

## **The Effect of an Introductory Training Program on Teachers' Efficacy Beliefs**

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### **Abstract**

*Greek teachers who are appointed for the first time in public schools on a permanent basis have to attend an introductory training program. The present study investigated the effect of this program on teacher's self-efficacy beliefs. Participants were 237 teachers from various disciplines employed in primary and secondary education. The Teachers' Sense of Efficacy Scale (TSES, Tschannen-Moran & Woolfolk Hoy, 2001) was used to measure three dimensions of teachers' competence beliefs, efficacy for instructional strategies, for classroom management and for student engagement. The TSES was administered twice, once before the beginning of the training program and once after the completion of the first phase. Doubly repeated measures analysis showed a significant and a meaningful increase in efficacy for classroom management and a tendency for positive shift in efficacy for student engagement. It was concluded that the first phase of the training program enhanced teachers' beliefs in their capabilities.*

**Keywords:** Self-efficacy, Teachers training, In-service teachers, Greece

### **1. Introduction**

According to Bandura (1997) self-efficacy is a person's belief on his competence to fulfill a task. Although this belief can be considered a simple concept the existing research evidence consistently show that self-efficacy to a large extent influences and controls human learning motivation and performance. Within the education context, the study of teachers' perceptions on their capabilities is of paramount importance because they are linked to both student's achievement and teachers well being. For instance, teachers with increased confidence in their competences tend to show greater commitment to their job, are more open to innovations, invest more effort in teaching and experience lower levels of burnout and higher levels of job satisfaction (e.g, Hoy & Spero, 2005; Skaalvik & Skaalvik, 2010; Tschannen-Moran & Woolfolk Hoy, 2001) Based on Bandura's social cognitive theory, many researchers attempted to develop instruments to measure teachers' self-efficacy, but its conceptualization has been a controversial issue (Skaalvik & Skaalvik, 2010; Tschannen-Moran & Woolfolk Hoy, 2001). In their study Tschannen-Moran and Woolfolk Hoy (2001) defined teacher efficacy as "a teacher's judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated" (p. 783).

These authors have also developed a new instrument for assessing teachers' efficacy beliefs, the Teachers Sense of Efficacy Scale (TSES). TSES seems to be a promising instrument to capture the elusive concept of teachers' perceived levels of self-efficacy, because it has good psychometric properties, assesses a wide range of competencies which are important for effective teaching, and it can be applied to various subjects and education levels (Tschannen-Moran & Woolfolk Hoy, 2001; Tsigilis, Grammatikopoulos, & Koustelios, 2007; Tsigilis, Koustelios, & Grammatikopoulos, 2010; Woolfolk Hoy & Spero, 2005). In the present study the conceptualization of Tschannen-Moran and Woolfolk Hoy (2001) was adopted to measure teachers' self-efficacy beliefs. It has been argued that understanding and enhancing self-efficacy is crucial for pre-service and novice teachers in particular (Gencer & Cakiroglou, 2007; Mulholland & Wallace, 2001; Woolfolk Hoy & Spero, 2005).

Novice teachers who feel competent in motivating students and effectively manage classrooms, even in the presence of distractive students, are more likely to gain positive teaching experiences and foster a strong sense of efficacy. Since self-efficacy beliefs are heavily based on experiences, it is vital for any educational authority and policy maker to ensure that teachers enter the profession with strong beliefs in their capabilities. Several authors investigated the effect of educational programs on teachers' efficacy perceived competencies. Their results showed that involvement in educational programs may positively shift self-efficacy beliefs (Ashton & Webb, 1986; Lin & Gorrell, 2001). However the majority has focused mainly on pre-service teachers during their undergraduate studies (e.g., Li & Gorrell, 2001). Little is known about the effects of specifically designed training programs beyond the university preparation for teachers who enter the profession (Gregoriadis, in press). Additional studies are needed to examine the influence of novice teachers training programs on their self-efficacy competencies.

According to the Greek educational system, teachers who are appointed for the first time on a permanent basis, have to attend an introductory training program. For this purpose, District Training Centers of Greek Ministry of Education are responsible to provide a 100-hours training. The training program takes place at the afternoons after teachers have completed their teaching duties at their schools. The training program comprises three phases. The first phase usually starts at the beginning of the academic year. Its length is 60-hours during which teachers are trained on issues regarding the structure and organization of the Greek education system, classroom management techniques and teaching methodology.

During the second phase, trainees are divided into small groups and a supervisor is assigned to each group. Trainees along with their supervisor observe experienced teachers as they teach. Following the end of the each lesson, there is a discussion on various issues that emerged from the observation. The duration of the second phase is 30 hours. In the last 10-hours phase of the program, teachers reflect on what they have gained from the introductory training. The purpose of the present study was to examine the effect of this training program on educators' beliefs of self-efficacy. It was hypothesized that teachers' perceived competence would increase after participating in the first phase of the introductory training program. This increase would be evident for all three aspects of self-efficacy as it is measured by the TSES.

## **2. Method**

### **2.1 Participants**

The participants of the study were 237 teachers who were appointed by the Greek Ministry of Education on a permanent basis and participated in the introductory training program at the 2<sup>nd</sup> Training District Center of Thessaloniki. The vast majority was female 64.6% (mean age 36.47 years,  $SD = 5.24$ ) whereas only 34.5% were male (mean age 38.93 years,  $SD = 6.44$ ). The participants were employed in both primary and secondary education level and were kindergarten teachers, elementary school teachers, mathematicians, literacy and language teachers, physical education teachers etc.

### **2.2 Instruments**

The Teachers' Sense of Efficacy Scale (TSES, Tschannen-Moran & Woolfolk Hoy, 2001) was used to measure teachers' competence beliefs. TSES comprises 24 items for assessing three dimensions, 'efficacy for instructional strategies' (8 items, e.g., How much can you use a variety of assessment strategies?), 'efficacy for classroom management' (8-items, e.g., How much can you do to control disruptive behavior in the classroom?) and 'efficacy for student engagement' (8 items, e.g., How much can you do to motivate students who show low interest in school work?). Responses were given to a 6-point scale anchored by none at all (1) to a great deal (6). Recent research evidence showed that TSES captures in an efficient way Greek educators' efficacy beliefs (Tsigilis et al., 2007; Tsigilis et al., 2010).

### **2.3 Procedure**

Teachers were informed about the purpose of the study and asked to complete the TSES. The instrument was administered twice, before and after the first phase of the training program. Participation in the study was on a voluntary basis. Educators were assured that their responses would be held in strict confidence, they would be used only for academic purposes, and that they could withdraw from the study anytime. One of the investigators was always present during the administration of the instruments to answer any question posed by the participants.

### 3. Results

Despite the fact that 237 questionnaires were administered, only a certain number of these were returned in usable form. Subsequent analyses were restricted to 172 participants, which represent 72.6% of the initial sample. Internal consistency analysis revealed that all dimensions of the TSES had satisfactory Cronbach's  $\alpha$  value,  $\alpha = .82$  (retest .88) for the efficacy for instructional strategies,  $\alpha = .85$  (retest .91) for the efficacy for classroom management and  $\alpha = .83$  (retest .89) for the efficacy for student engagement. Doubly repeated measures analysis showed a statistically significant overall effect, (Wilks'  $\Lambda = .915$ ,  $F(3, 169) = 5.25$ ,  $p = .002$ , partial  $\eta^2 = .085$ ). Follow up analysis for each TSES dimension showed statistically significant difference for the classroom management subscale,  $F(1, 171) = 15.49$ ,  $p < .001$ , partial  $\eta^2 = .083$ . It should be noted the "student engagement" dimension yielded a marginally not significant effect,  $F(1, 171) = 3.52$ ,  $p = .062$ , partial  $\eta^2 = .020$ . Visual inspection of the mean values showed an increase in teachers' efficacy beliefs after the completion of the first phase of the training program (Table 1).

**Insert table 1 about here**

### 4. Discussion

It has been suggested that self-efficacy beliefs are malleable during the first years of teaching (Woolfolk Hoy & Spero, 2005). Teachers' experiences from the induction years are very important because they may determine the long-term development of teachers' self-efficacy competence which is strongly connected to instructional effectiveness (Bandura, 1997). The present study attempted to examine the effect of an introductory training program on Greek teachers' efficacy beliefs. Findings are encouraging and show that teachers' participation in the first of the three phases of the training program had a significant overall effect on their competence beliefs.

Further examination of the results revealed that this positive change was mainly attributed to the increase of teachers' beliefs about classroom management. This effect, apart from statistically significant, was also meaningful as indicated by the partial eta-squared value. Teachers who completed the first phase of the training program felt more competent in managing their classrooms, keeping the discipline and handling disruptive behaviors. Given that prior research evidence has consistently shown that an enduring and wide spread problem among teachers is their competence to manage classrooms (Gencer & Cakiroglou, 2007; Gregoriadis, in press; Onafowora, 2005), the introductory program can be considered as an effective one in promoting teachers' sense of classroom management.

The improvement of teachers' perceptions of classroom management competences can be better understood in light of the structure and the content of the Greek universities undergraduate programs. Although there are many departments in which graduate students are eligible for applying for a teacher position (e.g., Department of Mathematics, Department of Chemistry, etc) the training on pedagogical issues is insufficient. Usually there is no provision of such courses or at best there are one or two elective courses. Moreover, internship is not an integral part of the undergraduate programs. As a result graduate students from these departments are not well prepared for teaching their disciplines in schools. This inadequate preparation of many teachers may explain the increasing demand for training programs on classroom management in Greece (Chatzidimou & Stravakou, 2005).

With regard to the influence of the introductory training program on the 'student engagement' dimension of the TSES, results showed a tendency to increase teachers' competence. However, this positive shift marginally did not reach statistical significance. It is possible that although teachers felt more confident in motivating students and engaging them in the learning procedure as a result of their participation in the program, they realized the complexity of this endeavor when they tried to put it into practice. It is also likely that the duration of the training was not adequate to produce strong and enduring results. Thus, if one of the aims of the introductory program is to enhance teachers' capabilities for student engagement specifically designed programs should be developed.

Contrary to our hypothesis, findings showed that there was no change in teachers' confidence in applying effective strategies to promote student learning and adjusting them to their level. This means that teachers felt equally competent before and after their involvement to the introductory training program. Although this result was not anticipated it was in accordance with prior research. In particular, Onafowora (2005) examined the efficacy beliefs of novice teachers participating in an ongoing professional training. She found that novice teachers were more concerned with discipline and administrative issues than with their teaching effectiveness. Another explanation for this unexpected result may be related to the way that Greek teachers are appointed to work in public schools.

According to the existing education system among the applicants for a full time job as a teacher only those who have successfully passed the Ministry of Education exams can enter the profession. The exams evaluate applicants' knowledge on the subject that they will teach as well as on pedagogical issues. So teachers attending the introductory training program have recently succeeded in the exams. Therefore it is rational to assume their preparation for the exams had a positive effect on their perceptions about their confidence in applying effective strategies and promoting students learning. It would be very useful for future studies to monitor how teachers' self-efficacy beliefs progress after completion of the introductory training program. Such studies could gather valuable information on teachers' success and frustration in the classroom and reveal the kind of support that is more helpful in the early years of teaching. Understanding novice teachers' competence can assist education authorities and policy management to design more effective training programs in order to ensure that teachers will stay in profession, enjoy their job and more importantly provide high quality education to their students.

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**Table 1. Descriptive statistics for the TSES before and after the first phase of the introductory training program**

TSES dimensions	Pre		Post	
	Mean	SD	Mean	SD
Instructional strategies	4.43	.60	4.48	.66
Classroom management	4.30	.65	4.45	.71
Student engagement	4.23	.57	4.31	.67

Note: TSES = Teachers' Sense of Efficacy Scale, SD = Standard deviation.