

Exploring Greek EFL Teachers' Resilience

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Abstract

This paper explores the resilience exhibited by 169 Greek English as a Foreign Language (EFL) teachers. A quantitative approach was employed to examine Greek EFL teachers' resilience in relation to demographic, occupational and school/class characteristics. Data were collected by means of the Teacher Resilience Scale (Daniilidou & Platsidou, 2018). The demographic, occupational and school/class characteristics of the participants were related to a number of specific facets of resilience including social skills, peer support, and persistence among others. The results in the majority of the parameters examined suggests that EFL teachers' resilience is not affected by demographic, occupational and school/class characteristics. We suggest that the findings of this research can be used to inform the development of targeted interventions towards sustaining and building up EFL teachers' resilience.

Keywords: resilience, Greek EFL teachers, Teacher Resilience Scale (TRS), protective factors, risk factors

Teacher Resilience refers to people's capacity to bounce back and cope despite hardship. There is a relatively recent but growing field of investigation which aims to explore the parameters that enable teachers to persist in the face of adverse situations (Beltman, Mansfield, & Price, 2011; Day & Gu, 2014; Mansfield, Beltman, Broadley, & Weatherby-Fell, 2016). With reference to the Greek educational context, there has been an emerging interest in the resilience exhibited by Greek teachers and the intrinsic and socio-ecological factors that may determine it during and following the years of the economic crisis (Botou, Mylonakou-Keke, Kalouri, & Tsergas, 2017; Brouskeli, Kaltsi, & Loumakou, 2018; Daniilidou, 2018; Siourla, 2018). This study contributes to the existing literature by providing an insight into the resilience levels of Greek EFL teachers working in either the private or the public sector considering

the specific social and culture context of contemporary Greece. It also explores the parameters which can affect teacher resilience and generates questions for further enquiry.

EFL Teaching and Learning in Greece

Greece is a typical expanding circle country (Kachru, 1985) where English is considered a key requirement for an individual's education and professional development. With reference to the teaching and learning of English, Greece has been characterised as an interesting educational context in which English language is taught and learnt, in most cases, in "a lethargic state sector" (Tsagari & Sifakis, 2014, p. 213), as well as at private foreign language institutes. In Greek state schools, English is taught on a compulsory basis from the first grade of Primary School to the third grade of Gymnasium (i.e., Junior High School) and as an elective subject in the Lyceum (i.e., Senior High School). The need for the certification of the language proficiency level of EFL students, which is not provided by state schools, has been a catalyst for the rise in foreign language institutes (known as frontistiria), which seem to have become a "burgeoning business" the last decades (Dendrinou, Zouganelli, & Karavas, 2013, p.17). Since a language certificate is often thought to guarantee enhanced opportunities in the labour market, the majority of students in Greece attend evening language classes on a private basis in parallel with their state school EFL classes. This often results in them believing that there is no obvious reason to attend EFL classes at school. In turn, this leads to further implications such as the low status of EFL teachers working in state schools (Lykoudi, 2016). EFL teachers working in private EFL institutes, on the other hand, are required to comply with a strict exam-oriented curriculum which typically deprives them of the possibility to be flexible, autonomous and creative. Also, they usually display an authoritative role as a result of the pressure imposed on them since their success as teachers depends largely on the percentage of their certified students (Lykoudi, 2016).

A clear picture of the current state of EFL teaching and learning in Greece cannot be obtained without taking into account the extended period of economic recess, rising unemployment, and austerity memoranda implementation. In the public sector, the reductions in wages, the absence of permanent employment as well as school mergers or abolitions has led to more challenging working conditions, such as working in two or more different school units, sometimes travelling a long distance

between them. As regards the private sector, similar challenges along with the pressure to achieve the desired percentage of successfully certified candidates have increased the levels of stress and insecurity that private sector EFL teachers experience.

In periods of crisis such as these, the teacher's role becomes critically important since educators are required to detect problems and seek solutions so that students can continue to learn and develop. Witnessing the increased levels of their students' poverty, Greek teachers assume the responsibility of providing them with the opportunity for a better future. However, they often feel helpless to overcome adversities such as deficiencies in specialised teaching staff, technological equipment, and supportive educational structures (Kousis, 2017). Within this framework of financial and social decline, resilience, which is the focus of this study, has been identified as an indispensable quality for educators; a construct which can assist an individual to bounce back and possibly adapt and cope despite the vicissitudes of life. After all, as Anderson (2015, p.64) puts it, "resilience never happens on its own pure form. It co-exists in complex fields alongside other ways of governing life and, as such, is part of a series of intensifications, redeployments and (dis)continuities".

An Overview of Resilience

Resilience is a psychological construct which has been defined as the process of, capacity for or outcome of bouncing back and successfully adapting in spite of challenging conditions and/or adverse circumstances. In seeking to provide a more comprehensive working definition of resilience, the majority of researchers identify two indispensable conditions: the existence of an adversity and a positive adaptation to it (Beltman et al., 2011; Castro, Kelly, & Shih, 2010; Hong, 2012). The two approaches to defining resilience are resilience as a psychological construct, with the aim to identifying the attributes which characterise "trait-resilient people", and resilience as a multidimensional process, "a dynamic, within a social system of interrelationships" (Gu & Day, 2007, p. 1305). Although resilience has been initially conceptualised as an innate personal attribute of the individual, recent research has shown that in addition to it being intrapersonal, it is also a complex developmental and dynamic construct which emerges from the interplay of risk and protective factors that can be learned and acquired (Benard, 2004; Gu & Day, 2007; Higgins, 1994;

Rutter, 1999; 2012). Furthermore, as Gu and Day (2013) have argued, resilience is a construct which is influenced by situations, circumstances, and the environment, and involves far more than inherent characteristics or internal traits and as a result “all individuals—resilient or otherwise—show fluctuations over time within particular adjustment domains” (Luthar, Cicchetti, & Becker, 2000, p. 551).

In the field of education, although numerous studies have been conducted regarding the defining characteristics of resilient students and youth in the last three decades (Howard & Johnson, 1999, 2000a, 2000b), it is not until recently that resilience has been gaining currency in seeking to explore what enables teachers to adjust to challenging situations, withstand hardships, and develop strategies to respond positively in adverse circumstances. Gu and Day (2013) define teacher resilience as the teacher’s capacity to bounce back despite the adversities and the unforeseeable conditions they are called to face on a daily basis. Several researchers have identified resilient teachers as those who derive satisfaction from their work, respond positively in stressful in-class situations, and demonstrate effective strategies for handling difficult situations and/or students (Stanford, 2001; Tait, 2008). Kostoulas and Lämmerer (2018) argue that resilience can be conceptualised as emerging within a resilience system which encompasses three clusters of interrelating constructs, namely, inner strengths, external support structures, and learned strategies. In addition, Howard and Johnson (2004) maintain that resilient teachers exhibit a sense of pride and fulfilment, possess behaviour management skills, are able to restrain negative emotions, and empathise with difficult students. Thus, it can be concluded that teacher resilience

refers to the process of, capacity for, and outcome of positive adaptation as well as ongoing professional commitment and growth in the face of challenging circumstances. Resilience is shaped by individual, situational and broader contextual characteristics that interrelate in dynamic ways to provide risk (challenging) or protective (supportive) factors (Wosnitza et al., 2014, in Peixoto, Wosnitza, Pipa, Morgan, & Cefai, 2018, p. 74).

These factors, some of which are explored in this study, will be presented in brief in the following sections.

Risk and protective factors

Teacher resilience is susceptible to an array of individual and contextual risk factors. Regarding individual risk factors, teachers' low self-esteem, negative self-beliefs, and lack of motivation and confidence (Day, 2008; Kitching, Morgan, & O'Leary, 2009), their difficulty in seeking help from others (Flores, 2006; Jenkins, Smith, & Maxwell, 2009), and a perceived discrepancy between personal beliefs and actual practices (Flores, 2006) are the most frequently mentioned. In respect to contextual risk factors, class management, unsupportive leadership, lack of resources, and problematic relationships with students' parents and/or colleagues have been reported as the most persistent sources of stress for teachers and a challenge to their resilience (Beltman et al., 2011; Castro et al., 2010; Gibbs & Miller, 2014).

In relation to the individual protective factors, researchers argue that altruistic motives and strong intrinsic motivation, an "inner drive" (Hong, 2012, p. 432), as well as self-efficacy are the most predominant personal resources teachers can draw on (Beltman et al., 2011; Gu & Day, 2007; Mansfield et al., 2016). Having a positive attitude and showing enthusiasm (Yost, 2006), being persistent and persevering (Gu & Day, 2007; Kitching et al., 2009; Le Cornu, 2009), having empathy (Jennings, Snowberg, Coccia, & Greenberg, 2011), and hope (Huisman, Singer, & Catapano, 2010) are also known to contribute to teacher resilience. In addition, positive emotions have been argued to "fuel psychological resilience" (Gu & Day, 2007, p. 1304) and have a key role in sustaining teachers' wellbeing (Mercer, Oberdorfer, & Saleem, 2016). As far as the contextual protective factors are concerned, strong, caring, open and well-organised leadership (Beltman et al., 2011; Mansfield et al., 2016; Price, Mansfield, & McConney, 2012) as well as colleagues and fellow teachers who can provide non-judgmental support, encouragement, and a reality check when necessary (Karagianni, 2014; Karagianni & Papaefthymiou-Lytra, 2018) are the most recurrent contextual protective factors.

Related research

In the Greek context, the focus of a growing number of studies lies on whether and the extent to which teachers are resilient or not, the impact of the economic crisis on their resilience, and the role that demographic and occupational characteristics can play (e.g., Botou et al., 2017; Brouskeli et al., 2018; Daniilidou, 2018; Siourla, 2018).

Regarding the demographic characteristics of teachers, and starting with gender, as one of the most broadly researched parameters, conflicting findings have been reported. More specifically, some researchers indicate that female teachers exhibit higher levels of resilience (Botou et al., 2017; Estaji & Rahimi, 2014; Zografou, 2016). However, male teachers in head positions are reported to be more resilient (Lazaridou & Beka, 2014) and males are also found to be more resilient in post-traumatic reports (Bonanno, Galea, Bucciareli, & Vlahov, 2007; Rodriguez-Llanes, Vos, & Guha-Sapir, 2013). Still, for some researchers, gender does not appear to be a decisive factor in determining teachers' resilience (Brouskeli et al., 2018), pre-service teachers' resilience (Kostoulas & Lämmerer, 2018), or general population resilience (Lundman, Strandberg, Eisemann, Gustafson, & Brulin, 2007; Wagnild, 2016).

In regard to age, a number of studies show that this is not a decisive factor for teachers' resilience (Brouskeli et al., 2018; Daniilidou, 2018; Siourla, 2018) or pre-service teachers' resilience (Kostoulas & Lämmerer, 2018). However, in contrast, Botou et al. (2017, p. 148) found that, “[o]lder and with more years of service teachers predominate in resilience” and the same is reported in research conducted by Zografou (2016) and Velesioti, Kotrotsiou, Gouva and Andreou (2018). In non-teaching contexts, older people have also been reported to exhibit higher levels of resilience as well (Demakakos, Netuveli, Cable, & Blane, 2008; Gooding, Hurst, Johnson, & TARRIER, 2012; Wagnild, 2016). Since age is closely related to experience in most cases, similar findings have been indicated by Zografou (2016), Velesioti et al. (2018), Koudigeli (2017) and Pearce and Morrison (2011), who all argue that resilience correlates with the years of teaching experience. Velesioti et al. (2018) and Koudigeli (2017), in particular, claimed that teachers with more than fifteen years of teaching experience tend to be more resilient. In an English for Specific Purposes (ESP) context, Estaji and Rahimi (2014) found that highly experienced teachers appear to be more resilient, while Kostoulas and Lämmerer (2018), in a pre-service teachers' context, suggested slightly higher levels of resilience for participants with some kind of teaching experience. Yet, the opposite was reported in research conducted regarding other stressful occupations, such as police officers, who showed a decline of resilience as the years of service advance (Balmer, Pooley, & Cohen, 2014; Prati & Pietrantoni, 2010). In sum, it remains unclear whether gaining

experience and advancing age may both or separately contribute to or diminish resilience.

With reference to other demographic characteristics, the findings are likewise contradictory. For example, in relation to the effect of marital status, Daniilidou (2018) maintains that teachers who are in a relationship exhibit higher levels of resilience, whereas Siourla (2018) suggests the opposite. Furthermore, although the majority of the research indicates that teachers' resilience is not affected by their academic qualifications (Botou et al., 2017; Daniilidou, 2018; Siourla, 2018; Zografou, 2016), Brouskeli et al. (2018) reports the opposite. In addition, Brouskeli et al. (2018) and Zografou (2016) advocate for the effect of the urbanisation level of the school on teachers' resilience arguing that teachers in urban schools, especially in high need areas, showed lower levels of resilience than those working in semi-urban and residential ones in agreement with research conducted in foreign school contexts (Brunetti, 2006; Castro et al., 2010; Yonezawa, Jones, & Singer 2011). Finally, Botou et al. (2017, p.18) report that working in low-income schools affect teachers' resilience negatively (see also Daniilidou, 2018).

In sum, it becomes apparent that the role of demographics on how resilience is experienced is unclear with mixed and even contradictory findings in similar or different contexts. In light of this, our research aims to explore the relationship that demographic and occupational characteristics may have in relation to EFL teachers' resilience. Understanding the social and personal context of individuals is important to appreciating the resilience teachers display and the kinds of support they may require.

Method

Design

Our study seeks to explore whether Greek EFL teachers' resilience is affected by:

- demographic characteristics, such as gender, age, marital status, academic background, and years of teaching experience
- their occupational status, and specifically if they teach in the private or the public sector, and, in the case of the latter, if they serve as permanent or substitute teachers in primary or secondary education

- school and class characteristics, relating to the area where the schools/private language institutes (frontistiria) are situated, the number of classes taught, and the number of students per class.

These parameters are investigated through the prism of the four factors emerging from the Teacher Resilience Scale (Daniilidou & Platsidou, 2018; see below).

Instruments

Greek EFL teachers' resilience was explored through a questionnaire including questions about demographic information, the Teacher Resilience Scale (TRS) (Daniilidou & Platsidou, 2018) as well as questions relating to the Greek EFL context. The questionnaire (see Appendix I), which was forwarded to the target population exclusively in electronic form, was piloted with the help of nine EFL teachers before being administered to the participants. Overall, all the participants of the piloting phase commented that the questionnaire was well-structured and could be completed easily and quickly. However, some points for consideration were raised by some of the participants, mainly relating to the TRS. More specifically, two participants expressed the opinion that the use of "sometimes" in three of the statements of the Likert-type questions may bias the respondents' answers, one participant argued that using negation in the statement of a Likert-type question may be puzzling, while other participants were unsure about the interpretation of the word "peers". These queries were communicated to the creators of the TRS (Daniilidou & Platsidou, 2018) and Dr Daniilidou provided useful clarifications and suggestions for minor adaptations.

The TRS (Daniilidou & Platsidou, 2018), included in our questionnaire, comprises 26 items and aims to assess four dimensions of teachers' resilience, namely, teachers' "Personal Competences and Persistence" (9 items), their "Spiritual Influences" (3 items), "Family Cohesion" (7 items) as well as "Social Skills and Peer Support" (7 items). The TRS assesses "the prevailing internal or external protective factors that can help teachers overcome the adversities in the school context" (Daniilidou & Platsidou, 2018, p. 32). According to its creators, no other existing scales address both internal and external factors that can determine teacher resilience.

Participants

169 EFL teachers working in either the public or the private sector in Greece took part in this study. The questionnaire was posted on popular Facebook pages addressed to Greek EFL teachers and sent via email to EFL teachers all over Greece utilising a Yahoo group with a large number of postgraduate EFL teachers. Following snowball sampling, recipients were also requested to further forward the questionnaire to any EFL teacher who fitted the requirements and was willing to participate in our research. The majority of participants were female ($n=158$) (93.49%), while male EFL teachers ($n=11$) represented 6.51% of the total sample. Although the representation of male participants in our research is low, it actually appears representative of the small number of male EFL teachers in Greece compared to their female colleagues (for official demographic data see Hellenic Statistical Authority (ELSTAT), 2019).

The demographic data gathered as regards the participants' gender, age, marital status, academic status, and years of teaching experience are presented in Table 1. The data concerning the occupational, school and class characteristics of the participants are reported in Table 2.

Table 1

Demographic Characteristics of the Participants

Demographics	N (%)	Demographics	N (%)
Gender		Academic status	
female	158 (93.5)	C2-level certificate holder	20 (11.8)
male	11 (6.5)	Bachelor's Degree	38 (22.5)
		Master's Degree or in progress	101 (59.0)
Age		PhD or in progress	9 (5.3)
<25	11 (6.5)	other	1 (0.6)
26-35	44 (25.4)		
36-45	71 (42.0)	Experience (in years)	
46-55	37 (22)	1-5	17 (10.1)
>56	7 (4.1)	6-10	24 (14.2)
		11-15	38 (22.5)
Marital status		16-20	36 (21.3)
not in a relationship/not married	22 (13.0)	21-25	31 (18.3)
in a relationship	34 (20.1)	25+	23 (13.6)

married	16 (9.5)
married with children	91 (53.8)
divorced	3 (1.8)
single parent	3 (1.8)

Table 2

Occupational, School and Class Characteristics of the Participants

Occupational characteristics	N (%)	School and class characteristics	N (%)
teacher in state Primary Education	34 (20.1)	Area	
teacher in state Secondary Education	23 (13.6)	rural	22 (13.0)
substitute teacher in state Primary Education	10 (5.9)	semi-urban	59 (34.9)
substitute teacher in state Secondary Education	2 (1.2)	urban	88 (52.1)
teacher in private Primary Education	8 (4.7)	Classes taught	
teacher in private Secondary Education	5 (3.0)	1-5	52 (30.8)
frontistirio teacher	72 (42.6)	6-10	95 (56.2)
frontistirio owner/EFL teacher	8 (4.7)	10+	22 (13.0)
private tutor	3 (1.8)	Students (in a class)	
other	4 (2.4)	<10	78 (46.2)
		10-20	63 (37.3)
		>20	28 (16.6)

Data analyses

The questionnaire data were analysed quantitatively using IBM SPSS version 24. Factor Analysis was conducted to reduce the 26 TRS variables into a manageable number of dimensions. The statistical tests employed for the analyses of the data were the Independent-Samples T-test, One-Way ANOVA, and Kruskal-Wallis tests in order to detect statistically significant differences between the groups of each category presented in the subsections below in terms of the four factors.

With reference to Factor Analysis, preliminary interpretation of the dataset involved constructing a bivariate correlation matrix of all the variables to reveal the variables with high intercorrelations that could measure a latent variable (see Appendix II). Principal Component Analysis (PCA) was conducted on the 26 items of

the TRS followed by orthogonal Varimax rotation. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO = .888) verified that the sample participating in the research was adequate for Factor Analysis. Barlett’s test of sphericity was found to be significant ($\chi^2(300) = 2540,21, p = .000$) suggesting that it was possible to proceed with the analysis on this set of data (see Appendix II).

The extraction of communalities indicated that all but one variable (TRS10) shared some common variance with other variables. The item ‘*Sometimes I have to act on a hunch*’ (TRS10) was eliminated since it failed to load on any of the factors. An initial analysis run to obtain eigenvalues for each factor in the data revealed four ‘components’ or ‘factors’ with eigenvalues over Kaiser’s criterion of 1. The decision on the number of factors to be extracted was guided by theory as well as the analysis of the data with a view to detecting the number of factors which yields the most interpretable results. The four-factor solution, which explained the 62,132% of the total variance, can be also well justified by the scree-plot (see Appendix II). Finally, a PCA of the remaining 25 items was conducted using orthogonal varimax rotation. The factor loading pattern matrix with the loadings of the variables in four distinct factors is displayed in Table 3.

Table 3
Rotated Component Matrix

TRS	ROTATED COMPONENT MATRIX	Cronbach index of 4 factors			
		0.901	0.865	0.913	0.704
01	I am able to adapt to change		0.616		
02	Fate or God can help me overcome my challenges				0.826
03	I believe things happen for a reason				0.761
04	Under pressure, I am able to focus and think clearly		0.551		
05	I prefer to take the lead in problem solving		0.642		
06	I am not easily discouraged by failure		0.738		
07	I think of myself as a strong person		0.780		
08	If necessary, I can make unpopular or difficult decisions that affect other people		0.636		
09	I can handle unpleasant feelings, such as anger or fear		0.725		
11	I like challenges		0.706		
12	I work hard to attain my goals		0.465		
13	In my workplace I enjoy working with other people	0.624			
14	New friendships are something I make easily in my workplace	0.677			

15	Meeting new people in my workplace is something I am good at	0.687	
16	In my workplace when I am with others I usually laugh	0.643	
17	My family's understanding of what is important in life is very similar to mine		0.713
18	I feel very happy with my family		0.856
19	My family is characterized by healthy coherence		0.862
20	In difficult times my family keeps a positive outlook in the future		0.816
21	Facing other people our family acts loyal towards one another		0.667
22	In my family we like to do things together		0.814
23	I can discuss personal issues with my colleagues	0.685	
24	The bonds between my colleagues and me are strong	0.821	
25	I get support from my colleagues	0.841	
26	When needed, I have always someone in my workplace who can help me	0.792	

Factor analysis verified that the factor labels proposed by Daniilidou and Platsidou (2018) suited the extracted factors and, thus, were retained. The four distinct factors which emerged were:

- Social Skills and Peer support
- Personal Competences and Persistence
- Family Cohesion
- Spiritual Influences.

The four factors indicate four different dimensions such as relationships with colleagues and members of family, personal attributes and spiritual influences which can act as protective factors and shape an individual's resilience. The participants' scores for each factor were treated as variables and were further used for statistical analyses. Internal consistency for each of the factors was examined using Cronbach's alpha. The alpha value for each factor was fairly high denoting good internal consistency. In particular, the factors Social Skills and Peer support (8 items) with $\alpha = .90$ and Family Cohesion (6 items) with $\alpha = .91$ showed very high reliability, Personal Competences and Persistence (9 items) with $\alpha = .87$ also indicated high internal consistency while the factor Spiritual Influences (2 items) had moderate consistency with an $\alpha = .70$.

Results

The demographic and employment characteristics of EFL teachers in relation to their resilience.

In the results presented in the following subsections, the first factor represents Social Skills and Peer Support, the second Personal Competences and Persistence, the third Family Cohesion, and the fourth Spiritual Influences.

Gender. An independent-samples t-test was conducted to compare the four protective factors that frame EFL teachers' resilience with the participants' gender. Analysis revealed non-significant differences in the scores for male and female EFL teachers with reference to Factor 1, Social Skills and Peer Support, $t(167) = 1.54, p = .15, d = .33$, Factor 2, Personal Competences and Persistence, $t(167) = -.31, p = .76, d = .10$, Factor 3, Family Cohesion, $t(167) = .57, p = .58, d = .10$ and Factor 4, Spiritual Influences, $t(167) = .61, p = .54, d = .18$.

Age. A One-Way ANOVA indicated that there was no statistically significant difference between the five age groups (i.e., <25, 26-35, 36-45, 46-55, >56 years old) in terms of Factor 1 [$F(4, 164) = 1.86, p = .12$], Factor 2 [$F(4, 164) = 2.22, p = .07$] and Factor 4 [$F(4, 164) = .47, p = .76$]. In contrast, there was a statistically significant difference between the five age groups in terms of Factor 3, Family Cohesion [$F(4, 164) = 3.50, p = .009$]. No statistically significant differences between age groups were revealed in the post hoc tests conducted.

Academic background. A One-Way ANOVA revealed no statistically significant differences between the four groups (i.e., C2-level certificate holders, Bachelor's Degree, M.Ed. or M.Ed. in progress and PhD or PhD in progress) in terms of Factor 1 [$F(3, 165) = .36, p = .79$], Factor 2 [$F(3, 165) = .45, p = .72$] and Factor 3 [$F(3, 165) = .98, p = .40$]. A statistically significant difference was, however, found between Factor 4, Spiritual Influences, and the academic background of the participants [$F(3, 165) = 2.95, p = .03$]. Post hoc analyses indicated that the mean score of PhD or PhD in progress group ($M = .92, SD = .99$) was significantly higher than the mean of the Bachelor's Degree group ($M = -.13, SD = .95$) ($M_{diff} = -1.05$) and

the M.Ed. or M.Ed. in progress group ($M = -.04$, $SD = .99$) ($M_{diff} = -.97$) (see Tables 4 and 5).

Table 4
Post hoc Test

Academic background	Mean	Std. Deviation
C2-level certificate holders	0.05	0.98
Bachelor's Degree	-0.13	0.95
M.Ed. or M.Ed. in progress	-0.04	0.99
PhD or PhD in progress	0.92	0.99

Table 5
Post hoc Test

Group (I)	Group J	Mean Difference (I-J)	Std. Error	pvalue
Bachelor's Degree	PhD or PhD in progress	-1.05	0.36	0.026
M.Ed. or M.Ed. in progress	PhD or PhD in progress	-0.97	0.34	0.031
PhD or PhD in progress	Bachelor's Degree	1.05	0.36	0.026
PhD or PhD in progress	M.Ed. or M.Ed. in progress	0.97	0.34	0.031

Experience. A One-Way ANOVA analysis found no statistically significant differences between the six experience groups (i.e., 1-5, 6-10, 11-15, 16-20, 21-25 and 25+ years of teaching experience) and Factor 1 [$F(5, 163) = 1.43$, $p = .22$], Factor 2 [$F(5, 163) = .48$, $p = .79$] and Factor 3 [$F(5, 163) = .82$, $p = .54$]. Nonetheless, there were statistically significant differences between the six experience groups in terms of Family Cohesion [$F(5, 163) = 2.74$, $p = .02$]. No statistically important differences were, however, revealed in the post hoc analyses conducted.

Marital status. No statistically significant differences were detected between the participants who are in a relationship and those who are not. More specifically,

analysis with independent-samples t-test revealed non-significant difference in the scores for the participants who are in a relationship and those who are not in terms of Factor 1 $t(167) = -.86, p = .39, d = .15$, Factor 2 $t(167) = -.35, p = .73, d = .05$, Factor 3 $t(167) = -1.77, p = .08, d = .35$ and Factor 4 $t(32.62) = 1.20, p = .24, d = .19$.

EFL teachers' resilience and their occupational status

Public and Private sector. No statistically significant differences were indicated concerning each of the four factors and the sector of their employment. Analysis with independent-samples t-test revealed non-significant difference in the scores for the participants who work in the private and the public sector with reference to Factor 1, Social Skills and Peer Support, $t(163) = -.40, p = .69, d = .07$, Factor 2, Personal Competences and Persistence, $t(163) = .46, p = .65, d = .07$, Factor 3, Family Cohesion, $t(163) = -.39, p = .70, d = .07$, and Factor 4, Spiritual Influences, $t(163) = .43, p = .67, d = .07$.

Permanent or substitute teachers. Analysis with Independent samples t-tests shows a statistically significant difference in the scores for the participants who are permanent or substitute teachers in relation to the Factor 1, Social Skills and Peer Support, $t(67) = 2.62, p = .01, d = .75$. No statistically significant differences in the two groups were, however, revealed in the post hoc tests conducted. There were no statistically significant differences in relation to Factor 2, $t(67) = .12, p = .91, d = .04$, Factor 3, $t(67) = 1.85, p = .07, d = .57$, and Factor 4, $t(67) = -.81, p = .42, d = .26$.

EFL teachers' resilience and school and class characteristics

Number of classes taught. No statistically significant differences were found among the four factors and the number of classes taught by the participants. A One-Way ANOVA revealed no statistically significant differences between the three groups (i.e., teaching 1-5 classes, 6-10 classes or >10 classes the school year the research was conducted) in terms of Factor 1, Social Skills and Peer Support, $[F(2, 166) = .57, p = .57]$, Factor 2, Personal Competences and Persistence, $[F(2, 166) = 2.00, p = .14]$, Factor 3, Family Cohesion, $[F(2, 166) = .42, p = .66]$, and Factor 4, Spiritual influences $[F(2, 166) = 1.86, p = .16]$.

Number of students per class. No statistically significant differences were found among the four factors and the number of students per class. A One-Way ANOVA revealed no statistically significant differences between the three groups (i.e., teaching classes with fewer than 10 students, between 10 and 20 students and 21 or more students) in terms of Factor 1 [$F(2, 166) = .27, p = .77$], Factor 2 [$F(2, 166) = 2.17, p = .12$], Factor 3 [$F(2, 166) = .10, p = .90$] and Factor 4 [$F(2, 166) = 1.75, p = .18$].

Urbanisation and socio-economic condition. With reference to the urbanisation of the area the participants teach, a One-Way ANOVA detected a statistically marginally significant difference between the three groups (i.e., rural area, semi-urban area and urban area) in relation to Factor 1, Social Skills and Peer Support [$F(2, 166) = 3.10, p = .048$] which cannot lead to reliable assumptions. No statistically significant differences were found with reference to Factor 3, Family Cohesion [$F(2, 166) = 2.21, p = .11$] and Factor 4, Spiritual Influences [$F(2, 166) = .18, p = .83$]. Analysis of the third factor with Kruskal-Wallis test, since the normality assumption of the One-Way ANOVA was not met in this case, revealed no statistically significant difference, $\chi^2(2) = 4.70, p = .10$, either. In relation to the socio-economic condition of the area the schools/private language institutes (frontistiria) are situated in, no statistically significant differences were found between the three groups (i.e., socio-economically advantaged areas, areas of medium socio-economic condition and socio-economically disadvantaged areas) in terms of Factor 1 [$F(2, 166) = .73, p = .49$], Factor 3 [$F(2, 166) = 1.29, p = .28$] and Factor 4 [$F(2, 166) = .53, p = .59$] while a marginally significant difference was detected regarding Factor 4, Personal Competences and Persistence [$F(2, 166) = 3.06, p = .049$] which cannot yield safe conclusions.

Discussion

Statistical analyses have provided interesting findings regarding the demographic, occupational and school and class characteristics which may affect EFL teachers' resilience since our hypotheses for many statistically significant results were not verified. Although the findings of our research are in line with other studies in certain aspects, in other aspects, our research produced contradictory results. In

general, the findings of our research indicate that the majority of demographic, occupational and school and class characteristics are not decisive in sustaining or eroding teachers' resilience.

With regard to academic qualifications, only EFL teachers with a PhD or PhD in progress seem to consider Spiritual Influences an important factor. This result, which is in line with Zografou's (2016) findings in the Greek context, indicates that EFL teachers with higher academic qualifications may consider that spirituality can be ancillary to their resilience by giving them a sense of hope and support as well as an insight into the search for the meaning of life. Finding meaning and purpose in life and what one does is a key characteristic of wellbeing as defined in positive psychology (e.g., Seligman, 2011). Resilience is also a construct which has been related to positive psychology and wellbeing in several studies (e.g., Etherington, Hanks, & Alshehri, 2020). Teachers' wellbeing is critically important in education not only because of the connection between teacher wellbeing and student performance (Bajorek, Gulliford, & Taskila, 2014) but also because "the well-being of both teachers and learners are intricately connected" (Mercer et al., 2016, p. 224). In terms of how to work on enhancing wellbeing, language teachers' social and emotional intelligence are believed to be core competencies which can contribute to wellbeing (Mercer & Gkonou, 2017) and could be explicitly worked on in interventions.

Another interesting finding of this research emerged in relation to the occupational status of Greek EFL teachers. According to the statistical analyses, no differences were revealed in the resilience levels of those working in the public or the private sector; a surprising fact if the idiosyncratic conditions in each sector are taken into consideration. However, the fact that EFL teachers working in the public sector may be equally resilient or non-resilient with the ones working in the private sector may be explained by the fact that choosing this job was a very conscious decision possibly driven by intrinsic motivation and altruism (Beltman et al., 2011; Gu & Day, 2007; Hong, 2012; Mansfield et al., 2016). It may also be assumed that even though they face different kinds of challenges in terms of their working context, they have developed strategies and supportive mechanisms that help them overcome adversities and be resilient.

Taking the findings of our research into consideration along with suggestions made in related research, it can be assumed that other factors may be affecting

resilience more strongly than the contextual and demographic factors examined here. These factors could relate to motivation (Beltman et al., 2011; Mansfield et al., 2016), self-efficacy (Day, 2008; Gibbs & Miller, 2014; Hong, 2012; Tschannen-Moran & Woolfolk Hoy, 2007), personal agency (Howard & Johnson, 2004), and positive emotions (Gu & Day, 2007; Hong, 2012) as well as being supported by leadership (Beltman et al., 2011; Hong, 2012; Howard & Johnson, 2004) and having strong and genuine relationships with colleagues (Brunetti, 2006; Gu & Day, 2013; Leroux & Théorêt, 2014; Papatriannou & Le Cornu, 2014), pupils and parents (Leroux & Théorêt, 2014). Since demographics, occupational and school and class characteristics were not found to be decisive parameters for teacher resilience, qualitative studies would help in the future to examine the characteristics and idiosyncrasies of individual cases in more depth and explore some of these additional factors such as relational and emotional experiences as experienced by teachers.

Limitations of the Study

The findings of this study have to be interpreted in the light of certain limitations. The first limitation concerns the cross-sectional nature of the research which considers the resilience levels of the participants at the time the research was conducted. A large-scale longitudinal study which can address the variance that may be reported regarding EFL teachers' resilience levels across time as well as the dynamics of the construct could certainly provide a more comprehensive picture of their resilience. Although a one-off cross-sectional survey using self-report data as this one cannot capture the dynamic nature of the construct of resilience, it has provided some preliminary data so that a qualitative study could be developed towards exploring resilience as lived across time in a more nuanced manner. Secondly, the limited sample size of respondents in some categories (e.g., male participants, substitute teachers) indicates that certain results should be interpreted with caution. Another limitation concerns the data gathered using self-report methods. Regarding the questionnaire and the use of the TRS specifically, it can be argued that some participants might have answered mechanically or intuitively or provided socially desirable responses. Also, the reported results consider how resilience is perceived by the participants at the time of the completion of the questionnaire and are susceptible to fluctuations if protective or risk factors change. Finally, on a

cautionary note, it is important that the parameters referred to in literature as either protective or risk factors need further investigation, especially in the recession period in Greece, to understand how these can be developed in order to enhance EFL teachers' resilience.

Suggestions for Further Research

In view of the research findings, it can be argued that the present study can offer useful suggestions both to the stakeholders involved in education policy design and EFL teachers themselves. Exploring the socio-ecological context of resilient EFL teachers, such as conducting qualitative research with EFL teachers, their colleagues, students, head teachers, family, friends, and parents, may provide fruitful outcomes regarding the factors that can shape a resilient individual. Further research could also seek to identify the specific strategies that resilient EFL teachers employ such as help seeking, problem solving, managing difficult relationships, and seeking rejuvenation and renewal (Castro et al., 2010), maintaining a work-life balance (Johnson et al., 2014; Le Cornu, 2013), engaging in ongoing professional development (O'Sullivan, 2006; Patterson, Collins, & Abbott, 2004), setting emotional boundaries (Hong, 2012), and employing humour (Doney, 2012). Furthermore, programs and schemes for targeted interventions may be developed towards sustaining the levels of resilience among EFL teachers and building up the resilience of those who need further support. Building communities of practice in the form of small informal peer discussion groups (Karagianni, 2014; Karagianni & Papaefthymiou-Lytra, 2018) or in larger more formal ones (Karavas & Papadopoulou, 2014), in which EFL teachers can communicate their experiences, thoughts, and feelings either synchronously or asynchronously, could strengthen teacher resilience and contribute to their personal and professional wellbeing (Etherington et al., 2020).

In conclusion, this study has attempted to shed some light on Greek EFL teachers' resilience. It is hoped that it has contributed to the understanding of EFL teachers' resilience in a wider sense, but also, locally, in light of the idiosyncrasies of the Greek society and education. Given the challenges language educators face in their daily lives and following the pandemic, it will be even more important to further develop an agenda of resilience research in the field.

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Appendix I
Questionnaire

Personal information

Gender *

- Male
 Female

Age *

- <25
 26-35
 36-45
 46-55
 >56

Marital status *

- not in a relationship/not married
 in a relationship
 married
 married with children
 Άλλο: _____

Current employment: I am an EFL... *

In case you work in more than one teaching contexts please choose the one you consider your main occupation

- teacher in state primary education
 teacher in state secondary education
 substitute teacher in state primary education
 substitute teacher in state secondary education
 teacher at a private primary school
 teacher at a private secondary school
 frontistirio teacher
 Άλλο: _____

Academic background *

Please choose your highest qualification.

- C2-level certificate holder
- Bachelor's Degree in EFL teaching
- Master's Degree
- Master's Degree in progress
- PhD in progress
- PhD
- Άλλο: _____

Years of teaching experience *

- 1-5
- 6-10
- 11-15
- 16-20
- 21-25
- 25 +

How many classes are you teaching this year? *

The term 'class' also refers to different classes of the same grade (ex. D1, D2).

- 1-5
- 6-10
- 10 +

What is the estimated average number of students in your EFL classes? *

- <10
- 10-20
- >20

My school/frontistirio is in... *

- a rural area
- a semi-urban area
- an urban area

In my opinion, I teach at a school/frontistirio in... *

- a socio-economically advantaged area
- an area of medium socio-economic condition
- a socio-economically disadvantaged area

Overall Resilience

Are you a resilient person? *

- Yes
- No
- Not sure

How resilient do you feel at present? *

	1	2	3	4	5	6	7	8	9	10	
Not resilient at all	<input type="radio"/>	Extremely resilient									

Teacher Resilience Scale

(Daniilidou & Platsidou, 2018)

Please select the answer that best describes the way you reacted to situations at your job during the last month. If you cannot identify with a situation that happened recently, please answer according to what you think you would have felt. *

	Never	Rarely	Sometimes	Often	Always
I am able to adapt to change	<input type="radio"/>				
Sometimes fate or God can help me overcome my challenges	<input type="radio"/>				
Sometimes I believe things happen for a reason	<input type="radio"/>				
Under pressure, I am able to focus and think clearly	<input type="radio"/>				
I prefer to take the lead in problem solving	<input type="radio"/>				
I am not easily discouraged by failure	<input type="radio"/>				
I think of myself as a strong person	<input type="radio"/>				
If necessary, I can make unpopular or difficult decisions that affect other people	<input type="radio"/>				

I can handle unpleasant feelings, such as anger or fear	<input type="radio"/>				
Sometimes I have to act on a hunch	<input type="radio"/>				
I like challenges	<input type="radio"/>				
I work hard to attain my goals	<input type="radio"/>				
In my workplace I enjoy being together with other people	<input type="radio"/>				
New friendships are something I make easily in my workplace	<input type="radio"/>				
Meeting new people in my workplace is something I am good at	<input type="radio"/>				
In my workplace, I easily laugh when I am with others	<input type="radio"/>				
My family's understanding of what is important in life is very similar to mine	<input type="radio"/>				
I feel very happy with my family	<input type="radio"/>				
My family is characterized by healthy coherence	<input type="radio"/>				
In difficult periods, my family keeps a positive outlook on the future	<input type="radio"/>				
Facing other people, our family acts loyal towards one another	<input type="radio"/>				

In my family we like to do things together	<input type="radio"/>				
I can discuss personal issues with my colleagues	<input type="radio"/>				
The bonds among my colleagues and me are strong	<input type="radio"/>				
I get support from my colleagues	<input type="radio"/>				
When needed, there is always someone in my workplace who can help me	<input type="radio"/>				

Appendix II

Total Variance Explained (I)¹

Correlation Matrix	TRS1	TRS2	TRS3	TRS4	TRS5	TRS6	TRS7	TRS8	TRS9	TRS11	TRS12	TRS13	TRS14
TRS1	1,000	0,265	0,295	0,505	0,416	0,496	0,532	0,207	0,500	0,451	0,430	0,391	0,423
TRS2	0,265	1,000	0,504	0,225	0,113	0,209	0,182	0,114	0,097	0,056	0,156	0,097	0,132
TRS3	0,295	0,504	1,000	0,272	0,235	0,192	0,149	0,062	0,103	0,104	0,290	0,211	0,170
TRS4	0,505	0,225	0,272	1,000	0,510	0,433	0,444	0,209	0,483	0,254	0,228	0,254	0,322
TRS5	0,416	0,113	0,235	0,510	1,000	0,448	0,568	0,361	0,393	0,317	0,374	0,288	0,324
TRS6	0,496	0,209	0,192	0,433	0,448	1,000	0,624	0,367	0,515	0,475	0,441	0,294	0,287
TRS7	0,532	0,182	0,149	0,444	0,568	0,624	1,000	0,370	0,552	0,532	0,494	0,450	0,416
TRS8	0,207	0,114	0,062	0,209	0,361	0,367	0,370	1,000	0,358	0,416	0,249	0,118	0,154
TRS9	0,500	0,097	0,103	0,483	0,393	0,515	0,552	0,358	1,000	0,451	0,311	0,266	0,237
TRS11	0,451	0,056	0,104	0,254	0,317	0,475	0,532	0,416	0,451	1,000	0,364	0,277	0,295
TRS12	0,430	0,156	0,290	0,228	0,374	0,441	0,494	0,249	0,311	0,364	1,000	0,545	0,310
TRS13	0,391	0,097	0,211	0,254	0,288	0,294	0,450	0,118	0,266	0,277	0,545	1,000	0,598
TRS14	0,423	0,132	0,170	0,322	0,324	0,287	0,416	0,154	0,237	0,295	0,310	0,598	1,000
TRS15	0,455	0,161	0,219	0,320	0,306	0,291	0,456	0,154	0,293	0,385	0,427	0,696	0,769
TRS16	0,453	0,242	0,301	0,342	0,313	0,256	0,431	0,145	0,310	0,293	0,485	0,677	0,597
TRS17	0,248	0,036	0,217	0,193	0,208	0,182	0,231	0,086	0,268	0,169	0,324	0,313	0,371
TRS18	0,301	0,074	0,236	0,282	0,290	0,293	0,335	0,108	0,278	0,192	0,403	0,410	0,410
TRS19	0,346	0,078	0,256	0,238	0,319	0,248	0,287	0,094	0,262	0,242	0,422	0,428	0,337
TRS20	0,249	0,181	0,287	0,232	0,277	0,257	0,273	0,086	0,214	0,144	0,326	0,278	0,247
TRS21	0,355	0,171	0,265	0,318	0,318	0,324	0,390	0,109	0,335	0,232	0,520	0,453	0,354
TRS22	0,294	0,069	0,229	0,228	0,262	0,231	0,296	0,082	0,255	0,188	0,383	0,329	0,337
TRS23	0,068	-0,055	0,092	0,160	0,095	0,119	0,136	0,069	0,159	0,126	0,155	0,254	0,421
TRS24	0,221	-0,040	0,150	0,247	0,183	0,180	0,271	0,034	0,145	0,173	0,251	0,459	0,528
TRS25	0,256	0,039	0,103	0,206	0,115	0,150	0,228	-0,068	0,118	0,129	0,198	0,460	0,466
TRS26	0,287	0,108	0,169	0,181	0,186	0,216	0,279	-0,047	0,183	0,136	0,326	0,508	0,436

¹The Correlation Matrix was split in two parts so that the numbers depicting the intercorellations between the variables is intelligible to the reader.

Total Variance Explained (II)

Correlation Matrix	TRS15	TRS16	TRS17	TRS18	TRS19	TRS20	TRS21	TRS22	TRS23	TRS24	TRS25	TRS26
TRS1	0,455	0,453	0,248	0,301	0,346	0,249	0,355	0,294	0,068	0,221	0,256	0,287
TRS2	0,161	0,242	0,036	0,074	0,078	0,181	0,171	0,089	-0,055	-0,040	0,039	0,108
TRS3	0,219	0,301	0,217	0,236	0,256	0,287	0,265	0,229	0,092	0,150	0,103	0,169
TRS4	0,320	0,342	0,193	0,282	0,238	0,232	0,318	0,228	0,160	0,247	0,206	0,181
TRS5	0,306	0,313	0,208	0,290	0,319	0,277	0,318	0,262	0,095	0,183	0,115	0,186
TRS6	0,291	0,256	0,182	0,293	0,248	0,257	0,324	0,231	0,119	0,180	0,150	0,216
TRS7	0,456	0,431	0,231	0,335	0,287	0,273	0,390	0,296	0,136	0,271	0,228	0,279
TRS8	0,154	0,145	0,086	0,108	0,094	0,086	0,109	0,082	0,069	0,034	-0,068	-0,047
TRS9	0,293	0,310	0,268	0,278	0,262	0,214	0,335	0,255	0,159	0,145	0,118	0,183
TRS11	0,385	0,293	0,169	0,192	0,242	0,144	0,232	0,188	0,126	0,173	0,129	0,136
TRS12	0,427	0,485	0,324	0,403	0,422	0,326	0,520	0,383	0,155	0,251	0,198	0,326
TRS13	0,696	0,677	0,313	0,410	0,428	0,278	0,453	0,329	0,254	0,459	0,460	0,508
TRS14	0,769	0,597	0,371	0,410	0,337	0,247	0,354	0,337	0,421	0,528	0,466	0,436
TRS15	1,000	0,764	0,283	0,379	0,380	0,236	0,399	0,334	0,382	0,459	0,432	0,491
TRS16	0,764	1,000	0,408	0,464	0,471	0,325	0,479	0,382	0,373	0,495	0,479	0,505
TRS17	0,283	0,408	1,000	0,645	0,583	0,543	0,442	0,595	0,311	0,354	0,280	0,288
TRS18	0,379	0,464	0,645	1,000	0,827	0,692	0,611	0,759	0,297	0,410	0,319	0,346
TRS19	0,380	0,471	0,583	0,827	1,000	0,699	0,678	0,740	0,211	0,369	0,302	0,322
TRS20	0,236	0,325	0,543	0,692	0,699	1,000	0,606	0,616	0,152	0,262	0,247	0,245
TRS21	0,399	0,479	0,442	0,611	0,678	0,606	1,000	0,525	0,162	0,371	0,305	0,279
TRS22	0,334	0,382	0,595	0,759	0,740	0,616	0,525	1,000	0,317	0,341	0,317	0,281
TRS23	0,382	0,373	0,311	0,297	0,211	0,152	0,162	0,317	1,000	0,612	0,573	0,477
TRS24	0,459	0,495	0,354	0,410	0,369	0,262	0,371	0,341	0,612	1,000	0,790	0,680
TRS25	0,432	0,479	0,280	0,319	0,302	0,247	0,305	0,317	0,573	0,790	1,000	0,744
TRS26	0,491	0,505	0,288	0,346	0,322	0,245	0,279	0,281	0,477	0,680	0,744	1,000

Kaiser-Meyer-Olkin and Bartlett's test of sphericity tests

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,888
Approx. Chi-Square		2540,208
Bartlett's Test of Sphericity	df	300
	Sig.	,000

Principal Component Analysis

TRS	Valid Questionnaires = 169, Missing = 0	Mean	Median	SD	Variance	Percentiles			Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)
						25%	50%	75%		
TRS01	I am able to adapt to change	4,080	4	0,748	0,560	4	4	5	0,000	0,000
TRS02	Sometimes fate or God can help me overcome my challenges	2,800	3	1,188	1,412	2	3	4	0,000	0,000
TRS03	Sometimes I believe things happen for a reason	3,620	4	1,052	1,107	3	4	4	0,000	0,000
TRS04	Under pressure, I am able to focus and think clearly	3,640	4	0,863	0,744	3	4	4	0,000	0,000
TRS05	I prefer to take the lead in problem solving	3,750	4	0,865	0,747	3	4	4	0,000	0,000
TRS06	I am not easily discouraged by failure	3,570	4	0,924	0,853	3	4	4	0,000	0,000
TRS07	I think of myself as a strong person	4,010	4	0,866	0,750	4	4	5	0,000	0,000
TRS08	If necessary, I can make unpopular or difficult decisions that affect other people	3,110	3	0,907	0,822	3	3	4	0,000	0,000
TRS09	I can handle unpleasant feelings, such as anger or fear	3,550	4	0,809	0,654	3	4	4	0,000	0,000
TRS10	Sometimes I have to act on a hunch	3,430	3	0,754	0,568	3	3	4	0,000	0,000
TRS11	I like challenges	3,680	4	0,990	0,981	3	4	4	0,000	0,000
TRS12	I work hard to attain my goals	4,380	5	0,740	0,548	4	5	5	0,000	0,000
TRS13	In my workplace I enjoy being together with other people	4,370	5	0,799	0,638	4	5	5	0,000	0,000
TRS14	New friendships are something I make easily in my workplace	3,820	4	0,947	0,897	3	4	5	0,000	0,000
TRS15	Meeting new people in my workplace is something I am good at	4,090	4	0,872	0,760	3,5	4	5	0,000	0,000
TRS16	In my workplace when I am with others I easily laugh	4,220	4	0,775	0,601	4	4	5	0,000	0,000
TRS17	My family's understanding of what is important in life is very similar to mine	3,840	4	0,902	0,814	3	4	4	0,000	0,000
TRS18	I feel very happy with my family	4,200	4	0,936	0,876	4	4	5	0,000	0,000
TRS19	My family is characterized by healthy coherence	4,140	4	0,879	0,773	4	4	5	0,000	0,000
TRS20	In difficult periods my family keeps a positive outlook on the future	3,990	4	0,932	0,869	3	4	5	0,000	0,000
TRS21	Facing other people, our family acts loyal towards one another	4,370	5	0,745	0,555	4	5	5	0,000	0,000
TRS22	In my family we like to do things together	3,960	4	0,932	0,868	3	4	5	0,000	0,000
TRS23	I can discuss personal issues with my colleagues	3,020	3	1,012	1,023	2	3	4	0,000	0,000
TRS24	The bonds between my colleagues and me are strong	3,340	3	0,920	0,846	3	3	4	0,000	0,000
TRS25	I get support from my colleagues	3,540	4	0,932	0,869	3	4	4	0,000	0,000
TRS26	When needed, I have always someone in my workplace who can help me	3,700	4	1,051	1,105	3	4	5	0,000	0,000

Communalities

	Initial	Extraction
TRS1	1,000	,575
TRS2	1,000	,710
TRS3	1,000	,633
TRS4	1,000	,416
TRS5	1,000	,466
TRS6	1,000	,577
TRS7	1,000	,685
TRS8	1,000	,420
TRS9	1,000	,563
TRS10	1,000	,229
TRS11	1,000	,529
TRS12	1,000	,454
TRS13	1,000	,575
TRS14	1,000	,601
TRS15	1,000	,668
TRS16	1,000	,680
TRS17	1,000	,567
TRS18	1,000	,828
TRS19	1,000	,824
TRS20	1,000	,714
TRS21	1,000	,611
TRS22	1,000	,724
TRS23	1,000	,527
TRS24	1,000	,739
TRS25	1,000	,734
TRS26	1,000	,659

Extraction Method: Principal Component
Analysis.

Total Variance Explained

The following table presents the total variance explained with all the 26 variables included. In this case, the total variance accounts for the 60,418 of the factors.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9,094	34,978	34,978	9,094	34,978	34,978	4,720	18,154	18,154
2	2,846	10,948	45,926	2,846	10,948	45,926	4,614	17,745	35,899
3	2,277	8,758	54,683	2,277	8,758	54,683	4,439	17,073	52,972
4	1,491	5,735	60,418	1,491	5,735	60,418	1,936	7,447	60,418

Extraction Method: Principal Component Analysis.

In the following table the reader can see that the Total Variance Explained after the elimination of TRS10 is 62,132 indicating that its elimination contributes to a larger variance of the factors.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8,990	35,959	35,959	8,990	35,959	35,959	4,733	18,931	18,931
2	2,805	11,220	47,179	2,805	11,220	47,179	4,507	18,028	36,960
3	2,257	9,028	56,206	2,257	9,028	56,206	4,386	17,543	54,503
4	1,481	5,925	62,132	1,481	5,925	62,132	1,907	7,629	62,132

Extraction Method: Principal Component Analysis.

Scree test

