Full text open access online (Since 2009)

PRINT: ISSN 0975-1122 ONLINE: ISSN 2456-6322
Int J Edu Sci, 48(2): 29-39 (2025)
DOI: 10.31901/24566322.2025/48.02.1385

The Relationship Between Cognitive Flexibility and Psychological Resilience Levels of Preschool Teachers

Cevat Eker[1] and Burcu Ertek Eroglu[2]

[1]Eregli Faculty of Education, Department of Educational Sciences, Zonguldak Bülent Ecevit University, Zonguldak, Türkiye
https://orcid.org/0000-0003-4215-1854
[2]Graduate School of Social Sciences, Zonguldak Bülent Ecevit University, Zonguldak, Türkiye
https://orcid.org/0009-0002-8002-6077
E-mail: [1]<cevateker@gmail.com>,[2]<burcuertek94@gmail.com>

KEYWORDS Preschool. Preschool Teacher. Resilience. Teacher

ABSTRACT The aim of the study was to examine the relationship between the cognitive flexibility and psychological resilience of preschool teachers. The study was conducted in accordance with the relational screening and causal comparison design. A total of 195 preschool teachers working in Turkey participated in the study. Independent groups t-test, Anova and correlation analysis were used in the analysis of the data. The results showed that the cognitive flexibility and psychological resilience of preschool teachers were high. In addition, it was shown that the cognitive flexibility of teachers differed according to gender, but not according to professional experience and the institution they worked in, and their psychological resilience did not differ according to gender, professional experience and the department they graduated from, but it differed according to the institution they worked in. There was a positive relationship between their cognitive flexibility and psychological resilience.

INTRODUCTION

The preschool period and the role of teachers in this period are of great importance for the healthy development of children. This process provides a strong foundation for an individual's lifelong journey of learning and development. In this period, teachers are the main guides who support children's social, emotional and cognitive development and create a safe and inspiring learning environment. In this context, teachers who provide a quality educational atmosphere for children to have a healthy developmental process stand out as one of the most significant elements that lay the solid foundations of the future.

Cognitive flexibility and psychological resilience are fundamental factors for preschool teachers to be able to work efficiently and achieve their teaching goals. Cognitive flexibility includes the ability to perform multiple tasks within the same time frame, develop new thoughts, create different options and adapt to changing conditions (Stevens 2009). According to Gruvis and Calargo (2007), teachers with cognitive flexibility have the ability to recognise changes, generate alternative ideas and obtain information from various sources in order to develop solutions to situations they may encounter. Spiro and Jeng (2012) described cognitive flexibility as the ability to view a situation from multiple perspectives and tailor existing knowledge to meet the specific requirements of individuals. Similarly, Anderson (2002) characterised cognitive flexibility as the skill to discover alternative solutions, extract insights from previous experiences and transform them into strategic advantages, generate innovative ideas, multitask effectively, and access diverse sources of information simultaneously.

Teachers with high cognitive flexibility are successful in making decisions, taking action, and gaining control over themselves and the environment (Phalet and Kosic 2006). A high level of cognitive flexibility enables teachers to easily find solutions to difficult situations, maintain their motivation in challenging processes, and overcome feelings of restlessness (Kesselring 2010). Therefore, teachers ability to adapt to new situations and develop their skills to find solutions to the problems they face contributes to children acquisition of similar skills (Esen 2018). In addition, rapidly increasing technolog-

ical innovations and the different structure of various problems cause the effects of the modern age to be felt intensely in the learning processes of students born in the information age. This situation will enable teachers to strengthen their cognitive flexibility while increasing their efforts to adapt to the needs of both the age and the new generation (Üzümcü and Müezzin 2018).

A key factor influencing the quality of the educational process is the psychological resilience of teachers. This resilience refers to an individuals' capacity to maintain positive functioning while navigating challenging or adverse conditions. It is a fundamental aspect of human nature that helps individuals remain balanced, preserving both psychological and physical stability when confronted with traumatic or stressful events, as noted by Meichenbaum (2012). Mandleco and Peery (2000) further describe psychological resilience as the ability to resist difficulties, overcome challenges, and grow through adversity. Similarly, Ramirez (2007) defines it as the capacity to recover and return to a stable state by swiftly bouncing back from anxiety, negative experiences, depression, sudden changes, or hardships.

According to Brooks and Goldstein (2003), individuals with high psychological resilience have some distinctive characteristics. These individuals make plans for the future and shape their lives accordingly. They set clear goals to achieve their objectives and show competence in overcoming challenging situations. These individuals stand out with their empathising skills, as well as their ability to communicate effectively and have high self-confidence. They have a strong awareness that they are in control of their lives, set realistic goals, learn from their failures and exhibit a desire to be useful for society. In this context, the teaching profession is considered a risky occupational group due to the necessity to cope with intense stress and conflicts (Baltas and Baltas 2018). In order to cope with the difficulties encountered in school environments, it is crucial for educators to possess high levels of psychological resilience. According to Bobek (2002), teachers should have a high level of psychological resilience in the teaching profession. In this way, teachers can cope with negative situations more easily by maintaining their resilience and developing effective problem-solving strategies. According to Rutter (2006), teachers with high levels of psychological resilience can adapt quickly after risky situations and can adapt to distressing processes more easily. Individuals who have the right resources can progress positively by using these resources effectively after the difficulties they face in their lives. Kirandi (2020) emphasises that individuals with high levels of psychological resilience are successful in decision-making skills. In addition, such individuals have the ability to make correct and practical decisions when faced with challenging situations and can effectively exhibit qualities such as perseverance, effort and struggle in such processes.

Since the 0-6 age period in human life is a stage in which the basic behaviours of the individual in adulthood are shaped, it can be said that educators working in this period play an important role in the attitudes that children will exhibit throughout their lives. As a result of this effect, in order to develop cognitive flexibility and psychological resilience in children, it is important that the educators themselves have this characteristic. The teaching profession requires reaching individuals with different characteristics and personality structures and knowing how to cope with unexpected situations. For this reason, it is considered an important issue to examine the relationship between cognitive flexibility and psychological resilience for preschool teachers to achieve and sustain success.

Objective of Study

The main objective of this study is to examine the relationship between preschool teachers' cognitive flexibility and psychological resilience levels. The study also examined how these factors differ according to various demographic factors (gender, professional experience, institution of employment and graduated department). The following research questions were formulated for the purpose of this investigation:

1. What is the level of cognitive flexibility and psychological resilience of preschool teachers?
2. Do preschool teachers' cognitive flexibility and psychological resilience vary according to gender, professional experience, institution of employment, and graduated department?

3. Is there a significant relationship between preschool teachers' cognitive flexibility and psychological resilience?

METHODOLOGY

Research Model

The study investigating the connection between preschool teachers' cognitive flexibility and their levels of psychological resilience employs a correlational survey design. Such studies aim to explore the relationships between two or more variables. Furthermore, the research analysed how these variables vary among preschool teachers based on specific demographic characteristics. In this regard, it also incorporates elements of causal-comparative research.

Study Group

The study group consists of 195 preschool teachers working in the Zonguldak City Center in Türkiye in the 2024-2025 academic year. The research data were collected using the convenience sampling method. The convenient sampling method is based on the unplanned selection of the items that can be reached within the studied time period by the researcher and the selection of the sample from easily accessible and applicable items due to the limitations in terms of time and labour force (Cohen et al. 2017). The characteristics of the study group are given in Table 1.

When the demographic characteristics of the study group were examined, it was seen that most of the participants (92.8%) were female, more than half of the participants (60%) had 1-10 years of professional experience, approximately half of them worked in public institutions (51.3%), and approximately three-fourth of the participants (72.8%) were graduates of preschool teaching.

Ethical Considerations

All interviewees understood that their participation in this study was voluntary and that they could withdraw at any time. In addition, interview participants were informed that their responses would be used solely for academic research purposes and that their identity would not be revealed. The research was found appropriate by the human research ethics committee of BEUN, dated 05/07/2024 and protocol number 742.

Data Collection Tools

The data were obtained through the "demographic information form", "cognitive flexibility scale" and "psychological resilience scale".

Demographic Information Form

This is a form prepared by the researcher to specify the purpose of the study and to determine the gender, professional experience, institution of employment and department of graduation of the preschool teachers participating in the study.

Cognitive Flexibility Scale

The Cognitive Flexibility Inventory, developed by Dennis and Vander in 2010, assesses individuals' ability to generate alternative, compatible, appropriate, and balanced thoughts during challenging situations. Adapted into Turk-

Table 1: Socio-demographic characteristics of the study group

Variable	*Subgroups*	*Frequency (f)*	*Percentage (%)*
Gender	Female	181	92.8
	Male	14	7.2
Professional Experience	1-5 year	73	37.4
	6-10 year	44	22.6
	11-15 year	53	27.2
	16 year	25	12.8
Institution of Employment	Official	100	51.3
	Private	95	48.7
Graduated Department	Preschool	142	72.8
	Child development	53	27.2

ish by Gülüm and Dag in 2012, the scale comprises 20 items and is divided into two sub-dimensions of 'control' and 'alternatives'. Upon examining the reliability analysis of the scale, Cronbach's alpha value for the alternatives subdimension was reported as 0.91 in both the initial and final measurements. For the control subdimension, Cronbach's alpha values were 0.86 at the initial measurement and 0.84 at the final measurement. In this study, confirmatory factor analysis showed fit index values as CMIN = 269.443, DF = 131, CMIN/DF = 2.057, p = .000, RMSEA = .074, CFI = .922, GFI = .874, IFI = .923, and TLI = .909. Regarding reliability in this study, the Cronbach's alpha coefficient for the control sub-dimension was 0.90, with item-total correlation coefficients ranging from 0.64 to 0.77. For the alternatives sub-dimension, the alpha coefficient was 0.88, with item-total correlation coefficients between 0.34 and 0.81. The total scale demonstrated an overall Cronbach's alpha coefficient of 0.85.

Brief Psychological Resilience Scale

The Psychological Resilience Scale (PRS), developed by Smith et al. in 2008, is a self-report measurement tool consisting of six items rated on a 5-point Likert scale. Designed as a unidimensional instrument, its development and validation were carried out across four different study groups. To assess its construct validity, an exploratory factor analysis was performed, revealing item factor loadings ranging from 0.68 to 0.91. The scale's reliability was evaluated using internal consistency and test-retest methods. The internal consistency reliability coefficient ranged from 0.80 to 0.91, while the test-retest reliability coefficient was between 0.62 and 0.69. The scale was later adapted into Turkish by Dogan in 2015. In that adaptation study, confirmatory factor analysis indicated fit index values of CMIN=4.520, DF=6, CMIN/DF=0.753, p=0.607, RMSEA=0.000, CFI=1.000, GFI=0.992, IFI=1.003, and TLI=1.008. Reliability analysis in this study yielded Cronbach's alpha coefficient of 0.78, with item-total correlation coefficients ranging from 0.31 to 0.68.

Data Collection and Analysis

The data were collected in September 2024. The teachers in the study group were informed and the scales were distributed. The scales were collected from the participants after approximately 15 minutes of application.

Descriptive statistics such as frequency, percentage, arithmetic mean, standard deviation, minimum, and maximum scores were utilised in the study. To assess whether the data obtained from the scales followed a normal distribution, the Kolmogorov-Smirnov (K-S) test, skewness, and kurtosis coefficients were examined. Given that the K-S test is highly sensitive to extreme scores, it has been noted that its significance (p) value may not always yield reliable results. For large sample sizes ($n > 100$, or $n > 400$ in more sensitive analyses), it is argued that even if the test indicates non-normality, it may not be critical. In such cases, distributions close to normal can be considered to satisfy the normality assumption (Sencan 2005). Thus, skewness and kurtosis coefficients were additionally reviewed. It is generally accepted that skewness and kurtosis coefficients within the range of ±1.5 indicate a distribution close to normal (Tabachnick and Fidell 2007). In this study, while the K-S test suggested that the scores were not normally distributed ($p < 0.05$), skewness and kurtosis coefficients for all measurements fell within the acceptable range of ±1.5. Furthermore, histogram graphs revealed distributions resembling normal patterns. Considering the adequate sample size ($n > 100$), and the fact that skewness, kurtosis coefficients, and histogram analyses indicated distributions approaching normality, it was concluded that the data adhered to normal distribution assumptions. Consequently, parametric statistical methods were employed in this study. The Pearson Product-Moment Correlation was used to examine relationships between variables. To compare the means of two independent groups, the independent samples t-test was applied. For comparing means across more than two groups, one-way analysis of variance (ANOVA) was utilised. Post hoc tests, including Tukey and LSD, were conducted to identify which group differences contributed to significant ANOVA results. The level of significance for all tests was set at 0.05.

RESULTS

To measure the level of cognitive flexibility and psychological resilience of preschool teach-

ers, arithmetic mean and standard deviation values were used. The findings are presented in Table 2.

Table 2 shows the preschool teachers' cognitive flexibility total score ($\overline{X}$=76.22 and SD=8.36). The interval value of the score obtained from the scale is 4.23, which indicates "Fully Appropriate". The control subscale of the cognitive scale is ($\overline{X}$=23.47 and SD=5.86). The interval value of the control sub-dimension score is 3.91 and its equivalent is "Appropriate". The alternatives sub-dimension of the cognitive flexibility scale is ($\overline{X}$=52.75 and SD=5.32). The interval value of this score is 4.39 and it indicates "Fully Appropriate". Accordingly, preschool teachers' cognitive flexibility levels are high, and the mean scores of the alternative dimension are higher than the mean scores of the control sub-dimension. Preschool teachers' psychological resilience scores are ($\overline{X}$=21.66 and SD=4.44). The interval value of the score obtained from the scale is =3.61, which corresponds to "Appropriate". Accordingly, it can be said that the psychological resilience of preschool teachers is slightly above the cognitive middle level. The t-test results for comparing the cognitive flexibility and psychological resilience of preschool teachers according to gender are given in Table 3.

Table 3 shows that the scores in the cognitive flexibility scale and its sub-dimensions differ according to gender (t=-2.831; p<0.05, t=-2.563; p<0.05 and t=- 1.592; p<0.05). It is seen that male teachers have higher cognitive flexibility levels than female teachers in the total score and sub-dimensions of the scale. It is seen that psychological resilience scale scores do not differ according to gender with the value (t=-1.545; p>0.05). Accordingly, it can be said that the psychological resilience of female and male preschool teachers is at a similar level and does not differ. The results regarding the comparison of preschool teachers according to their professional experience are given in Table 4.

Table 4 shows that the total scale score (F=1.411; p>0.05) of the cognitive flexibility scale does not differ according to the length of professional experience, while the control (F=2.741; p<0.05) and alternatives sub-dimension scores (F=2.690; p<0.05) differ according to the length of professional experience. Accordingly, teachers' control and alternative dimension scores related to cognitive flexibility differ among teachers with different lengths of experience. According to the post-hoc tests regarding the source of differentiation, it is seen that the cognitive flexibility of preschool teachers with 11-15 years of experience in the control sub-dimension is significantly higher than that of teachers with 1-5 years of experience, and the cognitive flexibility of teachers with 6-10 and 11-15 years of ex-

Table 2: Descriptive statistics of teachers' cognitive flexibility and psychological resilience

Scale	*Number of articles*	*X*	*Sd*	*5-point Likert interval*	*December meaning*
Cognitive Flexibility Scale	18	76.22	8.36	4.23	Totally suitable
Sub-dimension 1: Control	6	23.47	5.86	3.91	Suitable
Sub-dimension 2: Alternatives	12	52.75	5.32	4.39	Totally suitable
Psychological Resilience Scale	6	21.66	4.44	3.61	Suitable

Table 3: Comparison of teachers' cognitive flexibility and psychological resilience by gender

	Gender	*N*	$\overline{X}$	*Sd*	*Df*	*t*	*p*
Cognitive Flexibility Scale (Total)	Female	181	75.76	8.10	193	-2.831	0.005
	Male	14	82.21	9.64			
Sub-dimension 1: Control	Female	181	23.17	5.89	193	-2.563	0.011
	Male	14	27.28	3.85			
Sub-dimension 2: Alternatives	Female	181	52.58	5.23	193	-1.592	0.113
	Male	14	54.92	6.14			
Psychological Resilience	Female	181	21.53	4.44	193	-1.545	0.124
	Male	14	23.42	4.25			

p<0.05

Table 4: Comparison of teachers' cognitive flexibility and psychological resilience according to professional experience

Scale	*Experience*	*N*	$\overline{X}$	*Sd*	*Df*	*F*	*p*	*Difference*
Cognitive Flexibility Scale	1-5 year	73	74.67	7.90	3-191	1.411	0.241	-
	6-10 year	44	76.81	7.97				
	11-15 year	53	77.50	8.40				
	16-20 year	25	77.00	9.93				
Sub-dimension 1: Control	1-5 year	73	22.60	5.89	3-191	2.741	0.045	3>1; 3,2>4
	6-10 year	44	24.50	4.33				
	11-15 year	53	24.71	6.00				
	16-20 year	25	21.56	7.08				
Sub-dimension 2: Alternatives	1-5 year	73	52.06	5.41	3-191	2.690	0.048	4>1
	6-10 year	44	52.31	5.55				
	11-15 year	53	52.79	4.75				
	16-20 year	25	55.44	5.26				
Psychological Resilience	1-5 year	73	21.19	4.65	3-191	0.834	0.476	-
	6-10 year	44	22.13	4.36				
	11-15 year	53	21.49	4.31				
	16-20 year	25	22.60	4.27				

p<0.05

perience is significantly higher than that of teachers with 16-20 years of experience. In the alternatives sub-dimension, the scores of teachers with 16-20 years of experience were significantly higher than those of teachers with 1-5 years of experience. It was found that the psychological resilience scale scores did not differ according to the length of professional experience with the value (F=0.834; p>0.05). Accordingly, it can be said that the psychological resilience of preschool teachers with different lengths of experience is at a similar level and does not differ. The results regarding the comparison of preschool teachers according to the institution of employment are given in Table 5.

Table 5 shows that no differentiation was found in the total score of the cognitive flexibility scale (t=-1.523; p>0.05) according to the institution of employment. There was no differentiation in the control sub-dimension (t=-0.175; p>0.05). However, it was observed that the scores in the alternatives sub-dimension differed according to the institution of employment (t=-2.211; p<0.05). It is seen that preschool teachers working in private institutions have higher cognitive flexibility. Psychological resilience score (t=-2.003; p<0.05) differed according to the institution of employment. It is seen that preschool teachers working in private institutions have higher psychological resilience. The results regarding the comparison of preschool teachers according to the department they graduated from are given in Table 6.

Table 6 shows that the total scores and subdimensions scores of the cognitive flexibility scale do not differ according to the department graduated from (t=0.518; p>0.05; t=1.154; p>0.05; t=-0.454; p>0.05). Accordingly, it is seen that the

Table 5: Comparison of teachers' cognitive flexibility and psychological resilience according to the institution of employment

Scale	*Institution*	*N*	$\overline{X}$	*Sd*	*Df*	*t*	*p*
Cognitive Flexibility Scale	Official	100	75.34	8.69	193	-1.523	0.129
	Private	95	77.15	7.94			
Sub-dimension 1: Control	Official	100	23.40	5.25	193	- 0.175	0.861
	Private	95	23.54	6.46			
Sub-dimension 2: Alternatives	Official	100	51.94	5.29	193	- 2.211	0.028
	Private	95	53.61	5.24			
Psychological Resilience	Official	100	21.05	4.64	193	-2.003	0.047
	Special	95	22.31	4.14			

p<0.05

Table 6: Comparison of teachers' cognitive flexibility and psychological resilience according to the department they graduated from

Scale	*Institution*	*N*	$\overline{X}$	*Sd*	*Df*	*t*	*p*
Cognitive Flexibility Scale	Preschool	142	76.41	8.338.48	193	0.518	0.605
	Child development	53	75.71				
Sub-dimension 1: Control	Preschool	142	23.76	5.626.45	193	1.154	0.250
	Child development	53	22.67				
Sub-dimension 2: Alternatives	Preschool	142	52.64	5.195.70	193	-0.454	0.651
	Child development	53	53.03				
Psychological Resilience	Preschool	142	22.03	4.51	193	1.908	0.058
	Child development	53	20.67	4.13			

p<0.05

cognitive flexibility of preschool teachers who graduated from different departments did not differ and exhibited similar characteristics. Psychological resilience scale scores (t=1.908; p>0.05) did not differ according to the graduated department. Accordingly, it is seen that the psychological resilience of preschool teachers who graduated from different departments does not differ and exhibits similar characteristics. Correlation values for the relationship between preschool teachers' cognitive flexibility and psychological resilience are given in Table 7.

Table 7 shows that there is a positive, moderate and significant relationship between cognitive flexibility scale score and psychological resilience at the level of r=0.52. It can be said that as the cognitive flexibility scores increase, a significant increase will occur in the psychological resilience scores of preschool teachers. There was a positive, moderate and significant relationship between cognitive flexibility control sub-dimension and psychological resilience at the level of r=0.51. A positive, moderate and significant relationship was found between cognitive flexibility alternatives sub-dimension and psychological resilience at the level of r=0.25.

DISCUSSION

In the study, it was concluded that preschool teachers had high levels of cognitive flexibility. Considering the effects of teachers on the mental development of students, this result can be considered as positive in terms of teaching profession. It can even be said that it is one of the essentials of the teaching profession (Çuhadaroglu 2013). There are similar research results with the results of this study in the literature (Çuhadaroglu 2013; Esen 2018; Kiliç and Demir 2012; Pepe 2021; Kazu and Pullu 2023). In these studies, it was stated that pre-service teachers have high cognitive flexibility. In this study, it was concluded that the control dimension scores of teachers' cognitive flexibility was lower than the scores of the alternative dimensions. This situation shows that human behaviour in the face of new situations that may occur in life is successful in perceiving that there may be possible alternatives and in producing solutions to the difficulties encountered. However, it was concluded that teachers performed at a lower level in controlling difficult situations. Similarly, Esen and Sahin (2019) stated that pre-service preschool teachers are aware of alternatives for solving the problems they face, but they do not feel sufficient in developing these solutions.

It was concluded that the psychological resilience of preschool teachers was not high. Accordingly, it was concluded that preschool teachers ability to overcome the difficulties they face and to recover quickly when they have dif-

Table 7: Correlation values between preschool teachers' cognitive flexibility and psychological resilience

	[1]	*[2]*	*[3]*	*[4]*
Cognitive Flexibility [1]	1,00			
Cognitive Flexibility Check [2]	0.77**	1.00		
Cognitive Flexibility Alternatives [3]	0.72**	0.12	1.00	
Psychological Resilience [4]	0.52**	0.51**	0.25**	1,00

ficulties is not high. In fact, this is not a desirable situation. Because teachers may encounter many different problems related to processes such as teaching process and classroom management during their professional lives. Even many destructive events can be encountered in these processes. This situation will make the process of adaptation to the profession difficult and may also increase professional burnout. There are studies in literature that reach the results of this research. Kalinci (2022) and Özgüray et al. (2023) suggest that teachers' psychological resilience is at a medium level and measures should be taken.

In the study, it was concluded that cognitive flexibility differed according to gender and male preschool teachers had higher cognitive flexibility. Studies conducted by Altunkol (2011) and Asici and Ikiz (2015) determined that the cognitive flexibility levels of men were higher, like this research result. Unlike the result of this research, Esen (2018) and Kazu and Pullu (2023) stated that the cognitive flexibility of female pre-service teachers was higher. In the study, it was concluded that the total scores of cognitive flexibility did not differ according to the duration of professional experience (seniority), but the cognitive flexibility of teachers differed in both subdimensions (control and alternatives) according to the duration of experience. When analysed according to the duration of experience, it was concluded that teachers with experience in the profession had a higher level of cognitive flexibility than novice teachers. However, it was concluded that teachers cognitive flexibility decreased with increasing experience in the control sub-dimension. In a study conducted by Köker (2024), it can be said that the positive relationship between cognitive flexibility and career adaptability is partially compatible with the results of this study. In the study, it was concluded that cognitive flexibility did not differ according to the institution (public, private) and the graduated department (preschool teaching, child development). It was concluded that the cognitive flexibility of preschool teachers and child development graduates working in public and private institutions were similar. It can be said that the variables of the institution and the department of graduation are not effective on the cognitive flexibility of preschool teachers.

In the study, it was seen that the psychological resilience of preschool teachers did not differ according to gender and being male or female had no effect on the psychological resilience of preschool teachers. When the literature is examined, different research results are encountered in this regard. Oktan (2008) concluded that women have higher psychological resilience. In the research of Ok (2021) and Temiz (2023), it was concluded that the psychological resilience of male teachers was higher. Rew et al. (2001) concluded that psychological resilience is not related to gender or sexual orientation. It was concluded that the psychological resilience of preschool teachers did not differ according to professional experience, and that the psychological resilience of preschool teachers with different working experience (seniority) was at a similar level. It can be said that professional experience is not effective on the psychological resilience of preschool teachers. Temiz's (2023) and Salb's (1998) research also supports this research result. Salb (1998) conducted a study with the hypothesis that experienced employees would have a higher level of resilience and use coping strategies better than inexperienced employees and found no significant difference between the psychological resilience of experienced and inexperienced employees. Apart from these results, there are also studies showing that psychological resilience differs according to the duration of professional experience. Ok (2021) stated that the psychological resilience of new teachers in the profession was higher than teachers with 20 years of experience. It was concluded that the psychological resilience of preschool teachers differed according to the institution of employment and that the psychological resilience of preschool teachers working in private institutions was higher. Accordingly, it can be said that the institution of employment is an effective variable on the psychological resilience of preschool teachers. The results of the research conducted by Karaköse and Kocabaº (2006) can be associated with this research. In addition, it was concluded that the psychological resilience of preschool teachers did not differ according to the graduated department, and the psychological resilience of preschool teachers who graduated from preschool teaching and child development was at a similar level. It can be said that

the department of graduation is not effective on the psychological resilience of preschool teachers.

In the study, a positive, moderate and significant relationship was found between teachers' psychological resilience and cognitive flexibility. It was concluded that as the cognitive flexibility of preschool teacher's increases, there will be a significant increase in their psychological resilience. It can be said that as the teachers' ability to look at different angles in decision-making processes, to consider many options, empathy skills, to search for different solutions, to make decisions in difficult situations (cognitive flexibility) increases, a significant increase in their ability to recover themselves quickly in troubled times, to overcome stressful events, to overcome difficult times with little distress (psychological resilience) may occur. It was concluded that the increase in psychological resilience may cause a significant increase in teachers' ability to produce alternatives in cognitive flexibility. Cognitive flexibility is necessary for people to fulfil complex tasks such as multitasking and to produce adaptive solutions that adapt to changing demands (Ionescu 2012). Terzi (2008), Çuhadaroglu (2011) and Bozkurt (2019) also stated that individuals with high psychological resilience have higher problem-oriented coping skills and effective coping strategies.

CONCLUSION

The results of the study, which examined how the relationship between the cognitive flexibility and psychological resilience levels of preschool teachers differed according to various demographic factors (gender, professional experience, institution of employment and department of graduation), revealed that the cognitive flexibility levels of preschool teachers were high and their psychological resilience was slightly above the medium level. In addition, it was concluded that cognitive flexibility differed according to gender, male preschool teachers had higher cognitive flexibility, and when examined according to the length of experience, experienced teachers had higher cognitive flexibility than beginning teachers, and it did not differ according to the department of graduation. It was observed that the psychological resilience of preschool teachers did not differ according to gender or professional experience, but the psychological resilience of preschool teachers working in private institutions was higher. The research result showed that there was a positive, moderate and significant relationship between the psychological resilience and cognitive flexibility of preschool teachers.

RECOMMENDATIONS

The results of the study reveal that there is a positive, moderate and significant relationship between preschool teachers' cognitive flexibility and psychological resilience. Supporting teachers in these areas can increase teachers' qualifications, quality of education and thus student achievement. In addition, it was seen that cognitive flexibility of preschool teachers differed between the variables in the study. The reasons for this result can be investigated. In-service training can be given by making arrangements to improve teachers' cognitive flexibility and psychological resilience.

REFERENCES

Altunkol F 2011. *Investigation of the Relationship between University Students' Cognitive Flexibilities and Perceived Stress Levels.* Master's Thesis, Unpublished. Adana: Institute of Social Sciences, Çukurova University.

Anderson P 2002. Assessment and development of Executive Function (EF) during childhood. *Child Neuropsychology,* 8(2): 71-82. DOI: https://doi.org/10.1076/chin.8.2.71.8724

Asici E, Ikiz FE 2015. A path to happiness: Cognitive flexibility. *Mehmet Akif Ersoy University Journal of Faculty of Education,* 35: 191-211.

Baltas A, Baltas Z 2018. *Stress and Ways of Coping.* 36th Edition. Istanbul: Remzi Kitabevi.

Basar H 1998. *Classroom Management*. Istanbul: Milli Egitim Basimevi.

Bobek BL 2002. Teacher resiliency: A key to career longevity. *The Clearing House*, 75(4): 202-205.

Bozkurt N 2019. *The Relationship of Psychological Resilience and Cognitive Flexibility Levels with Test Anxiety in Adolescents.* Master's Thesis, Unpublished. Istanbul: Institute of Postgraduate Education, Istanbul University- Cerrahpasa.

Brooks RB, Goldstein S 2003. *The Power of Resilience.* New York, NY: McGraw-Hill Companies.

Cohen L, Manion L, Morrison K 2017. Mixed methods research. In: *Research Methods In Education.* Routledge, pp. 31-50. https://doi.org/10.4324/9781315456539

Çuhadaroglu A 2013. Predictors of cognitive flexibility. *Cumhuriyet International Journal of Education,* 2(1): 86-101.

Çuhadaroglu A 2011. *Predictors of Cognitive Flexibility*. Doctoral Thesis, Unpublished. Ankara: Ankara University Institute of Educational Sciences.

Dennis JP, Vander WJS 2010. The Cognitive Flexibility Inventory: Instrument development and estimates of reliability and validity. *Cognitive Therapy and Research*, 34(3): 241-253. DOI: 10.1007/s10608-009-9276-4

Dogan T 2015. Turkish adaptation of the Brief Psychological Resilience Scale: Validity and Reliability Study. *The Journal of Happiness & Well-Being*, 3(1): 93-102.

Esen AH 2018. The relationship between pre-service teachers' cognitive flexibility and interpersonal problem solving skills. *Eurasian Journal of Educational Research*, 77: 105-128.

Esen AH, Sahin TÇ 2019. Prospective teachers' views on cognitive flexibility within the scope of teaching practice. *Journal of Qualitative Research in Education*, 7(4): 1475-1499. DOI: 10.14689/ejer.2018.77.6

Gruvis J, Calarco A 2007. *Adaptability: Responding Effectively to Change*. USA: Center for Creative Leadership.

Gülüm IV, Dag I 2012. Adaptation, validity and reliability of repetitive thinking scale and cognitive flexibility inventory into Turkish. *Anatolian Journal of Psychiatry*, 13: 216-223.

Ionescu T 2012. Exploring the nature of cognitive flexibility. *New Ideas in Psychology*, 30(2): 190-200. DOI: https://doi.org/10.1016/j.newideapsych.2011.11.001

Kalinci D A 2022. *Investigation of the Relationship Between Psychological Resilience and Self-Efficacy Beliefs of Teachers Working with Students in Need of Special Education*. Master's Thesis, Unpublished. Zonguldak, Türkiye: Institute of Social Sciences, Bülent Ecevit University.

Karaköse T, Kocabas I 2006. The effects of teachers' expectations on job satisfaction and motivation in private and public schools. *Theory and Practice in Education*, 2(1): 3-14.

Kazu H, Pullu S 2023. Cognitive flexibility levels and self-efficacy perceptions of preservice teachers. *Discourse and Communication for Sustainable Education*, 14(1): 36-47. DOI: 10.2478/dcse-2023-0004

Kesselring AF 2010. *The Relation of Executive Functioning to Coping Strategies and Internalizing Symptoms in a Community Sample of African American Adolescents*. Doctoral Thesis, Unpublished. Chicago: Loyola University.

Kiliç F, Demir Ö 2012. Classroom teaching students' cognitive coaching and cognitive flexibility based opinions on the creation of teaching environments. *Ilkögretim Online*, 11(3): 578-595.

Kirandi O 2020. *The Relationship Between Psychological Resilience and Leisure Time Boredom Perception in Physical Education Teacher Candidates*. Master's Thesis, Unpublished. Trabzon: Graduate School of Education, Trabzon University.

Köker SN 2024. *The Effect of Cognitive Flexibility and Self-Efficacy Level on Career Adaptability*. Master's Thesis, Unpublished. Istanbul: Institute of Social Sciences, Marmara University.

Mandleco BL, Peery JC 2000. An organizational framework for conceptualizing resilience in children. *Journal of Child and Adolescent Psychiatric Nursing*, 13(3): 99-111. DOI: https://doi.org/10.1111/j.1744-6171.2000.tb00086.x

Meichenbaum D 2012. *Important Facts About Resilience: A Consideration of Research Findings About Resilience and Implications for Assessment and Treatment.* USA: Melissa Institute.

Ok TS 2021. *Psychological Resilience, Self-Efficacy and Secondary Traumatic Stress as Predictors of Occupational Satisfaction*. Master's Thesis, Unpublished. Trabzon: Institute of Postgraduate Education, Trabzon University.

Oktan V 2008. *Investigation of Psychological Resilience of Adolescents Preparing for University Examination According to Various Variables*. Doctoral Thesis, Unpublished. Trabzon: Institute of Social Sciences, Karadeniz Technical University.

Özgüray Ö, Özgüray A, Uysal M, Solak B, Çövüt R, Aksit UC 2023. Psychological resilience levels of teachers. *International Journal of Social and Humanities Sciences Research*, 10(93): 616-627. DOI: https://doi.org/10.26450/jshsr.3582

Pepe S 2021. The relationship between academic self-efficacy and cognitive flexibility: Physical education and sports teacher candidates. *PropÛsitos y Representaciones*, 9(SPE3): 1-9.

Phalet K, Kosic A 2006. Acculturation in European societies. In: DL Sam, JW Berry (Eds.): *The Cambridge Handbook of Acculturation Psychology*. Cambridge University Press, pp. 331-348.

Ramirez ER 2007. Resilience: A concept analysis. *Nursing Forum*, 42: 73-82.

Rew L, Taylor M, Thomas NY, Yockey RD 2001. Correlates of resilience in homeless adolescents. *Journal of Nursing Scholarship: An Official Publication of Sigma Theta Tau International Honor Society of Nursing*, 33(1): 33-40. DOI: https://doi.org/10.1111/j.1547-5069.2001.00033.x

Rutter M 2006. Implications of resilience concepts for scientific understanding. *Annals of the New York Academy of Sciences, (Resilience in Children)*, 1094: 1-12. https://doi.org/10.1196/annals.1376.002

Salb T 1998. *Disaster Workers: Coping and Hardiness.* PhD Thesis, Unpublished. USA: Texas Tech University.

Smith BW, Dalen J, Wiggins K, Tooley E, Christopher P, Jennifer BJ 2008. The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15: 194-200. DOI: 10.1080/10705500802222972

Spiro RJ, Jehng JC 2012. Cognitive flexibility and hypertext: Theory and technology for the nonlinear and multidimensional traversal of complex subject matter. In: D Nix, RJ Spiro (Eds.): *Cognition, Education, and Multimedia: Exploring Ideas in High Technology*. Routledge, pp. 163-205.

Stevens AD 2009. *Social Problem Solving and Cognitive Flexibility: Relations to Social Skills and Problem Behavior of At-Risk Young Children*. Doctoral Dissertation. USA: Seattle Pacific University.

Sencan H 2005. *Reliability and Validity in Social and Behavioral Measurements.* Ankara: Seçkin Kitabevi.

Tabachnick BG, Fidell LS 2007. *Using Multivariate Statistics.* Boston: Pearson.

Temiz SR 2023. *Investigation of the Effect of Teachers' Self-Efficacy Beliefs on Psychological Resilience Levels.* Master's Thesis, Unpublished. Konya: Institute of Educational Sciences, Necmettin Erbakan University.

Terzi S 2008. The relationship of self-recovery power with intrinsic protective factors in university students. *Hacettepe University Journal of Faculty of Education*, 35(35): 297-306. DOI: https://doi.org/10.5281/zenodo.14611106

Üzümcü B, Müezzin EE 2018. Investigation of teachers' cognitive flexibility and professional satisfaction level. *Sakarya University Journal of Education*, 8(1): 8-25. DOI: https://doi.org/10.19126/suje.325679

Paper received for publication in February, 2025
Paper accepted for publication in March, 2025