

### Resilience in Primary Education teachers

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**Abstract:** The resilient teacher seems to do better in the difficulties that prevail in a school environment. In these conditions, he has characteristics that protect him but also strengthen him so that he can cope with adversity. The present study aimed to investigate and measure the levels of mental resilience in primary school teachers.

This research was quantitative with the Connor - Davidson Resilience Scale (CD-RISC) as the main research tool, which measures the levels of mental resilience. The sample was opportunistic, and the data collection was based on the principles of availability and accessibility. The research involved a total of 164 (N = 164) teachers, kindergarten teachers and teachers of various other specialties, who teach in primary education, in schools in the region of Eastern Macedonia and Thrace. The research data were analyzed with the statistical program SPSS, while then the results were interpreted according to the evaluation criteria of the scale. These showed that most educators showed high levels of mental resilience with an average of 72.82 and a standard deviation of 13,070, while Cronbach's Alpha index for checking the reliability of the CD-RISC scale had a value of 0.830. It seems that the research subjects are characterized by quite high levels of mental resilience and this does not seem to differ in terms of the demographic parameters of each person who participated in the research.

**Keywords:** resilience, teachers, primary education<sup>1</sup>

### Introduction

Over the last few decades teachers have faced a number of difficulties in the schoolwork environment due to the increasing difficulties and complexity. Some of these difficulties are related to lack of resources, development, opportunities, relationships with students and parents and others (Castro et al., 2010). The consequence of these conditions is to increase the workload, to reduce the personal time resulting in increased exhaustion (Fives, Hamman & Olivarez, 2007) and the stress of teachers (Kovess-Masféty, Rios-Seidel, & Sevilla-Dedieu, 2007). Teachers in these situations may feel more isolated and ineffective and the above events may be interpreted as threatening by themselves (Gibbs & Miller, 2014). However, it seems that some teachers are able to successfully meet these professional challenges with a positive outlook despite the adversities they face. Resilience enables teachers to maintain their ability to teach in difficult environments, while helping them cope with stress and exhaustion

(Beltman, Mansfield, & Price, 2011). Various studies claim that many teachers succeed due to resilience to maintain the passion for teaching and endurance in adverse school conditions (Gu & Li, 2013). The term resilience refers to an individual's ability to adapt and cope in difficult situations (Masten, Best & Garmezy, 1990). Resilience is not a characteristic but a complex construct resulting from a dynamic relationship between risk and protective factors (Luthar & Brown, 2007). Teachers' resilience refers to their ability to maintain the momentum for teaching despite difficult conditions and repeated failures (Brunetti, 2006). Ethical values and moral courage are said to provide teachers with advantages that allow them to be resilient throughout their careers (Day & Gu, 2010). Daniilidou (2018) states that the mental resilience of teachers concerns the ability to overcome vulnerabilities and stress conditions, and to adapt to different situations. They also incorporate a set of strategies they have when they are in a difficult situation in the school context.

Oswald, Johnson & Howard (2003) defined resilience of teachers as the ability to overcome personal weaknesses and be able to recover in the face of potential risks. Teacher resilience is not only related to individual characteristics but also to specific environments. It is a dynamic construction related to the stressful events of the work environment that the individual interacts with (Tait, 2008).

Characteristics of resilient teachers are their adaptability to change, their persistence in solving difficult problems, their humor and strong mood for efficiency. Mental resilience helps them develop communication strategies, self-awareness, dedication to their work and control of their emotions (Mansfield et al., 2012). In addition, teachers with characteristics of resilience have humor, patience and perseverance, flexibility, adaptability, and a willingness to take risks. A remarkable feature is the ability to accept failure and to continue learning from one's mistakes. Contributing to this are some factors that enhance teachers' resilience, such as open leadership, equitable allocation of resources, encouragement, recognition (Howard & Johnson, 2004), equitable participation in the decision-making process and opportunities for professional evolution (Day, Gu & Sammons, 2016).

## **Research methodology**

The purpose of this study it was to investigate the levels of resilience in primary school teachers.

This research belongs to the quantitative studies, because it aims at the collection and analysis of information with numbers and values that reflect the individual attitudes of individuals (Creswell, 2011). The main aim was to collect questionnaires consisting of measurable data on variables (Cohen, Manion & Morrison, 2008).

The sample was opportunistic, and the data collection was based on the principles of availability and accessibility. The research involved a total of 164 teachers, kindergarten teachers and teachers of various other specialties, who teach in primary education, in schools

in the region of Eastern Macedonia and Thrace, who had at least five years of service. Of the 164 teachers in total, 43 were men (26.2%) and 121 were women (73.8%). The main body of the sample, 41.4% belongs to the age group 51-60 years, followed by 31.7% to the age group 31-40 years, which indicates the aging of the educational population. 75% of the sample are married, while 12.8 are single and 12.2 are divorced or have lost their spouse. Most survey subjects have two children at a rate of 51.2%, while 15.9% have one child and 11.6% have three children. Subsequently, 29.3% are graduates of the Pedagogical Department of Primary Education, 12.8% have a degree from the Pedagogical Academy and 26.8% have attended the Assimilation Program. Almost one in five hold a master’s degree. Most of the participants in the research at a rate of 87.2%, hold a permanent position, while 16.7% of teachers are deputies. Finally, one in four teachers has 16-20 years of service, one in five has 11-15 years, while 15.6% have 21- years of service (Table 1).

**Table 1: Demographic Samples (N=164)**

		N	%
<b>Gender</b>	Men	43	26.2
	Women	121	73,8
<b>Age</b>	≤30	6	3.7
	31-40	34	20.7
	41-50	52	31,7
	61-60	70	41,4
	60≥	2	1,2
<b>Marital status</b>	Married	123	75
	Unmarried	21	12,8
	Divorced or Widowed	20	12,2
<b>Number of children</b>	None	34	20,7
	1	26	15,9
	2	84	51,2
	3	19	11,6
	4≥	1	0,6

<b>Type of degree</b>	Academy	21	12,8
	Bachelor	48	29,3
	Simulation	44	26,8
	Postgraduate	31	18,9
	Another Degree	20	12,2
<b>Employment Status</b>	Permanent	143	87.2
	Deputy	21	12,8
<b>Years of employment</b>	6-10	20	12,2
	11-15	33	20,1
	16-20	41	25,0
	21-25	26	15,9
	26-30	18	11,0
	31≥	26	15,9

The measurement of mental resilience was performed by administering the Connor - Davidson Resilience Scale (CD-RISC), designed by Connor & Davidson (2003), for the quantitative measurement of resilience. This scale serves the quantitative measurement of mental resilience in the general population and the assessment of resilience variability in clinical specimens. The evaluation of this scale was done with norms (norm-referenced). In this case, the subject's score does not matter, but only in comparison with the rest of the sample population. Thus, the general ranking of an individual in the study population was evaluated. The scale consists of 25 self-referential statements of the five grades, which measure five factors of resilience of individuals. It consists of 25 items, which are rated on a 5-point Likert scale (0-4), with the highest scores reflecting greater mental resilience. The resilience scale according to Connor & Davidson, (2003), includes 5 factors which are 1st factor: personal adequacy, high criteria, perseverance (N of items 8), 2nd factor: confidence in personal instinct, long-suffering in the negative mood as well as a strengthening effect of stress (N of items 7), 3rd factor: positive acceptance of change and secure relationships (N of items 5), 4th factor: control (N of items 3) and 5th factor: spiritual influences (N of items 2). The scale presents satisfactory convergent and divergent validity and good internal consistency (Cronbach's Alpha = 0.89) and also good control-re-control reliability

(interrelation coefficient = 0.87) (Dimitriadou & Stalikas, 2011). The rating is based on how the respondents have felt during the last month and the range of results ranges from 0 to 100, with the highest percentages indicating greater resilience.

## Results

The average mental resilience of the teachers who took part in the research is 72.82 and the standard deviation is 13,070. This proves that the majority of teachers believe in their strengths, can face the difficulties they face every day and have self-confidence. According to Connor & Davidson (2003) the higher the score, proportionally, the more mental resilience individuals show (Table 2)

**Table2: Resilience**

	Sample size	Average	Standard deviation
<b>Score Resilience</b>	N=164	72,82	13,070

## Gender and resilience

In the analysis of the dependent variable of resilience with the independent variable of gender, it was found that the male teachers of the sample, with a participation rate of 26.2% (43) scored an average (Mean) of 74.51. The women of the sample, on the other hand, in a percentage of 73.0% (121) of the sample, scored an average (Mean) of 72.22. The equality test of the media showed that in the end the level of resilience does not differ in terms of gender as the value of the statistic F (0.188) is statistically insignificant (Sig = 0.326 > 0.05) (Table 3).

**Table 3: Gender**

		N	Mean	Std. Deviation	Std. Error Mean
SCORE CD RISC	Men	43	74,51	13,635	2,079
	Women	121	72,22	12,868	1,170

## Age and resilience

After the analysis of the dependent variable of resilience with the independent variable of age, it was found that the teachers of the sample up to 30 years with a participation rate of 3.6%

(6) scored an average (Mean) of 67.50. People aged 31 to 40 years who participated in the survey with a percentage of 20.7% (34), had an average (Mean) of 74.44%. 31.8% (52) of the participants in the study, aged 41 to 50 years, scored on the test average (Mean) 72.75. For those aged between 51 and 60, 42.7% (70) were found to have averaged (Mean) 72.20. Finally, people over the age of 60, at a rate of 1.2% (2) scored the highest average (Mean) 85.00. The equality test of the media showed that in the end the level of mental resilience does not differ with age, as the value of the statistical F (0.850) is statistically insignificant (Sig = 0.495 > 0.05) (Table 4).

**Table4:AGE**

**SCORE CD-RISC**

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
<b>until 30</b>	6	67,50	19,254	7,860	47,29	87,71	35	84
<b>31-40</b>	34	74,44	13,025	2,234	69,90	78,99	37	96
<b>41-50</b>	52	72,75	13,831	1,918	68,90	76,60	19	95
<b>51-60</b>	70	72,20	12,061	1,442	69,32	75,08	45	100
<b>Over 60</b>	2	85,00	4,243	3,000	46,88	123,12	82	88
<b>Total</b>	164	72,82	13,070	1,021	70,81	74,84	19	100

**Marital status and resilience**

The analysis of the dependent variable of resilience with the independent variable of marital status showed the following results: The unmarried 83 teachers of the sample, with a participation rate of 12.8% (21) scored an average (Mean) of 70.57. Married participants, in a percentage of 75.0% (123) of the sample, scored an average (Mean) of 72.76. Divorced, 10.4% (17) scored an average (Mean) of 75.41. Those who were widowed 1.8% (3) reached a high score of 76.67. From the equality test of the means with the application ANOVA, for multiple variables, it resulted that finally the level of mental resilience does not differ in terms of family status, as the value of the statistic F (0.513) is statistically insignificant (Sig = 0.674 > 0, 05) (Table 5).

**Table5: Marital status**

SCORE CD RISC

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Unmarried	21	70,57	14,932	3,258	63,77	77,37	35	98
Married	123	72,76	12,636	1,139	70,50	75,01	19	100
Divorced	17	75,41	14,248	3,456	68,09	82,74	43	94
Widowed	3	76,67	14,048	8,110	41,77	111,56	62	90
Total	164	72,82	13,070	1,021	70,81	74,84	19	100

### Number of children and resilience

The analysis of the dependent variable of resilience with the independent variable of the number of children, presented the following results: The childless teachers of the sample with a participation rate of 20.7% (34) scored an average (Mean) of 69.50. Participants with one child, at a rate of 15.85% (26) of the total sample, averaged (Mean) 76.77. Of those with two children, 51.2% (84) scored an average (Mean) of 73.05. Those who had three children 11.6% (19) reached the average (Mean) 72.53. From the means equality test with the ANOVA application, for multiple variables, it emerged that in the end the level of mental resilience does not differ in terms of the number of children, as the value of the statistic F (1,167) is not statistically significant (Sig = 0,327 > 0,05) (Table 6).

**Table6: Number of Children**

SCORE CD RISC

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
None	34	69,50	16,737	2,870	63,66	75,34	19	98
One	26	76,77	10,595	2,078	72,49	81,05	51	91
Two	84	73,05	12,273	1,339	70,38	75,71	43	100

Three	19	72,53	11,782	2,703	66,85	78,21	46	95
Four	1	70,00	.	.	.	.	70	70
Total	164	72,82	13,070	1,021	70,81	74,84	19	100

### Employment position and resilience

When the dependent variable of resilience was analyzed with the independent variable of permanent position, it was found that the permanent teachers of the sample, with a participation rate of 87.2 (143) scored an average (Mean) of 72.66. The deputies of the sample, on the other hand, in a percentage of 12.8% (21) of the sample, scored an average (Mean) of 73.90. The media independence test showed that in the end the level of resilience does not differ in terms of position (permanent or substitute) as the value of the statistic F (0.156) is statistically insignificant (Sig = 0.686 > 0.05) (Table 7).

**Table 7: EmploymentStatus**

	Position	N	Mean	Std. Deviation	Std. Error Mean
SCORE CD-RISC	Permanent	143	72,66	12,843	1,074
	Supply teacher	21	73,90	14,825	3,235

### Years of service and resilience

The analysis of the dependent variable of resilience with the independent variable of years of service, showed the following results. The teachers of the sample with 5 to 10 years of service with a participation rate of 12.2% (20) scored an average (Mean) of 75.45. Participants with 11 to 15 years of service, in a percentage of 20.1% (33) of the sample scored an average (Mean) of 70.33. Those with 16 to 20 years of service, 25.0% (41) reached an average (Mean) of 72.73. Those who worked for 21 to 25 years 15.6% (26) scored an average (Mean) of 75.00. Then teachers with 25 to 30 years of service 11.0% (18) were evaluated with an average of 74.83 in the test. Finally, participants with more than 30 years of service, 15.9% (25), reached the average (Mean) 70.54. From the control of the equality of the means with the application ANOVA, for multiple variables, it resulted that finally the level of resilience does not differ in terms of years of service, as the value of the statistic F (0.785) is statistically insignificant (Sig = 0.562 > 0, 05). (Table 8).

**Table 8: Employment experience**

SCORE CD- RISC

Years	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
6-10	20	75,45	15,425	3,449	68,23	82,67	35	91
11-15	33	70,33	13,575	2,363	65,52	75,15	43	96
16-20	41	72,73	12,637	1,974	68,74	76,72	19	91
21-25	26	75,00	14,153	2,776	69,28	80,72	47	98
26-30	18	74,83	10,634	2,507	69,55	80,12	51	100
30 and over	26	70,54	11,721	2,299	65,80	75,27	45	94
Total	164	72,82	13,070	1,021	70,81	74,84	19	100

### Level of education and resilience

The treatment of the dependent variable of resilience with the independent variable of the level of studies, showed the following results. The teachers of the sample with a degree from the Pedagogical Academy, in a participation rate of 12.8% (21) scored an average (Mean) of 76.38. The participants of the Degree of Pedagogical Department of Primary Education in a percentage of 29.3% (48) of the sample, scored an average (Mean) 73.83. The sample that followed a simulation of 26.9% (44) scored an average (Mean) of 71.32. Holders of a master’s degree at a rate of 18.9% (31) reached an average (Mean) of 72.29. Finally, the teachers of specialties in primary education, with a percentage of 12.2% (20), were evaluated with an average (Mean) of 70.80 in the test. From the control of the equality of the means with the application ANOVA, for multiple variables, it resulted that the level of resilience does not differ in terms of scientific training, as the value of the statistic F (0.734) is statistically insignificant (Sig = 0.570 > 0.05) (Table 9).

**Table 9: Type of degree**

SCORE CD RISC

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Academy Degree	21	76,38	10,870	2,372	71,43	81,33	49	94
Bachelor	48	73,83	11,269	1,627	70,56	77,11	46	98
Simulation	44	71,32	14,441	2,177	66,93	75,71	19	95
Postgraduate	31	72,29	12,749	2,290	67,61	76,97	35	95

When the dependent variable of resilience was analyzed with the independent variable of the second degree, it was found that the teachers of the sample without a second degree, with a participation rate of 75.0% (123) scored an average (Mean) of 73.61. Holders of second-degree education on the other hand, in a percentage of 25.0% (41) of the sample scored an average (Mean) of 70.46. From the control of the independence of the media with the application of t-test, it resulted that in the end the level of resilience does not differ in terms of having a second degree as the value of the statistic F (3,223) is not statistically significant between the groups (Sig = 0,183 > 0.05).

**Discussion**

According to Le Cornu (2009), resilience is probably one of the most important advantages of teachers. Resilience is also referred to as the force that allows teachers to maintain a strong commitment to teaching (Brunetti 2006). In the present study it seems that teachers have on average high levels of resilience and therefore the ability to cope with the demanding part of teaching. This degree of resilience suggests that teachers have personal characteristics that help them cope with an adverse situation (Castro et al., 2010) while also suggesting that they have the ability to overcome personal weaknesses. Resilient teachers despite failures remain enthusiastic, create positive expectations from teaching and use effective teaching methods. Resilience at these levels seems to be able to protect teachers from professional wear and tear. This makes them more successful in their work earning appreciation and respect. Teachers with high resilience promote positive development in their students, meeting basic needs related to safety, love, respect and appetite for learning (Benard, 1991). Teachers can really

support students by listening to them and showing interest in their feelings, while showing kindness, compassion, and respect. Teachers can also help families in need by bringing them in contact with social services. They focus on the strengths of all the students and help more those who have difficulty adapting to the school environment. Also, teachers with resilience traits support students in not internalizing negative emotions from failures but seeing adversity as an invitation. They usually focus on the strengths, interests, and goals of a student (Seligman, 1995).

They do not stop giving opportunities to each student to express their opinion and to continue looking for solutions to their problems while participating in all areas of school operation (Waxman et al., 2003). According to the research data, no significant differences were identified regarding the levels of resilience and characteristics such as gender, level of education, years of service and marital status. In general, the levels of resilience remained high among teachers without being influenced by demographic parameters.

Challenges for the future are improving the concepts of teacher resilience and developing and addressing interventions in multiple areas. There are many opportunities for those who prepare, employ and work with prospective and new teachers to reduce risk factors and strengthen protective factors and thus allow new teachers to thrive, not just survive.

## Conclusions

According to the data of the present research, it appears that the teachers working in the primary education, in schools of the region of Eastern Macedonia and Thrace are characterized by quite high levels of resilience. Given this fact, it is important to explore what are the factors that contribute to maintaining fairly high levels of resilience and how the school and teachers relate to it. The aim will be to strengthen these parameters once identified and to be the occasion for the study and development of relevant intervention programs to enhance resilience in other educational structures.

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