Examining the Relationships between the Burnout Levels and Creative Thinking Levels of Special Education Teachers

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Abstract

In this study, the relationships between the burnout and creative thinking levels of special education teachers (SET) were examined. 214 special education teachers were contacted to accomplish this goal. The Maslach Burnout Inventory-Educator's Survey and the Marmara Creative Thinking Tendency Scale were used in the study. Conducted in accordance with the goal, the surveys revealed that the creative thinking tendencies of SETs decrease as their burnout levels increase; their creative thinking, self-discipline, novelty-seeking, courage, curiosity, and flexibility levels decrease as their emotional exhaustion levels increase; and their creative thinking, self-discipline, novelty-seeking, courage, curiosity, doubt, and flexibility levels increase as their personal accomplishment levels increase. In conclusion, improving the salaries, providing training on scientific-based practices, and organizing in-service training were suggested in the study in order to reduce the burnout of SETs and increase their creative thinking tendencies.

Keywords: Special education teachers, Creative thinking, Occupational burnout.

Introduction

Seeing creativity as a cognitive and logical phenomenon, researchers explain the concept as an individual using his or her mind and intelligence in an original and productive way (Aslan, 2001). In this approach, creativity is a kind of thinking, reasoning, conceptualizing, and problem-solving activity. A creative thinking process, on the other hand, is emphasized as some processes going on in the subconscious during the pause before an individual suddenly reaches the solution in his/her mind (Aslan, 2001). Creative thinking, in particular, can be defined as thinking in an original, fluent, logical, extremely flexible, and unusual manner (Sönmez, 2017). Thus, it can be said that an individual can overcome the negative situations s/he encounters in both his/her professional and private life through creative thinking.

When it comes to professional life, we come across the concept of occupational burnout. Occupational burnout is generally seen in people who are idealistic and highly motivated. Under emotional pressure for a long time, these people with high expectations may face stress, anxiety, and depression. Therefore, it is crucial to define the concept of burnout, which is frequently encountered in professional life (Pines, 2003). This concept is thought to be related to the expansion of the boundaries of people's professional lives and the increase in boredom (Gönültaş, 2017). According to Maslach, burnout is a syndrome that occurs as emotional exhaustion, depersonalization, and reduced personal achievement in people who interact with others a lot (Maslach, 1982; Maslach & Jackson, 1981). As can be understood from the explanations, burnout is seen in almost all occupational groups that interact with people intensely due to the nature of their work, especially in the health and education sectors (Kaya, 2008). When it comes to education, the rate is reported to be quite high among school administrators and general and special education teachers (SET) working in this field (Emery & Vanderberg, 2010; Fernet et al., 2012; Girgin & Baysan, 2005; Kuşçu, 2020; Nichols & Sosnowsky, 2002; Oplatka, 2002; Talmor, Reiter & Feigin, 2005; Westman & Etzion, 1999; Zabel & Zabel, 2002). As stated in the literature, SETs are among the groups in education that experience occupational burnout. Studies exhibit SETs as the group that is more prone to having occupational

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burnout than their colleagues in other groups are (Girgin & Baysan, 2005; Kocaman, 2018), or have higher burnout levels than others (Beck & Gargulia, 1986; Kocaman, 2018; Kuşçu, 2020).

SET is the person referred to as "specially trained personnel" in the definition of special education. These teachers provide education in accordance with the needs and characteristics of individuals with special needs, as included in the definition of special education. Therefore, it is reported in the literature that SETs have different direct and indirect roles and have many different responsibilities such as special education counseling, teaching, preparing individualized education programs (IEP), preparing RR (resource room) programs, making evaluations, and cooperating (Güven, 2021a). According to studies, this level of responsibility causes stress (Kocaman, 2018; Kuşçu, 2020; Robinson, Bridges, Rollins, & Schumacker, 2019), and all of these negative situations lead to burnout (Aslan & Aslan, 2014; Brunsting, Sreckovic, & Lane, 2014; Dere Çiftçi, 2015; Girgin & Baysan, 2005; Karahan & Balat, 2011; Wisniewski & Gargiolu, 1997).

When the studies in Turkey are examined, it is seen that different dimensions of burnout in SETs were looked into and different results were obtained (Artıran, Er, & Artıran, 2019; Aslan & Aslan, 2014; Gönüldaş, 2017; Karacan, 2012; Karahan & Uyanık Balat, 2011; Kocaman, 2018; Saraç, 2018; Şahin & Şahin, 2012). In their study on the relationship of SETs' negative thoughts with burnout and job satisfaction, Artıran, Er, & Artıran (2019) reported that negative automatic thoughts of teachers increase the level of burnout and decrease job satisfaction. Kocaman (2018) examined the relationship between the burnout levels and the classroom management skills of teachers working in special education schools but did not find a significant relationship. However, Saraç (2018) researched the burnout levels of teachers working in special education; and concluded that teachers in this field who are married, do not find the profession suitable for themselves, and did not choose this profession voluntarily experience emotional burnout more. Gönüldaş (2017) conducted a study on the self-efficacy perceptions, levels of anxiety, and burnout that special education teacher candidates and teachers have and concluded that the teachers' anxiety and burnout decrease as their competencies increase.

There are many foreign studies on SETs' burnout looked into through different dimensions (Emey & Vanderberg, 2010; Fore, Martin & Bender, 2002; Langher, Caputo & Ricci 2017; Ugwoke, 2018). Robinson et al. (2019) assessed the relationship between SETs' burnout and job satisfaction. The results revealed that burnout increases as job satisfaction decreases. Al-Bawaliz, Arbeyat and Hammadneh (2015) examined the relationship between emotional intelligence and burnout of SETs in Jordan, and the results showed that burnout decreases as emotional intelligence increases. Batained and Alsagheer (2012) analyzed the relationship between SETs' social support and burnout in the United Arab Emirates, and the results reported that the social support provided to teachers by their environment reduces burnout. Lavian (2012) researched the effect of school climate on burnout among teachers who teach at home and SETs in Israel. As a result, it was revealed that the non-supportive school climate causes teachers' burnout to increase. Platsidou (2010) examined the relationship between emotional intelligence, burnout, and job satisfaction in Greek SETs. It is understood that the burnout of teachers with high emotional intelligence is low and their job satisfaction is high. When all the studies are scanned in general, it is seen that different dimensions of SETs' burnout were examined via different variables, but the relationship between creative thinking and occupational burnout has not been examined yet.

Aim of the Study
This study aims to look into the relationships between occupational burnout and creative thinking levels of SETs. The subgoals of the study are as follows:

1. Is there a significant relationship between the occupational burnout levels of special education teachers and their creative thinking tendencies?
2. Do the occupational burnout levels of special education teachers predict their creative thinking tendencies?

Method

Research Design

This study was carried out according to the relational screening model, as it aimed to examine the relationships between the creative thinking levels and occupational burnout of SETs. This model is a screening approach that targets determining the existence of covariation between two or more variables. In the relational screening model, it is tried to see whether the variables change together and how it happens if there is a change (Karasar, 2011).

Participants

The study group consists of SETs working all around Turkey. Table 1 provides information about the SETs' seniority, department of graduation, seniority, age, gender, marital status, level of education, and age.

Table 1. Demographic information of the teachers

		N	%
Gender	Female	146	68.2
	Male	68	31.8
Marital Status	Single	95	44.3
	Married	119	55.7
Age	20-25	37	17.3
	26-30	66	30.9
	31-35	50	23.4
	36-40	35	16.3
	41 and older	26	12.1
Education Level	Associate Degree	17	8
	Bachelor's Degree	179	83.6
	Master's Degree	18	8.4
Department Graduated from	Special Education and Related to Special Education	128	59.8
	Departments Other than Special Education (preschool, child development, classroom teaching, etc.)	86	40.2
Type of the Institution S/He Works at	Rehabilitation Center	44	20.6
	Primary School Special Education Classroom, Resource Room	65	30.4
	Special Education Implementation School	53	24.8
	Special Education Kindergarten	14	6.5
	Special Education Implementation Center and/or Special Education Kindergarten	24	11.2
	Other Institutions	14	6.5
Special Education Group Type S/He Works with	Intellectual Disability	100	47.2
	Autism Spectrum Disorder	61	28.91
	Special Learning Disability	15	7
	Developmental Delay	2	0.09
	Other Special Education Groups	36	16.8
Seniority	1-5	102	47.7
	6-10	71	33.2
	11-15	21	9.8
	16-20	16	7.4
	21 and more	4	1.9

Of the teachers, 146 (68.2%) are female, 68 (31.8%) are male; 95 (44.3%) are single and 119 (55.7%) are married. In terms of age, 37 (17.3%) are 20-25 years old, 66 (30.9%) are 26-30 years old, 50 (23.4%) are 31-35 years old, 35 (16.3%) are 36-40 years old, and 26 (12.1%) are 41 years old and older. 17 (8%) of the teachers have an associate degree, 179 (83.6%) have a bachelor's degree, and 18 (8.4%) have a master's degree. In terms of the department graduated, 128 teachers (59.8%) graduated from special education and special education-related fields, while 86 (40.2%) graduated from departments other than special education such as preschool, child development, classroom teaching, physics, sociology, journalism, and archeology. In terms of the institution they work at, 44 (20.6%) work at a rehabilitation center, 65 (30.4%) work at a primary school special education classroom, resource room, 53 (24.8%) work at a special education implementation school, 14 (6.5%) work at a special education kindergarten, 24 (11.2%) work at a special education implementation center and/or special education kindergarten, and 14 (6.5%) work at other institutions. In terms of special education group type they currently work with, 100 (47.2%) work with the groups with intellectual disability, 61 (28.91%) work with the groups with autism spectrum disorder, 15 (7%) work with the groups with a special learning disability, 2 (.09%) work with the groups with developmental delay, and 36 (16.8%) work with other special education groups. In terms of seniority, 102 (47.7%) have 1-5 years, 71 (33.2%) have 6-10 years, 21 (9.8%) have 11-15 years, 16 (7.4%) have 16-20 years, and 4 (1.9%) have 21 years or more.

Data Collection Tools

Three different data collection tools were used in this study. The first one is the demographic data form developed by the researchers. On this form, questions on the teachers' age, gender, marital status, educational level, departments from which they graduated, the special education group type they interact with, and their period of special education work are all asked.

The second one is the *Maslach Burnout Inventory-Educator's Survey*. This form was utilized to determine the burnout levels of SETs. To calculate the reliability of the MBI-ES within the scope of the study, the internal consistency coefficient was calculated for each subscale, as in the original. As a result of the analyses, the Cronbach's alpha coefficients for the emotional exhaustion, depersonalization, and personal achievement subscales were found to be .83, .63, and .80, respectively. In the analysis of validity, Ergin (1992) stated that in the scale's adaptation study conducted with healthcare professionals, the seven-point rating format is not suitable for Turkish culture and rating with "never, rarely, sometimes, often, always" is more useful. Developed by Maslach and Jackson (1981), Maslach Burnout Inventory-Educator's Survey was adapted into Turkish by İnce and Şahin (2015). This scale consists of 22 items and three subdimensions. The 1st, 2nd, 3rd, 6th, 8th, 13th, 14th, 16th, and 20th items include the "Emotional Exhaustion" subdimension; the 5th, 10th, 11th, 15th, and 22nd items include the "Depersonalization" subdimension , and the 4th, 7th, 9th, 12th, 17th, 18th, 19th, and 21st items include the "Personal Achievement" subdimension. For scoring, the items in the emotional exhaustion and depersonalization subdimensions are scored in the same way, and the items in the personal achievement subdimension are scored inversely. While some researchers in this field argue that three separate scores should be calculated for each individual (Çam, 1999), other researchers state that the total burnout score can be obtained by adding the scores from the items constituting the subdimensions of burnout together (Cordes & Dougherty, 1993). In this study, the total burnout scores were calculated, as well as the subdimension scores. The 5-point Likert scale in the Maslach Burnout Inventory-Educator's Survey is as follows: "Never (1)", "Very Rarely (2)", "Sometimes (3)", "Mostly (4)", "Always (5)".

Lastly, the *Marmara Creative Thinking Tendency Scale* was employed. This scale was used to examine the creativity levels of SETs. The validity and reliability of this scale, which was developed by Özgenel and Çetin (2017), was conducted with 410 teachers working in the district of Pendik, Istanbul. The Cronbach's alpha internal consistency coefficient calculated for the entire scale was found to be 0.87. The accuracy of the structure consisting of 25 items and 6 factors obtained as a result of the analyses was proven via factor analysis. The factor and item distributions determined as a result of the validity and reliability are as follows: "Self-discipline: 1, 6, 7, 15, 23", "Novelty-Seeking: 2, 5, 8, 12, 17, 19, 22, 24", "Courage: 9, 11, 14, 25", "Curiosity: 3, 10, 21", "Doubt: 4, 16", and "Flexibility: 13, 18, 20". The options in the Marmara Creative Thinking Tendency Scale, which is a Likert-type scale, consist of the answers "never, rarely, sometimes, usually, and always". In this study, reliability analysis was performed for the entire scale, and Cronbach's alpha internal consistency coefficient was achieved at 0.89.

Data Collection Process

Ethics committee approval for the study was obtained from Istanbul Sabahattin Zaim University. The data related to this study was collected through Google Forms. The study group was informed about the purpose of the study and the protection of personal information, etc., and consent was obtained for voluntary participation in the study. The data collection process took approximately 3 months.

Data Analysis

The normality and internal consistency coefficient values for the two scales used in the study are displayed in Table 2. The scores obtained from the Thinking Tendency and Burnout Scales were seen to be distributed normally. Additionally, it appears that the two scales' internal consistency coefficients are at an acceptable level.

Table 2. The burnout and creative thinking tendency scales' kurtosis, skewness, and reliability values

	N	M	sd	Skewness	Kurtosis	Cronbach a
Burnout	214	46.915	11.861	.325	-.417	.713
Creative Thinking Tendency	214	103.247	10.666	-.085	-.455	.916

From Table 2, it was seen that the kurtosis and skewness values of the data collected from the scales are between -1 and +1, and it was decided that the data has a normal distribution. The data were analyzed using correlation and simple regression analyses based on the normal distribution findings.

Findings

The correlation findings between the variables are given in Table 3.

Table 3. The findings of a correlation study between SETs' creative thinking tendencies and professional burnout levels

		Burnout
Self-Discipline	r	-.559**
	p	.000
	N	214
Novelty-seeking	r	-.439**
	p	.000
	N	214
Courage	r	-.390**
	p	.000
	N	214
Curiosity	r	-.383**
	p	.000
	N	214
Doubt	r	-.181**
	p	.008
	N	214
Flexibility	r	-.351**
	p	.000
	N	214
Creative thinking (total)	r	-.510**
	p	.000
	N	214

Table 3 displays the findings of the correlation analysis conducted to identify the association between special education teachers' levels of burnout and their tendencies to creative thinking. Burnout and self-control, novelty seeking, courage, curiosity, and flexibility variables were shown to have a moderately negative link, and doubt and burnout were found to have a weakly negative correlation. Table 4 displays the findings of the basic regression analysis that was carried to see if the burnout levels of special education teachers predicted their tendency to creative thinking.

Table 4. The Results of the Simple Regression Analysis Regarding Whether Special Education Teachers' Burnout Levels Predict Their Creative Thinking Tendencies

Independent Variable	Dependent Variable	B	Std. Error	(β)	t	*p*	R	r^2	F	*p*
Burnout	Self-discipline	-.123	.013	-.559	-9.813	.000	.559	**.312**	96.285	.000
	Novelty-seeking	-.142	.020	-.439	-7.109	.000	.439	**.192**	50.534	.000
	Courage	-.083	.014	-.390	-6.169	.000	.390	**.152**	38.062	.000
	Curiosity	-.048	.008	-.383	-6.032	.000	.383	**.146**	36.381	.00
	Doubt	-.018	.007	-.181	-2.686	.008	.181	**.033**	7.214	.008
	Flexibility	-.045	.008	-.351	-5.462	.000	.351	**.123**	29.832	.000
	Creative thinking (total)	-.459	.053	-.510	-8.639	.000	.510	**.260**	74.626	.000

According to the results of the simple regression analysis, the burnout levels of special education teachers were significantly negatively predicted (β=-.510, p<.01) by their creative thinking tendencies. The total score of special education teachers' creative thinking tendencies explains 26% of the variance observed in relation to their burnout level scores. Among the variables related to creative thinking, it was observed that the self-discipline dimension (β= -0.123; p<.01) has the highest, negative, and significant effect for the burnout variable, while the doubt dimension (β= -0.181; p<.01) has the lowest, negative, and significant effect for the burnout variable.

Discussion

Under this heading, the findings are discussed in detail. The study findings revealed that there is a negative relationship between SETs' occupational burnout and creative thinking. According to this result, it can be said that SETs' creative thinking levels decrease as their occupational burnout levels increase, and their creative thinking levels increase as their occupational burnout levels decrease. Within the scope of the study, occupational burnout can be mentioned as a risk factor for creative thinking. When the literature on the subject is examined, similar results are seen to have been reached. In general, researchers in the field of education report that positive school climate influences creative thinking (De Calvyho, 2014; Hillel Lavien, 2012; Luecke, 2021) and they state that school climate meaningfully influences teachers' creative thinking levels (Türkoğlu & Özgenel, 2021). Similarly, Doğan (2015) emphasized that the creative thinking tendencies of individuals increase as long as the environmental conditions are suitable. In addition, Memduhoğlu, Uçar and Uçar (2017) stated that working in collaboration is one of the elements that encourage individuals to think creatively. On the other hand, studies on the relationships between SETs' burnout and job satisfaction reveal that burnout decreases as job satisfaction increases (Artıran, Er, & Artıran, 2019; Emery & Vanderberg, 2010; Platsidaou, 2010; Platsidaou & Agaliotis, 2008; Robinson et al., 2019). In their study, Hillel Lavien (2003) also reached similar results. Studies show that as long as the school climate of SETs is positive (Hillel Lavien, 2012) and teamwork and cooperation, which are the essential conditions of special education, are at work (Güven, 2021b), the burnout of SETs will decrease, and this will contribute to their creative thinking processes. When evaluated in general, this study's findings are in parallel with similar studies in the literature.

According to the study findings, it was determined that as the emotional exhaustion levels of SETs increase, there is a decrease in the levels of self-discipline, novelty-seeking, courage, curiosity, and flexibility, which are included in the scope of creative thinking characteristics. The results of the studies on the subject in the literature are in parallel with the results of this study. For instance, in the study by Alvinia and Pashazadeh (2018), a positive relationship was found between teachers' motivation and self-efficacy and creativity, while a negative relationship was found between burnout and creativity. Moreover, researchers report that emotional exhaustion causes depression in individuals and can lead to having low self-perception and negative feelings towards themselves (Alvinia & Pashazadeh, 2018; Awa, Paulmann & Walter, 2010). When we look at the results of all this research and the nature of creative thinking, it is once again understood that people are undesirably affected by their negative self-perception and their emotions toward themselves. In addition to the mentioned findings, researchers state that lack of self-confidence, low self-perception, behaviors to cope with negative situations, indiscipline, resistance to new thoughts, and lack of motivation negatively affect creative thinking (Doğan, 2015; Kunter & Holzberger, 2014; Memduhoğlu, Uçar & Uçar, 2017) and this can increase burnout in a person (Alvinia & Pashazadeh, 2018; Awa, Paulmann & Walter, 2010). Here, it can be said that SETs' creative thinking features should be increased to prevent them from reaching emotional exhaustion levels. Reducing SETs' emotional exhaustion and increasing their creativity also means increasing their quality of life and enabling their motivation to be sustainable. In sum, motivation can be said to be one of the biggest factors in increasing teachers' creative thinking and decreasing their emotional exhaustion (Emery & Vanderberg, 2010; Kunter & Holzberger, 2014; Roth, 2014). Studies present that increasing motivation will be achieved by overcoming the negative teaching-related situations encountered by SETs during teaching (Emery & Vanderberg, 2010; Kaff, 2004); supporting professional development; providing managerial support; and increasing income levels (Borg & Riding, 1991; Goddard, O'Brien & Goddard, 2006; Kyriakau, 1987; Mearns & Cain, 2003; Platsidou, 2010).

The findings also exhibited that as the levels of depersonalization increase, the levels of creative thinking, self-discipline, novelty-seeking, courage, curiosity, and flexibility decrease; and there is no relationship between emotional exhaustion and doubt. Gladding (2011) expressed that among the fundamental characteristics of creative people are being open to new ideas, having a high level of flexibility against uncertainty, being interested, curious, and energetic, having a vivid imagination and humor, being hardworking and determined, and being motivated to produce different works. When the study results are assessed, it is understood that the answers were given by SETs in the opposite direction of the mentioned characteristics. Robinson (2008) stated that everyone has creative characteristics, but these are related to different processes and environments. In addition, Doğan (2015) pointed out that the development of creativity depends on the proper arrangement in the environment, and the

existing creativity does not reveal itself when the environment is not suitable. In general, it is understood that the work environment is crucial in supporting creativity. According to the study findings (Memduhoğlu, Uçar & Uçar (2017)) and SET responsibilities, appreciating employees' creative ideas, cooperating, and providing rewards, bonuses, and so on, promotes creativity, which is important for SETs as well. Providing support for the issues, as suggested by researchers, can be said to reduce depersonalization and burnout in SETs.

Lastly, according to the analysis results, as the levels of personal achievement increase, the levels of creative thinking, self-discipline, novelty-seeking, courage, curiosity, doubt, and flexibility increase, too; as the levels of personal achievement decrease, the levels of creative thinking, self-discipline, novelty-seeking, courage, curiosity, doubt, and flexibility decrease, too. Türkoğlu & Özgenel (2021) showed that people need creative thinking in order to be successful and happy in business life. Furthermore, failure brings about burnout in SETs (Emery & Vanderberg, 2010). Therefore, the result is not surprising when we look at the findings achieved via the burnout dimension. In sum, it can be said that the relationship between success and burnout in SETs is tightly linked to each other. It should be once again emphasized that teachers should participate in in-service training, join different social activities, and receive support from their family and friends in terms of social support, in order to increase their individual successes (Batained & Alsagheer, 2012; Emery & Vanderberg, 2010).

Conclusion

SETs are the people who teach high-risk students, but the process makes them high-risk study groups, too. At this point, it was revealed as a result of studies that they have a tendency to stress and burnout, which increase with low job satisfaction and self-efficacy (Emery & Vanderberg, 2010). This study also showed that SETs experience burnout and therefore cannot think creatively. The burnout of SETs is more or less directly associated with job satisfaction (Chaplain, 1995; Mearns & Cain, 2003). Here, it is crucial to ensure the teachers' satisfaction in the work environment. Happy and successful SETs in business life will undoubtedly appear as teachers with a high creative thinking tendency. Thus, in order to increase the teachers' creative thinking tendency, they should first be enabled to be happy in business life. These can be provided through in-service training, education that will allow scientific-based practices to be reflected in the classroom environment, and good salaries.

Recommendations

SETs do not only teach in the classroom environment. Additionally, these teachers have a broad range of responsibilities outside of the classroom, including caring for their own students, staying in constant contact with the student's family, attending special education board meetings, creating IEPs and participating in IEP teams, consulting other teachers in mainstreaming schools, and working with all special education stakeholders. All these factors are included among the responsibilities of the teachers that students with special needs can benefit from the education at the school at the highest level. Coping with these situations can also be very tiring and wearisome for SETs. For instance, the actual implementation of assistant personnel practices to support teaching will reduce the workload of the teachers in the classroom environment. Furthermore, arrangements regarding making additional payments for all responsibilities of SETs other than teaching can also increase their quality of life by reducing their burnout in this process. Finally, teaching creative thinking courses not only to teacher candidates working with groups with intellectual giftedness but also to all special education teachers will contribute positively to the professional lives of these teachers.

Contribution Rate of the Author (s)
The authors have contributed equally.

Conflicts of Interest
There aren't any potential conflicts of interest.

Ethical Approval (only for necessary papers)
Ethical permission (18.01.2022-E.20439) was obtained from Istanbul Sabahattin Zaim University for this research.

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