

The Efficacy of the Greek primary school teachers

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ABSTRACT

Teachers' efficacy is a factor associated with the educational process and teaching effect. However there is little evidence for the Greek teachers' sense of efficacy. Thereby, the present research was designed and conducted to study the perception of primary school teachers for their teaching efficacy and to capture the factors related to this perception. The sample consisted of 151 teachers of various disciplines, ages and employment status, who were asked to complete a questionnaire. The findings showed that GTE was moderate, while PTE was relatively high. The PTE seemed to be related to years of service, years of teaching experience and the job status (permanent or not), while the GTE was associated with further training. Lastly, according to the open-ended questions, the factors which could improve the effectiveness of the subjects were the cooperation of the involved parties in the educational community, the materials, the spiritual and psychological motives, the institutional changes, the individual characteristics of educational and the teaching profile.

Keywords : self-efficacy, teachers, Greece

1. Introduction

Self-Efficacy is a conceptual construct based on the social cognitive theory of learning. The term signifies one's belief in one's capabilities to complete a task and reach goals. People who are confident about their abilities, face the difficult situations as challenges to be overcome and not as trouble to be avoided (Bandura, 1994). In the field of education, teacher's efficacy refers: to the extent one believes that he/she has the ability to influence the performance of the pupils (Moses, 2010) or how well students learn, even those who may be difficult or unmotivated (Guskey & Passarao, 1994).

The beliefs of teachers' efficacy affect both learning partners, teachers and students. Regarding to students, there is a correlation with their achievements (Moses, 2010), motivation, improvement of their self-esteem and sense of their own efficacy, as well as their attitude towards school (Midgley, Feldlaufer & Eccles, 1989). When it comes to teachers, there is a correlation with teaching objectives they achieve, the extent their behavior changes in the classroom, the effort they make on teaching, their persistence in the face of difficult circumstances, and with their flexibility to adapt to unexpected changes (Armor et al., 1976).

Teachers with high sense of self-efficacy have higher expectations on themselves, set more demanding goals (Bandura 1997), show higher levels of planning and organization, while, at the same time, they are more open to new ideas and more willing to experiment with new methods to meet the needs of their pupils (Stein & Wang, 1988). High self-efficacy allows teachers to be less critical when their students make mistakes (Ashton & Webb, 1986) and urges them to work harder with weaker students (Gibson & Dembo, 1984, Lewandowski, 2005). They are also less likely to refer a student for special education (Podel & Soodak, 1993), they show greater enthusiasm to teach (Allinder, 1994), greater persistence (Bandura 1997), and they demonstrate greater commitment to their teaching.

As shown above, the self-efficacy of teachers is an important aspect of educational process. This is improved through participation in appropriate designed training programs (Martin, McCaughtry, Kulinna & Cothran, 2009). Thusly, the challenge of appropriately designing such programs gives rise to a need for comprehensive research on teacher self-efficacy level.

However, in Greece, very few such studies have been carried out. Of note, Gorozidis and his colleagues (2012) investigated the level of self-efficacy of Physical Education teachers. In another Greek language study (Philippou & Christou, 1997) examined the feelings of competence of primary school teachers about the teaching of mathematics and whether there were differences in the adequacy of teachers with different characteristics. Such a limited research in Greece on the field stresses the aforementioned need for further investigation.

2. Purpose/Objectives

The purpose of this study was to explore the perception of Greek primary school teachers on their self-efficacy beliefs. The research questions were the following:

-How effective do the teachers of elementary school feel?

- Is the age or years of teaching experience related to beliefs of self-efficacy of Greek teachers?
- Is there a difference in the degree of self-efficacy beliefs between permanent and associate teachers?
- Do general education teachers differ in self-efficacy beliefs from special education teachers?
- Is the specialization of the teacher related to his effectiveness?
- Is there a difference in self-efficacy beliefs among teachers with BA, Master, PhD, Further Education and Training?
- What factors are indicated by the subjects of the study as contributing to their efficacy?

3. Method

3.1. Participants

The study had a convenience sample of 151 primary school teachers of various disciplines, ages and employment status from the center of Athens. 22.5% (n= 34) were men and 77.5% (n=117) were women. On average, teachers had 12.6 (SD= 8.7) years of teaching experience, and in majority enjoyed permanence.

3.2 Materials

The tool used in the study was a questionnaire. The first of the three parts of the questionnaire includes demographic questions. The second part consists of the *Short Form of Teacher Efficacy Scale* and the third is an open-type question concerning the factors which the teachers believe contribute to their level of efficacy.

The Teacher Efficacy Scale-short form is a ten-item efficacy scale, which was developed by Hoy and Woolfolk (1993), in order to assess the teachers' efficacy beliefs, and confidence in their ability to promote students' learning. It is based on Bandura's theory of efficacy (Bandura, 1977), and Gibson and Dembo's (1984) Teacher Efficacy Scale. Five of the items of the scale concern General Teacher Efficacy (GTE), and five items concern Personal Teacher Efficacy (PTE: Gowie, 2010). GTE is the universal belief that educators can influence student learning, while PTE refers to a teacher's confidence in his/her own teaching abilities.

This scale was administered to teachers who had to respond on a six-point Likert-type scale, which ranged from "strongly agree" to "strongly disagree". For both dimensions of teacher efficacy, the higher the scores were, the more efficacious the teachers perceived themselves to be. For the

calculation of the total score, for each independent factor (GTE and PTE) the reverse scored items (3,6,7,8,9) were taken into account.

With regard to the psychometric values of the scale, the alpha coefficient of reliability was calculated for the study and it was 0.82 for PTE and 0.72 for GTE. Additionally, Gibson and Dembo (1984) carried out a multi-trait/multi-method analysis that supported both convergent and discriminate validity of the scale (Hoy & Woolfolk, 1993, see also Woolfolk & Hoy, 1990).

3.3. Data analysis

Teacher Efficacy Scale - short form was scored according to the manual. Bivariate correlations were conducted in order to explore the network of relations between two dimensions of Teacher Efficacy Scale - short form and other factors. The data from the open-type question grouped in conceptual categories and were coded, from both researchers separately, and the inter-coder agreement was 95%. The factors obtained were: cooperation, mental motivation, material incentives, psychological motivation, institutional changes, individual characteristics of the teacher and teaching profile.

4. Results

4.1. Self-Efficacy levels

Table 1 shows the results from *Teacher Efficacy Scale-Short Form*. Average GTE seems to be moderate ($m=3.381$; maximum is 6), while PTE is high ($m=5.001$; maximum is 6).

Table 1. Means, standard deviation (SD) and range (minimum-maximum) of General and Personal Teacher Efficacy in the sample

	Mean	SD	Minimum	Maximum
General Teacher Efficacy	3.381	1.041	1.20	5.60
Personal Teacher Efficacy	5.001	0.853	1.00	6.00

SD=Standard Deviation

4.2. Correlation of teacher efficacy with different variables

Table 2. presents the results from correlation of aspects of teacher efficacy with various other factors. It is shown that the years of service are positively correlate with PTE, on a low yet statistically significant level ($r =0.252$, $p=0.002$). That means that the more years of service the teachers had, the higher they held their ability to influence the process of learning. Similar correlation was noticed between PTE and the years of teaching experience

($r=0.221$, $p=0.007$) as well as between PTE and permanence ($r =0.189$, $p=0.020$) which supposedly reflects the years of service. The permanent teachers exhibited higher perception of their PTE ($m_{\text{permanent}}=5.072$, $SD =0.7620$) in relation to the associates ($m_{\text{associates}} =4.640$, $SD =1.168$).

Table2. Correlation of GTE and PTE with different factors

	GTE (r)	PTE (r)
Years of service	0.116	0.252**
Years of teaching experience	0.118	0.221**
Working status (permanent-associate)	0.065	0.189*
Master	0.132	0.064
PhD	0.052	0.018
Further Education	0.174*	0.112
Training	0.099	0.120

* $p>0.01$ ** $p>0.05$

Furthermore, there is a low correlation, yet statistically significant, between further education and GTE ($r= 0.223$, $p= 0.006$). In other words, the teacher who have received further education feels more confident to overcome general social and economic factors, affecting the lives of the children and the learning process, in contrast to those who have not.

Additional study of different kinds of further education (general or special) was carried out with the one-way between-groups analysis. The sample was split into three groups: those who hadn't been further educated at all, those who had been educated in general education and those who had been educated in special education. Analysis showed a statistically significant difference ($p=0.05$) between groups ($F(2,147) =3.134$, $p= 0.046$).

Post-hoc comparison using the *Tukey HSD* test indicated that the mean GTE for those didn't have further education (mean=3.296, $SD=1.034$) was significantly different from the other two groups, while among those who had further education in special (mean=3.569, $SD=1.052$) and general education (mean=4.055, $SD=0.820$) there was no statistically significant difference. Other factors, such as possession of Master, PhD degree or training, as well as the specialisation, did not seem to affect the sense of their efficacy.

4.3. Overall effectiveness and nature of studies

The analysis of GTE and PTE, in relation to the type of study (general, special education etc), showed that: the highest levels of GTE and PTE were observed in teachers with studies in special education (mean_{GTE}= 3.760,

SD=1.366, mean_{PTE}=5.200, SD=0.678), while the lowest scores of GTE were held by teachers with studies in general education (mean_{GTE}=3.370, SD=1.016), and the lowest levels of PTE by teachers with other degrees (mean_{PTE}=4.767, SD=1.179). However, the observed differences are not statistically significant ($F(2,144) = 0.558, p=0.574$).

Table 3. Factors which according to teachers could enhance their efficacy

FACTORS		FREQUENCY
COOPERTATION	All engaged parties in the educational process	41
MENTAL MOTIVATION	Training	69
MATELIAL INCENTIVES	Increase of salary	32
PSYCHOLOGICAL MOTIVATION	Recognition of their work/awards	10
INSTITUTIONAL CHANGES	Creation of support structures	12
	Reduction of curriculum	4
	Educ.equipment/infrastructure	50
	Better organization of the course material	1
	Well-written manuals	3
	Reduce number of pupils/ class	10
	Evaluation of the teachers	5
	Removing permanence	3
	Pedagogical freedom	8
INDIVIDUAL CHARACTERISTICS OF TEACHER	Educational concerns and self-education	4
	Inventiveness	1
	Awareness of their role/love to their work	5
TEACHING PROFIL	Individualized approach to teaching and sensitivity to students' needs	11
	Application of alternative forms of teaching	9
	Self-assessment	3
	Organization	6

Did not respond to the open-type question=24

4. 4. Factors which could contribute to improve the efficacy

Qualitative analysis of the responses to the open-type question (tables 3), on the factors which according to the teachers, could improve their efficacy,

lead to the following classification: cooperation, mental motivation, material incentives, psychological motivation, institutional changes, individual characteristics of the teacher and teaching profile.

The factors, which most frequently occurred, in decreasing order, are training, educational equipment/infrastructure, financial incentives, cooperation of all parties involved, creation of supportive structures, recognition of their work and reduction in the number of pupils per class.

5. Discussion - Conclusion

Findings from Teacher Efficacy Scale indicated that the teachers have moderate perception of GTE, in other words, moderate belief about the power of teaching to successfully influence students' learning. This is probably due to the fact that the sample was taken from schools from the centre of Athens, where in the student population, vulnerable groups are overrepresented, whose problems seem intractable. However, it should be taken into account that more than half of the subjects of the research do not have further education, which is positively correlated with higher GTE. The high level of PTE could be attributed to their demographic qualities. The teachers are relatively inexperienced (mean=12 years of service), having undergone just one third of their working life, and according to Narang (1990) the new teachers have a positive view for their teaching skills.

Furthermore, one could claim that permanence and further education have a positive effect on teacher efficacy, same as studies in special education do. Most of the teachers realize the fast paced change in modern society, where constants waver and knowledge rapidly falls out of date. It is due to that realization, that they highlighted the need for continuous or periodical training on key topics such as: theories of learning – action research - teaching methodology - behavioral issues. Through those they hope to improve their efficacy, in order to meet the rising challenges, as educators and professionals. In the matter of the type of training they seem to prefer and recommend experiential training.

4. 6. Bottom Line

Despite the limited scope of relevance, this study has the potential through its feedback to contribute to further research on self-efficacy beliefs of the Greek primary school teacher. At the same time, it could serve as a stepping stone for the design of an effective educational policy

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