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INVESTIGATION THE EFFECTS OF FIELD-BASED PRACTICUM EXPERIENCE ON PRE-SERVICE PHYSICAL EDUCATION TEACHERS' SELF-EFFICACY BELIEFS

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Received: 22.08.2017

Accepted: 13.11.2017

ABSTRACT

A well-established number of research has been conducted on the role of self-efficacy belief in teaching and learning environments. The goal of the study is to examine the effect of the field-based practicum experience on pre-service physical education teachers' self-efficacy beliefs within one Physical Education and Sport Science Teacher Education Program in a large urban city in Turkey. The participants were 55 (Male = 34 and Female = 21) undergraduate students who enrolled in Physical Education Program in Karadeniz Technical University in 2013-2014 semester. The current study employed pretest-posttest research design. A Turkish version of the Teacher Efficacy Scale (TES) was used to assess the pre-service teacher candidates' self-efficacy beliefs. By the end of 14-weeks the field-based teacher practicum course, the participants' self-efficacy beliefs statistically and significantly increased ($t(54) = 8.95, p < .05$.) The eta squared statistic (.59) indicated a large effect size.

Keywords: Field practicum experience, teacher self-efficacy, pre-service teachers.

ÖĞRETMENLİK UYGULAMASI DERSİNİN BEDEN EĞİTİMİ ÖĞRETMEN ADAYLARININ ÖZ-YETERLİK İNANÇLARINA ETKİLERİNİN İNCELENMESİ

öz

Öğretim ve öğrenme ortamlarında öz-yeterlik inancının rolü konusunda bir dizi araştırmalar yapılmıştır. Çalışmanın amacı, öğretmenlik uygulaması dersinin beden eğitimi ve spor öğretmenliği programında öğrenim gören öğrencilerin öz-yeterlik inançlarına etkisini incelemektir. Araştırmanın örneklemini 2013-2014 eğitim yılı bahar döneminde Karadeniz Teknik Üniversitesi Beden Eğitimi ve Spor öğretmenliği programında öğrenim gören 55 öğrenci (Erkek = 34 ve Kadın = 21) oluşturmuştur. Çalışma tek gruplu ön test-son test araştırma deseninde yürütülmüştür. Araştırmanın verileri öğretmenlik öz-yeterlik ölçeği Türkçe versiyonu ile toplanmıştır. Verilerin analizinde ise, bağımlı t testi ve etki büyüklüğünü ölçmek için eta kare değeri hesaplanmıştır. Araştırmada elde edilen sonuçlar ışığında katılımcıların öz-yeterlik inançlarının 14 haftalık uygulama dersi sonunda anlamlı şekilde arttığı gözlemlenmiştir ($t(54) = 8.95, p < .05$). Ayrıca, .59 gibi oldukça büyük bir etki değeri bulgulanmıştır.

Anahtar Kelimeler: Öğretmenlik uygulaması, öğretmenlik öz-yeterliği, öğretmen adayı.

INTRODUCTION

A growing body of research has been conducted on the role of teacher self-efficacy belief in learning and teaching environments (e.g., Ashton & Webb, 1986; Bandura, 1997; Clift & Brady, 2005; Siwatu, 2007). Bandura (1977) defined the self-efficacy belief as the “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p.3). According to Bandura (1977; 1997) pointed out that self-efficacy level is critical to influence a person’s magnitude of effort and persistence in achieving specific goal in given context.

Teaching efficacy refers to level of confidence a teacher has his/her own ability to affect student performance (Gurvitch & Metzler, 2008). Extensive number of educational research over past two decades indicates that teacher self-efficacy belief and students’ school adjustment competencies (i.e., academic success, social skills, and classroom behavioral problems) show a positive and meaningful correlation (Klassen & Tze, 2014; Zee & Koomen, 2016). In fact, teachers with an assured sense of self-efficacy are more successful to build a high-quality learning environment by planning courses that encourages his/her students to engage in their own learning. In addition, those teachers put more effort to manage effectively students’ classroom related behavior problems (Chacon, 2005; Koca, 2017). Furthermore, teacher efficacy belief is highly correlated with teacher motivation (Ross, 1992), teacher enthusiasm (Allinder, 1994), and commitment to teaching (Hoy, 2000; Zee & Koomen, 2016). Extensive number of research, which has examined the sense of self-efficacy of pre- or in-service teachers, posited that teaching practices, instructional strategies, and relationship quality with their students were greatly affected by these teachers’ self-efficacy beliefs (e.g., Bandura, 1997; Clift & Brady, 2005; Guskey, 1984). Hoy (2000) suggested that course work and teaching practicum experience are critical for pre-service teachers to produce effective and committed learning environment in educational settings. Accordingly, very little is known the effect of teaching practicum experience on pre-service physical education teachers’ efficacy beliefs. Therefore, the goal of the current study was to explore the effectiveness of a 14-weeks teacher practicum course on pre-service teachers’ efficacy.

Pre-Service Teacher Self-efficacy and Field Practicum

Teacher self-efficacy belief is theoretically embedded within Bandura’s social cognitive theory suggesting the notion that the individuals’ thoughts and feelings affect the way they behave (Bandura, 1997). For instance, a teacher who feels highly efficacious toward a particular learning and teaching goal, put more effort to execute the necessary action and more willing to face the challenges that learning tasks offer to increase his/her academic success than a teacher with low self-efficacy belief. According to Bandura (1997), there four main sources of self-efficacy beliefs; mastery experience, vicarious experience, social persuasion, and physiological state. In fact, these main sources are used to establish the self-efficacy belief in a given task by interpreting reciprocally related behavioral, personal, and environmental inputs and outputs (Bandura, 1997).

Aforementioned, increased interest in teacher efficacy and its educational relationships with teaching and learning dynamics encourage the researchers to put much attention to the efficacy beliefs of pre-service teachers (Banks-Cochran-Smith & Zeichner, 2005; Ekici, 2008). Recent studies examined the role of pedagogical courses and field experiences courses throughout teacher education programs in pre-service teachers' beliefs and thoughts regarding their teaching practices (Clift & Brady, 2005; Ekici, 2008; Tarman, 2013). The results from these studies generally showed the significance of integrating field experience courses as earliest as in teacher education programs. In fact, such important early practical field experiences enable pre-service teachers to develop their teaching skills, to apply the theoretical knowledge into real life classroom settings. Accordingly, shifting from the more traditional text-and-lecture type courses to the ones emphasized on authentic practice, interactive, and collaborative provide pre-service teachers with the opportunities to experience classroom settings through observation, simulation, classroom instructions (Clift & Brady, 2005). In fact, according to Cochran-Smith and Zeichner (2005) recommended that early and more regular authentic teaching experiences might have even more critical impact on pre-service physical education teachers' professional lives. This might be because, physical education teachers might face greatly increased difficulties in real life school settings including inadequate resources, wide variabilities in their students' abilities, negative attitudes toward sports, and concerns about the administrative work-load. Therefore, pre-service teachers, especially physical education, build their self-efficacy beliefs to deal with classroom associated complexities (Collier, 1999; Cakmakci, 2009; Eraslan, 2008; Kurt & Ekici, 2012). Furthermore, Giebelhaus and Bowman (2002) stressed on that school experience or teacher field experience courses bridges the balance between theoretical knowledge and teaching practicum. Namely, pre-service teachers under the supervision of the practicum teachers have opportunities to know better their job and develop more positive attitudes toward learning and teaching (Schon, 1990).

Together, it is crucial for teacher training programs to help the teacher candidates to develop positive attitudes toward teaching professions by providing both theoretical and practical opportunities (e.g., Fosnot, 1996; Shapiro, 1991). In this respect, the current study aimed to investigate the effectiveness of field-practicum course within a physical education teacher training programs on the individuals' teacher self-efficacy beliefs.

Field Practicum Experience

In 1998, Turkish Higher Education Institution (YOK) decided to reconstruct the teacher training programs and their course schedule. In this sense, the YOK added a new course, which entitled as Teacher Practicum Course to increase the quality of teacher training program. This course consisted of 2 hours theoretical instruction and 6 hours practical experience for pre-service teachers for 14-weeks. The goal of the teacher practicum is to help the teacher candidates to develop positive attitudes toward profession and to increase their teaching skills before real life experiences (Tebliğler Dergisi, 1998). In addition, the old paradigm of university-based teacher education was understood to need to change the one where there is authentic learning environment and a nonhierarchical interplay between academic, practitioner, and school expertise. Educators posited that new

epistemology for prospective teachers might increase learning opportunities for them that help to better prepare in applying teaching practices (Zeichner, 2009). In this respect, Oksuz and Coskun (2012) examined how school experience course affect pre-service teachers' efficacy beliefs. They found that school experience had a noteworthy impact on the development of teacher self-efficacy belief among prospective teachers. Similarly, Hansen (2008) put forward that teacher practicum courses and school experience courses play a critical role in the development of teaching skills and positive attitudes. Therefore, the current study examined how and to what extent a teacher practicum course influence physical education teacher candidates' efficacy beliefs.

METHOD

Participants

The participants were 55 (Male = 34 and Female = 21) undergraduate students who enrolled in Physical Education Program in Karadeniz Technical University in 2013-2014 semester. Mean age for the participant pre-service teachers was 23.29 (SD = 2.63). All individuals in the current study were senior students in teacher training program.

Research Design

The current study used pre- and post-test research design. Namely, all 55 pre-service teachers participated in teacher practicum course (4-hour theoretical and 6-hours practical per week) for 14-weeks. The researchers asked the prospective teachers to rate their teaching efficacy beliefs before the course and after 14-weeks practicum period.

Instruments

The researchers used demographic information scale and Teacher Self-Efficacy (TSE) measure. The TSE is self-reporting, was originally developed by Woolfolk-Hoy (2001) and was adapted in Turkish educational settings by Capa and colleagues (2005), a 9-point Likert type scale (1-Nothing to 9-A great deal). This 24-item scale assess teachers' judgment of capabilities to bring about desired outcomes of student learning. This measure consisted of 3 subscales: (1) Instructional Strategies; (2) Classroom Management; and (3) Student Engagement. Total scores ranges from 24 to 216. High scores indicate that a particular teacher is highly confident to bring about desired outcomes of student engagement, learning, and motivation. Internal consistencies for the total scale .93; student engagement .82; instructional strategies .86; and classroom management .84.

Data Analysis

The researchers conducted a paired-sample t-test to document the difference between pre-test and post-test of scores of the pre-service physical education teachers. In addition, η^2 effect size was computed to measure

the magnitude of teacher practicum course for all participants. Furthermore, an independent sample t-test was employed to test the mean difference between male and female participants' teacher efficacy beliefs.

RESULTS

The overall distribution of the three sub-scales and total scale scores of Teacher Self-efficacy measure mean scores for pre- and post-tests were detailed in Table 1. In addition, an independent t-test was employed to document gender differences in teacher self-efficacy beliefs. Findings indicated that there was only statistically significant difference among male and female pre-service teachers in terms of pre-test scores of instructional strategies, $t(53) = -2.45, p < .05$. Namely, female teachers had higher instructional strategies efficacy belief than female counterparts. However, the researchers could not find any meaningful difference post-test scores.

Table 1. Descriptive Statistics of TSE Total Scale and Sub-Scale Scores for Pre- and Post- Tests by Gender (N = 55)

	Gender	Pre-Test		Post-Test	
		X	SD	X	SD
Student Engagement	Male	49.06	1.43	58.91	0.65
	Female	50.33	1.12	59.38	1.09
Instructional Strategies	Male	47.03	1.45	59.29	0.75
	Female	51.62	1.18	59.14	1.16
Classroom Management	Male	50.53	1.45	61.71	0.84
	Female	52.29	1.24	60.95	1.03
The TSE Total Scale	Male	146.62	3.92	179.91	1.95
	Female	154.24	2.81	179.48	3.11

In this study, the teaching practicum course for senior year physical education prospective teachers was designed to increase their self-efficacy beliefs in student engagement, classroom management, and instruction. In this respect, the researchers conducted a paired sample-t test to document the effectiveness of the teacher practicum course on pre-service teachers' efficacy beliefs. Based on the current study results, pre-service teachers' pre-test scores of student engagement ($X = 49.55, SD = 7.28$) and post-test scores ($X = 59.09, SD = 4.25$) were statistically and significantly different from each other, $t(54) = -8.20, p < .05$. For Instructional strategies, pre-test ($X = 48.78, SD = 7.72$) and post-test scores ($X = 59.24, SD = 4.70$) were meaningfully different from each other, $t(54) = -7.69, p < .05$. Pre-service teachers' classroom management efficacy beliefs ($X = 61.42, SD = 4.81$) statistically and significantly increased as compared to pre-test ($X = 51.20, SD = 7.51$), $t(54) = -8.77, p < .05$. Results also showed the similar trend for the TSE total scale scores (Pre-test: $X = 149.53, SD = 19.86$; Post-Test: $X = 179.75, SD = 12.41$), $t(54) = -8.94, p < .05$. Findings were detailed in Table 2.

Table 2. Paired Sample T-Test Results of TSE Total Scale and Sub-Scale Scores for Pre- and Post- Tests (N = 55)

	t-Value	P	Pre-Test		Post-Test	
			X	SD	X	SD
Student Engagement	-8.20	.00**	49.55	7.28	59.09	4.25
Instructional Strategies	-7.69	.00**	48.78	7.72	59.24	4.70
Classroom Management	-8.77	.00**	51.20	7.51	61.42	4.81
The TSE Total Scale	-8.94	.00**	149.53	19.86	179.75	12.41

p < .00**

In addition, the researcher also computed the eta squared statistic ($\eta^2 = .59$) indicated a large effect size. Together, the findings showed that there were meaningful increases in pre-service physical teachers' efficacy beliefs in student engagement, instructional strategies, and classroom management skills.

DISCUSSION and IMPLICATIONS

As teacher efficacy has emerged as a critical construct in teacher education over last 2 decades, researches involving teacher efficacy has become increasingly crucial (e.g., Clift & Brady, 2005; Ekici, 2008; Tarman, 2013). Teacher efficacy refers to a teacher's belief or judgment of his/her ability to execute learning and teaching tasks to successfully increase students' engagement and academic achievement (Bandura, 1997). Aforementioned, teacher efficacy belief is associated with teachers' willingness to put more effort and allocate more time to academic development of their students (Tschannen-Moran & Woolfolk-Hoy, 2001). In addition, more efficacious teachers are more successful in classroom management, student engagement in a learning task, and use of effective instructional strategies (Bandura, 1997; Oksuz & Coskun, 2012). Furthermore, extensive number of research showed that teacher self-efficacy belief has also a paramount importance to influence his/her students' affective, social, emotional, and academic growth by providing optimal motivation in teaching (e.g., Kurt & Ekici, 2012; Tschannen-Moran & Woolfolk-Hoy, 2001). In fact, exploring the factors that affect the initial development of pre-service teachers' efficacy might help them to develop strong efficacy beliefs early in their career. Therefore, the goal of the current study was to examine the effectiveness of teacher practicum course, which might contribute to establishment of powerful efficacy beliefs in learning and teaching, on prospective teachers' efficacy beliefs. Based on the research findings, the teacher practicum course in a physical education teacher training program had a profound impact on the development of teacher efficacy belief. Namely, as compared to the prospective teachers' pre-test scores, there was statistically significant increase in their self-efficacy beliefs after 14-weeks practicum experience. Similarly, Wolters and Daugherty (2007) examined how pre-service students' efficacy beliefs change during teacher training program. The results showed that modest positive effects of field experience on prospective teachers' self-efficacy for instructional strategies and self-efficacy for classroom management; however no effect on self-efficacy for student engagement experiences. Johnson, Paro, and Crosby (2017) conducted a study to explore early practicum experiences in early school teacher education program. Students, who felt energized and relaxed, and student's perception to fit with their mentor teachers, reported a higher self-efficacy for classroom management and student engagement. In this respect, the collaborations among teacher training program, mentor teacher, and prospective student teacher have a tremendous importance on the effectiveness of field

experience. Accordingly, Arkun-Kocadere and Askar (2013) examined a review of views about student teaching course and offered an application model. They stressed on the critical role of collaboration and constructive information loop for the success of the field experience. In addition, Oh (2011) suggested that pre-service teachers' motivation and capabilities are important sources to improve their teaching efficacy. In congruence with previous findings, the development of teaching efficacy attributed to the student teachers' content knowledge, teaching capabilities, which are acquired during their field experiences, observations of children's learning in dealing with daily matters (e.g., Oh, 2011; Yeung & Watkins, 2000).

Several limitations should be worth to mention in interpreting results from the current study. First, the small sample size came from one institution; 55 pre-service teachers were volunteer to take part in the research. In addition, the findings of the current study should be interpreted as the result of a pilot study. Thus, we need to be cautious about generalizability of the findings.

For future research directions, the examination of contextual variables in teacher efficacy beliefs was beyond the scope of the current research. However, previous research pointed out that school level, classroom settings, the quality of school facilities, type of school, urbanization, interpersonal support from mentor teacher are important factors that play profound impact on the development of teacher efficacy belief. Therefore, future researchers might want to scrutinize the role of these variables in prospective teachers' efficacy beliefs.

CONCLUSION

Together, the findings of this study revealed that field practicum course significantly contributed to the development of prospective physical education teachers' efficacy beliefs in given sample. In addition, the uniqueness of the current study was the presentation of the effect size. The researchers showed that the practicum course has a large magnitude of effect on the participants' efficacy beliefs. Furthermore, the results highlighted that teacher efficacy is a crucial factor in improving teacher education and promoting the effect of authentic learning experience because high teacher efficacy consistently has been found to associated with positive student outcomes and teacher behaviors.

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