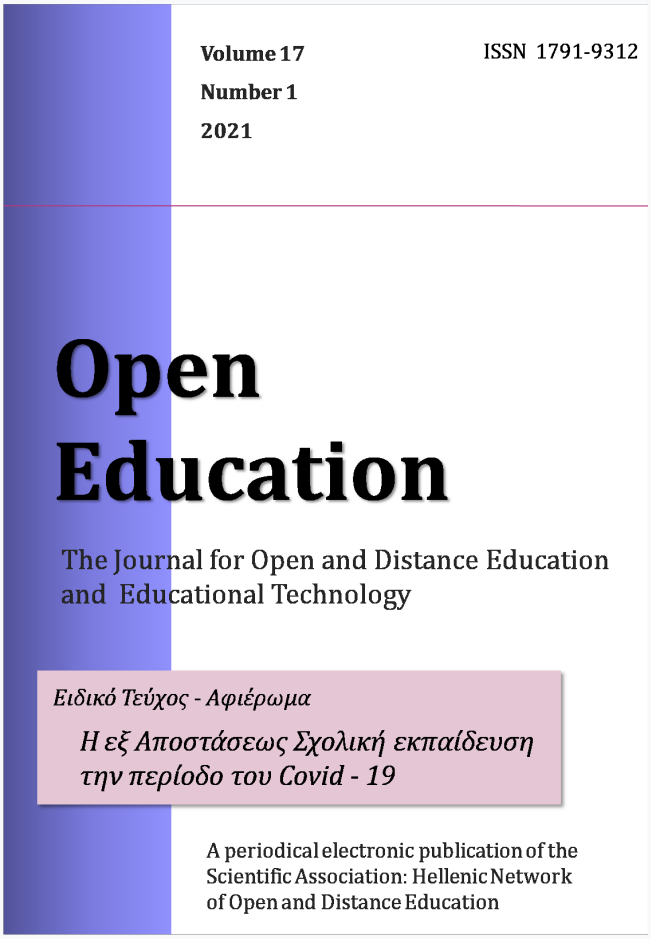
**Ανοικτή Εκπαίδευση: το περιοδικό για την Ανοικτή και εξ Αποστάσεως Εκπαίδευση και την Εκπαιδευτική Τεχνολογία**

Vol 17, No 1 (2021)

Η εξ Αποστάσεως Σχολική Εκπαίδευση την περίοδο του COVID19




# The psychological impact of the COVID-19 pandemic on Greek teachers and the emerging challenges for their professional development

*Natassa Raikou, Georgia Konstantopoulou, Konstantinos Lavidas*

doi: 10.12681/jode.25341

# The psychological impact of the COVID-19 pandemic on Greek teachers and the emerging challenges for their professional development

**Natassa Raikou**
University of Patras
Hellenic Open University
araikou@g.upatras.gr
http://orcid.org/0000-0001-8608-7597

**Georgia Konstantopoulou**
University of Patras
gkonstantop@upatras.gr
http://orcid.org/0000-0003-2225-1137

**Konstantinos Lavidas**
University of Patras
lavidas@upatras.gr

## Abstract
The present study focuses on the psychological consequences of the pandemic on Greek teachers on anxiety, post-traumatic stress and personal skills. The research was conducted by a Greek university, a few months after the beginning of lockdown and changing the teaching process to distance education. An electronic questionnaire was used as a research tool, which was completed by 213 primary and secondary school teachers in Western Greece. The questionnaire included demographics as well as questions from three questionnaires: State Trait Anxiety Inventory, revised Impact of Event Scale, as well as selected questions from the Personal Skills Inventory. The elaboration of the findings revealed the existence of medium anxiety and low self-esteem for the teachers, as well as an estimation of the factors that increase them. Nevertheless, a discussion on the opportunities emerged for the teachers' development and the contribution of Adult Education to this direction is ready to start.

## Keywords
COVID-19, teachers, psychological impact, anxiety, stress, skills, professional development, adult education

## Introduction
The spread of the new COVID-19 virus in early 2020 around the world has led to a pandemic with unprecedented consequences. This virus, which has been found by the World Health Organization to be highly dangerous and easily transmitted, infects the respiratory system, often with unpredictable consequences (EODY, 2020). The lack of knowledge and experience regarding the treatment and cure of this virus, made imposing quarantine gradually the only option in almost all countries of the world. Quarantine is a measure of limiting the spread of communicable diseases, which has been used for centuries (Barbisch, Koenig, & Shih, 2015). However, for modern societies it was something new.
The Greek Ministry of Health, following the developments in the world, took immediate measures, with the appearance of the first cases in the country, at the

beginning of March 2020. Instructions were given to avoid gatherings and contact with others in general, maintaining safe distances, while the risk of transmission to vulnerable groups was particularly emphasized. With daily updates on the spread of the virus, doctors were frequently giving instructions for disinfection and in case of symptoms, contacting a doctor or the National Public Health Organization was suggested (Centers for Disease Control and Prevention, 2020). These measures gradually became more restrictive, starting with the closure of all educational units, proceeding with the closure of retail stores and eating establishments (except for essential goods, i.e. supermarkets and pharmacies), sports venues and various businesses, and even led to stay-at-home order and prohibition of movement outside the prefecture.

In a short period of time, the pandemic due to the Covid-19 virus had significantly affected every person, both personally as well as socially, economically and professionally. Education is a place where the impact of the pandemic immediately became apparent worldwide, with the closure of schools (UNESCO, 2020). The outbreak of COVID-19 appeared to be a threat to the stability and viability of education and training systems, highlighting the need for upgrading and training (Lifelong Learning Platform, 2020).

The circumstances that had emerged were characterized as a crisis in education, perhaps the largest crisis as far its intensity and the disruption of the educational process worldwide were concerned (Karalis, 2020). This emergency required immediate and flexible solutions in order to continue the educational process and the solution given was the shift to distance education (Karalis & Raikou, 2020).

The Greek Ministry of Education and Religious Affairs, in order to respond to the suspension of face to face learning, gave instructions for the immediate transition to distance learning in all educational structures, with the aim of maintaining the contact of teachers and students with the learning process. Distance learning was structured on three elements – synchronous teaching, asynchronous teaching and educational television – while digital tools were available and the ability of each educational unit to form its own distance learning program, with the ability to use a combination of the three methods. In just two to three weeks, the transition to digital had been completed and more than 100,000 digital classrooms were already in operation, while a number of ministerial decisions were issued to provide legal support to the new education conditions (Ministry of Education & Religions, 2020).

However, the restoration of educational function meant a key change in the stable and traditional characteristics of formal education, such as the fixed curriculum, the teaching method and the availability of all teachers, while resorting to practices and procedures related to non-formal education, such as communication and schedule flexibility, as well as differentiation in technical methods and means (Karalis, 2020). It is worth mentioning that this strategy for finding solutions from the field of non-formal education was particularly encouraged by UNESCO (2020), because it was considered that non-formal educational programs are appropriate in the given conditions and can contribute to finding solutions to a greater extent than the formal education system (Karalis, 2020).

Teachers were asked to respond immediately to the new teaching conditions, unknown to many until then, while the challenges of distance education that they had to manage were in several cases significant (Huang, et al., 2020). These included – inter alia – network connection issues, finding appropriate online teaching material, adequacy of their digital skills, and the teachers' more general skills related to

distance learning, such as adaptability, autonomy, self-regulation, motivation, and communication skills (ibid.).

It should also be pointed out that the students to whom they were invited to teach in these conditions are characterized as the Net Generation, distinguished by increased technological knowledge and skills, because they have grown up in multiple, complex and overlapping social and digital environments (Kamarianos, Adamopoulou, Lampropoulos, & Stamelos, 2020). This argument arises a crucial concern here: could greater comfort and readiness of young people for effective participation in direct change in online education create a sense of inadequacy and insecurity among teachers? And as a result, is the role and authority traditionally held by the teacher likely to be challenged?

It is therefore possible that this situation will intensify the pressure on teachers and the challenge for them to cope satisfactorily. As a consequence, the fight against COVID-19 and the strict isolation measures that have profound psychological consequences for everyone (anxiety, depression, fear for oneself and loved ones, inertia), combined with the new practices and procedures in education are becoming stress factors (Lifelong Learning Platform, 2020).

According to the literature (Spyromitros & Jordanides, 2017), the main stressors of teachers are usually outside the classroom, but it is not excluded to locate the source within the school hall or for reasons related to the way the organization functions. Based on Kyriacou's analysis (2001, as cited in Spyromitros & Jordanides, 2017, p. 168) each teacher experiences stress differently and this depends mainly on the interaction between stressful sources, conditions, and personality. This means that "in a similar context of working conditions, the sources of stress experienced by each teacher are likely to be different and come from any type of stressors related to their profession".

It is therefore expected that the threat of the pandemic combined with the simultaneous pressing conditions for teachers would manifest as anxiety and insecurity (WHO, 2020): concern about infection and uncertainty about the economic and social consequences of the pandemic, but also concern for their ability to respond in a short time to the requirements of a teaching method and an educational environment they are unfamiliar with. In other words, the need for a violent cessation of the teachers' teaching routine and a complete change in their teaching practices is in many cases not an easy task.

To understand the difficulty of changing a behavior or attitude, we must first understand how we process a new experience. Every human being, in order to understand and manage his/her daily experiences, forms what Dewey (1922) calls habits. It is a reference base that is formed according to the previous activity of the individual, while it allows him/her to give meaning to the experience s/he goes through and to proceed with interpretation and action (Raikou, 2019). Habits, therefore, regulate the ways we respond to external stimuli of the environment, while defining our thoughts and shaping our will. The importance of habit is crucial in shaping behavior, it is characterized by a high degree of stability, while its change is particularly difficult (op. cit.).

Teachers in particular, are often hampered by the habit of routine comfort. Experienced teachers often develop routines that simplify their professional lives, having acquired ways to do anything. In other words, they organize the curriculum in ways that are familiar to them (Eisner, 2002). This trend, however, often traps them in patterns (Greene, 2000) and when circumstances change it “requires” a lot of effort on their part to be able to meet the new data (Raikou, 2019). This difficulty in managing

changes in their environment, as in the case of the situation brought about by the pandemic, can lead to a problematic situation, which puts psychological pressure on them. In other words, a disorienting dilemma for the teacher is possible to emerge by this educational crisis and the necessity for the activation of transformative processes arises intensively (Raikou, 2018).
Although the institutions will return to teaching in a classroom, with teachers feeling quite relieved, we believe that the expansion of online learning by higher education will be accelerated in schools as well, which should be more systematically organized in order to follow the aspects of technological learning. It therefore becomes necessary to have a record of the psychological impact of the pandemic and the changes it has brought to Greek primary and secondary school teachers (Daniel, 2020).

**Research objective**
Taking into account the above framework, as set for teachers in the given conditions, the aim of the present study is to investigate the psychological impact of COVID-19 pandemic on Greek primary and secondary school teachers in terms of self-esteem and anxiety, post-traumatic stress disorder symptoms, skills and how to manage it.

**Methodology**
The research was conducted by the Department of Education and Social Work and the Department of Educational Sciences and Early Childhood Education of the University of Patras between May and July 2020, meaning two to four months after changing the teaching process and operation of distance education and approval to carry it out was given by the Board of Directors of the Department of Education and Social Work. For the needs of the research, an electronic questionnaire was drawn up and the population were asked to complete it online voluntarily.

**Research instruments**
The survey includes demographic data as well as questions from three questionnaires on a) self-esteem, b) the impact of the crisis and c) skills related to the shift of the educational process to remote teaching. In particular, it is the State Trait Anxiety Inventory (STAI), the Impact of Event Scale - Revised (IES-R), as well as the questions from the Personal Skills Inventory (PSI) concerning sense of organization and commitment to objectives, interpersonal communication and empathy, obstacle management and open mindedness. In detail, the questionnaires are as follows:
*State Trait Anxiety Inventory Y (STAIY)* (Spielberger, Gorsuch, & Lushene, 1970). State Anxiety (S - Anxiety) is defined as the subjective and transient feeling of pressure, nervousness, and anxiety at a given time, which may be accompanied by activation of the autonomic nervous system (ANS). Trait Anxiety (T - Anxiety) refers to relatively stable individual differences in terms of anxiety proneness, which constitute a personality trait of the individual. People who have anxiety as a central element of their character will experience more intense concern in the face of a stressful and threatening situation and, in addition, tend to interpret various situations, which are treated by other people simply as life events, difficult yet not insurmountable, as threatening. This questionnaire, which is used internationally and has been translated into many languages, separates anxiety as a state, and anxiety as a characteristic of one's personality (trait). Spielberger's anxiety questionnaire (1970) has been weighted to the Greek population by Liakos and Giannitsis (1984), and has since been widely used in Greek research, but also in clinical practice.

*The revised IES-R questionnaire*, *The Impact of Event Scale - Revised* explores the effects on the impact of an event (McCabe, 2019). It is a short, easily managed self-report questionnaire with 22 questions, in accordance with the criteria of the Diagnostic and Statistical Manual of Mental Disorders (DSM) for Post-Traumatic Stress Disorder (PTSD) (Weiss & Marmar, 1997). The questionnaire is not diagnostic for PTSD, but it is a suitable tool for measuring subjective response to a specific traumatic event in the older adult population, especially in the response sets of intrusion, avoidance and hyperarousal, as well as a total subjective stress IES-R score (McCabe, 2019; Mystakidou, Tsilika, Parpa, Galanos, & Vlahos, 2007). Intrusion refers to unbidden thoughts and images, troubled dreams, strong pangs or waves of feelings, and repetitive behavior. In other words, intrusive thoughts, nightmares, intrusive feelings and imagery, dissociative-like re-experiencing are included in this set. Avoidance responses include "ideational construction, denial of the meanings and consequences of the event, blunted sensation, behavioral inhibition or counter-phobic activity, and awareness of emotional numbness. Avoidance responses include numbing of responsiveness, as well as avoidance of feelings, situations, and ideas. This includes ideational construction, denial of the meanings and consequences of the event, blunted sensation, behavioral inhibition or counter-phobic activity, and awareness of emotional numbness. Hyperarousal includes anger, irritability, hypervigilance, difficulty concentrating, heightened startle. Intrusion and avoidance have been identified as two major mechanisms for dealing with calamitous life events. Rating higher than 24 is worrying, that is, the higher the score, the greater the concern about PTSD and the consequences related to health and well-being.

*The Personality Skills Inventory (PSI)* (Goldberg, et al., 2006) is a 70-item questionnaire for personal skills in various fields, such as the ability for interpersonal communication, sense of organization, leadership, etc. Such factors have been shown to be positively correlated with performance and success in professional life, personal success, and overall life satisfaction. Personal skills are related to the way we have learned to manage different situations. Every time we face a challenge, an obstacle, or an objective that we want to achieve, we use these skills to have the results we want at work and in our lives. In this research we selected the questions that explore a) sense of organization and commitment to objectives (ability to set objectives, work in an organized way and focus on our efforts), b) interpersonal communication & empathy (ability to understand the needs of others, to "put ourselves in their shoes" and provide support), c) obstacle management (ability to stay calm in various situations and overcome adversity and obstacles) and d) open mindedness (ability to learn new things, explore a topic in depth, broaden our knowledge, be creative). Selection of the specific skills was carried out depending on whether they are related to the shift of the educational process to distance education. In particular, it was considered that these four skills are related to distance education (Huang, et al., 2020) and, in general, to the abrupt shift and the necessity to handle a new situation on the part of the educators, completely new to them, and without any relevant preparation. On the contrary, the remaining skills in the questionnaire, i.e. social comfort, assertiveness and leadership, since they concern the individual's social interaction, do not constitute skills directly related to the specific crisis management, which educators were required to respond to. The reason for this was the restriction of social contacts and obligatory isolation that was imposed, and also the specific objective they were asked to pursue: completing the educational process in a different way.

**Strategy for data analysis**

As far as the strategy of data analysis is concerned, we calculated the scores of every construct as indicated by the creators. In order to ensure reliability of the subscales we calculated the Cronbach's Alpha coefficient. Values of the coefficient at least .8 suggest a very satisfactory level of reliability (Field, 2013). To identify the correlations between the variables, we have used the Pearson product-moment correlation coefficient. The data were analyzed with the statistical program SPSS, version 23 (op. cit.), in order to investigate selected characteristics of the participants related to the pandemic and the rapid changes in the educational process.

**Sample**

The sample of this study consists of 226 participants teachers of the Western Region of Greece. Table 1 shows the demographic characteristics of the participants, in relation to gender, age, teaching experience, employment status and educational level. Based on the data from Table 1, it can be observed that regarding gender, the vast majority of the participants are women (81.4%), whereas concerning age most of them are more than 40 years old (79.6%). As for the teaching experience, 80.9% have taught for more than 11 years and the majority of the participants have a stable employment status (86.3%). From the sample, 55.3% are teaching in primary education and 44.7% in secondary education.

**Table 1**

Participants' demographic characteristics (N=226)

| Gender | Age | Teaching experience |
|---|---|---|
| Male (18.6%) | <=40 years (20,4%) | <= 5 years (8.8%) |
| Female (81.4%) | 41-45 (17.7%) | 6-10 (10.2%) |
| | 46-50 (25.7%) | 11-20 (48.2%) |
| | >50 (36.3%) | >20 (32.7%) |
| Permanent position | | Teaching level education |
| Yes (86.3%) | | Primary (55.3%) |
| No (13.7%) | | Secondary (44.7%) |

**Results**

As shown in Table 2, the subscales that we have used to calculate the two dimensions of anxiety (state-trait) demonstrate a satisfactory level of reliability (Cronbach's Alpha>0,8) (Spielberger, Gorsuch, & Lushene, 1970). The findings indicate that for both dimensions the educators manifest medium anxiety, with the state anxiety (M=47.30) to be statistically significantly (t(225=9.315, p=.0001) higher than the trait anxiety(M=41.62). Moreover, these two dimensions of anxiety seem to be highly and positively correlated (r=.682). Finally, it is only the education level the educators are teaching at that seems to explain, to a small degree though (r=.187), the temporary anxiety only. More specifically, educators who are teaching in secondary education, seem to experience more acute temporary anxiety than the educators in primary education.

**Table 2.** Descriptive statistics, Pearson product-moment correlation coefficients and Cronbach's Alpha of two anxiety dimensions (N=226)

| | Mean | SD | State | Trait |
|---|---|---|---|---|
| State | 47,30 | 12,29 | (.935) | |
| Trait | 41,62 | 10,25 | .682** | (.981) |
| Gender (0. female) | 0,19 | 0,39 | -.041 | -.083 |
| Age | 2,78 | 1,14 | -.017 | -.011 |
| Teaching Level (0.Primary) | 0,45 | 0,50 | .187* | .095 |
| Teaching Experience | 3,05 | 0,89 | -.068 | -.066 |
| Permanent position (0. No) | 0,86 | 0,34 | -.007 | -.001 |

Note: Construct's Cronbach's alpha in parentheses. Range of anxiety dimensions=20 to 80.
*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

According to Table 3, the subscales we used to measure the three subscales for a possible manifestation of post-traumatic stress, demonstrate a very satisfactory level of reliability (Cronbach's Alpha close to or greater than 0,8) (Weiss & Marmar, 1997). The findings suggest that regarding all three mechanisms, educators demonstrate low probability of occurrence of post-traumatic stress. Moreover, these three subscales of anxiety are highly and positively correlated (minimum r>.638). The education level that the educators are teaching at seems to explain both the Intrusion (r=.223) and the Hyperarousal (r=.225). More specifically, educators who teach in secondary education seem to have a higher probability of occurrence of post-traumatic stress, as it is registered by the subscales Intrusion and Hyperarousal, compared to the educators of primary education. Finally, teaching experience seems to explain the scores in the subscales Avoidance (r=-.188) and Hyperarousal (r=-.175). More specifically, educators who have a longer educational experience are less likely to experience post-traumatic stress, as it is recorded in the subscales Avoidance and Hyperarousal.

**Table 3.** Descriptive statistics, Pearson product-moment correlation coefficients and Cronbach's Alpha of three subscales of IES-R (N=226)

| | Mean | SD | Intrusion | Avoidance | Hyperarousal |
|---|---|---|---|---|---|
| Intrusion | 1,39 | 0,91 | (.896) | | |
| Avoidance | 1,62 | 0,84 | .709** | (.854) | |
| Hyperarousal | 1,46 | 0,85 | .899** | .638** | (.797) |
| Gender (0. female) | 0,19 | 0,39 | -.124 | -,033 | -,131 |
| Age | 2,78 | 1,14 | ,052 | ,061 | .011 |

| | | | | | |
|---|---|---|---|---|---|
| Teaching Level (0.Primary) | 0,45 | 0,50 | .223** | .135 | .225** |
| Teaching Experience | 3,05 | 0,89 | -,130 | -.188* | -.175* |
| Permanent position (0. No) | 0,86 | 0,34 | -,030 | -,044 | -,045 |

Note: Construct's Cronbach's alpha in parentheses. Range of Post-Traumatic Stress Disorder subscales=0 to 5.
* Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

As it can be observed in Table 4, the subscales we used to measure the four types of the educators' skills demonstrate a very satisfactory level of reliability (Cronbach's Alpha>0,8) (Goldberg et al., 2006). According to the mean scores of the measures, it can be observed in every type of skills that the educators demonstrate moderate interpersonal communication and open mindedness, and a very low competence in organization and obstacle management (F(3, 493), p=.001). All these skills seem to be correlated lowly to moderately and positively (r=.217 to r=.414). Finally, the demographic features of the participants do not seem to be related to these dimensions.

**Table 4.** Descriptive statistics, Pearson product-moment correlation coefficients and Cronbach's Alpha of four personal skills (N=226)

| | Mean | SD | Org. | Int. Com. | Obst. Man. | Op. Min. |
|---|---|---|---|---|---|---|
| Organization | 31,07 | 13,52 | (.875) | | | |
| Interpersonal Communication | 64,09 | 23,96 | -,135 | (.841) | | |
| Obstacle Management | 38,32 | 22,89 | .217** | .274** | (.828) | |
| Open Mindedness | 60,59 | 23,00 | ,141 | .414** | .291** | (.812) |
| Gender (0. female) | 0,19 | 0,39 | ,132 | -,011 | ,110 | ,006 |
| Age | 2,78 | 1,14 | -,037 | -,010 | ,069 | -,062 |
| Teaching Level (0.Primary) | 0,45 | 0,50 | ,077 | -.151 | ,006 | -,043 |
| Teaching Experience | 3,05 | 0,89 | -,125 | ,126 | ,011 | ,070 |
| Permanent position (0. No) | 0,86 | 0,34 | -,052 | ,078 | ,063 | ,091 |

Note: Construct's Cronbach's alpha in parentheses. Range of personal skill dimensions=0 to 100.
**Correlation is significant at the 0.01 level (2-tailed).

Table 5 contains the correlations of the teachers' four personal skills with the two anxiety dimensions and the three subscales of post-traumatic stress. In all cases, low (r=-.152) to moderate (-.448) negative correlations can be observed. It appears, therefore, that the higher scores of the educators' anxiety, as well as of their post-traumatic stress, demonstrate low scores of the educators' skills, as indicated by the measures of the four personal skill types.

**Table 5.** Pearson product-moment correlation coefficients anxiety and post-traumatic disorder with personal skills (N=226)

| | Organization | Interpersonal Communication | Obstacle Management | Open Mindedness |
|---|---|---|---|---|
| State | -,152* | -,241** | -,401** | -,162* |
| Trait | -,114 | -,340** | -,448** | -,303** |
| Intrusion | -,046 | -,290** | -,416** | -,275** |
| Avoidance | -,059 | -,196** | -,270** | -,233** |
| Hyperarousal | -,014 | -,310** | -,413** | -,221** |

* Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

**Discussion of results**

As is clear from the analysis of the survey findings, educators immediately after the abrupt shift of the educational process to distance education due to the pandemic, demonstrated increased anxiety. This can be observed in both types of anxiety, state and trait, with state anxiety demonstrating a higher value, i.e. the anxiety caused due to the circumstances. If the findings are compared to an older application of the STAI-Y scale to Greek population (Fountoulakis, et al., 2006), it can be found that the values of this study correspond to unhealthy population. In particular, the previous study by Fountoulakis (op. cit.) indicated a mean State score of 24,95 ± 11,36 and mean Trait score of 27,88 ± 11,43 for the healthy population. The relevant reported data for the unhealthy surveyed population had a mean State score of 44,91 ± 9,18 and an mean Trait score of 43,50 ± 9,99. Nevertheless, in more recent surveys among educators of primary education, the scores of anxiety were equally high with this survey (Kountouras, Ouzouni, Tsairidis & Marsidou, 2018; Zarkada, 2019). It is, therefore, possible that educators' anxiety has increased over the last years. It should also be noted that older educators, especially women, demonstrate higher rates of anxiety symptoms (Zarkada, 2019). As it appears in this study, the two types of anxiety are correlated, since the higher the trait anxiety, the higher the state anxiety and vice versa.

As for the possibility of occurrence of post-traumatic stress, the findings suggest a limited probability. It seems that the probabilities for the educators who participated in the research to demonstrate stress during the following period are low, due to the intense traumatic experience they went through, and in particular, the pandemic with the subsequent quarantine and the abrupt shift in the way of teaching. Therefore, it is possible that this experience created a stressful situation, however, not stressful enough to lead to a possible post-traumatic stress. The findings indicate that the three mechanisms – Intrusion, Avoidance and Hyperarousal– are correlated, since the higher the values are in one of the mechanisms, the higher they are in the rest of them and vice versa. Factors that seem to influence the demonstration or not of post-traumatic stress are the education level the educators are teaching at and the teaching experience of the participants. More specifically, the educators of secondary education have more probabilities compared to the educators of primary education, because they demonstrate higher scores especially in Intrusion and Hyperarousal. Respectively, the educators with the highest teaching experience are less likely to suffer from post-traumatic stress, as demonstrated especially in the subscales Avoidance and Hyperarousal. Thus, it can be observed that for both factors which

seem to have an impact (education level & teaching experience), the score in Hyperarousal responses, meaning anger, irritability, hypervigilance, difficulty concentrating, heightened startle are a common feature.
As far as the manifestation of their skills, it could be argued that the participating educators demonstrated a moderate interpersonal communication and open mindedness, while they scored low in organization and obstacle management. That is, the educators think that they could, to a moderate extent, develop communication skills with other people and they were relatively open to new ideas and circumstances; however, they had difficulty in organizing their work and face the barriers and generally the crisis that emerged due to the pandemic. A correlation between them is also observed, i.e. when an educator demonstrates a higher value in one of them, s/he has higher scores in the others and vice versa. Nevertheless, the participants' profile (gender, age, teaching experience, employment status, education level) do not seem to influence and differentiate the values. Therefore, the demographic features of the educators are not related to the increased or decreased manifestation of skills that were analyzed due to the pandemic. It should also be noted that the higher scores in anxiety and probability of manifestation of post-traumatic stress on the part of the educators, possibly because of the pandemic, are correlated with the low scores of the educators' skills. In other words, when the educators are in a state of anxiety and under pressure it seems that they do not perform well in the professional and personal sector of their life, a finding that is also confirmed by the relevant literature (Anandasayanan & Subramaniam, 2013; Kountouras et al., 2018; Zarkada, 2019).

**Concluding thoughts**

The findings of the survey agree with everything mentioned above concerning the challenges that the educators had to respond to due to the special circumstances, which constituted a factor of anxiety (Lifelong Learning Platform, 2020). In this particular case, we could talk about the simultaneous existence of a source of anxiety both outside - the general circumstances of quarantine and fear for one's health, as well as inside the classroom – a shift in the educational process (Spyromitros & Iordanidis, 2017).
It could be argued that the factors which may have led to an increase in anxiety and to reduced skills are mainly the following: First of all, the general disturbing trend that was created globally due to the pandemic, with the consequent restriction and the isolation that was imposed. A second factor is the force of habit, which is difficult to change (Dewey, 1922; Raikou, 2019). Especially the experienced educators, as the ones participating in the survey, were seen to develop routines in order to simplify their professional lives (Greene, 2000; Eisner, 2002).
Therefore, handling the change in their professional field puts them under significant psychological pressure. This is even more intensified when this change concerns a new way of teaching and learning, like distance education with or not mobile devices, where many of the teachers are not ready and have not received the relevant training (Nikolopoulou, Gialamas, Lavidas, & Komis 2020). Thus, lack of experience and appropriate education could be considered as the third factor, which results in more anxiety and pressure, since, in essence, it "forces" the educators to act effectively in a context new to them, which may cause negativity and aversion to some among them. Let us not forget the fear of technological learning (Keramidas, 2010) which is often observed mostly among experienced and older educators, as the ones participating in our research.

The educators' possible technophobia is even more intensified when combined with an additional pressure coming from the students, the NET Generation, which contrary to the former, demonstrates a natural fluency in technology and surpasses the previous generations, i.e. their teachers, when it comes to digital knowledge and skills (Kamarianos et al., 2020). What could be the consequence of this for the educators? A feeling of inadequacy and loss of power and cognitive superiority? A role reversal (or challenge) with the students, which may cause them to feel insecure? An identity crisis?

This possibility, which may serve as the fourth factor of anxiety, is even more enforced through the findings of self-evaluation of their skills, where educators detect a relative weakness (and apparently a need for improvement) in the skills they were required to utilize during the educational crisis and the shift to distance education. Taking into consideration that the aforementioned skills are related to an individual's performance and success in the professional and personal sector of his/her life, as well as to the general satisfaction with his/her life (Profetis Consulting Services, 2013), we may understand their importance, while the feeling of weakness in critical situations reduces an individual's self-esteem and his/her feeling of adequacy.

Nevertheless, it should not be forgotten that 'our personal skills are –to a great extent– taught abilities related to the way we have learnt how to handle various situations' (op. cit., p. 2). In essence, they are the tools we have in order to handle challenges that we face or the targets we aim for. Moreover, our survey suggests that their appearance is not influenced by the demographic characteristics of the individuals, which means that they can potentially be developed by everyone. Therefore, since skills are something that can be cultivated and improved later on, through appropriate training and practical application, educators have the opportunity to acquire these skills, if appropriate educational programs are designed and implemented for them, as well as counselling services to support them.

Anxiety, after all, as indicated by the results of the survey, does not manifest itself to such an extent that it could lead to a possible mental block and to the educators' incapacity to function and respond to their professional role. Therefore, anxiety could be functionally exploited as a motive and this experience could constitute a good opportunity for learning. Given these data, the educational crisis could serve as a disorientating dilemma for the educators, so that they reconsider their role as teachers, their skills, their relations with learners and generally all of their epistemological assumptions, and Adult Education could contribute significantly to that direction. The dilemma posed to educators by external factors could be creatively exploited through targeted induced dilemmas in an educational program, in order to activate the transformative process, by enhancing critical thinking, in combination with self-consciousness and enhancing self-image of the educator. Furthermore, the experience undergone by a person does not automatically lead to learning. We learn when we have the opportunity to think on an experience we had (Richert, 1991). Consequently, the process of reflection on the practices experienced is an integral part of teacher education and development (Raikou, 2019).

Focusing especially on distance education, it is important for these programmes and services to take into account and target all the aforementioned (i.e. acquisition of knowledge, attitudes and skills that are related to the particular way of teaching) in order for educators to be able to handle, without additional anxiety, other, similar or different, changes and crises in the educational process. Their familiarization with the field of non-formal education could effectively function in this respect (UNESCO, 2020). Therefore, an Adult Education strategy aiming to personal and professional

growth for the educator, shall result, on the one hand, in the empowerment and self-esteem of the educator, but on the other hand, in effective learning, as well as (as far as possible in times of crisis) to a smooth educational operation. In other words, in a restructuring and reinforcement of his/her professional identity.

In conclusion, it is imperative to say that this survey is subjected to certain restrictions, since it was based on convenience sampling, while the sample consisted of more women than men educators from the region of Western Greece. In addition, this study was conducted via a survey where volunteer participants reported their perceptions, the response biases should also be considered (Lavidas & Gialamas, 2019).

## References

American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th edition). Arlington (VA): American Psychiatric Association.

Anandasayanan, S., & Subramaniam, V. A. (2013). *Effect of Stress on Teachers' Performance with Special Reference to Jaffna District Schools.* Retrieved May 25, 2020, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2386067

Barbisch, D., Koenig, K.L., & Shih, F.Y. (March 23, 2015). *Is There a Case for Quarantine? Perspectives from SARS to Ebola.* Cambridge University Press. DOI: https://doi.org/10.1017/dmp.2015.38. Retrieved May 25, 2020, from https://doi.org/10.1017/dmp.2015.38

Centers for Disease Control and Prevention (March 18, 2020). *Coronavirus Disease 2019 (COVID-19): Interim Guidance for Administrators of US Institutions of Higher Education.* Retrieved May 25, 2020, from https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-ihe-response.html

Daniel, S. J. (2020). *Education and the COVID-19 pandemic*. UNESCO IBE/Springer. Published online: 20 April 2020. Retrieved May 25, 2020, from https://link.springer.com/content/pdf/10.1007/s11125-020-09464-3.pdf

Dewey, J. (1922). *Human Nature and Conduct: An Introduction in Social Psychology*. New York: Henry Holt and Company.

Eisner, E.W. (2002). *The Arts and the Creation of Mind*. New Heaven and London: Yale University Press.

EODY- National Public Health Organization (May 15, 2020). *Coronavirus disease (COVID-19) – Important News*. Retrieved May 25, 2020, from https://eody.gov.gr/en/covid-19/ [in Greece]

Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (5th edition). London: Sage.

Fountoulakis, K. N., Papadopoulou, M., Kleanthous, S., Papadopoulou, A., Bizeli, V., Nimatoudis, I., Iacovides, A., Kaprinis, G. S., (2006). Reliability and psychometric properties of the Greek translation of the State-Trait Anxiety Inventory form Y: preliminary data, *Ann Gen Psychiatry*, *31*, 5:2. DOI: 10.1186/1744-859X-5-2.

Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., & Gough, H. C. (2006). The International Personality Item Pool and the future of public - domain personality measures. *Journal of Research in Personality*, *40*, 84-96.

Greene, M. (2000) *Releasing the imagination*. San Francisco: Jossey-Bass.

Huang, R.H., Liu, D.J., Tlili, A., Yang, J.F., Wang, H.H., et al. (2020). *Handbook on Facilitating Flexible Learning During Educational Disruption: The Chinese Experience in Maintaining Undisrupted Learning in COVID-19 Outbreak.* Beijing: Smart Learning Institute of Beijing Normal University.

Kamarianos, I., Adamopoulou, A., Lampropoulos, H, & Stamelos, G. (2020). Towards an understanding of university students' response in times of pandemic crisis (COVID-19). *European Journal of Education Studies*, *7*(7), 20-40. DOI: 10.46827/ejes.v7i7.3149

Karalis, T. (2020). Planning and evaluation during educational disruption: Lessons learned from COVID-19 pandemic for treatment of emergencies in education. *European Journal of Education Studies, 7*(4), 125-142.

Karalis, T., & Raikou, N. (2020). Teaching at the times of COVID-19: Inferences and Implications for Higher Education Pedagogy. *International Journal of Academic Research in Business and Social Sciences, 10*(5), 479–493.

Keramidas, K. (2010). *The integration of information and communication technologies (ICT) into the teaching of mathematics in secondary education: ecosystem approach.* PhD thesis. University of Macedonia Economic and Social Sciences. Department of Applied Informatics. [in Greece]

Lavidas, K., Gialamas, V. (2019). Adaption and psychometric properties of the short forms Marlowe-Crowne social desirability scale with a sample of Greek university students, *European Journal of Education Studies, 6*(8), 230-239, https://doi.org/10.5281/zenodo.3552531

Kountouras, G., Ouzouni, M., Tsairidis Ch. & Marsidou A. (2018). Anxiety and depression problems in nursery school teachers. *Interscientific Health Care, 10*(3), 56-64. [in Greece]

Liakos, A. & Giannitsis, S. (1984). The reliability and validity of the modified Greek stress scale of the SPIELBERGER. *Brain, 21*(2), 071-76. [in Greece]

Lifelong Learning Platform (2020). COVID-19: *Mental health and wellbeing of all learners come first.* Retrieved May 20, 2020, from http://lllplatform.eu/lll/wp-content/uploads/2020/04/LLLP-Statement-COVID-19.pdf

McCabe, D. (2019). The Impact of Event Scale - Revised (IES-R). *New York University Rory Meyers College of Nursing, 19.* Retrieved May 25, 2020, from https://consultgeri.org/try-this/general-assessment/issue-19.pdf

Ministry of Education and Religious Affairs (2020). *We learn at home.* Retrieved May 20, 2020, from https://mathainoumestospiti.gov.gr/schetika/ [in Greece]

Mystakidou, K., Tsilika, E., Parpa, E., Galanos, A., & Vlahos, L. (2007). Psychometric Properties of the Impact of Event Scale in Greek Cancer Patients. *Journal of Pain and Symptom Management, 33*(4), 454-461.

Nikolopoulou, K., Gialamas, V., Lavidas, K. Komis, V. (2020). Teachers' readiness to adopt mobile learning in classrooms: A study in Greece, *Technology, Knowledge and Learning*, 1-25, https://doi.org/10.1007/s10758-020-09453-7

Profetis Consulting Services (2013). *Personal Skills Inventory.* Retrieved May 20, 2020, from https://docplayer.gr/8456281-Erotimatologio-prosopikon-dexiotiton-personal-skills-inventory.html

Raikou, N. (2018). Orientations on Disorienting Dilemma: Towards an integral conceptualization between theory and practice, In *Proceedings of the 3rd Conference of ESREA's Network Interrogating Transformative Processes in Learning and Education: 'Contemporary Dilemmas and Learning for Transformation'*, 28th June – 1st July 2018, Milan, Italy: ESREA & Italian Transformative Learning Network, Available online: https://drive.google.com/file/d/1F-2JSx-H8sBM_Ws_BevIrZ3urg6QbBF7/view

Raikou, N. (2019). Teacher Education at the forefront: Long-term study through the prism of University Pedagogy and Transformative Learning theory. *European Journal of Education Studies, 6*(3), 88-102.

Richert, A. E. (1991). Using Teacher Cases for Reflection and Enhanced Understanding. In A. Lieberman & L. Miller (Eds.), *Staff Development for Education in the '90s* (pp. 113-132). New York: Teachers College Press.

Spielberger, C. D., Gorsuch, R.L., & Lushene, R.E. (1970). *Manual for the State-Trait Anxiety Inventory.* Palo Alto, CA: Consulting Psychologists Press.

Spyromitros, A. & Iordanidis, G. (2017). Secondary education teachers' burn out and stress: the case of West Thessaloniki Prefecture. *Scientific Yearbook of the Pedagogical Department of Kindergarten, University of Ioannina, 10*(1), 142-186. doi: https://doi.org/10.12681/jret.13781[in Greece]

UNESCO (2020). *COVID-19 Impact on Education.* Retrieved April 8, 2020, from https://en.unesco.org/covid19/educationresponse

Weiss, D.S., & Marmar, C.R. (1997). The Impact of Event Scale-Revised. In J.P. Wilson, & T.M. Keane (Eds.), *Assessing Psychological Trauma and PTSD: A Practitioner's Handbook* (pp. 399-411). New York: Guilford Press.

WHO–World Health Organization (2020). *Mental health and psychosocial considerations during the COVID-19 outbreak.* Retrieved April 8, 2020, from https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf

Zarkada, E. (2019). *Investigation of symptoms of anxiety and depression in primary school teachers of prefecture of Kavala.* Master thesis. International University of Greece. [in Greece]