

Full Length Research Paper

The effect of special teaching methods class on the level of teachers' self-efficacy perception of pre-service teacher

Meltem GÖKDAĞ BALTAOĞLU

Dokuz Eylül University, Faculty of Education, Department of Educational Sciences, İzmir, Turkey.

Received 19 February, 2015; Accepted 14 April, 2015

The purpose of this study is to evaluate the change in the level of teachers' self-efficacy perception of primary school Social Studies pre-service teachers who take the special teaching methods class. Single group pretest-posttest model from pre-experimental patterns was applied in the research. The study group of the research consisted of 59 students in third year in the spring semester of 2012-2013 Academic Year in Primary School Social Studies at Buca Education Faculty, Dokuz Eylül University. These students are those who attend the special teaching methods class in a 14 week period between February and June. Teacher Self-Efficacy Scale, prepared by Açıköz and Gökdağ, was developed to determine the self-efficacy of teachers to collect research data. Validity and reliability study was repeated by the scale researcher in 2012-2013 teaching year and applied on 652 pre-service teachers. Cronbach Alpha Reliability Coefficient is calculated for the general scale was .85. Teacher Self-Efficacy Scale, a 5 point Likert scale consisting 29 items is calculated as follows: teaching efficacy subscale coefficient of 0.94, teacher impact subscale of 0.69, student impact subscale of 0.60. The scale was applied as pretest and posttest on pre-service teachers who attended the 14-week special teaching class. The findings of research revealed that the primary school social studies pre-service teachers scored over the average in their general self-efficacy pretest, also, special teaching methods class did not lead to a significant difference on their general teacher self-efficacy perception and there was a significant difference only in student impact sub-scale basis.

Key words: Teaching vocational classes, teacher self-efficacy perception, pre-service teacher.

INTRODUCTION

Bandura suggests that one source of motivation is thoughts and predictions about possible outcomes of behavior (Woolfolk, 1998). These predictions formed through past experiences and observing others affect self-efficacy. Bandura defines self-efficacy as individuals'

judgments as to how good they are at performing the actions required to cope with potential situations. In other words, self-efficacy is linked with not how competent individuals are at their skills, but with their belief in their set of skills (Woolfolk,1998). According to Bandura, self-

E-mail: meltem.gokdag@gmail.com

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efficacy belief is affected by four basic sources; 1) Direct experiences: past successes or failures in a specific area, 2) Indirect experiences: studying other people who have similar successes or failures, 3) Social persuasion: being encouraged by others and 4) Emotional status: it is when a person is able to control his/her level of fear, anxiety and stress while studying his/her self-efficacy (Woolfolk, 1998; Aşkar and Umay, 2001). These four items are considered the strongest items playing a role in the development of sense of efficacy of a person. Information derived from the above-mentioned sources does not directly affect self-efficacy; on the contrary they are subject to an evaluation process. This evaluation is a mediating process in personal and situational factors such as the person's perceived skills, difficulty of the action, spent effort, amount of the external help, number and patterns of success and failures (Açıkgöz, 1998, Woolfolk, 1998).

According to Woolfolk, self-efficacy perception affects not only the expectations about success or failure but also the creation of the motivation required to set a target. If a person has a high self-efficacy motivation, he will have less fear of failure; set a high target for himself and act decisively in achieving these targets. He struggles with challenges he faces. In case of a failure, he does not get shaken up that much in the sense of self-efficacy and tend to keep on with his efforts. If the person has a poor self-efficacy perception, he tends to set easy targets for himself, avoids challenges, can easily give up when faced with a problem and stay away from working together with others.

According to Schunk, the sense of efficacy at the beginning of an action is usually is under the impact of general skills and past experiences. Later on, as he does the job, the feedbacks he receives play a more determining role on the self-efficacy. As students see they are making a progress, they will be motivated and the more their skills develop, the more self-efficacy develops, too. According to Bandura, the sense of self-efficacy is affected by people's own success. While success increases self-efficacy, it also decreases failure. If a strong sense of self-efficacy is developed, it does not easily get affected from failure (Açıkgöz, 1998).

Teachers' self-efficacy

Teachers undoubtedly play a big role in developing the perception of students' self-efficacy. Moreover, the teachers' self-efficacy perception is one of the important fields of studies (Bandura, 1997; Gibson and Dembo, 1984; Hoy and Woolfolk, 1993; Corkett, 2011; Bümen, 2013, Saracaloğlu, 2010; Ekici, 2009; Babadoğan and Korkut, 2010; Yenice, 2009; Saraçoğlu and Yenice, 2009; Azar, 2010; Gökdağ, 1997). Addressing the question of what teacher self-efficacy perception is, it is the belief of teachers that they can reach even the difficult learners to

help them learn (Woolfolk, 1993). Ashton defines this as a set of belief of teachers in their capacity to affect the performance of students (Bıkmaz, 2004). It is indicated that teachers with a high sense of efficacy spend more time and effort to help the difficult students at school by ignoring their learning problems, believe in themselves and their students, watch their students more closely, give more counseling and guidance during the class, use a more efficient strategy, benefit from group and cooperation studies, make sure students participate, show more enthusiasm (Açıkgöz, 1998; Santrock, 2004; Woolfolk, 1998). Also, as the feedbacks of these types of teachers for their students are more positive, the sense of students' self-efficacy will be affected positively. As for teachers with poor sense of efficacy, they do not rely on themselves in managing their class, get upset with the mistakes of the students, do not believe that students are capable of developing their skills, often apply restrictive and punitive discipline models, believe that students with poor set of skills will fail to learn. Unfortunately, they think that if they had had a second chance in life, they would not have chosen to become teachers (Santrock, 2004).

The self-efficacy perception of teachers reaching a desirable level is inarguably related with teacher training institutions. Training teachers is one of the important subjects of education and has a multifaceted and vital role in learning-teaching process (Açıkgöz, 1998). Knoblich and Hoy (2008) suggest that a teacher goes through one of the most effective experiences in the development of his belief in efficacy during the pre-service teacher process. Studying literature related with the topic, it is found that a number of researches have been done on the self-efficacy perceptions of pre-service teachers (Gibson and Dembo, 1984; Soodak and Podel, 1993; Wheatley, 2005; Tschannen-Mora and Hoy, 2001; Clift and Bradly, 2005; Lancaster and Bain, 2010). These studies usually focused on self-efficacy perception of teachers in the areas of student success, class management and time management strategies, etc. It is noted that, in Turkey, the number of studies on self-efficacy perception of pre-service teachers has increased in recent years (Atay, 2007; Çakıroğlu, 2008; Özdemir, 2008; Çakıroğlu and Bone, 2005; Tekkaya, Çakıroğlu and Özkan, 2004; Işıksal and Çakıroğlu, 2005; Ekici, 2005; Kutluca and Ekici, 2010; Uzun, Özkılıç and Şentürk, 2010; Yılmaz et al., 2006). In general, the purpose of these studies is to evaluate self-efficacy perceptions of pre-service teachers in different branches from the perspective of different variables (gender, age, alma mater, etc).

The formation classes which pre-service teachers have to take throughout their own education are believed to contribute to their positive self-efficacy perception. One of formation classes for teachers is the special teaching methods class in the third year. In this class, the pre-service teacher plans a class related with his area and chooses the methods that are suitable with his class and

presents it to his classmates. As it is a first time experience for a lot of pre-service teachers, they find the opportunity to speak in front of an audience, make sure the topic they have prepared gets heard, apply the method which is fit for the class and the topic, receive and answer criticism, and improve themselves after seeing what is missing after lecturing. Therefore, they get to experience the information they have learnt in other formation classes through this applied class. The research is needed to be done for the fact that the experiences which pre-service teachers gain during the formation classes could contribute to teachers' self-efficacy perception. In spite of the fact that there is no research to study the effects of special teaching methods class on the teacher self-efficacy perception of primary school social studies pre-service teachers, which is not only the subject matter of this study, but also the formation lessons, there is a similar study conducted by Ekici (2008). In his research, Ekici studies the effect of class management lesson which is one of the formation lessons at the teacher self-efficacy perception of pre-service teachers.

Looking at the research results, it has been suggested that the class management lesson has an important effect on improving the level of self-efficacy perception of pre-service teachers. On the other hand, the study results point out to the fact that the level of self-efficacy perception of pre-service teachers does not have any statistically significant difference in terms of gender, general academic success status and their alma mater high school. In the light of the researches, this research is believed to contribute to the literature.

Purpose of the study

The purpose of this study is to evaluate the change in the level of self-efficacy perception of Primary School Social Studies pre-service teachers who take the special teaching methods class. In accordance with this purpose, it has been studied: a) what is the impact of special teaching methods class on pre-service teachers' level of teacher self-efficacy perception? b) Is there a significant difference in the level of teacher self-efficacy perception of pre-service teachers before and after they take the special teaching class?

METHODOLOGY

Research model

In this research, single group pretest-posttest model from pre-experimental pattern was applied. According to Karasar (1994), in single group pretest-posttest model, independent variable is applied to a randomly-selected group and there are both pre-experimental (pretest) and post-experimental (posttest) assessments. The symbolic look of this model is as follows:

G1 O11 X O12

(Karasar, 1994)

In this study, in order to evaluate the change in the level of self-efficacy perception of pre-service teachers through the special teaching methods, teacher self-efficacy scale was applied to 89 students at the beginning of the period as a pretest. The pre-service teachers attended special teaching methods class 4 h a week, 56 h in total during a period of 14 weeks. Teacher self-efficacy scale, which was applied to pre-service teachers as a pretest before starting the class, was applied as a posttest again at the end of a 14-week class. It was determined whether there was a difference or not between both assessments.

The study group

The study group of the research consisted of 89 students who were third graders of Primary School Social Studies Department at Buca Education Faculty, Dokuz Eylül University in spring semester in 2012-2013 Academic Year. However, 59 students were left in the research after eliminating those who failed to take either pretest or posttest, did not give complete answers or failed to write a nickname.

32 (%54.2) of the study group are female and 27 (%45.8) of them were male pre-service teachers. These students were those who took special teaching methods class in a period of 14 weeks between February and June.

Data collection tool

To collect research data, a 5 item Likert type was used. "Teacher Self-efficacy Scale" prepared by Açıkgöz and Gökdağ was developed to establish the self-efficacy of teachers. The scale was applied again on 652 pre-service teachers to get proofs regarding factorial structure validity in 2012-2013 Academic Year by the researcher. At the end of the analyses, it was established that the scale consisted of 29 items and 3 subscales. Cronbach Alpha and two semi reliability coefficient of the subscale in which these factors were formed are provided in Table 1.

The highest score pre-service teachers could get from this scale is 145.00 (29x5), and the lowest is 5.00 (5x1). The general average of this scale was $X=87.00$, average of teaching efficacy sub-scale which was one of the sub-scale was $X=51.00$; scale average of teacher's impact was $X=15.00$; and the scale average of student's impact was $X=21.00$. The same assessment tool was applied again as a posttest to pre-service teachers who attended 14 week special teaching class.

Lecturing

The research was carried out with students who attended the special teaching methods class over a period of 14 weeks in total between February and June in spring semester of 2012-2013 Academic Year. Teachers' self-efficacy scale was applied as a pretest to students at the beginning of the semester. During the first seven weeks, the researcher had talked about social studies teaching program, vision and structure of the program, efficient learning approaches, teaching strategies, class planning, class introduction activities, several methods and techniques used in Social Studies class in an applied manner. During the remaining weeks, the students formed small groups and selected a unit from Social Studies lesson listed by the researcher, presenting a lecture they planned in a time span of 15 to 20 min to their classmates. Within this time, researcher guided the students during the planning phase. At the end of lecture presentation of each group, in-class observation scale was distributed to students who watched the

Table 1. Results of the reliability study of subscales of teacher self-efficacy scale.

	Subscales	Number of articles	Cronbach's Alpha
Self-efficacy	Teaching efficacy	17	0.94
	Teacher's impact	5	0.69
	Student's impact	7	0.60
All of them		29	.85

Table 2 Distribution of points scored by pre-service teachers on self-efficacy scale.

Dimensions of the scale	Groups	N	X	Ss
General Scale	Pretest	59	105.48	11.32
	Posttest		105.60	2.10
Teaching Efficacy	Pretest	59	64.97	7.65
	Posttest		63.84	7.43
Teacher's Impact	Pretest	59	13.03	2.62
	Posttest		12.86	2.69
Student's Impact	Pretest	59	21.12	3.39
	Posttest		22.75	3.71

class and had been asked to evaluate their classmate who presented the lecture. Later on, a discussion atmosphere was created in which the researcher was also included so that they could verbally criticize their classmate. At the end of the semester teacher self-efficacy scale was applied again as a post test.

RESULTS

This part will feature the findings. The distribution of self-efficacy points of pre-service teachers are provided in Table 2.

According to Table 2, arithmetic average of pretest scores of pre-service teachers based on the self-efficacy scale is $X=105.48$, and arithmetic average of the posttest was calculated to be $X=105.60$. It is also possible to say that pre-service teachers scored higher than the scale average ($X=87.00$) in pretest and posttest. It is found that the arithmetic average (pretest $X=64.97$ and posttest $X=63.84$) which pre-service teachers scored on teaching efficacy sub-scale was higher than this scale's average ($X=51.00$). Moreover, the arithmetic average (pretest $X=13.03$ and posttest $X=12.86$) scored on the teacher impact sub-scale was found lower than this scale's average ($X=15.00$). Finally, arithmetic average (pretest $X=21.12$ and posttest $X=22.75$) of student impact sub-scale was found higher than this scale's average ($X=21.00$).

It is stated that there was an increase in the general average of teacher self-efficacy scale and student's impact sub-scale; however, there was a decrease in the arithmetic average of teaching efficacy and teacher's impact sub-scale.

To see whether the differences between the scale

averages were significant or not, t-test, which is provided in Table 3, was applied.

Studying Table 2 and the pretest and posttest scores of pre-service teachers concerning the level of teacher self-efficacy perception, there was no significant difference in the general score average of the scale and teaching efficacy and teacher's impact from the subscales. On the contrary, there was a significant difference in the level of student's impact ($t(58)=-3.2$, $P<0.05$).

DISCUSSION

Looking at the general self-efficacy perception of pre-service teachers, it is stated that both pretest and posttest averages are higher than the scale average. This result runs parallel to the study conducted by Ekici (2008). Also, in the field literature it is possible to encounter research findings which suggest that self-efficacy perception of pre-service teachers are positive (Oğuz, 2012; Güven and Ersoy, 2007). However, it is observed that there is a decrease in score averages in sub-scales of teaching efficacy and teacher's impact of teacher self-efficacy scale. Even though this result is not enough to make a significant difference, it has some similarities with studies conducted by Woolfolk et al. (2005), Şahin and Atay (2010). In both researches, it is emphasized that practicing in a real class atmosphere in the early years of teaching and failing in these early experiences may compromise the self-efficacy perception. Bümen (2013) claims that by observing pre-service teachers, peers or colleagues, comparing themselves with persons they observe that their teaching efficacy perception may change and that may have boosted their

Table 3. T-test comparison of pretest and posttest scores of pre-service teacher concerning teacher self-efficacy perception level.

Scale dimension	Groups	N	X	Ss	Sd	T	P
General Scale	Pretest	59	105.48	11.32	58	-.082	
	Posttest		105.60	12.10			
Teaching Efficacy	Pretest	59	64.97	7.65	58	1.046	
	Posttest		63.84	7.43			
Teacher Efficacy	Pretest	59	13.03	2.62	58	.425	
	Posttest		12.86	2.69			
Student Efficacy	Pretest	59	21.12	3.39	58	-3.197	.002 Significant Difference
	Posttest		22.75	3.71			

perception, this process may have made an opposite effect in this research and observing peers may have affected their self-efficacy perceptions negatively. It is estimated that special teaching methods class is an interactive process that is not similar to way lectures are given in other classes. Having others join the class, making sure they listen, preparing a good lecture plan, watching, criticizing, being criticized about how lectures are given, getting excited and being inexperienced (Woolfolk and Spero, 2005) would cause a decrease in pre-service teachers' self-efficacy scores. Also, as the vocational information of a pre-service teacher increases, the person could realize that their occupation would be more difficult than they used to think of.

A significant difference has been identified at student's impact sub-scale of self-efficacy scale. At this sub-scale, there are articles which lead pre-service teachers to reach their students and improve their success when they become professional teachers. As pre-service teachers experience lecturing to their own classmates instead of in a real class atmosphere, they may have developed their sense of efficacy due to having gone through the process in a more relaxed manner, as Bümen (2013) suggested, witnessing all stages of lecturing and practicing it, and the classes taken during undergraduate studies contribute to support the teaching job in the first year and consequently, the results may turn to be different at a significant level.

As a result, teachers with high self-efficacy perception are needed for an efficient education. The responsibility of teacher training institutes increase as teachers with high self-efficacy may increase the success of the student in even disadvantaged environments. According to the result of this study, the following may be recommended for the researchers of this field: This study which was applied to the students of Primary School Social Studies Department may also be conducted on pre-service teachers studying other branches and results can be discussed. The effects of other formation lessons on the self-efficacy perception of pre-service teachers may also be studied. For further research, special teaching methods lessons which the third grader undergraduates have, and teaching application lessons

which the fourth grader pre-service teachers would take could be discussed and the former results can be compared with the latter ones.

Conflict of Interests

The author has not declared any conflict of interests.

REFERENCES

- Açıkgöz KÜ (1998). Etkili Öğrenme ve Öğretme İzmir: Kanyılmaz Matbaası. İzmir.
- Atay D (2007). Beginning teacher efficacy and the practicum in an EFL context. *Teacher Development* 11,(2):203-219.
- Aşkar P, Umay A (2001). İlköğretim matematik öğretmenliği öğrencilerinin bilgisayarla ilgili öz-yeterlik algısı. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 21:1-8.
- Azar A (2010). Ortaöğretim fen bilimleri ve matematik öğretmeni adaylarının öz-yeterlik inançları. *Teacher Development*, 11(2):203-219.
- Babadoğan E, Korkut K (2010). Sınıf öğretmenlerinin öz-yeterlik inançları ile sınıf yönetimi beceri algıları arasındaki ilişki. *İnönü Üniversitesi Eğitim Fakültesi Dergisi* 1(11):1-19.
- Bandura A (1997). Self-efficacy: The Exercise of Control. W.H. Freeman and Company, New York.
- Bıkmaz HF (2004). Eğitimde Bireysel Farklılıklar. Nobel yayın no:627. Eğitim yayınları dizi No:186.1. Baskı.
- Bümen NT, Özyayın TE (2013). Adaylıktan Göreve Öğretmen Özyeterliliği ve Öğretmenlik Mesleğine Yönelik Tutumlardaki Değişimler. *Eğitim ve Bilim*. 38 (169):109-125.
- Çakıroğlu E (2008). The teaching efficacy beliefs of pre-service teachers in the USA and Turkey, *Journal of Education for Teaching: Int. Res and pedagogy*. 34(1):33-44.
- Çakıroğlu J, Çakıroğlu E, Bone WJ (2005). Pre-service teacher self-efficacy beliefs regarding science teaching: A comparison of pre-service teachers in Turkey and the USA. *Science Educator* 14(1):31-40.
- Clift RT, Brady P (2005). Research on methods courses and field experiences. In M. Cochran-Smith, & K. M. Zeichner (Eds.), *Studying teacher education: The report of the AERA panel on research and teacher education*, 309-424.
- Corkett J, Halt B, Benevides T (2011). Student and teacher self-efficacy and the connection to reading and writing. *Canadian J. Educ.* 34(1):65-98.
- Ekici G (2005). Eğitim fakültesi öğrencilerinin öğretmenlik öz-yeterlik inançlarını etkileyen faktörler. XIV. Ulusal Eğitim Bilimleri Kongresi, Pamukkale Üniversitesi Eğitim Fakültesi, Denizli.
- Ekici G (2008). Sınıf yönetimi dersini öğretmen adaylarının öğretmen öz-yeterlik algı düzeyine etkisi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi* 35:98-110.

- Ekici G (2009). Biyoloji Öğretmenlerinin Laboratuvar Kullanımı Öz-Yeterlik Algılarının İncelenmesi. *Ahi Evran Üniversitesi Eğitim Fakültesi Dergisi*, 10(3):25-35.
- Gibson A, Dembo M (1984). Teacher efficacy: a construct validation. *J. Educ. Psychol.* 76(4):569-582.
- Güven B, Ersoy E (2007). Sınıf öğretmeni adaylarının Hayat Bilgisi ve Sosyal Bilgiler Öğretimi-I dersine ilişkin öz yeterlik algıları ve bilişsel tutumlarının belirlenmesi. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, 21:15-32.
- Hoy WK, Woolfolk AE (1993). Teachers' sense of efficacy and the organizational healthy of schools. *Elementary School J.* 93:356-372.
- Isıksal M, Cakiroglu E (2005). Teacher efficacy and academic performance. *Academic Exchange Quarterly* 9(4): 28-32.
- Karasar N (1994). *Bilimsel araştırma yöntemi: Kavramlar, ilkeler, teknikler*. Ankara: 3A Araştırma Eğitim Danışmanlık Ltd.
- Knoblauch Dee, Anita Woolfolk Hoy (2008). "Maybe I can teach those kids." The influence of contextual factors on student teachers' efficacy beliefs." *Teach. Teacher Educ.* 24(1):166-179.
- Kutluca T, Ekici G (2010). Öğretmen adaylarının bilgisayar destekli eğitime ilişkin tutum ve öz-yeterlik algılarının incelenmesi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi* 38:177-188.
- Lancaster L, Bain A (2010). The design of pre-service inclusive education courses and their effects on self-efficacy: a comparative study, *Asia-Pacific J. Teacher Educ.* 38(2): 117-128.
- Oğuz A (2012). Sınıf öğretmeni adaylarının akademik özyeterlik inançları. *Anadolu Journal of Educational Sciences International* 2(2):15-28.
- Özdemir SM (2008). Sınıf öğretmeni adaylarının öğretim sürecine ilişkin özyeterlik inançlarının çeşitli değişkenler açısından incelenmesi. *Kuram ve Uygulamada Eğitim Yönetimi* 54: 277-306.
- Santrock JW (2004). *Educational psychology*, (2nd ed). New York: McGraw-Hill.
- Saracaloğlu AS, Yenice N (2009). Investigating the Self-Efficacy Beliefs of Science and Elementary Teachers with Respect to Some Variables, *J. Theory and Practice in Educ.* 5(2):244-260.
- Saracaloğlu AS, Karasakaloğlu N, Gencel İ, E (2010). Türkçe öğretmenlerinin özyeterlik düzeylerinin çeşitli değişkenlere göre incelenmesi. *Elektronik Sosyal Bilimler Dergisi* 33:265-283.
- Soodak LC, Podell DM (1993). Teacher efficacy: Toward the understanding of multi-faceted construct. *Teaching and Teacher Educ.* 12: 401-411.
- Şahin FE, Atay D (2010). Sense of efficacy from student teaching to the induction year. *Procedia Social and Behavioral Sci.* 2:337-341.
- Tekkaya C, Cakiroglu J, Ozkan O (2004). Turkish pre-service science teachers' understanding of science, and their confidence in teaching science. *J. Educ. Teach.* 30: 57-66.
- Tschannen-Moran M, Woolfolk Hoy A (2001). Teacher efficacy: capturing an elusive construct. *Teach. Teacher Educ.* 17: 783-805.
- Uzun A, Özkılıç R, Şentürk A (2010). A case study: Analysis of teacher self-efficacy of pre-service teacher. *Procedia Social and Behavioral Sci.* 2:5018-5021.
- Yenice N (2009). Factors That Affect Teacher Candidates' Attitudes and Successes Towards Biology, *Procedia Social and Behavioral Sciences* 1:1372-1377.
- Yılmaz M, Köseoğlu P, Gerçek C, Soran H (2006). Hacettepe üniversitesi biyoloji öğretmen adaylarının bilgisayarla ilgili özyeterlik inançlarının incelenmesi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi* 30: 278-287.
- Woolfolk AE (1998). *Educational Psychology* (7th ed.). Allyn and Bacon.
- Woolfolk Hoy A, Burke Spero R (2005). Changes in teacher efficacy during the early years of teaching. *Teach. Teacher Educ.* 21: 343-356.
- Wheatley KF (2005). The case for reconceptualizing teacher efficacy research. *Teach. Teacher Educ.* 21:747-766.