Teachers feel insecure and threatened in particular because of low wages, reforming initiatives for the commercialization of education, and changing educational environments. Valuable cultural traditions, the main source of power for the teacher, are rapidly disappearing. As a result, the professional authority of the teacher is damaged and the ability of the teacher to influence the beliefs, attitudes and behaviors of his/her students decreases. In addition, the culture of respect for the teacher creates high expectations upon the teacher in countries with Asian cultures such as China and it can undermine his/her authority. This leads to the professional vulnerability of the teacher (Gao, 2008). On the other hand, increasing social pressure on teachers is not only in Asian countries, but also in the whole world. Most teachers feel that they live in an aquarium because they are constantly watched by others and school stakeholders, especially parents who might react very strongly even to insignificant events. Teachers state that their actions are mostly misunderstood, and their personal and professional information is interpreted differently and even distorted by the society and the school (Blase, 1988).

### **Self-confidence**

The concept of self-confidence is the belief that one has in one's own abilities to make the right decision and take appropriate steps in situations no matter how difficult or easy they are (Richards, 2016). Similarly, Hambly (1997) states that self-confidence is expressed through concepts of courage and bravery but should be defined as "absolute belief in one's own abilities". Bakırcıoğlu (2012, 665) defines self-confidence with a similar perspective as "the belief and trust of an individual in his/her own strength and abilities; self-assurance". According to Perry (2011), self-confidence is the measure of an individual's self-perception related to his/her belief in his/her own abilities on the basis of his/her past experiences and environment.

Based on the explanations above, it is possible to define self-confidence as the feeling and belief of being sure of one's own power, decisions and abilities. Indeed, the belief that individuals hold within themselves also manifests in their behaviors during interactions with other people. As indicated by Hambly (1997) and Tyler (2016), these internal and external aspects of self-confidence are described by Lindenfield (1997) as "intrinsic self-confidence" and "extrinsic self-confidence".

Intrinsic self-confidence refers to an individual's belief that he/she is at peace with himself/herself and satisfied with who he/she is and expressing what he/she feels about this. Extrinsic self-confidence, on the other hand, refers to the appearance and attitudes and behaviours of the person indicating his/her self-confidence to other people. In fact, intrinsic self-confidence and extrinsic self-confidence complement each other, even if they have some shortcomings, and when they come together, they form a strong whole (Lindenfield, 1997).

### **Teacher self-confidence**

Teachers are faced with students who try to understand and look at them with curiosity from the very first day of their professional lives. Whether a teacher is just starting his/her teaching career or trying to teach a subject he/she is not very familiar with, he/she must always be confident for his/her students to believe in him/her (Hesmondhalgh, 2011). Teachers with high level of self-confidence are more likely to create an effective classroom environment. Teachers with low level of self-confidence are expected to exhibit a perfectionist and unforgiving authoritarian attitude in the classroom, while teachers with high level of self-confidence are expected to approach their students with kindness, appreciate their achievements and refrain from blaming them for their failures (Koyuncu-Şahin, 2015). In fact, one of the important factors in teachers' preference for different teaching approaches is self-confidence. Teachers' self-confidence levels are low, especially in a new environment and when they think that they do not have enough knowledge about the subject. In such a situation, teachers tend to prefer teacher-centered approaches instead of student-centered ones, leading to a lack of interaction with students and an inability to foster active student engagement (Sadler, 2013). Indeed, the teacher also influences student self-confidence through informal processes outside the formal educational context of the school. For example, students who interact with their teachers outside the formal educational environment of the school are emotionally and intellectually more confident (Maclellan, 2014).

As a result, teachers are one of the most important factors that play a role in both training self-confident students and in their academic and moral development. As stated by Kelchtermans (1996), in order to truly understand teachers, it is necessary to understand their vulnerabilities. When the relevant literature is reviewed, it is seen that there has not been any research in the national literature about teachers' organizational vulnerability. It is also seen that there are limited number of studies on this subject in the international literature (Blase, 1988; Bullough, 2005; Gao, 2008; Kelchtermans, 1996; Lasky, 2004; Song, 2016). In these studies, it was tried to reveal the vulnerability experiences of teachers by using a qualitative research design. No quantitative study has been found to determine the level of organizational vulnerability in both the national and international literature. It is clear that there is a gap in the literature on determining teachers' organizational vulnerability levels. Similarly, the studies on self-confidence in Turkey mostly focus on students (Çelik, 2014; Ezmeçi, 2012; Otacıoğlu, 2008; Özcan, 1996; Yalçın and Özgen, 2017), and there are limited research on teachers' self-confidence (Cengiz, Arslan and Şahin, 2014; Koyuncu-Şahin, 2015). Therefore, this study is expected to contribute significantly to the relevant literature on teachers' organizational vulnerability and self-confidence. Moreover, identifying teachers' current vulnerability and self-confidence levels can be beneficial in increasing their awareness in these areas, leading to positive developments in the attitudes and behaviors of administrators, parents and policymakers towards teachers. It can also be effective for policymakers for developing policies and practices that support these issues. Thus, the main problem of the current study is worded as "What is the relationship between teachers' organizational vulnerability and self-confidence?" To this end, answers to the following questions are sought:

1. What are the organizational vulnerability levels of teachers working in public secondary schools in the city of Ankara; a) in the whole scale, b) in the defenselessness sub-dimension, c) in the sadness sub-dimension, d) in the incompetence sub-dimension and e) in the intolerance sub-dimension?
2. Do the organizational vulnerability levels of teachers working in public secondary schools in the city of Ankara in the whole scale and in the sub-dimensions of defenselessness, sadness, incompetence and intolerance vary significantly depending on the variables of; a) gender, b) professional experience, c) school type, d) branch and e) union membership?
3. What are the self-confidence levels of teachers working in public secondary schools in the city of Ankara; a) in the whole scale, b) in the intrinsic self-confidence sub-dimension and in the extrinsic self-confidence sub-dimension?
4. Do the self-confidence levels of teachers working in public secondary schools in the city of Ankara in the whole scale and in the sub-dimensions of intrinsic self-confidence and extrinsic self-confidence vary significantly depending on the variables of; a) gender, b) professional experience, c) school type, d) branch and e) union membership?
5. Is there a significant correlation between the organizational vulnerability and self-confidence levels of teachers working in public secondary schools in the city of Ankara?
6. Do the self-confidence levels of teachers working in public secondary schools in the city of Ankara significantly predict their organizational vulnerability levels?

### **Method**

In this section, the information about the research model, population, sampling and study group, development of data collection tools, data collection and analysis was given.

### **Research Model**

This study, which aimed to reveal the relationship between the organizational vulnerability and the self-confidence levels of teachers working in public secondary schools in the city of Ankara, was designed using the relational survey and causal comparative models. Survey or descriptive designs are used to systematically define the characteristics and realities (conditions) related to the researched phenomenon or the relationships between phenomena and events, focusing on quantitative data (Merriam, 2009). In survey studies, the relevant situation, event, individual or object is described as it exists in its own conditions. In relational survey studies, it is tried to determine the existence, direction and magnitude of the co-variance of two or more variables (Karasar, 2009). Causal comparison, on the other hand, is a model that is used in social and educational research, which is relatively similar to experimental

research, and reveals the reason for the difference as a result of the comparison of those who have a characteristic with those who do not (Balcı, 2015).

### Population and Sample

The population of the study consisted of the teachers working in the public secondary schools in nine central districts of the city of Ankara. The population of the study consisted of 16171 teachers working in the public secondary schools. The sample size that can represent this population should be at least 375 according to Cochran's (1962 as cited in Balcı, 2015) sample size calculation formula, based on  $\alpha = .05$  significance and 5% margin of error. Considering that data loss might occur due to missing data and outliers, the sample size was determined to be 400. And, after missing data and outlier analyses, the required statistical analyses were conducted on a data set of 377 people.

In order to ensure that the population was represented thoroughly in the sample, the "stratified sampling" technique was used. In stratified sampling, the population was divided into related sub-strata and each stratum was included in the sample proportional to its ratio in the population (Balcı, 2015; Karasar, 2009). In this connection, first, the population was divided into nine strata representing the districts and the number of teachers to be included in the sample from each district was determined. Then, each district was stratified according to school types and the number of teachers to be included in the sample was calculated for each school type. Teachers who would participate in the study were randomly determined. The distribution and percentages of the teachers participating in the study in relation to different variables were shown in Table 1.

Table 1.

Distribution and Percentages of the Participating Teachers in Relation to Different Variables

Variable	Group	n	%
District	Altındağ	40	10.7
	Çankaya	76	20.2
	Etimesgut	34	9.0
	Gölbaşı	15	3.9
	Keçiören	52	13.8
	Mamak	43	11.4
	Pursaklar	12	3.2
	Sincan	39	10.3
	Yenimahalle	66	17.5
	Total	377	100.00
School Type	Anatolian High School	148	39.3
	Vocational High School	180	47.7
	İmam Hatip High School	49	13.0
	Total	377	100.0
Branch	Mathematics	63	16.7
	Literature	55	14.6
	Foreign Language	38	10.1
	Science	55	14.6
	Social Sciences	72	19.1
	Vocational Courses	59	15.6
	Sports and Arts	35	9.3
	Total	377	100.0
Gender	Female	266	70.6
	Male	111	29.4
	Total	377	100.0
Education Level	Undergraduate	272	72.1
	Graduate	105	27.9
	Total	377	100.0
Professional Experience	1-9 years	53	14.1
	10-19 years	123	32.6
	20-29 years	158	41.9
	30 years and more	43	11.4
	Total	377	100.0
Union Membership	Member	199	52.8
	Not Member	178	47.2
	Total	377	100.0

As seen in Table 1, 10.7% of the teachers work in schools located in the Altındağ district, 20.2% in the Çankaya district, 9.0% in the Etimesgut district, 3.9% in the Gölbaşı district, 13.8% in the Keçiören district, 11.4% in the Mamak district, 3.2% in the Pursaklar district, 10.3% in the Sincan district and 17.5% in the Yenimahalle district.

### Data Collection Tools

In order to determine the teachers' organizational vulnerability levels, The Organizational Vulnerability Scale was developed by the researchers. In addition, the Self-Confidence Scale developed by Akın (2007) was administered after conducting its validity and reliability studies again to determine the teachers' self-confidence levels.

**Organizational Vulnerability Scale:** The Organizational Vulnerability Scale consists of 4 sub-dimensions and 25 items. The sub-dimensions are defencelessness, incompetence, sadness and intolerance. In order to test the construct validity of the scale, the results of the exploratory factor analysis and reliability analysis performed with the data set of 230 teachers are given in Table 2.

Table 2.

Results of the Exploratory Factor Analysis and Reliability Analysis for the Organizational Vulnerability Scale

Factor	Number of Items	Variance Explained	Cronbach's Alpha Coefficient	Factor Loading Values	Item Total Correlation
Defencelessness	8	14.32%	.82	.48-.74	.35-.59
Incompetence	6	13.19%	.79	.53-.77	.35-.51
Sadness	5	11.84%	.82	.42-.77	.45-.64
Intolerance	6	15.34%	.88	.68-.80	.53-.67
Whole Scale	25	54.70%	.91	.42-.80	.35-.67
KMO = .88			Barlett's Test of Sphericity = $p=.001<.05$		

As can be seen from Table 2, the factor loading values of the scale items, item-total correlations, Cronbach's Alpha values and the total explained variance value were sufficient (Büyüköztürk, 2014; Kline, 1994; Pallant; 2001; Tavşancıl, 2010).

The validity of the four-factor Organizational Vulnerability Scale, which was formed as a result of the exploratory factor analysis, was tested with a confirmatory factor analysis. The main fit indices used in a confirmatory factor analysis and various evaluation criteria for these indices and the values obtained as a result of the analysis are shown in Table 3.

Table 3.

Values of Acceptance for Fit Indices in the Confirmatory Factor Analysis Model

Fit Indices	Perfect Fit	Acceptable Fit	Values Obtained in the Study
$\chi^2 /sd$	$0 \leq \chi^2 /sd \leq 2.00$	$2.00 \leq \chi^2 /sd \leq 3.00$	1.83
RMSEA	$0 \leq RMSEA \leq .05$	$.05 < RMSEA \leq .08$	.06
SRMR	$0 \leq SRMR \leq .05$	$.05 < SRMR < .10$	.06
NFI	$.95 \leq NFI \leq 1.00$	$.90 \leq NFI < .95$	.93
NNFI	$.97 \leq NNFI \leq 1.00$	$.95 \leq NNFI < .97$	.96
GFI	$.95 \leq GFI \leq 1.00$	$.90 \leq GFI < .95$	.85
AGFI	$.90 \leq AGFI \leq 1.00$	$.85 \leq AGFI < .90$	.82
CFI	$.95 \leq CFI \leq 1.00$	$.90 \leq CFI < .95$	.96

Source: Schermelleh-Engel and Moosbrugger, 2003, 52.

As can be seen in Table 3, the  $\chi^2 /sd$  (1.97) and CFI (.96) values obtained in this study indicated a perfect fit. RMSEA (.06), SRMR (.06), NFI (.93), NNFI (.96) values were within the acceptable range. Although the GFI (.85), AGFI (.82) values were outside the acceptable limits, they were quite close to the limit. In addition, as stated by their authors, the threshold values in Table 3 indicated a rather strict classification (Schermelleh-Engel and Moosbrugger, 2003). The GFI value is very sensitive to the sample size, as the sample size increases, the GFI value also increases. For this reason, it is

recommended that the limit value for fit indices be flexible and this value should be .80 in partially small samples of around 200 and in models with 24 or more items (Sharma, Mukherjee, Kumar and Dillon, 2005). The AGFI index, on the other hand, is the corrected version of the GFI, and the commonly used limit value for this index is .80 (Sharma, 1996). Therefore, the GFI and AGFI values are also acceptable. As a result, it is understood that the model is confirmed when all the indices are taken into account.

**Self-Confidence Scale:** The Self-Confidence Scale developed by Akin (2007) was used to determine the teachers' self-confidence levels. The Self-Confidence Scale was created as a result of a scale development study conducted on 796 high school students. The scale consists of 33 items and two sub-dimensions, "intrinsic self-confidence" and "extrinsic self-confidence". The Cronbach' Alpha coefficient is .91 for the whole scale, .83 for the sub-dimension of intrinsic self-confidence, and .85 for the sub-dimension of extrinsic self-confidence. In the current study, to test whether the scale was a valid and reliable scale for teachers, exploratory and confirmatory factor analyses were performed, item-total correlation and Cronbach's Alpa coefficients were calculated. As a result of the exploratory factor analysis, 13 items were removed from the scale and a 21-item Self-Confidence Scale was obtained. The results of the exploratory factor analysis and reliability analysis are shown in Table 4.

Table 4.

Results of the Exploratory Factor Analysis and Reliability Analysis for the Self-Confidence Scale

Factor	Number of Items	Explained Variance	Cronbach's Alpha Coefficient	Factor Loading Values	Item Total Correlation
Intrinsic Self-confidence	9	% 27.91	.84	.44-.79	.36-.68
Extrinsic Self-confidence	12	% 20.12	.90	.51-.74	.46-.73
Whole Scale	21	% 48.03	.92	.44-.79	.36-.73
KMO = .93			Barlett's Test of Sphericity = p=.001<.05		

As shown in Table 4, the factor loading values of the scale items, item-total correlations, Cronbach's Alpha values and the total explained variance value were sufficient (Büyüköztürk, 2014; Kline, 1994; Pallant; 2001; Tavşancıl, 2010).

The validity of the two-factor Self-Confidence Scale, which was formed as a result of the exploratory factor analysis, was tested with a confirmatory factor analysis. The main fit indices and evaluation criteria for a confirmatory factor analysis and the index values obtained in this study are shown in Table 5.

Table 5.

Values of Acceptance for Fit Indices in the Confirmatory Factor Analysis Model

Fit Indices	Perfect Fit	Acceptable Fit	Values Obtained in the Study
$\chi^2 /sd$	$0 \leq \chi^2 /sd \leq 2.00$	$2.00 \leq \chi^2 /sd \leq 3.00$	1.72
RMSEA	$0 \leq RMSEA \leq .05$	$.05 < RMSEA \leq .08$	.06
SRMR	$0 \leq SRMR \leq .05$	$.05 < SRMR < .10$	.05
NFI	$.95 \leq NFI \leq 1.00$	$.90 \leq NFI < .95$	.95
NNFI	$.97 \leq NNFI \leq 1.00$	$.95 \leq NNFI < .97$	.97
GFI	$.95 \leq GFI \leq 1.00$	$.90 \leq GFI < .95$	.87
AGFI	$.90 \leq AGFI \leq 1.00$	$.85 \leq AGFI < .90$	.84
CFI	$.95 \leq CFI \leq 1.00$	$.90 \leq CFI < .95$	.98

Source: Schermelleh-Engel and Moosbrugger, 2003, 52.

As can be seen in Table 5, the  $\chi^2/sd$  (1.72), NFI (.95), NNFI (.97) and CFI (.96) values obtained in this study indicated a perfect fit. RMSEA (.06) and SRMR (.05) values were within the acceptable fit range. Although the values of GFI (.87), AGFI (.84) were outside the acceptable limits, they were quite close to the limit. Moreover, the threshold values presented in Table 5 were deemed to represent a rather strict classification (Schermelleh-Engel and Moosbrugger, 2003), and as previously discussed, in relatively small samples, the threshold value could be .80 (Sharma, 1996; Sharma et al., 2005). Therefore, these GFI and AGFI values are also considered acceptable.

### **Data Collection**

Permission was obtained from the Ankara Provincial Directorate of National Education and approval was obtained from the Ankara University Ethics Committee to administer the scales to the teachers working in public secondary schools in Ankara province. Then, the Organizational Vulnerability Scale and the Self-Confidence Scale were administered to 400 teachers. The scales were administered face to face to 186 of the teachers and due to the ongoing pandemic, data were collected from 214 teachers online. In this context, first, personal information and scale items were transferred to the online environment via Google Forms, and the form including the Organizational Vulnerability Scale and Self-Confidence Scale and the link for the participants to complete in this form were created. In order to reach the teachers, the schools in the central districts in the sample were called one by one, and the school administrators were informed about the research request. The administrators accepting this request gave their personal phone numbers or e-mail addresses to the researcher. Thus, the permission document obtained from the Ankara Provincial Directorate of National Education and the link to the form were shared with school administrators by the researcher. The administrators, in turn, shared them with teacher groups via WhatsApp or email.

### **Data Analysis**

In the analysis of the data collected in the quantitative part of the study, SPSS (Statistical Package Program for Social Sciences) was used. Before starting the analysis, missing data and outlier analyses were conducted on the data set. In this context, the scores were converted to z scores and the observation units remaining outside the +3 and -3 critical values (Stevens, 2009) were removed from the data set. Since the missing data were less than 5% and random, they were filled in by assigning the mean value of the relevant series (Çokluk et al., 2014). As a result, analyses were started with the data set of 377 people and the following statistical analyses were made:

1. Percentage and frequency calculations were made in the description of the personal information (gender, branch, professional experience, education level, union membership, school type) of the teachers participating in the study.
2. In order to determine the organizational vulnerability and self-confidence levels of the teachers, arithmetic mean and standard deviation values were calculated. The following evaluation intervals were used for the arithmetic mean scores of the answers given by the teachers to the scale items: “1.00-1.79=Never”, “1.80-2.59=Rarely”, “2.60-3.39=Sometimes”, “3.40-4.19=Frequently”, “4.20-5.00=Always”.
3. T-test was used to determine whether the teachers’ levels of organizational vulnerability and self-confidence vary significantly depending on the variables of gender, education level and union membership and one-way analysis of variance (f-test) was conducted to determine whether the teachers’ levels of organizational vulnerability and self-confidence varied significantly depending on the variables of professional experience, branch and school type.
4. Pearson correlation coefficient (Simple correlation) was calculated in order to determine whether there was a significant correlation between the teachers’ levels of organizational vulnerability and self-confidence.
5. Multiple regression analysis was conducted to determine whether the teachers’ self-confidence levels significantly predicted their organizational vulnerability levels.

### **Findings**

In this section, the findings obtained by analyzing the data collected from the teachers working in public secondary schools in the city of Ankara in relation to the concepts of organizational vulnerability and self-confidence were given.

#### **Findings Related to Organizational Vulnerability**

This section presented the results of the study on the organizational vulnerability levels of the participating teachers and whether the variables of gender, professional experience, branch, type of school, education level, and union membership had a significant impact on those levels.

**Findings about the organizational vulnerability level.** The arithmetic mean and standard deviation values were calculated to determine the organizational vulnerability levels of the participating teachers for the whole scale and its sub-dimensions. The results obtained in this context are presented in Table 6.

Table 6.  
Arithmetic Means and Standard Deviations Regarding the Teachers' Level of Organizational Vulnerability

No	Item	$\bar{x}$	<i>sd</i>	Order of Importance	
Defencelessness	4 I am concerned about legal regulations not aligning with the realities of the school.	3.16	1.22	1	
	1 I am concerned about the changes in the curriculum.	3.10	1.06	2	
	7 I feel uncomfortable with the evaluation of my professional competence based on non-educational factors.	3.04	1.28	3	
	2 I feel restricted by the obligation to comply with the curriculum during the educational process.	2.90	1.05	4	
	6 I do not feel confident when implementing a new teaching method.	2.42	1.03	5	
	23 I feel disappointed when I compare the status I hoped to have in my profession with my current status.	2.41	1.28	6	
	9 I feel vulnerable in the face of authoritarian attitudes during the inspection process.	2.40	1.15	7	
	10 I feel uneasy when students complain about negative situations at school/in class to parents, administration, or relevant institutions.	2.35	1.15	8	
	Mean of the Sub-dimension		2.72	.80	
	Incompetence	3 I feel uneasy about the expectation of being a role model as a teacher.	1.85	.99	1
19 I feel incompetent when using new educational technologies		1.83	.83	2	
20 I feel concerned about which values I should impart to students.		1.62	.78	3	
18 I have difficulty communicating with my students due to the generation gap between us.		1.54	.77	4	
17 I feel incompetent in imparting the behaviours specified in the curriculum to my students.		1.48	.72	5	
21 I feel uneasy when students ask questions about a subject in which I am inadequate.		1.43	.61	6	
Mean of the Sub-dimension		1.63	.54		
Sadness	25 Not receiving appreciation from my superiors when I do good work hurts me.	2.60	1.30	1	
	12 It saddens me when my colleagues gossip about me.	2.59	1.34	2	
	15 I feel worthless when my administrators do not involve me in decision-making processes.	2.48	1.25	3	
	22 The inadequate socialization environment at school saddens me.	2.30	1.13	4	
	16 I feel sad when my colleagues ignore me.	2.19	1.21	5	
Mean of the Sub-dimension		2.43	.94		
Intolerance	11 Parents' interference in instructional activities annoys me.	2.98	1.23	1	
	13 I cannot tolerate unfair criticisms from my colleagues about my instructional activities.	2.37	1.24	2	
	5 I am uncomfortable with my administrators constantly monitoring me.	2.36	1.18	3	
	8 It makes me angry when my administrators assign too many administrative tasks.	2.30	1.20	4	
	14 I feel uncomfortable with my administrators questioning my professional competence	2.19	1.21	5	
	24 Parents' requests to change my behaviour towards students make me angry.	2.13	1.15	6	
Mean of the Sub-dimension		2.39	.87		
Mean of the Scale		2.32	.66		

As seen in Table 6, the teachers' level of defencelessness ( $\bar{X}=2.72$ ) was higher than their levels of sadness ( $\bar{X}=2.43$ ), incompetence ( $\bar{X}=1.43$ ) and intolerance ( $\bar{X}=2.39$ ). While the teachers' levels of intolerance ( $\bar{X}=2.39$ ) and sadness ( $\bar{X}=2.43$ ) were close to each other, their level of incompetence is relatively lower ( $\bar{X}=1.43$ ). In addition, when the criteria for evaluation the mean value are taken into consideration, it is understood that the teachers adopted the expressions in the defenselessness sub-dimension "sometimes", the expressions in the incompetence sub-dimension "never", and the expressions in the intolerance and sadness sub-dimensions "rarely".

When the whole Organizational Vulnerability Scale is considered, the teachers agreed the most with the item "I am concerned about legal regulations not aligning with the realities of the school." ( $\bar{X}$ =3.16) and agree the least with the item "I feel uneasy when students ask questions about a subject in which I am inadequate." ( $\bar{X}$ =1.43).

**Findings about whether organizational vulnerability levels vary significantly depending on different variables.** T-test was used to determine whether the teachers' organizational vulnerability levels varied significantly depending on the variables of gender, education level and union membership and one-way analysis of variance was used to determine whether the teachers' organizational vulnerability levels varied significantly depending on the variables of branch, professional experience and school type and the findings are presented under the relevant headings.

Findings regarding the effect of gender on organizational vulnerability. T-test was used to determine whether the teachers' organizational vulnerability levels varied significantly depending on gender and the results of the analysis are presented in Table 7.

Table 7.

Results of the T-test Conducted to Determine Whether the Teachers' Organizational Vulnerability Levels Vary Significantly Depending on Gender

Variable	Group	<i>N</i>	$\bar{x}$	<i>sd</i>	<i>t</i>	<i>df</i>	<i>p</i>	Significant Difference
Defencelessness	Female	266	21.84	6.65	.12	375	.90	-
	Male	111	21.75	5.92				
Sadness	Female	266	12.16	4.82	-.16	375	.86	-
	Male	111	12.25	4.52				
Incompetence	Female	266	9.77	3.33	-.08	375	.93	-
	Male	111	9.80	3.09				
Intolerance	Female	266	14.11	5.36	-1.46	375	.14	-
	Male	111	14.98	4.86				
General Organizational Vulnerability	Female	266	57.89	17.37	-.47	375	.63	-
	Male	111	58.79	14.95				

As can be seen in Table 7, the vulnerability levels of the female teachers ( $\bar{X}$ =21.84) and the male teachers ( $\bar{X}$ =21.75) were quite close to each other, and there was no significant difference in vulnerability levels based on gender ( $t_{(375)} = 12$ ;  $p > .05$ ). Similarly, there was no significant difference between the mean scores of the female and the male teachers taken from the sub-dimensions of sadness ( $t_{(375)} = -.16$ ;  $p > .05$ ), incompetence ( $t_{(375)} = -.08$ ;  $p > .05$ ) and intolerance ( $t_{(375)} = -1.46$ ;  $p > .05$ ). When the mean scores taken from the whole scale were examined, it is seen that the male teachers ( $\bar{X}$ =58.79) had higher levels of organizational vulnerability compared to the female teachers ( $\bar{X}$ =57.89), but this difference was not statistically significant.

Findings regarding the effect of education level on organizational vulnerability. T-test was used to determine whether the teachers' organizational vulnerability levels varied significantly depending on education level and the results of the analysis are presented in Table 8.

As seen in Table 8, the mean scores taken from the sub-dimension of defenselessness varied significantly depending on their education level ( $t_{(375)} = -3.27$ ;  $p < .05$ ). The mean score taken from this sub-dimension by the teachers having graduate education ( $\bar{X}$ =23.54) was significantly higher than that of the teachers having undergraduate education ( $\bar{X}$ =21.14). Similarly, mean score taken from the sub-dimension of sadness by the teachers having graduate education ( $\bar{X}$ =13.01) was significantly higher than that of the teachers having undergraduate education ( $\bar{X}$ =11.86) ( $t_{(375)} = -2.12$ ;  $p < .05$ ). The mean scores taken from the sub-dimension of the incompetence by the teachers having undergraduate education ( $\bar{X}$ =9.77) and the teachers having graduate education ( $\bar{X}$ =9.67) were highly close to each other and the difference between them was not significant ( $t_{(374)} = .28$ ;  $p > .05$ ). Similarly, the mean scores taken from the sub-dimension of intolerance by the teachers having undergraduate education ( $\bar{X}$ =14.39) and by the teachers having graduate education ( $\bar{X}$ =14.83) were not significantly different from each other ( $t_{(375)} = -2.12$ ;  $p > .05$ ). When the teachers' general organizational vulnerability levels were examined, it is seen

that the mean score of the teachers having graduate education ( $\bar{X}=61.20$ ) was significantly higher ( $t_{(375)} = -2.02$ ;  $p < .05$ ) than that of the teachers having undergraduate education ( $\bar{X}=56.98$ ).

Table 8.

Results of the T-test Conducted to Determine Whether the Teachers' Organizational Vulnerability Levels Vary Significantly Depending on Education Level

Variable	Group	<i>N</i>	$\bar{x}$	<i>sd</i>	<i>t</i>	<i>df</i>	<i>p</i>	Significant Difference
Defencelessness	Undergraduate	272	21.14	6.40	-3.27	375	.001	Yes
	Graduate	105	23.54	6.22				
Sadness	Undergraduate	272	11.86	4.75	-2.12	375	.03	Yes
	Graduate	105	13.01	4.58				
Incompetence	Undergraduate	272	9.77	3.26	.28	374	.77	-
	Graduate	104	9.67	3.01				
Intolerance	Undergraduate	272	14.19	5.39	-1.07	375	.28	-
	Graduate	105	14.83	4.78				
General Organizational Vulnerability	Undergraduate	272	56.98	17.03	-2.20	375	.02	Yes
	Graduate	105	61.20	15.40				

Findings regarding the effect of union membership on organizational vulnerability. T-test was used to determine whether the teachers' organizational vulnerability levels varied significantly depending on union membership and the results of the analysis are presented in Table 9.

Table 9.

Results of the T-test Conducted to Determine Whether the Teachers' Organizational Vulnerability Levels Vary Significantly Depending on Union Membership

Variable	Group	<i>N</i>	$\bar{x}$	<i>sd</i>	<i>t</i>	<i>df</i>	<i>p</i>	Significance Difference
Defencelessness	Union Member	199	21.21	6.27	-1.93	375	.053	-
	Not Union Member	178	22.49	6.57				
Sadness	Union Member	199	11.89	4.52	-1.27	375	.20	-
	Not Union Member	178	12.51	4.94				
Incompetence	Union Member	199	9.68	3.15	-.23	373	.81	-
	Not Union Member	176	9.75	3.14				
Intolerance	Union Member	199	14.18	5.21	-.71	375	.47	-
	Not Union Member	178	14.57	5.25				
General Organizational Vulnerability	Union Member	199	56.97	16.45	-1.45	375	.14	-
	Not Union Member	178	59.48	16.88				

As seen in Table 9, the mean score of the teachers who are not union members ( $\bar{X}=22.49$ ) is higher than that of the teachers who are union members ( $\bar{X}=21.21$ ) but this difference is not statistically significant ( $t_{(375)} = -2.12$ ;  $p > .05$ ). Similarly, the mean scores taken by the teachers from the sub-dimensions of sadness ( $t_{(375)} = -1.27$ ;  $p > .05$ ), incompetence ( $t_{(373)} = -.23$ ;  $p > .05$ ) and intolerance ( $t_{(375)} = -.71$ ;  $p > .05$ ) did not vary significantly depending on union membership. While the mean score taken by the teachers who are not union members from the whole scale ( $\bar{X}=59.48$ ) is higher than that of the teachers who are union members ( $\bar{X}=56.97$ ), this difference is not statistically significant ( $t_{(375)} = -1.45$ ;  $p > .05$ ). As being a union member is expected to create a significant difference at least in the sub-dimension of defenselessness, the finding that it did not create a significant difference can be considered as a surprising finding.

Findings regarding the effect of branch on organizational vulnerability. One-way analysis of variance was conducted to determine whether the teachers' organizational vulnerability levels varied significantly depending on branch and the results of the analysis are presented in Table 10.

Table 10.  
Results of the One-Way Analysis of Variance Conducted to Determine Whether the Teachers' Organizational Vulnerability Levels Vary Significantly Depending on Branch

	Branch	<i>N</i>	$\bar{x}$	<i>sd</i>	Source of the Variance	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	<i>p</i>	S. D.
Defencelessness	1.Mathematics	63	22.61	6.40	Between-Groups	470.19	6	78.36	1.93	.07	-
	2.Literature	55	23.08	6.11	Within-Groups	14770.15	364	40.57			
	3.Foreign Language	38	20.56	7.11	Total	15240.34	370				
	4.Science	49	21.01	6.31							
	5.Social Sciences	72	21.42	5.96							
	6.Vocational Courses	59	22.46	6.52							
	7.Spors and Arts	35	19.31	6.47							
Sadness	1.Mathematics	63	12.34	4.45	Between-Groups	168.52	6	28.08	1.26	.27	-
	2.Literature	55	11.94	4.25	Within-Groups	8164.38	367	22.24			
	3.Foreign Language	38	11.31	4.73	Total	8332.91	373				
	4.Science	52	11.42	4.93							
	5.Social Sciences	72	12.13	4.25							
	6.Vocational Courses	59	13.49	5.38							
	7.Spors and Arts	35	11.82	5.19							
Incompetence	1.Mathematics	63	9.71	2.90	Between-Groups	196.41	6	32.73	3.68	.001	<b>1-7</b>
	2.Literature	55	10.68	3.00	Within-Groups	3225.23	363	8.88			<b>2-4</b>
	3.Foreign Language	37	9.59	3.40	Total	3421.64	369				<b>2-7</b>
	4.Science	52	8.78	2.17							<b>5-7</b>
	5.Social Sciences	72	10.09	3.65							
	6.Vocational Courses	59	9.55	2.89							
	7.Spors and Arts	32	8.03	1.97							
Intolerance	1.Mathematics	63	14.45	4.93	Between-Groups	98.76	6	16.46	.62	.70	-
	2.Literature	54	14.12	4.42	Within-Groups	9587.71	365	26.26			
	3.Foreign Language	38	14.28	5.69	Total	9686.47	371				
	4.Science	52	13.32	5.50							
	5.Social Sciences	72	14.55	5.10							
	6.Vocational Courses	59	14.93	5.12							
	7.Spors and Arts	34	13.54	5.26							
General Organizational Vulnerability	1.Mathematics	63	59.13	15.75	Between-Groups	2524.45	6	420.74	1.57	.15	-
	2.Literature	55	60.13	14.56	Within-Groups	97568.49	364	268.04			
	3.Foreign Language	38	56.11	19.28	Total	100092.94	370				
	4.Science	49	53.17	15.66							
	5.Social Sciences	72	58.20	15.61							
	6.Vocational Courses	59	60.44	17.36							
	7.Spors and Arts	35	53.89	17.48							

Note: When determining the source of the significant difference between the groups in the sub-dimension of incompetence, the Dunnett's C test was used as a relevant post hoc test due to the non-homogeneous distribution of variances ( $p = 0.001 < 0.05$ ) as indicated by the Levene test. Dunnett's C test was preferred because it is one of the frequently used post hoc tests in cases where variances and group sizes are not equal (Büyüköztürk, 2014; Kayri, 2009).

As seen in Table 10, the mean scores taken by the teachers from the sub-dimensions of defenselessness ( $F_{(6, 364)}=1.93$ ;  $p>.05$ ), sadness ( $F_{(6, 367)}=1.26$ ;  $p>.05$ ), intolerance ( $F_{(6, 365)}= .62$ ;  $p>.05$ ) and the whole scale ( $F_{(6, 364)}=1.57$ ;  $p>.05$ ) did not vary significantly depending on their branches. On the other hand, the mean scores taken from the sub-dimension of incompetence vary significantly depending on branch ( $F_{(6, 363)}=3.68$ ;  $p<.05$ ). According to the results of the Dunnetts’C post hoc test, the mean score taken by the mathematics teachers from the sub-dimension of incompetence ( $\bar{X}=9.71$ ) is higher than the mean score taken by the sports and arts teachers ( $\bar{X}=8.03$ ). The mean score taken by the literature teachers from the sub-dimension of incompetence ( $\bar{X}=10.68$ ) is significantly higher than those of the science ( $\bar{X}=8.78$ ) and sports and arts teachers ( $\bar{X}=8.03$ ). Similarly, the mean score taken by the social sciences teachers ( $\bar{X}=10.09$ ) is significantly higher than that of the sports and arts teachers ( $\bar{X}=8.03$ ).

Findings regarding the effect of school type on organizational vulnerability. One-way analysis of variance was conducted to determine whether the teachers’ organizational vulnerability levels varied significantly depending on school type and the results of the analysis are presented in Table 11.

Table 11.

Results of the One-Way Analysis of Variance Conducted to Determine Whether the Teachers’ Organizational Vulnerability Levels Vary Significantly Depending on School Type

	School Type	<i>N</i>	$\bar{x}$	<i>sd</i>	Source of the Variance	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	<i>p</i>	S. D.
Defencelessness	1. Anatolian High School	148	21.53	6.08	Between-Groups	22.78	2	11.39	.27	.76	-
	2. Vocational High School	180	21.92	6.61	Within-Groups	15569.82	374	41.63			
	3.İmam Hatip High School	49	22.24	6.89	Total	15592.60	376				
Sadness	1. Anatolian High School	148	12.00	4.31	Between-Groups	8.97	2	4.48	.20	.81	-
	2. Vocational High School	180	12.27	5.01	Within-Groups	8408.65	374	22.48			
	3.İmam Hatip High School	49	12.42	4.91	Total	8417.62	376				
Incompetence	1. Anatolian High School	148	9.91	3.42	Between-Groups	14.69	2	7.34	.76	.46	-
	2. Vocational High School	177	9.58	2.88	Within-Groups	3581.63	371	9.65			
	3.İmam Hatip High School	49	9.36	2.84	Total	3596.32	373				
Intolerance	1. Anatolian High School	148	14.6	5.22	Between-Groups	27.87	2	13.93	.50	.60	-
	2. Vocational High School	180	14.08	5.15	Within-Groups	10274.21	374	27.47			
	3.İmam Hatip High School	49	14.60	5.58	Total	10302.08	376				
Organizational Vulnerability	1. Anatolian High School	148	58.10	16.01	Between-Groups	12.983	2	6.49	.02	.97	-
	2. Vocational High School	180	58.07	17.30	Within-Groups	104622.79	374	279.74			
	3.İmam Hatip High School	49	58.64	16.65	Total	104635.77	376				

As seen in Table 11, the mean scores taken from the sub-dimensions of defencelessness ( $F_{(2, 374)}=.27$ ;  $p>.05$ ), sadness ( $F_{(2, 374)}=.20$ ;  $p>.05$ ), incompetence ( $F_{(2, 374)}=.76$ ;  $p>.05$ ), intolerance ( $F_{(2, 374)}=.50$ ;  $p>.05$ ) and from the whole scale ( $F_{(2, 374)}=.02$ ;  $p>.05$ ) did not vary significantly depending on school type.

Findings regarding the effect of professional experience on organizational vulnerability. One-way analysis of variance was conducted to determine whether the teachers' organizational vulnerability levels varied significantly depending on professional experience and the results of the analysis are presented in Table 12.

Table 12.

Results of the One-Way Analysis of Variance Conducted to Determine Whether the Teachers' Organizational Vulnerability Levels Vary Significantly Depending on Professional Experience

	Prof. Ex.	<i>N</i>	$\bar{x}$	<i>sd</i>	Source of the Variance	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	<i>p</i>	S. D
Defencelessness	1-9 years	53	20.40	6.46	Between-Groups	150.02	3	50.00	1.20	.30	-
	10-19 years	123	22.02	5.99	Within-Groups	15442.57	373	41.40			
	20-29 years	158	22.25	6.74	Total	15592.60	376				
	30 years and more	43	21.34	6.44							
Sadness	1-9 years	53	11.60	4.86	Between-Groups	70.46	3	23.48	1.05	.37	-
	10-19 years	123	11.89	4.27	Within-Groups	8347.16	373	22.37			
	20-29 years	158	12.36	4.90	Total	8417.62	376				
	30 years and more	43	13.11	5.14							
Incompetence	1-9 years	51	9.17	2.77	Between-Groups	31.93	3	10.64	1.17	.32	-
	10-19 years	123	9.84	2.97	Within-Groups	3337.86	367	9.09			
	20-29 years	156	9.74	3.24	Total	3369.79	370				
	30 years and more	41	9.04	2.47							
Intolerance	1-9 years	53	14.01	6.03	Between-Groups	50.12	3	16.70	.60	.61	-
	10-19 years	123	14.00	4.38	Within-Groups	10251.96	373	27.48			
	20-29 years	158	14.78	5.62	Total	10302.08	376				
	30 years and more	43	14.34	4.98							
Organizational Vulnerability	1-9 years	53	55.61	17.58	Between-Groups	563.48	3	187.82	.67	.56	-
	10-19 years	123	57.77	14.62	Within-Groups	104072.29	373	279.01			
	20-29 years	158	59.28	17.93	Total	104635.77	376				
	30 years and more	43	58.27	16.49							

As seen in Table 12, the mean scores taken by the teachers from the sub-dimensions of defencelessness ( $F_{(3, 373)}=1.20$ ;  $p>.05$ ), sadness ( $F_{(3, 373)}=1.05$ ;  $p>.05$ ), incompetence ( $F_{(3, 373)}=1.17$ ;  $p>.05$ ), intolerance ( $F_{(3, 373)}=.60$ ;  $p>.05$ ) and from the whole scale ( $F_{(3, 373)}=.67$ ;  $p>.05$ ) do not vary significantly depending on professional experience.

**Findings Related to Self-Confidence**

Under this heading, there are findings about the self-confidence levels of the participating teachers and whether their self-confidence levels vary significantly depending on the variables of gender, professional experience, branch, school type, education level and union membership.

**Findings about self-confidence level:** The arithmetic mean and standard deviation values were calculated to determine the self-confidence levels of the participating teachers for the whole scale and its sub-dimensions. The results obtained in this context are presented in Table 13.

Table 13.  
Arithmetic Means and Standard Deviation for the Teachers’ Self-Confidence Levels

Dimension	No	Item	$\bar{x}$	sd	Order of Importance
Intrinsic Self-Confidence	5	I believe that I can overcome my problems.	4.24	.70	1
	3	I can cope with difficulties in life.	4.22	.75	2
	10	I love myself.	4.19	.79	3
	7	I believe that I am self-sufficient.	4.17	.81	4
	17	I believe that I am a valuable person.	4.13	.82	5
	1	I see myself as a successful person.	3.85	.80	6
	2	I am not dependent on others in my choices.	3.77	.97	7
	21	There is no insurmountable problem for me.	3.63	.90	8
	19	I can decide easily.	3.59	.91	9
	Mean of the Sub-dimension		3.98	.62	
Extrinsic Self-Confidence	4	I respect the opinions of others.	4.42	.69	1
	8	I can ask others questions about things that I do not understand.	4.34	.79	2
	13	I accept myself and others as I am/they are.	4.20	.77	3
	16	I can easily communicate with other people.	4.08	.82	4
	12	I can express myself easily.	4.06	.87	5
	9	I adapt to new environments.	4.05	.81	6
	11	I stand up for my rights when necessary.	4.04	.89	7
	14	I can accept criticism from others with understanding.	3.92	.81	8
	18	I express my thoughts without hesitation when communicating with others.	3.89	.87	9
	20	I believe that I am a social person.	3.87	.87	10
	6	I do not hesitate to participate in social events.	3.81	.94	11
	15	I'm not afraid to stand out.	3.63	.95	12
	Mean of the Sub-dimension		4.03	.62	
	Mean of the Scale		4.00	.59	

When Table 13 is examined, it is seen that the teachers’ extrinsic self-confidence level ( $\bar{X}=4.03$ ) is relatively higher than their intrinsic self-confidence level ( $\bar{X}=3.98$ ). In addition, from the mean values, it is understood that teachers “frequently” agree with the items in the sub-dimensions of intrinsic self-confidence and extrinsic self-confidence.

When the Self-Confidence Scale is generally evaluated, it is seen that the item the teachers agree with the most is “I believe that I can overcome my problems.” ( $\bar{X}=4.24$ ) while the item they agree the least is “I can decide easily.” ( $\bar{X}=3.59$ ).

**Findings about whether self-confidence levels vary significantly depending on different variables.**

It was tested whether the teachers’ self-confidence levels varied significantly depending on the variables of gender, education level, union membership, branch, professional experience and school type and the results are presented under the relevant headings.

Findings regarding the effect of gender on self-confidence. T-test was used to determine whether the teachers’ self-confidence levels varied significantly depending on gender and the results of the analysis are presented in Table 14.

As seen in Table 14, the mean scores taken from the sub-dimensions of intrinsic self-confidence ( $t_{(375)} = .16$ ;  $p > .05$ ) and extrinsic self-confidence ( $t_{(375)} = .40$ ;  $p > .05$ ) did not vary significantly depending on gender. While the mean score taken from the whole scale by the female teachers ( $\bar{X} = 84.32$ ) is higher than that of the male teachers ( $\bar{X} = 83.88$ ), this difference is not statistically significant.

Table 14.

Results of the T-test Conducted to Determine Whether the Teachers' Self-Confidence Levels Vary Significantly Depending on Gender

Variable	Group	<i>N</i>	$\bar{x}$	<i>sd</i>	<i>t</i>	<i>df</i>	<i>p</i>	Sig. Dif.
Intrinsic Confidence	Self- Female	266	35.86	5.69	.16	375	.87	-
	Male	111	35.76	5.35				
Extrinsic Confidence	Self- Female	266	48.46	7.56	.40	375	.68	-
	Male	111	48.12	7.25				
General Confidence	Self- Female	266	84.32	12.70	.30	375	.75	-
	Male	111	83.88	12.17				

Findings regarding the effect of education level on self-confidence. T-test was used to determine whether the teachers' self-confidence levels varied significantly depending on education level and the results of the analysis are presented in Table 15.

Table 15.

Results of the T-test Conducted to Determine Whether the Teachers' Self-Confidence Levels Vary Significantly Depending on Education Level

Variable	Group	<i>N</i>	$\bar{x}$	<i>sd</i>	<i>t</i>	<i>df</i>	<i>p</i>	Sig. Dif.
Intrinsic Confidence	Self- Undergraduate	272	35.94	5.67	.62	375	.53	-
	Graduate	105	35.54	5.37				
Extrinsic Confidence	Self- Undergraduate	272	48.75	7.41	1.63	375	.10	-
	Graduate	105	47.35	7.54				
General Confidence	Self- Undergraduate	272	84.70	12.58	1.25	375	.21	-
	Graduate	105	82.89	12.37				

As seen in Table 15, the mean scores taken from the sub-dimension of intrinsic self-confidence by the teachers having undergraduate education ( $\bar{X} = 35.94$ ) and the teachers having graduate education ( $\bar{X} = 35.54$ ) were close to each other and there was no significant difference between their levels of self-confidence based on education level ( $t_{(375)} = .62$ ;  $p > .05$ ) in this sub-dimension. There was no significant difference ( $t_{(375)} = 1.63$ ;  $p > .05$ ) between the mean score taken by the teachers having undergraduate education from the sub-dimension of extrinsic self-confidence ( $\bar{X} = 48.75$ ) and that of the teachers having graduate education ( $\bar{X} = 48.35$ ). Moreover, the teachers' general self-confidence levels also did not vary significantly depending on education level ( $t_{(375)} = .21$ ;  $p > .05$ ).

Findings regarding the effect of union membership on self-confidence. T-test was used to determine whether the teachers' self-confidence levels varied significantly depending on union membership and the results of the analysis are presented in Table 16.

Table 16.

Results of the T-test Conducted to Determine Whether the Teachers' Self-Confidence Levels Vary Significantly Depending on Education Level

Variable	Group	<i>N</i>	$\bar{x}$	<i>sd</i>	<i>t</i>	<i>df</i>	<i>p</i>	Significant Difference
Intrinsic Confidence	Self- Union Member	199	35.44	5.84	-1.43	375	.15	-
	Not Union Member	178	36.26	5.27				
Extrinsic Confidence	Self- Union Member	199	47.88	7.86	-1.32	375	.18	-
	Not Union Member	178	48.90	6.97				
General Confidence	Self- Union Member	199	83.33	13.36	-1.42	375	.15	-
	Not Union Member	178	85.17	11.49				

As seen in Table 16, there was no significant difference ( $t_{(375)} = -1.43$ ;  $p > .05$ ) between the intrinsic self-confidence levels of the teachers who are union members ( $\bar{X} = 35.44$ ) and the teachers who are not union members ( $\bar{X} = 36.26$ ). There was also no significant difference ( $t_{(375)} = -1.32$ ;  $p > .05$ ) between the extrinsic

self-confidence levels of the teachers who are union members ( $\bar{X}=47.88$ ) and the teachers who are not union members ( $\bar{X}=48.90$ ). Similarly, there was no significant difference between the general self-confidence levels of the teachers based on union membership ( $t_{(375)}=-1.42$ ;  $p>.05$ ).

Findings regarding the effect of branch on self-confidence. One-way analysis of variance was used to determine whether the teachers' self-confidence levels varied significantly depending on branch and the results of the analysis are presented in Table 17.

Table 17.

Results of the One-way Analysis of Variance Conducted to Determine Whether the Teachers' Self-Confidence Levels Vary Significantly Depending on Branch

	Branch	<i>N</i>	$\bar{x}$	<i>sd</i>	Source of the Variance	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	<i>p</i>	Sig. Dif.
Intrinsic Self-Confidence	1.Mathematics	63	34.81	5.00	Between-Groups	321.82	6	53.63	1.73	.11	-
	2.Literature	55	36.01	5.62	Within-Groups	11422.85	370	30.87			
	3.Foreign Language	38	36.31	5.92	Total	11744.67	376				
	4.Science	55	36.03	6.03							
	5.Social Sciences	72	34.69	5.38							
	6.Vocational C.	59	37.28	5.02							
	7.Sports and Arts	35	36.54	6.34							
Extrinsic Self-Confidence	1.Mathematics	62	46.03	6.01	Between-Groups	1426.61	6	237.76	4.68	.000	<b>1-3</b>
	2.Literature	55	48.58	7.24	Within-Groups	18415.22	363	50.73			<b>1-6</b>
	3.Foreign L.	32	53.47	4.34	Total	19841.83	369				<b>2-3</b>
	4.Science	55	47.72	8.72							<b>3-4</b>
	5.Social Sciences	72	47.59	7.19							<b>5-3</b>
	6.Vocational C.	59	50.03	6.14							
	7.Sports and Arts	35	49.40	9.101							
General Self-Confidence	1.Mathematics	63	80.96	10.50	Between-Groups	3150.75	6	525.12	3.63	.002	<b>1-3</b>
	2.Literature	55	84.60	12.49	Within-Groups	52733.79	365	144.47			<b>1-6</b>
	3.Foreign L.	33	91.06	8.20	Total	55884.54	371				<b>3-5</b>
	4.Science	55	83.76	14.13							
	5.Social Sciences	72	82.23	11.99							
	6.Vocational C.	59	87.31	10.60							
	7.Sports and Arts	35	85.94	15.12							

When determining the source of the significant difference between the groups in the sub-dimension of extrinsic self-confidence, the Dunnett's C test was used as a relevant post hoc test due to the non-homogeneous distribution of variances ( $p = 0.001 < 0.05$ ) as indicated by the Levene test. Similarly, Dunnett's C test was used in general self-confidence analyses since variance homogeneity could not be achieved ( $p=.001<.05$ ).

As seen in Table 17, the teachers' intrinsic self-confidence levels did not vary significantly depending on branch ( $F_{(6, 370)}=1.73$ ;  $p>.05$ ). On the other hand, the teachers' extrinsic self-confidence levels ( $F_{(6, 363)}=4.68$ ;  $p<.05$ ) and general self-confidence levels ( $F_{(6, 365)}=3.63$ ;  $p<.05$ ) varied significantly depending on their branch. As a result of the Dunnett's C test, it was found that the extrinsic self-confidence level of the foreign language teachers ( $\bar{X}=53.47$ ) is significantly higher than those of the mathematics teachers ( $\bar{X}=46.03$ ), literature teachers ( $\bar{X}=48.58$ ), science teachers ( $\bar{X}=47.72$ ) and social sciences teachers ( $\bar{X}=47.59$ ). The extrinsic self-confidence level of the mathematics teachers ( $\bar{X}=46.03$ ) is significantly lower than that of the teachers teaching vocational courses ( $\bar{X}=50.03$ ). The general self-confidence level of the foreign language teachers ( $\bar{X}=91.06$ ) is significantly higher than those of the mathematics teachers ( $\bar{X}=80.96$ ) and social sciences teachers ( $\bar{X}=82.23$ ). The general self-confidence level of the mathematics

teachers ( $\bar{X}=80.96$ ) is significantly lower than those of the foreign language teachers ( $\bar{X}=91.06$ ) and social sciences teachers ( $\bar{X}=82.23$ ).

Findings regarding the effect of school type on self-confidence. One-way analysis of variance was used to determine whether the teachers' self-confidence levels varied significantly depending on school type and the results of the analysis are presented in Table 18.

Table 18.

Results of the One-way Analysis of Variance Conducted to Determine Whether the Teachers' Self-Confidence Levels Vary Significantly Depending on School Type

Var.	School Type	N	$\bar{x}$	sd	Source of the Variance	Sum of Squares	df	Mean Square	F	p	Sig. Dif.
Intrinsic Self-Confidence	1. Anatolian High School	148	35.89	5.53	Between-Groups	34.37	2	17.18	.54	.57	-
	2. Vocational High School	180	35.99	5.57	Within-Groups	11710.30	374	31.31			
	3.Imam Hatip High School	49	35.06	5.86	Total	11744.67	376				
Extrinsic Self-Confidence	1. Anatolian High School	148	48.16	7.33	Between-Groups	66.13	2	33.06	.59	.55	-
	2. Vocational High School	180	48.75	7.22	Within-Groups	20904.51	374	55.89			
	3.Imam Hatip High School	49	47.55	8.71	Total	20970.65	376				
General Self-Confidence	1. Anatolian High School	148	84.05	12.28	Between-Groups	180.79	2	90.39	.57	.56	-
	2. Vocational High School	180	84.74	12.33	Within-Groups	58891.50	374	157.46			
	3.Imam Hatip High School	49	82.61	14.05	Total	59072.30	376				

As seen in Table 18, the intrinsic self-confidence level ( $F_{(2,374)}=.54$ ;  $p>.05$ ) and extrinsic self-confidence level ( $F_{(2,374)}=.59$ ;  $p>.05$ ) of the teachers do not vary significantly depending on school type. Moreover, the teachers' general self-confidence levels were also found to not vary depending on school type ( $F_{(2,374)}=.57$ ;  $p>.05$ ).

Findings regarding the effect of professional experience on self-confidence. One-way analysis of variance was used to determine whether the teachers' self-confidence levels varied significantly depending on professional experience and the results of the analysis are presented in Table 19.

Table 19.

Results of the One-way Analysis of Variance Conducted to Determine Whether the Teachers' Self-Confidence Levels Vary Significantly Depending on Professional Experience

Var.	Professional Experience	N	$\bar{x}$	sd	Source of the Variance	Sum of Squares	df	Mean Square	F	p	Sig. Dif.
Intrinsic Self-Confidence	1)1-9 years	52	36.26	4.96	Between-Groups	321.88	3	107.29	3.74	.01	<b>2-4</b>
	2)10-19 years	123	35.01	5.33	Within-Groups	10581.15	369	28.67			
	3)20-29 years	158	36.08	5.66	Total	10903.04	372				
	4)30 years and more	40	38.22	4.51							
Extrinsic Self-Confidence	1)1-9 years	52	49.36	7.11	Between-Groups	137.16	3	45.72	.85	.46	
	2)10-19 years	121	47.90	7.05	Within-Groups	19845.45	370	53.63			
	3)20-29 years	158	48.39	7.45	Total	19982.62	373				
	4)30 years and more	43	49.61	7.80							
General Self-Confidence	1)1-9 years	53	84.98	12.18	Between-Groups	1302.91	3	434.30	2.96	.03	<b>2-4</b>
	2)10-19 years	123	82.61	12.16	Within-Groups	54062.15	369	146.51			
	3)20-29 years	157	84.69	12.38	Total	55365.06	372				
	4)30 years and more	40	89.10	10.57							

Note: While determining the source of the significant difference between the groups in General Self-Confidence, Scheffe test, one of the related post hoc tests, was used as the homogeneity of variances was ensured ( $p=.77>.05$  in Levene test). The Scheffe test was preferred because it is a strict test that gives reliable results even when the number of groups is not equal (Kayri, 2009). Since  $p=.15>.05$  in the Levene test of internal self-confidence, Scheffe test was used.

### Findings on the Relationship between Organizational Vulnerability and Self-Confidence

In order to determine whether there was a significant correlation between the teachers' organizational vulnerability and self-confidence levels, Pearson correlation coefficients were calculated both on the basis of the sub-dimensions and on the basis of the whole scales. Results of the Pearson correlation analysis are given in Table 20.

Table 20.

Results of the Pearson Correlation Analysis regarding the Relationship between Organizational Vulnerability and Self-Confidence

Variables	Defencelessness	Sadness	Incompetence	Intolerance	Intrinsic Self-Confidence	Extrinsic Self-Confidence
Defencelessness	1					
Sadness	.65**	1				
Incompetence	.49**	.39**	1			
Intolerance	.74**	.75**	.44**	1		
Intrinsic Self-Confidence	.04	.08	-.23**	.06	1	
Extrinsic Self-Confidence	.01	.03	-.24**	.02	.82**	1

\*\* denotes a significant correlation at the level of  $p < .01$ .

As seen in Table 20, there is a high, positive and significant correlation between the sub-dimensions of intolerance and defencelessness ( $r = .74, p < .01$ ), between the sub-dimensions of intolerance and sadness ( $r = .75, p < .01$ ) and between the sub-dimensions of defencelessness and sadness ( $r = .65, p < .01$ ). There is a medium, positive and significant correlation between the sub-dimensions of incompetence and defencelessness ( $r = .49, p < .01$ ), between the sub-dimensions of incompetence and sadness ( $r = .39, p < .01$ ) and between the sub-dimensions of incompetence and intolerance ( $r = .44, p < .01$ ).

There is a high, positive and significant correlation between the sub-dimensions of extrinsic self-confidence and intrinsic self-confidence ( $r = .82, p < .01$ ). When the correlations between the sub-dimensions of organizational vulnerability and self-confidence are examined, it is seen that there are low and insignificant correlations between intrinsic self-confidence and defencelessness ( $r = .04, p > .01$ ), between intrinsic self-confidence and sadness ( $r = .08, p > .01$ ) and between intrinsic self-confidence and intolerance ( $r = .06, p > .01$ ). Similarly, there are no significant correlations between extrinsic self-confidence and defencelessness ( $r = .01, p > .01$ ), sadness ( $r = .03, p > .01$ ) and intolerance ( $r = .02, p > .01$ ). On the other hand, there is a negative, low and significant correlation between intrinsic self-confidence and incompetence ( $r = -.23, p < .01$ ) and between extrinsic self-confidence and incompetence ( $r = -.24, p < .01$ ).

### Findings on the Prediction of Organizational Vulnerability by Self-Confidence

Multiple regression analyses was conducted to determine whether self-confidence predicted organizational vulnerability. Before conducting the multiple regression analysis, the assumptions of normal distribution, linearity, homogeneity of variances and the assumption of absence of autocorrelation and multicollinearity were tested. In order to avoid multicollinearity, the correlation between the independent variables should be less than .90 and VIF should be  $\leq 10$ , tolerance value should be  $> 0.10$  and CI should be  $< 30$  (Çokluk et al., 2014; Field, 2013). Since  $r = .82 < .90$ ,  $VIF = 3.41/3.41 < 10$ ,  $CI = 14/28 < 30$  in the current study, there is no multicollinearity problem. Durbin Watson value must be  $1 < d < 3$  to avoid autocorrelation (Field, 2013). Since  $d = 1.67$  in the current study, it was decided that there was no autocorrelation between the independent variables. In order to meet the assumptions of multivariate normality, linearity and homogeneity, standardized estimated values drawn for the predictor and predicted variables, pp-plot and scatter plots for standardized error values, and mahalanobis and cook values were examined (Büyüköztürk, 2014). Since the PP plot was linear, the scatter plot was elliptical, and the mahalanobis values (.013-12.96)  $sd = 2$  were less than the critical value of 13.82 at the .001 significance level, and Cook values (.00-.027) were less than 1, multivariate normality, linearity

and homogeneity assumptions were also met. The results of the multiple regression analysis conducted to test whether self-confidence predicts organizational vulnerability are shown in Table 21.

Table 21.

Results of the Multiple Regression Analysis Regarding Organizational Vulnerability and Self-Confidence

Variable	<i>B</i>	Standard Error	$\beta$	<i>t</i>	<i>p</i>	Binary <i>r</i>	Partial <i>r</i>
Constant	59.13	6.26		9.44	.00		
Intrinsic Self-Confidence	.39	.29	.12	1.36	.17	.07	.07
Extrinsic Self-Confidence	-.31	.21	-.13	-1.43	.15	-.08	-.08
R = .08 R <sup>2</sup> = .01 F <sub>(2, 366)</sub> = 1.08 p = .34							

As seen in Table 21, there is a low and insignificant correlation between intrinsic self-confidence and extrinsic self-confidence and organizational vulnerability ( $R = .08$ ,  $p = .34$ ). Intrinsic self-confidence explains only 1% of the total variance in organizational vulnerability. When the standardized regression coefficients were examined, it was seen that extrinsic self-confidence ( $\beta = -.13$ ) had a larger effect than intrinsic self-confidence ( $\beta = .12$ ) on organizational vulnerability. However, when the t-test results regarding the regression coefficients were examined, it was understood that both intrinsic self-confidence ( $p = .17 < .01$ ) and extrinsic self-confidence ( $p = .15 > .01$ ) were not significant predictors of organizational vulnerability. For these variables, the regression equation is as follows:

ORGANIZATIONAL VULNERABILITY = 59.13 + 0.39 INTRINSIC SELF-CONFIDENCE - 0.31 EXTRINSIC SELF-CONFIDENCE

### Discussion and Results

The results of the current study related to organizational vulnerability and self-confidence and the discussions on these results are presented under the relevant headings.

#### Results and Discussion on Organizational Vulnerability

According to the current study, the teachers' level of defenselessness is relatively higher than their levels of sadness, incompetence and intolerance. In the sub-dimension of defencelessness, the fact that the legal regulations and the realities of the school do not match, the changes in the curriculum and the evaluation of professional competence according to non-educational factors are among the issues that teachers are most concerned about. Supporting these results, Blase (1988) also reveals that teachers are vulnerable to legal regulations because teachers think that the arrangements made especially on the curriculum, assessment and examination systems are useless and do not produce solutions to the real problems of the school (Blase, 1988). The fact that the legal regulations do not match the school realities and the concern about this may be due to the fact that teachers are not included in the decision-making processes while these regulations are being made.

It is a known fact that educational paradigms have changed with the changes in science and technology, and as a result, frequent changes have been made in education programs. Therefore, it is understandable that the changes made in education programs make teachers concerned. Assimilating the changes in the education program or trying to implement a new program is an important situation that can create vulnerability for the teacher (Lemelin, 2018). In fact, many studies in the literature (Dağlı and Han, 2017; Demir and Arı, 2013; Mellegard and Pettersen, 2016) emphasize teachers' discomfort and anxiety about changes in the education program.

The vulnerability created by the evaluation of teachers' professional competences according to non-educational factors was also expressed by Blase (1988). In this context, especially the administrators have a tendency to directly or indirectly control and evaluate teachers in matters such as hair style, clothing, speaking style or non-governmental organizations of which they are members (Blase, 1988).

According to the results of the current study, in the sub-dimension of incompetence, teachers are most worried about the expectation of being a role-model and feel incompetent when using new educational technologies. In the organizational vulnerability literature, the expectation of the teacher to be a role-

model has been widely addressed and is seen as a means of putting great pressure on teachers. Teachers question their own professional identities and experience incompetence in terms of contributing to the academic and personality development of students while trying to fulfill the expectation of being a good role model to their students. Teachers fall into self-doubt and put the responsibility on themselves, even if the inadequacies of students in terms of academic and personality development are caused by their families or students themselves (Blase, 1988; Gao, 2008; Kelchtermans, 1996).

According to the results of the current study, in the sub-dimension of sadness, teachers are most vulnerable to not being appreciated by the administrators when they do good work and to the gossip of their colleagues. Supporting this result, the organizational vulnerability literature argues that teachers experience sadness and vulnerability when they are not appreciated by their administrators when they deserve it (Blase, 1988). Being appreciated is one of the main factors that foster the teacher's self-respect. Since teachers know that the government, society and media will not be aware of what they are doing and their efforts within the school, they expect to be appreciated by their administrators with whom they interact more one-on-one (Hargreaves, Cunningham, Hansen, McIntyre and Oliver, 2018). In addition, colleague gossip persists widely in educational organizations and causes vulnerability among teachers (Blase, 1987, 1988; Kelchtermans, 1996) and harms collaborative school culture (Hargreaves, 2002).

In the study, it was determined that in the sub-dimension of intolerance, the teachers are most disturbed by the parents' intervention in the educational and instructional activities and the unfair criticism of their colleagues about their teaching activities. According to the studies conducted by Blase (1988) and Kelchtermans (1996), parents' intervention in teaching activities is perceived as a criticism of teachers' professional identities and causes vulnerability. On the other hand, unfair criticism of colleagues is among the issues that teachers are very uncomfortable with and causes teachers' relationships with their colleagues to weaken (Hargreaves, 2002).

According to the results of the current study, the teachers' levels of vulnerability, sadness, incompetence and intolerance and general organizational vulnerability levels do not vary significantly depending on gender. When the literature is reviewed, it is seen that there is no study using any organizational vulnerability scale; thus, the results of the current study cannot be compared with any study in the literature. However, one of the dimensions of the Job Insecurity Scale used in research on employee recruitment is vulnerability, referring to vulnerability to unfair, threatening, oppressive and authoritarian attitudes (Vives et al., 2013) Therefore, it is possible to compare this dimension with the sub-dimension of defencelessness in the current study. In this context, in the study of Daly, Schenker Ronda-Perez, and Reid (2020), women's defencelessness level was found to be higher than that of men, contradicting the findings of the current study.

The sub-dimension of incompetence in the Organizational Vulnerability Scale reflects the teacher's feeling of incompetence regarding his/her profession and instructional activities. Although there is no direct study on teacher incompetence in the literature, it is possible to indirectly associate the sub-dimension of incompetence with teacher self-efficacy. In the current study, it was determined that there is no significant gender based difference in the sub-dimension of incompetence. Similarly, studies have also identified that the perceived self-efficacy of teachers towards their profession does not vary significantly by gender (Aydın, 2020; Benzer, 2011; Taşkın and Hacıömeroğlu, 2010). However, there are also studies indicating that teacher self-efficacy varies significantly depending on gender in favor of male teachers (Demirtaş, Cömert and Özer, 2011; Klassen and Chiu, 2010) or in favour of female teachers (Gürbüzürk and Şad 2009; Şubaş, 2018). As can be seen, there is no consistency in the literature on whether the perception of incompetence varies significantly depending on gender.

As stated before, no scales have been found in the literature that will directly compare the Organizational Vulnerability Scale or its sub-dimensions. However, there are measurement tools developed to measure teacher emotions in recent years, and although they do not fully correspond to the dimensions of the Organizational Vulnerability Scale, they allow a comparison. For example, Teacher Emotions Scale developed by Frenzel et al. (2016) measures teachers' anxiety, anger and pleasure in instructional activities. The Teacher Emotion Inventory, developed by Chen (2016), consists of subscales of pleasure, love, anger, fear and sadness. While the teachers' intolerance levels were found to not vary significantly

depending on gender in the current study, it was also seen that teachers' anger levels did not vary significantly depending on gender in the studies conducted by Köse (2019) and Adams (2020). On the other hand, while the level of sadness was found to not vary depending on gender in the current study, Kırmızı and Sarıçoban (2020) stated that female teachers tend to experience more sadness than male teachers.

According to the results of the current study, it is remarkable that both the general level of vulnerability and defenselessness and sadness levels of the teachers having graduate education are higher than those of the teachers with undergraduate education. This might indicate that as the level of education increases, teachers' organizational vulnerability also increases due to the increase in their awareness of and sensitivity towards the negativities in their profession and working conditions. The result that the level of incompetence does not vary significantly depending on education level is in line with the findings of many studies on teacher competence in the literature. For example, Parlak (2011) and Özata (2007) found that teachers' perceived competence does not vary significantly depending on education level.

According to the results of the current study, the organizational vulnerability of teachers teaching mathematics, literature and social sciences in the sub-dimension of incompetence is higher than those teaching sports and arts, which may be related to the centrally administered university entrance exam. As it is known, in this exam, most of the questions are asked in the fields of mathematics, literature and social sciences and thus these teachers are indirectly held responsible for the success or failure of students, and thus the expectation of the society from these teachers is naturally high. This may cause the teacher to feel under pressure and incompetent. On the other hand, the absence of questions in the field of sports and arts in this central exam and the fact that these courses are more practical due to their nature may be effective in the perception of relatively low level of incompetence of the teachers working in this field. Similarly, in the studies conducted by Demirtaş et al. (2011) and Gürbüztürk and Şad (2009), it was determined that the self-efficacy perceptions of pre-service mathematics teachers are relatively low. In addition, the finding that intolerance levels do not vary significantly depending on branch concurs with the studies conducted by Adams (2020) and Köse (2019) in which they found that anger levels do not vary significantly depending on branch.

In the current study, it was found that the teachers' level of incompetence did not vary significantly depending on school type. However, when the literature on teaching competence is examined, it is seen that there are conflicting studies as well as studies supporting this finding. For example, Benzer (2011) found that teacher competence does not vary significantly depending on school type. However, according to the research conducted by Üstüner, Demirtaş, Cömert and Özer (2009), teachers working in Anatolian high schools consider themselves more competent than teachers working in other types of high schools. On the other hand, the finding that the level of intolerance does not vary significantly depending on school type is parallel to Köse's (2019) finding that the level of anger does not vary significantly depending on school type.

In the study of Aydın (2020) and Üstüner et al. (2009), it was determined that the level of teacher competence does not vary significantly depending on professional experience, which supports the conclusion of the current study that the level of incompetence of the teachers does not vary significantly depending on professional experience. On the other hand, Klassen and Chiu (2010) found a nonlinear correlation between competence and professional experience. They concluded that with increasing professional experience up to 23 years, the level of competence also increases but with increasing professional experience after 23 years, the level of competence decreases. On the other hand, the finding that the level of intolerance does not vary significantly depending on professional experience is in line with Adams' (2020) finding that the level of anger does not vary significantly depending on professional experience.

In the current study, it was found that the teachers' organizational vulnerability levels do not vary significantly depending on union membership. This finding is surprising because at least in the sub-dimension of defenselessness, the level of the teachers who are union members is expected to be higher than that of the teachers who are not union members. This might be because the teachers believe that unions are political structures and that they do not do their job well enough; thus, they may not trust unions enough (Berkant and Gül, 2017; Gök and Bozbayındır, 2020; Taşdan, 2012).

### **Discussion and Results on Self-Confidence**

According to the findings of the current study, the teachers' extrinsic self-confidence level is relatively higher than their intrinsic self-confidence level. In the sub-dimension of intrinsic self-confidence, items such as making easy decisions, no problems that cannot be overcome and not being dependent on others in choices are the items the least agreed with by the teachers. In particular, not being dependent on others and being able to make easy decisions are the items reflecting doing something on one's own will. The fact that the level of agreement with these items is relatively low may indicate that teachers have difficulties in making choices and decisions. Similar to the findings, Koyuncu-Şahin (2015) found in their study investigating the self-confidence levels of preschool teachers that the items "There is no insurmountable problem for me" and "I can make a decision easily" had with the lowest mean score in the scale. In the extrinsic self-confidence sub-dimension, the items "not being afraid to stand out" and "not hesitating to participate in social activities" are the items the least agreed with. This might indicate that teachers have deficiencies in social skills. Similarly, in the study by Koyuncu-Şahin (2015), the item "I am afraid of standing out" is among the items least agreed with by the teachers.

According to the findings of the current study, the teachers' intrinsic self-confidence, extrinsic self-confidence and general self-confidence levels did not vary significantly depending on gender. Many studies in the literature support this finding. For example, Çoknaz, Yıldız, Erbil and Altıntaş (2018) found that general self-confidence, intrinsic self-confidence and extrinsic self-confidence did not vary significantly depending on gender. Okyay (2012) conducted a study on administrators and concluded that intrinsic self-confidence and extrinsic self-confidence did not vary significantly depending on gender. Similarly, Çalığışu (2020) conducted a study on high school students and Yalçın and Özgen (2017) on pre-service teachers and they found that there was no significant correlation between gender and self-confidence. On the other hand, Toktaş (2017) conducted a study on students participating in sports competitions and found that extrinsic self-confidence did not vary significantly depending on gender; however, it was determined that the intrinsic self-confidence level of the male students was found to be higher than that of the female students. Similarly, Kalaian and Freeman (1994) found that the male pre-service teachers in a training program were more self-confident than the female pre-service teachers.

According to the findings of the current study, the teachers' self-confidence did not vary significantly depending on their education level. In fact, it was expected that graduate education would improve teachers' communication, self-expression and socialization skills, and therefore there would be a difference between the self-confidence levels of the teachers having graduate education and the teachers having undergraduate education. In the literature, there are studies also reporting that education level does not have a significant effect on self-confidence. For example, Gül and Hergüner (2019) in their study on school administrators revealed that the levels of intrinsic self-confidence and extrinsic self-confidence and general self-confidence did not vary significantly depending on education level. Similarly, Levent (2011) revealed that self-confidence, which is considered as a sub-dimension of personality traits, does not vary significantly depending on education level.

According to the findings of the current study, the teachers' extrinsic self-confidence and general self-confidence levels varied significantly depending on branch. While the foreign language teachers have the highest level of self-confidence, the mathematics teachers have the lowest level of self-confidence. Although there is no study in the literature that evaluates teachers' self-confidence in relation to their branch, Gül and Hergüner (2019) found that school administrators' self-confidence levels did not vary significantly depending on their branches. Dureja and Singh (2011) determined that the self-confidence level of physical education students was higher than that of psychology students in their study among pre-service teachers.

The findings of the current study revealed that the teachers' self-confidence levels did not vary significantly depending on school type. There is no study in the literature examining teacher self-confidence in relation to the school type variable. However, there are studies that examine the change in the self-confidence of students and administrators depending on school type. For example, Toktaş (2017) determined that both intrinsic and extrinsic self-confidence levels of vocational high school students participating in sports competitions are higher than students in other types of high schools. Toktaş attributes this situation to the sports success of the vocational high schools and states that as a

result, the students' self-confidence can be high. Gül and Hergüner (2019), on the other hand, classified the types of schools as primary, middle and high schools and found that extrinsic self-confidence does not vary depending on school type; however, primary school administrators' intrinsic self-confidence levels were found to be higher than those in high schools.

The findings of the current study revealed that the teachers' intrinsic self-confidence and general self-confidence levels vary significantly depending on their professional experience. The self-confidence level of the teachers with 30 or more years of professional experience is relatively higher. The relatively higher self-confidence of the teachers with 30 or more years of professional experience may be due to the fact that these teachers get to know and accept themselves better and reflect themselves better in their environment, as their professional and life experiences increase. In many studies in the literature, it has been found that self-confidence levels did not vary significantly depending on professional experience. For example, Koyuncu-Şahin (2015) and Çoknaz et al. (2018) concluded that teachers' self-confidence did not vary significantly depending on their professional experience. Similarly, Gül and Hergüner (2018) found that administrators' self-confidence levels did not vary significantly depending on professional experience.

### **Discussion and Results about the Relationship between Organizational Vulnerability and Self-Confidence and whether Self-Confidence Predicts Organizational Vulnerability**

In the current study, no significant correlation was found between extrinsic self-confidence and intrinsic self-confidence and the sub-dimensions of defenselessness, sadness and intolerance of organizational vulnerability. There is a low and significant correlation between intrinsic self-confidence and incompetence and between extrinsic self-confidence and incompetence. Thus, as teachers' intrinsic self-confidence and extrinsic self-confidence increase, their organizational vulnerability in the sub-dimension of incompetence decreases. This relationship is an expected result because people who see themselves competent in an area naturally have high self-confidence in this area (Ekinci, 2013). On the other hand, the sub-dimensions of self-confidence do not significantly predict organizational vulnerability.

### **Suggestions**

In light of the results of the study, the following suggestions can be made:

- In order to reduce the vulnerability caused by discrepancies between legal regulations and the realities of schools, as well as changes in the education program, it is necessary to involve teachers in the decision-making processes both in the revision of legislation related to education and teaching, and in the structuring of the programs.
- In order to alleviate the vulnerability resulting from the lack of appreciation when teachers perform well and thus enhance their self-esteem, school administrators, in particular, should fairly and promptly reward the efforts of teachers.
- Training sessions should be organized to raise awareness among teachers about the vulnerabilities caused by gossip and unfair criticism from colleagues, as well as the potential negative school climate that may occur as a result.
- Activities focused on social skills should be increased with the aim of enhancing teachers' extrinsic self-confidence in terms of standing out and participating in social events.
- Qualitative research should be conducted to identify the underlying causes of teachers' organizational vulnerabilities, taking into account factors such as professional experience, educational background and branch as well as the potential variations in self-confidence based on professional experience and branch.
- Although the current study revealed a low-level significant relationship between extrinsic confidence and intrinsic confidence and the sub-dimension of incompetence, further studies should be conducted to fully comprehend this relationship.

### **Acknowledgment**

**Copyrights:** The works published in the e-Kafkas Journal of Educational Research are licensed under a Creative Commons Attribution-Non-commercial 4.0 International License.

**Ethics statement:** In this study, we declare that the rules stated in the "Higher Education Institutions Scientific Research and Publication Ethics Directive" are complied with and that we do not take any of the actions based on "Actions Against Scientific Research and Publication Ethics". At the same time, we declare that there is no conflict of interest between the authors, which all authors contribute to the study, and that all the responsibility belongs to the article authors in case of all ethical violations.

**Author Contributions:** Conceptualization, N. K.; methodology, N.K.; validation, N. K.; analysis, N.K.; writing and review, N.K; editing, N.K and A.B.; supervision, A.B.; project administration, A.B.

**Funding:** This research received no funding directly. However, we would like to thank the Scientific and Technological Research Council of Turkey (TÜBİTAK) for its contributions to this study through the Scientist Support Program (BİDEP).

**Institutional Review Board Statement:** The approval was obtained from the Ankara University Ethics Committee. The date of the ethics committee approval: 23.09.2019, The number of the document: 324

**Data Availability Statement:** Data generated or analyzed during this study should be available from the authors on request.

**Conflict of Interest:** There is no conflict of interest among authors.

### References

- Adams, J. B. (2020). *Teacher emotion skills and teaching styles of prospective teachers in Ghana* (Unpublished master's thesis). Fırat University, Elazığ.
- Akın, A. (2007). Öz-güven Ölçeği'nin geliştirilmesi ve psikometrik özellikleri. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 7(2), 167-176.
- Aydın, T. (2020). *Sosyal bilgiler öğretmenlerinin mesleki tükenmişlik düzeylerinin ve öğretmen özyeterlik inançlarının incelenmesi* (Yayınlanmamış yüksek lisans tezi). Van Yüzüncü Yıl Üniversitesi, Van.
- Bakırcıoğlu, R. (2012). *Ansiklopedik eğitim ve psikoloji sözlüğü*. Ankara: Anı Yayıncılık.
- Balcı, A. (2015). *Sosyal bilimlerde araştırma: yöntem, teknik ve ilkeler* (11. Baskı). Ankara: Pegem Akademi.
- Bennett, A. (1998). *Vulnerability, stress and adjustment: A study of affluent young adolescents* (Unpublished doctoral dissertation). McGill University, Montreal.
- Benzer, F. (2011). İlköğretim ve ortaöğretim kurumlarında görev yapan öğretmenlerin öz yeterlik algılarının analizi (Yayınlanmamış yüksek lisans tezi). Selçuk Üniversitesi, Konya.
- Berkant, H. G. ve Gül, M. (2017). Sendika üyesi öğretmenlerin sendikalara yönelik algıları ve sendikalardan beklentileri. *İtobiad: İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 6(1), 419-442.
- Blase, J. J. (1987). Political interactions among teachers: Sociocultural context in the schools. *Urban Education*, 22(3), 286-309. doi: 10.1177/004208598702200302
- Blase, J. J. (1988). The everyday political perspective of teachers: Vulnerability and conservatism. *International Journal of Qualitative Studies in Education*, 1(2), 125-142. doi: 10.1080/0951839880010202
- Brown, B. (2012). *Daring greatly: How the courage to be vulnerable transforms the way we live, love, parent, and lead*. New York: Gotham Books.
- Bullough, R. V., Jr. (2005). Teacher vulnerability and teachability: A case study of a mentor and two interns. *Teacher Education Quarterly*, 32(2), 23-40.
- Bunker, K. A. (1997). The power of vulnerability in contemporary leadership. *Consulting Psychology Journal: Practice and Research*, 49(2), 122-136. doi: 10.1037/1061-4087.49.2.122
- Büyüköztürk. Ş. (2014). *Sosyal bilimler için veri analizi el kitabı* (17. Baskı). Ankara: Pegem Akademi Yayınları.
- Cengiz, R., Arslan, F., ve Şahin, E. (2014). Beden eğitimi öğretmenlerinin öz-güven ve boyun eğici davranışlarının incelenmesi. *Turkish Journal of Education*, 3(3), 4-10. doi: 10.19128/turje.181083
- Chen, J. (2016). Understanding teacher emotions: The development of a teacher emotion inventory. *Teaching and Teacher Education*, 55, 68-77. doi: 10.1016/j.tate.2016.01.001
- Çalıklı, H. (2020). *Ergenlerde özgüven ile olumsuz otomatik düşünceler arasındaki ilişkinin incelenmesi* (Yayınlanmamış yüksek lisans tezi). Selçuk Üniversitesi, Konya.
- Çelik, İ. (2014). *Ortaokul öğrencilerinin özgüven düzeyinin bazı değişkenler açısından değerlendirilmesi: afyonkarahisar örneği* (Yayınlanmamış yüksek lisans tezi). Türk Hava Kurumu Üniversitesi, Ankara.
- Çokluk, Ö., Şekercioğlu, G. ve Büyüköztürk. Ş. (2014). *Çok değişkenli istatistik SPSS ve LISREL uygulamaları* (3. Baskı). Ankara: Pegem Akademi Yayınları.
- Çoknaz, H., Yıldız, M., Erbil, E. ve Altıntaş, H. (2018). Lise öğrencilerinin öz güven düzeylerinin karşılaştırılması. *İstanbul Üniversitesi Spor Bilimleri Dergisi*, 8(1), 37-48.
- Dağlı, A. ve Han, B. (2017). Öğretmen görüşlerine göre Diyarbakır ili eğitim sorunları ve çözüm önerileri. *Electronic Journal of Education Sciences*, 6(12), 108-124..
- Daly, A., Schenker, M. B., Ronda-Perez, E. ve Reid, A. (2020). Examining the impact of two dimensions of precarious employment, vulnerability and insecurity on the self-reported health of men, women and migrants in Australia. *International Journal of Environmental Research and Public Health*, 17, 1-15. doi: 10.3390/ijerph17207540
- Demir, K. ve Arı, M. E. (2013). Öğretmen sorunları-Çanakkale ili örneği. *On Dokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi*, 32(1), 107-126.
- Demirtaş, H., Cömert, M. ve Özer, N. (2011). Öğretmen adaylarının özyeterlik inançları ve öğretmenlik mesleğine ilişkin tutumları. *Eğitim ve Bilim*, 36(159), 96-111.

- Dureja, G. ve Singh. S. (2011). Self-confidence and decision making between psychology and physical education students: A comparative study. *Journal of Physical Education and Sports Management*, 2(6), 62-65.
- Ekinci, H. (2013). Müzik öğretmeni adaylarının solo sahne performansına ilişkin özgüven algılarının bazı değişkenler bakımından incelenmesi. *Mehmet Akif Ersoy üniversitesi Eğitim Bilimleri Enstitüsü Dergisi*, 2(2), 52-64.
- Ezmeçi, F. (2012). *İlköğretim 1. sınıf öğrencilerinin özgüvenleri* (Yayınlanmamış yüksek lisans tezi). Atatürk Üniversitesi, Erzurum.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.) London: Sage Publications.
- Fineman, J. W. (2018). A vulnerability approach to private ordering of employment. In M. A., Fineman, & J. W. Fineman, (Eds.), *Vulnerability and the legal organization of work*, Newyork: Routledge.
- Frenzel, A. C., Pekrun, R., Goetz, T., Daniels, L. M., Durksen, T. L., Becker-Kurz, B. ve Klassen, R. M. (2016). Measuring Teachers' enjoyment, anger, and anxiety: The Teacher Emotions Scales (TES). *Contemporary Educational Psychology*, 46, 148-163. doi: 10.1016/j.cedpsych.2016.05.003
- Gao, X. (2008). Teachers' professional vulnerability and cultural tradition: A Chinese paradox. *Teaching and Teacher Education*, 24(1), 154-165. doi: 10.1016/j.tate.2006.11.011
- Gök, A. ve Bozbayındır, F. (2020). Öğretmen Görüşlerine göre eğitim sendikaları mevcut durum ve beklentiler. *Anatolian Turk Education Journal*, 2(2), 101-127.
- Gül, M. ve Hergüner, B. (2019). Okul yöneticilerinde özgüven düzeyini etkileyen faktörler: Trabzon örneği. *Academic Review of Humanities and Social Sciences*, 2(1), 1-18.
- Gürbüzürk, O. ve Şad, S. N. (2009). Student teachers' beliefs about teaching and their sense of self-efficacy: A descriptive and comparative analysis. *Inonu University Journal of the Faculty of Education*, 10(3), 201-226.
- Hambly, K. (1997). *Özgüven*. (B. Bıçakçı, çev.). İstanbul: Alfa Yayınları.
- Hamilton, M. L. ve Pinnegar, S. E., (2015). Vulnerability. In M. L. Hamilton & E. Pinnegar, (Eds.), *Knowing, becoming, doing as teacher educators: Identity, intimate scholarship, inquiry*. (pp.121 – 128). UK: Emerald Group Publishing.
- Hargreaves, A. (2002). Teaching and betrayal. *Teachers and Teaching*, 8(3), 393-407. doi:10.1080/135406002100000521
- Hargreaves, Linda, H., Cunningham, M. Hansen, A. McIntyre, D. ve Oliver, C. (2018). *The status of teachers and the teaching profession in England: Views from inside and outside the profession: Synthesis report* Retrieved from [https://www.researchgate.net/publication/329444007\\_the\\_status\\_of\\_teachers\\_and\\_the\\_teaching\\_profession\\_in\\_england\\_views\\_from\\_inside\\_and\\_outside\\_the\\_profession\\_Synthesis\\_Report](https://www.researchgate.net/publication/329444007_the_status_of_teachers_and_the_teaching_profession_in_england_views_from_inside_and_outside_the_profession_Synthesis_Report)
- Hesmondhalgh, T. (2011). *The Confident Teacher—how to appear confident... Even when you aren't*. Retrieved from <https://www.creativeeducation.co.uk/the-confident-teacher-how-to-appear-confident-even-when-you-arent/>
- Karasar, N. (2009). *Bilimsel araştırma yöntemi*. (19. Baskı). Ankara: Nobel Yayın Dağıtım.
- Kayri, M. (2009). Araştırmalarda gruplar arası farkın belirlenmesine yönelik çoklu karşılaştırma (Post-Hoc) teknikleri. *Fırat Üniversitesi Sosyal Bilimler Dergisi*, 19(1), 51-64.
- Kelchtermans, G. (1996). Teacher vulnerability: Understanding its moral and political roots. *Cambridge Journal of Education*, 26(3), 307-323. doi: 10.1080/0305764960260302
- Kırmızı, Ö. ve Sarıçoban, A. (2020). An investigation of the relation between pre-service EFL teachers' emotions and their approaches to teaching. *Journal of Language and Linguistic Studies*, 16(4), 1968-1986. doi: 10.17263/jlls.851029
- Klassen, R. M. ve Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, 102(3), 741-756. doi: 10.1037/a0019237
- Kline, P. (1994). *An easy guide to factor analysis*. London: Routledge Publications.
- Koyuncu-Şahin, M. (2015). *Okul öncesi öğretmenlerinin özgüvenleri ve mesleki tutumlarının incelenmesi* (Yayınlanmamış yüksek lisans tezi). Afyon Kocatepe Üniversitesi, Afyonkarahisar,

- Köse, F. (2019). *Öğretmen adaylarının duygu ve kişilik özellikleri ile öğretim yeterlikleri arasındaki ilişkinin incelenmesi* (Yayınlanmamış yüksek lisans tezi). Kahramanmaraş Sütçü İmam Üniversitesi, Kahramanmaraş.
- Lasky, S. (2004). *An exploration of teacher professional vulnerability in a context of large-scale reform* (Unpublished doctoral dissertation). University of Toronto, Toronto.
- Lemelin, C. (2018). *Feeling naked in teaching: The vulnerability in teaching*. Retrieved from <https://blog.ualberta.ca/feeling-naked-in-teaching-the-vulnerability-in-teaching-575d25da253>
- Levent, B. (2011). *Sınıf öğretmenlerinin kişilik özelliklerinin iletişim becerilerine etkisi* (Yayınlanmış yüksek lisans tezi). Selçuk Üniversitesi, Konya.
- Lindenfield, G. (1997). *Kendine güvenen çocuk yetiştirme* (G. Tümer, çev.). Ankara: HYB Yayıncılık.
- Maclellan, E. (2014). How might teachers enable learner self-confidence? A review study. *Educational Review*, 66(1), 59-74. doi: 10.1080/00131911.2013.768601
- Mellegard, I. ve Pettersen, K. D. (2016). Teachers' response to curriculum change: Balancing external and internal change forces. *Teacher Development*, 20(2), 181-196. doi: 10.1080/13664530.2016.1143871
- Merriam, S. B (2009). *Qualitative research: A guide to design and implementation*. San Francisco: John Wiley & Sons.
- Otacıoğlu, S. G. (2008). Öğretmen adaylarının problem çözme becerileri ile öz güven düzeylerinin incelenmesi. *Kuram ve Uygulamada Eğitim Bilimleri*, 8(3), 893-923.
- Özata, H. (2007). *Öğretmenlerin öz-yeterlik algılarının ve örgütsel yenileşmeye ilişkin görüşlerinin araştırılması* (Yayımlanmamış yüksek lisans tezi). Kocaeli Üniversitesi, Kocaeli.
- Özcan, H. (1996). *İlkokul öğrencilerinin özgüvenleri, akademik başarıları ve anne-baba tutumları arasındaki ilişkiler* (Yayınlanmamış yüksek lisans tezi). Marmara Üniversitesi, İstanbul.
- Pallant, J. (2001). *SPSS survival manual: A step by step guide to data analysis using SPSS for windows (Version 10 and 11)*. Maidenhead: Open University Press.
- Perry, P. (2011). Concept analysis: Confidence/self-confidence. *Nursing Forum*, 46(4), 218-230. doi: 10.1111/j.1744-6198.2011.00230.x
- Richards, K. (2016). *How to be confident and improve your self-image*. South Carolina: CreateSpace Independent Publishing Platform.
- Sadler, I. (2013). The role of self-confidence in learning to teach in higher education. *Innovations in Education and Teaching International*, 50 (2), 157-166. doi: 10.1080/14703297.2012.760777
- Schermelleh-Engel, K., Moosbrugger, H. ve Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research-Online*, 8, 23-74.
- Sellman, D. (2005). Towards an understanding of nursing as a response to human vulnerability. *Nursing Philosophy*, 6(1), 2-10. doi:10.1111/j.1466-769X.2004.00202.x
- Sharma, S. (1996). *Applied multivariate techniques*. New York: John Wiley & Sons.
- Sharma, S., Mukherjee, S., Kumar, A. ve Dillon, W. R. (2005). A simulation study to investigate the use of cutoff values for assessing model fit in covariance structure models. *Journal of Business Research*, 58(7), 935-943. doi: 10.1016/j.jbusres.2003.10.007.
- Song, J. (2016). Emotions and language teacher identity: Conflicts, vulnerability, and transformation. *TESOL Quarterly*, 50(3), 631-654. doi: 10.1002/tesq.312
- Stevens, J. P. (2009). *Applied multivariate statistics for the social sciences* (5th ed.). Newyork: Routledge.
- Şubaş, R. (2018). *Okul öncesi öğretmen adaylarının öz-denetimleri ve öğretmen özyeterlik inançları arasındaki ilişkinin bazı değişkenlerle incelenmesi* (Yayınlanmamış yüksek lisans tezi). Dumlupınar Üniversitesi, Kütahya.
- Taşdan, M. (2012). Eğitim işkolundaki sendikaların yaşadıkları sorunlar ve çözüm önerileri nitel bir çalışma. *İnönü Üniversitesi Eğitim Fakültesi Dergisi*, 13(2), 57-78.
- Taşkın, Ç. ve Hacıömeroğlu, G. (2010). Öğretmen özyeterlik inanç ölçeğinin türkçeye uyarlanması ve sınıf öğretmeni adaylarının özyeterlik inançları. *Dokuz Eylül Üniversitesi Buca Eğitim Fakültesi Dergisi*, (27), 63-75.
- Tavşancıl, E. (2010). *Tutumların ölçülmesi ve veri analizi* (4. Baskı), Ankara: Nobel Yayın Dağıtım.

- Toktaş, S. (2017). *Okul spor müsabakalarına katılan lise öğrencilerinin kaygı özgüven ve güdülemelerini arasındaki ilişkinin incelenmesi (Karadeniz Teknik Üniversitesi Beden Eğitimi ve Spor Anabilim Dalı (Yayınlanmamış doktora tezi). Karadeniz Teknik Üniversitesi, Trabzon.*
- Tyler, J. K. (2016). *Self confidence: Your guide to developing self confidence, self esteem, irresistible charisma and overcoming anxiety!* Kindle-ebooks. Retrieved from <https://www.amazon.com/Self-Confidence-Developing-IrresistibleOvercoming-ebook/dp/B01EV0V9S6>
- Üstüner, M., Demirtaş, H., Cömert, M. ve Özer, N. (2009). Ortaöğretim öğretmenlerinin öz-yeterlik algıları. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, 9(17), 1-16.
- Vives, A., Amable, M., Ferrer, M., Moncada, S., Llorens, C., Muntaner, C., ...ve Benach, J. (2013). Employment precariousness and poor mental health: Evidence from Spain on a new social determinant of health. *Journal of Environmental and Public Health*, 2013, 1-10. doi: 10.1155/2013/978656
- Yalçın, O. M. ve Özgen, B. (2017). Okul öncesi öğretmenliği bölümü öğrencilerinin mesleğe yönelik tutumlarının ve öz güven düzeylerinin incelenmesi (KKTC). *Eğitim Kuram ve Uygulama Araştırmaları Dergisi*, (3), 63-80.