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SELF-EFFICACY OF SPECIAL EDUCATION TEACHERS IN GREECE

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Abstract:
The present study focused on investigating the self-efficacy of special education teachers of primary and secondary education in Greece. In addition, the effect of certain demographic factors (gender, age, marital status, years of service, specialization, and working grade) on teachers' self-efficacy was investigated. The sample of the study was 106 special education teachers of primary and secondary education. For the evaluation of self-efficacy, the Perceived Self-efficacy subscale was selected from the Self-efficacy,

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Perceived School Collective Efficacy, Job Satisfaction (Carpara, Barbaranelli, Steca, & Maloneet, 2003). The statistical package SPSS, version 21.0 was used for statistical analysis of the data. Statistical assumptions were tested for a default level of statistical significance $\alpha = .05$. Analysis of the data revealed that the level of self-efficacy of special education teachers was high. A statistically significant relation was found between age and self-efficacy.

Keywords: self-efficacy, special education teachers

1. Introduction

Self-efficacy is the feeling of accomplishment one feels in different aspects of one's life and relates to one's beliefs or subjective judgments about one's ability to control certain aspects of one's life and achieve the desired outcomes (Bandura, 1997). In this sense, therefore, one's beliefs about one's abilities rather than one's actual abilities are examined. The sense of low or high self-efficacy may vary depending on the frame of reference and has been shown to be related to the person's focus on the project and the degree of engagement with it. In particular, self-efficacy plays a crucial role in the choice of one's activities, the effort and perseverance one exerts. People who are aware of their abilities and have a high sense of self-efficacy make more persistent efforts to solve problems that occur in the course of their work and attribute their failures to their inadequate effort. Whereas individuals who doubt their abilities and have a low sense of self-efficacy make less effort to solve problems and attribute their failures to their inadequacies (Bandura, 1977). In addition, a sense of self-efficacy affects the person emotionally, with high self-efficacy facilitating cognitive processes and low self-efficacy associated with feelings of anxiety, depression, and pessimistic thoughts about his/her personal development (Schwarzer & Hallum, 2008).

Consequently, individuals' beliefs about their own abilities determine three important areas of their activity (McAuley, 1992). In particular, they determine (a) the choice of activities they engage in, (b) the degree of effort and perseverance they display, and (c) the degree of resistance to the stressful situations of the activity they have chosen. The level of self-efficacy (low-high) is positively correlated with one's performance in the workplace, that is, the higher/lower the self-efficacy, the higher/lower the performance.

According to Bandura (1997), the formation of one's belief in self-efficacy is influenced by a number of key sources of information. In particular, (a) one's past experiences and personal accomplishments are the most reliable source of information because any previous experience (positive or negative) affects one's self-efficacy, which influences future performance and thus creates a cyclical process (Feltz & Mugno, 1983). (b) Substitute experiences through monitoring other people's performance. The individual is significantly influenced when he or she monitors the performance of individuals with whom he/she has common characteristics (e.g. gender, similar experiences) (Gould & Weiss, 1981). (c) Verbal persuasion is used as a means of reinforcing one's sense of accomplishment, even if he or she faces difficulties or failures

(Bandura, 1977). (d) The physical and emotional state experienced by the individual influences the behavior of the individual through cognitive assessment. The increase in self-efficacy depends on the interpretation of normal alertness (Bandura, 1977).

Teacher self-efficacy concerns teachers' beliefs about their ability to deliver quality classroom instruction (Christophersen et al., 2016) but also to influence how students learn, even those who have difficulties or lack of motivation (Guskey & Passaro, 1994). Self-efficacy influences the teacher's personal choices, motivations, and actions (Tsakiridou & Polyzopoulou, 2014; Stephanou et al., 2013). Tschannen-Moran et al. (1998), present in their model, the cyclical nature of teachers' self-efficacy. In particular, teachers' beliefs about the factors that make teaching difficult and their educational abilities, based on the four sources of information mentioned above, influence their performance and at the same time are new sources of information on their self-efficacy. Consequently, teachers with a high sense of self-efficacy set higher goals for their own personal development, as well as that of their students, than teachers with a low sense of self-efficacy (Ross & Bruce, 2007).

The literature review revealed that teachers' self-efficacy depends on the school atmosphere, family environment, teacher's role in the classroom, and student behavior (Kyriakidis & Antoniou, 2010). In addition, good relationships between teachers and their students' parents have an increasing impact on teachers' self-efficacy (Skaalvik & Skaalvik, 2010). Also, many studies have shown the positive correlation of job satisfaction with teacher self-efficacy (Skaalvik & Skaalvik, 2010), but also the function of their beliefs as determinants of their job satisfaction (Wang et al., 2015).

In addition, other research has shown the effect of teachers' demographic factors on their self-efficacy. In particular, some studies have shown that gender is not related to teachers' self-efficacy (Motallebzadeh et al., 2014; Odanga et al., 2015). However, according to Karimvand (2011) women tend to have higher self-efficacy, as do teachers with more years of service. According to Aktaş et al. (2013) teachers' gender and years of service influence their self-efficacy. Concerning the effect of age and years of service on teachers' self-efficacy, Motallebzadeh et al. (2014) reported that self-efficacy tends to decrease as their age and years of service increase. In addition, other research has shown that working grade in education (Avanzi et al., 2013), classroom (Badri et al., 2013), and school type (Badri et al., 2013) are significantly related to teachers' self-efficacy beliefs about their pedagogical role. Also, in their research, Zoniou-Sideri & Vlachou (2006) found that teachers' positive attitude towards inclusion was associated with a high degree of self-efficacy.

2. Purpose of the study

The purpose of this study was to investigate the level of self-efficacy of special education teachers, in primary and secondary education. It also aimed to investigate the possible association of self-efficacy with some demographic-general characteristics of the participants.

The specific objective of this research is defined and recorded as follow: to investigate the self-efficacy of primary and secondary education special education teachers, as well as the possible relation between dependent variable self-efficacy, and independent variables of gender, age, working grade, specialization in special education, years of service, marital status.

3. Significance of the study

The self-efficacy of special education teachers has not been sufficiently explored (Coladarci & Breton, 1997). The findings of this study are expected to contribute to the scientific knowledge of the self-efficacy of special education teachers in Primary and Secondary education, with data usable at both theoretical and practical levels. It is expected to help optimize special education teachers' self-efficacy by ensuring the smooth running of their educational work.

4. Methodology

4.1. Participants

This study involved 106 special education teachers, in primary and secondary education, who resided in large urban centers of the country. The sample is representative of the research population in order to ensure the external validity of the research. Regarding the characteristics of the participants, 45 (42.5%) of the participants were male and 61 (57.5%) were female. In terms of age, 44 of them belonged to the age group of 20-30 years (41.5%), 28 belonged to the age group of 31-40 years (26.4%), 28 belonged to the age group of 41-50 years (26.4%) and 6 belonged to the age group of 51 years and over (5.7%). Regarding marital status, 54 (50.9%) of the participants were married and 52 (49.1%) were unmarried. Regarding the variable specialization in special education, it was found that 88 (83%) teachers had specialization in special education, while 18 (17%) had no specialization. Regarding years of service, 60 (56.6%) of the participants had 1-5 years, 25 (23.6%) had 6-10 years, 8 (7.6%) had 11-15 years, 3 (2.8%) had 16-20 years, 7 (6.6%) had 21-25 years and 3 (2.8%) had 25 years of service or more. Finally, regarding the working grade, 67 (63.2%) of the participants served in Primary education and 39 (36.8%) in Secondary education.

4.2. Material

Participants were given an anonymous questionnaire to collect some demographic information needed for the survey. The Perceived Self-efficacy subscale of the Carpara, Barbaranelli, Steca & Maloneet (2003) Scale of Self-efficacy, Perceived School Collective-Efficacy, Job Satisfaction, was also administered. This tool was adapted and translated into Greek by Tsakiridou & Polyzopoulou (2014). It is used to measure perceived self-efficacy. It consists of 12 items that assess teachers' self-efficacy beliefs about their ability to respond to the obligations, tasks and challenges associated with their educational role in different contexts and relationships with the headmaster, students and their parents.

This is a 6-point Likert-type scale ranging from (1) 'strongly agree' to (6) 'strongly disagree'. The total score from completing the scale ranges from a minimum of 12 (high perceived self-efficacy) to a maximum of 72 (low perceived self-efficacy), but also from 1 "positive attitude" to 6 "negative attitude" based on the average. Thus, scores between grades 12 to 36 (M= 1-3) reflect high perceived self-efficacy, scores from 37 to 47 (M= 3.08-3.91) reflect a vague perception of their self-efficacy in teaching, while scores from 48 to 72 (M= 4-6) indicate low perceived teacher self-efficacy.

4.3. Procedure

The scale of measurement of the various parameters was anonymous (coded) in order to ensure the anonymity and protection of the participants in this research. Questionnaires were administered individually, and teacher participation was optional. The purpose of the study was explained to the participants and the researcher provided them with a questionnaire file, which they returned to the researcher completed.

5. Results

SPSS version 21.0 statistical package was used for data processing and statistical analysis. Descriptive and inferential statistics methods were used. The data were coded and entered into a data file to allow statistical analysis using SPSS. After checking the accuracy of the data and checking the prerequisites, the analysis of the data followed. Parametric criteria were used (T-test, One-Way ANOVA). The Kolmogorov-Smirnov normality test was used to determine if the sample follows a normal distribution, as the number of participants was > 50. It was found that the sample follows a normal distribution.

The T-test was used to investigate the relation between independent variables: gender, marital status, working grade and specialization in special education and dependent variable: self-efficacy. Whereas, One-Way ANOVA test was used to investigate the relation between independent variables: participants' age and years of service and dependent variable: self-efficacy.

When examining the level of self-efficacy of special education teachers, based on the central tendency and dispersion indices, it was found that the participants had an average of M = 29.2110, with SD = 19.28974. According to the manufacturer's instructions on the Perceived Self-efficacy subscale of the Carpara, Barbaranelli, Steca & Maloneet (2003) Scale of Self-efficacy, Perceived School Collective-Efficacy, Job Satisfaction, the level of the participants' self-efficacy in this study is high (score lower than 36).

The results of the present study concerning the effect of demographics on teachers' self-efficacy, are reported as follows. When investigating the relation between gender and self-efficacy, a statistically significant difference was not found [Sig. (2-tailed) = 0.459 > 0.05, df = 106]. Investigating the effect of marital status on self-efficacy, it was found that there was no statistically significant relation [Sig. (2-tailed) = 0. 053 > 0.05, df = 106].

Regarding the relation between the variables' specialization in special education and the self-efficacy of the participants, it was found that there was no statistically

significant relation [Sig. (2-tailed) = 0.959 > 0.05, df = 106]. When investigating the relation between the working grade and the self-efficacy, it was found that there was no statistically significant relation [Sig. (2-tailed) = 0.340 > 0.05, df = 106].

When investigating the relation between the variables' years of service and self-efficacy of special education teachers was not found a statistically significant relation (F (5, 100) = 0.172, p < 0.05). Regarding the investigation of the relation between the variables age and self-efficacy of special education teachers, it was found that there was a statistically significant relation (F (3, 102) = 3,145, p < 0.05). To determine which groups are different between them, was performed the Post hoc Multiple Comparison Criterion, Tukey HSD test. Multiple comparisons showed that age group 31-40 was statistically significant different from age group 41-50 (Sig. = 0.028 < 0.05) (Table 1).

Table 1: Relation of age and self-efficacy

ANOVA					
Self-efficacy					
	Sum of Squares	**Df**	**Mean Square**	**F**	**Sig.**
Between Groups	3366,236	3	1122,079	3,145	,028
Within Groups	36389,122	102	356,756		
Total	39755,358	105			

Multiple Comparisons							
Dependent Variable: self-efficacy							
	(I) Age	**(J) Age**	**Mean Difference (I-J)**	**Std. Error**	**Sig.**	**95% Confidence Interval**	
						Lower Bound	**Upper Bound**
Tukey HSD	20-30	31-40	-6,68506	4,56611	,463	-18,6113	5,2411
		41-50	7,63636	4,56611	,344	-4,2898	19,5626
		51-	-9,03030	8,21994	,691	-30,4999	12,4393
	31-40	20-30	6,68506	4,56611	,463	-5,2411	18,6113
		41-50	14,32143*	5,04803	,028	1,1365	27,5063
		51-	-2,34524	8,49710	,993	-24,5387	19,8483
	41-50	20-30	-7,63636	4,56611	,344	-19,5626	4,2898
		31-40	-14,32143*	5,04803	,028	-27,5063	-1,1365
		51-	-16,66667	8,49710	,209	-38,8602	5,5268
	51-	20-30	9,03030	8,21994	,691	-12,4393	30,4999
		31-40	2,34524	8,49710	,993	-19,8483	24,5387
		41-50	16,66667	8,49710	,209	-5,5268	38,8602

6. Discussion

According to the results of the present study, primary and secondary special education teachers found that they had a high sense of self-efficacy concerning their ability to respond to the tasks of their educational role in different contexts and in the relationships they develop with their school director, students and their parents (Kaymakamoğlu, 2017; Antoniou, et al., 2017; Christophersen et al., 2016; Brigido et al., 2017). However, in other studies, teachers' self-efficacy ranged from moderate to high (Klassen et al., 2010; Stephanou et al., 2013).

Regarding gender, no statistically significant differences were observed in teachers' self-efficacy, as both men and women showed similar rates of high perceived self-efficacy. This finding is confirmed by some research (Antoniou et al., 2017; Kaymakamoğlu, 2017), although contradicted by others (Badri et al., 2013; Klassen & Chiu, 2010; Tsakiridou & Polyzopoulou, 2014). Concerning the relationship between variable marital status and self-efficacy, the findings of the present study showed that there was no statistically significant difference between married and unmarried teachers. This finding is confirmed by Riga's (2019) study.

Regarding the investigation of the relation between specialization in special education with self-efficacy of special education teachers, the present study showed that there was no statistically significant relation. This finding is contradicted by some research (Tucker et al., 2005; Ross & Bruce, 2007), where teachers with specialization in special education showed higher self-efficacy. In this study, the working grade of special education teachers revealed that it had no statistically significant relation with their self-efficacy. This finding is corroborated by some studies (Paneque & Barbetta, 2010; Kaymakamoğlu, 2017), and contradicted by others (Klassen & Chiu, 2010), which found that teachers working to higher working grades had lower self-efficacy rates.

When investigating the relation between years of service and self-efficacy, was not found statistically significant relation, a result confirmed by the research of Antoniou et al. (2017). However, this finding is contradicted by other research, which found that teachers with few years of service felt less effective than their peers (Tschannen-Moran & Hoy, 2007). Concerning the effect of age on self-efficacy of special education teachers, the results of the present study showed that older age teachers feel more self-efficacious in their educational role than their younger peers, a finding contradicted by Tabancik & Çelik's (2013) research. However, in other studies, there was no statistically significant effect of age on teachers' self-efficacy (Antoniou et al., 2017; Klassen & Chiu, 2010; Tsakiridou & Polyzopoulou, 2014).

7. Limitations

The results of the present study should be accepted with some reservations, due to the following limitations:

- In this study, the correlation research attempts to find correlations of factors rather than causal relations between them.
- The sample size is not large enough to allow the results to be generalized across the population of special education teachers.

However, the results are considered to be significant in terms of their contribution to the field of inquiry, which is the self-efficacy of special education teachers.

8. Suggestions for future research

Given the limitations of the present research and the shortcomings identified in the literature, not only in Greece, but also internationally, it would be useful to conduct

research in Greece, focusing on investigating the same parameters as the present research, by using the same assessment tool, but with a larger number of participants, so that the results will be more representative of the population of special education teachers. It would also contribute notably to deepening the topic, a qualitative research where teachers will be able to express their views on self-efficacy, as well as their suggestions for enhancing it. Finally, the effect of other demographic factors on the self-efficacy of special education teachers could be explored, such as the place of residence of teachers (urban or rural areas) or their work sector (private or public sector).

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