



EXAMINATION OF THE SELF-EFFICACY OF TEACHER CANDIDATES IN KOSOVO REGARDING TEACHING PRINCIPLES AND METHODS

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Abstract:

In teacher qualifications, skills in teaching principles and methods are important. High self-efficacy prospective teachers are able to solve the problems they face more easily when they start their profession. This study aims to examine the self-efficacy of the teacher candidates on teaching principles and methods. The universe in study is teacher candidates who are students at a university in Kosovo. The results of the research are based on the applied self-efficacy scale data. For the other sub-questions, the Mann-Whitney U test was used for the variables with the non-parametric tests, while the Kruskal-Wallis test was used for those two values. As a result, the self-efficacy levels of teacher candidates are related to teaching principles and methods are positive and moderate. Teacher candidates vary in their self-efficacy according to gender, course taking, seminar attendance, and ethnicity. The departments of the teacher candidates also affect their self-efficacy.

Keywords: self-efficacy, prospective teacher, teaching principles and methods

1. Introduction

In the entire world, the quality of education is the main problem of all countries. Numerous sources and facilities are employed to obtain outputs expected from education. It has become an irrefutable fact that the success of the education system depends on the nature and quantity of the teachers who will run the system. There are many factors affecting the quality of the teachers and the most important of them is the pre-service education that they receive.

According to the results of the OECD study, many governments have difficulties in maintaining appropriate high quality teaching outcomes, so that motivation, desire, and early career development of teachers become the focus of the rapidly developing

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research field (Watt & Richardson, 2008). At the same time, it has been recognized by governments around the world that quality teachers play a central role in the development and maintenance of a smart, knowledgeable citizen (Bilim, 2014). Teacher candidates' proficiency and attitudes towards the teaching profession have an important place in the training of teachers (Çapri & Çelikkaleli, 2008).

A large number of studies show that there is a close relationship between student achievement and teachers' knowledge, skills and practices (Guyton & Farokhi, 1987; Hawk, Coble, & Swanson, 1985; Ross, 1992). According to Levin (2003), teachers' qualifications are the most important factor in improving students' learning. Effective teachers know content, how students learn, how to create and teach a lesson plan, how to meet the needs of students, and how to handle these needs. A teacher's role can be listed as: modeling teacher group, leadership, information source, mediator, coach, evaluator, educator, parent, guide teacher, advisor and consultant (Ceylan & Turhan, 2010). For this reason, what teachers know and apply has a great importance on what learners can learn (Altıkulaç & Uslu, 2015a).

These advantages do not guarantee quality teachers unless the beliefs and motivations of pre-service teachers are recognized. Unfortunately, teacher educators, policy makers, and authorities have missed the values, beliefs, and motivations of those entering the teacher training programs for a very long time and have not adequately explored how teachers will lead their professional involvement and career development (Feiman-Nemser, 2001). From this point of view, it can be argued that perceptions of prospective teachers influence their professional work, their development and the quality of their work (Bilim, 2014). Knowledge includes disciplinary content, subject knowledge, and pedagogical content knowledge or how to teach (Chong, Wong, & Lang, 2005).

2. Teacher Education

There is no unique and only way of educating teachers for all countries and all times. However, there is a general understanding of qualifications for teacher education. For example, there is no doubt that the teacher should have pedagogical knowledge. Pre-service teacher education usually provides the first step in the professional development of teachers. In addition to exposing teacher candidates to new perspectives, they prepare them for knowledge and skills (Chong et al., 2005). There have been many studies and discussions about the competencies and efficacies that teachers should have. All the suggestions presented argue that the teacher should have pedagogical knowledge. Pedagogical knowledge in the presented models includes knowledge of teaching principles and methods (Cox & Graham, 2009; Ertmer, 2005; Gudmundsdottir & Shulman, 1987; Koh, Chai, & Tsai, 2010; Mishra, Koehler, & Henriksen, 2011). Many different courses are offered in undergraduate education for teacher candidates in order to acquire the knowledge and competencies related to teaching principles and methods.

Courses taught in teacher education in Kosovo resemble the European Countries like as Finland, Denmark. Because the lesson programs used were developed with the

support of the mentioned countries. Therefore, the programs and courses are similar to those in Turkey. The lessons usually include pedagogy and psychology lessons as well as compulsory subject courses. Introduction to Educational Science is a theoretical introduction to the educational sciences and teaching profession, aimed at recognizing that teacher candidates are generally professionally knowledgeable and knowledgeable. For this reason, performance indicators for the learning-teaching process are not expected to overlap with the behavior of this course (MASHT, 2018)

Educational Psychology is a course that provides an overview of the individual's physical, cognitive and personality development and learning process in terms of different learning theories. It can be said that the aims of the course also contribute to the development of the teacher-trained skills of teacher candidates.

When examining the general purpose and sub-objectives of the Principles and Methods of Teaching (Planning and Evaluation in Teaching), it seems that the lesson covers a lot of adequacy for the planning and implementation of the learning-teaching process in general.

The content of measurement and evaluation course, basic concepts of measurement and evaluation, measurement tools used in education, qualifications that these tools should have, test development, basic statistics and evaluation process.

Classroom management includes classroom management approaches and models, the relationship of global and national influences to classroom management, the effects of learning theories and the dimensions of classroom management. All of these lessons are important for gaining the knowledge and competence of the teacher candidates about teaching principles and methods and they are effective in the development of proficiency beliefs (Kara & Sağlam 2014).

It is of utmost importance that the content, scope and objectives of teacher education programs reach prospective teachers studying in education faculties. It is also important that the beliefs of the teacher candidates reach the goals of the undergraduate program (Altıkulaç, 2015). How rich or severe theoretical or practical knowledge is given in undergraduate education can only be observed in the process of conducting their profession. There are many factors that can affect teachers' learning and teaching skills in the educational process. One of them is the belief about the competences that should be possessed (Altıkulaç, 2015).

3. Self-Efficacy

The conceptualization of teacher self-efficacy belief is based on the social cognitive theory and the self-efficacy theory of Bandura (1977, 1997). Bandura has defined perceived self-efficacy as 'the beliefs about organizing the activities that individuals need to perform and about the potential for successful conclusion'. Bandura suggested that self-efficacy beliefs are powerful predictors of behavior. Such beliefs affect how people choose to pursue action procedures, how much effort they will expend in the given effort, and how long they will continue in the face of obstacles and failure. According to Bandura's theory, behavior is based on two sources: outcome expectations

and self-efficacy expectations. It is believed that the self-efficacy expectations can be defined as successful application of the behavior required to produce the results, while the outcome expectation is defined as a prediction of how a person's behavior will cause certain outcomes (Gencer & Cakiroglu, 2007; Schunk, 1981).

Self-efficacy beliefs often appear in relation to special areas. One of the most important of these special areas is teacher self-efficacy. Teacher self-efficacy is an important structure in teacher education, and it is very important to determine how teachers develop self-efficacy, what constitutes them, which factors contribute to strong and positive teacher efficacy, and how and which professional development programs should be developed to improve a high level teacher efficacy (Pajares, 1997).

According to Bandura (1997), people with high self-efficacy beliefs do not run away from the experiences they have recently met and are struggling with, and are very determined to complete their actions successfully. Individuals with low self-efficacy beliefs experience more tension, stress, and dissatisfaction than individuals who have strong self-efficacy beliefs during the performance of certain tasks (Çapri & Çelikkaleli, 2008). With similar thinking, teacher candidates who graduate with a low efficacy tend to be reoriented, have a pessimistic view towards student motivation, and use temporary awards and penalties to ensure that students work according to strict classroom regulations (Altıkulaç & Uslu, 2015a).

Teachers' self-efficacy beliefs affect both student achievement and their professional achievement (Bandura, 1993; Guskey, 1988; Midgley, Feldlaufer, & Eccles, 1989). Teachers' self-efficacy beliefs contribute significantly to the academic achievement of students and their job satisfaction (Altıkulaç & Uslu, 2015a). In other words, it seems that self-efficacy is the result of one's decisions about success using one's own abilities rather than a function of one's own abilities (Azar, 2010). Among new teachers who spend little time in the classroom, self-efficacy is actualized by combining factors such as classroom experiences and skills, content and pedagogy, attitudes and personal tendencies (Jamil, Downer, & Pianta, 2012).

Research on teachers' self-efficacy belief focuses on three areas in particular. The first area is the discovery of the relationship between efficacy beliefs and its effect on occupational choice process (especially within the fields of mathematics and science). The second area is the discovery of academic performance, achievement and other motivational structures (goal formation, modeling, problem solving, anxiety, reward, self-regulation, various academic performances, etc.) that researchers find relevant to students' self-efficacy beliefs. The third area is the discovery of the relationship between teachers' self-efficacy beliefs and research findings on educational practices and various student outcomes (Çapri & Çelikkaleli, 2008).

4. Teacher Education in Kosovo

Significant changes in the system of teacher education in Kosovo have been made in 2002 with the support of the Kosovo Ministry of Education, Science and Technology KEDP (Kosova Education Development Project; Çelik, 2009). After the war that took

place in 1999, when Kosovo was planning a transition to a new education system, changes were made in the curricula, the education system and the textbooks in line with the teacher education program changes. In 2002 with the support of the Canada along with KEDP, FSDK (Finland), Save the Children (Denmark) and other governments' organizations, educational institutions such as the Teachers' College in Pristina University (1997-2002), the Higher Pedagogy School in Prishtina (1958-2002), the Higher Pedagogy School in Prizren (1962-2002), the Higher Pedagogy School in Yakova (1967-2002), and the Higher Pedagogy School in Gilan (1973-2002) were transferred to universities (Yildirim, 2011). The Faculty of Education within the University of Pristina and other education faculties under the University of Pristina in other cities were established. These faculties gradually departed from the University of Pristina and continue their teaching under the universities established in their cities.

Teachers in Kosovo are educated only in public universities by the educational laws. Candidates studying in the Education Faculties of Universities in Kosovo (Prishtina "Hasan Prishtina", Prizren "Ukshin Hoti", Yakova "Fahmi Agani", Gilan "Kadri Zeka", and Mitrovica "Isa Boletini") continue their education in early childhood education, primary teaching education, and in other fields for elementary education (grades 5-9). Of all these universities, only Prizren "Ukshin Hoti" University offers undergraduate program in three different languages (Albanian, Turkish, and Bosnian). Thus, this university educates teachers for institutions providing Turkish and Bosnian education besides Albanian education at the level of preschool, primary school (grades 1-5) and middle school (grades 6-9) in the educational system of Kosovo. Teacher candidates receive a Bachelor's degree with 240 ECTS credits for 8 semesters. During the education period, 22 weeks internship work is done. Teacher candidates are interns in grades 2, 3 and 4 of the university. The Faculties of Philosophy, Philology, Mathematics and Science are the academic faculties of the University of Prishtina who educate teachers for high schools and vocational high schools.

5. Literature Review

Research on the measurement of self-efficacy of teacher and teacher candidates has always been kept up to date in the field of education for many years. There are also studies that measure the self-efficacy of teaching a certain subject (Akkoyunlu & Kurbanoglu, 2003; Kuzu, 2015; Morgil, Seçken, & Yücel, 2004; Wang, Ertmer, & Newby, 2004) besides the studies that generally measure teacher candidates' self-efficacy (Kula & Taşdemir, 2014; Lin, Gorrell, & Taylor, 2002; Sak, 2015). In the studies, whether the gender (Altıkulaç & Uslu, 2015a; Kula & Taşdemir, 2014; Sak, 2015), the undergraduate programs they continue (Kula & Taşdemir, 2014), the high school type they graduated (Altunçekic, Yaman, & Koray, 2005; Kuzu, 2015) or an education they received (Arsal, 2014; Moseley, Reinke, & Bookout, 2002) had an effect or not. A summary from these researches will be presented below.

In the study on teacher candidates in the USA and Taiwan, the pre- and post-training self-efficacy of teachers was measured. Teacher candidates in both countries

have higher self-efficacy at the end of training when compared to the beginning of the training. In the comparison of the beginning and end of the process, US teacher candidates have higher self-efficacy beliefs than teacher candidates in Taiwan (Lin et al., 2002).

At the end of the training to improve the self-efficacy beliefs about the technology integration of the teacher candidates, teacher candidates' self-efficacy beliefs have been developed (Wang et al., 2004).

A study was conducted to compare self-efficacy beliefs on science class of teacher candidates in Kastamonu Faculty of Education early childhood program. According to the results of the study, it was observed that teacher candidates of Science, Mathematics and Primary school candidates differed significantly in the self-efficacy beliefs about science teaching. It was determined that the high school types and genders of the candidates did not have a significant effect on the self-efficacy beliefs in science teaching (Altunçekiç et al., 2005).

In the study conducted by Cakiroglu (2008), self-efficacy of teachers in the US and Turkey were compared. According to the results of the study that compared the self-efficacy of teachers on mathematics teaching, prospective teachers in the two countries have positive self-efficacy beliefs (Cakiroglu, 2008a). Another study was conducted by Çapri and Çelikkaleli (2008) on teacher candidates who are studying at technical education and education faculties. In terms of gender variable, it has been determined that professional qualification beliefs of teacher candidates differ significantly in favor of female teacher candidates. In addition, the beliefs of professional qualification differ according to the programs in which teacher candidates continue.

According to the results of the research on the teacher candidates who are studying in undergraduate programs at İnönü University Faculty of Education, based on the gender variable, it has been determined that the self-efficacy beliefs of the teacher candidates differ significantly in the instructional strategies and the classroom management subscales and in the overall scale, but not in the student participation subscale. When the groups' arithmetic averages are examined, it is seen that the male teacher candidates perceive themselves more adequately in both the sub-scales of the self-efficacy scale and in the sum as compared to the female teacher candidates. Based on the program variable, the beliefs of the prospective teachers about their self-efficacy differ significantly in the classroom management sub-scales and in the overall scale. When the arithmetic averages of the groups are examined, it is seen that the teacher candidates who are educated in the social areas perceive themselves more sufficient than the teacher candidates who are studying in the fields of science and mathematics. According to the scores of the self-efficacy scale, the teachers who are studying in Turkish, Social Sciences, Music and Art-Teaching programs perceive themselves more sufficient than the teachers who are studying in the programs of Primary school Teaching, Preschool Teaching and Elementary Mathematics Teaching programs (Demirtaş, Cömert, & Özer, 2011).

The self-efficacy levels of teacher candidates were investigated by Kula and Tasdemir (2014) in their study with Ahi Evran University students. The academic self-efficacy levels of the prospective teachers in the study are high in cognitive applications and technical skills sub-scales; but the academic self-efficacy levels in social status sub-scales are lower. In addition, there was statistical significance in favor of females in terms of mental applications while there was no gender effect in the academic self-efficacy dimension. As for the effects of the programs they attend, there is no significant difference in the social status and technical skill sub-scales, while the difference in the mental applications sub-scale is statistically significant (Kula & Tasdemir, 2014). The effect of microteaching practices on teacher candidates' self-efficacy was investigated. According to the results of the research, it has been determined that the teacher candidates in the experimental group showed a statistically significant improvement in terms of self-efficacy in teaching compared to the control group. In addition, the results stressed that the microteaching have a positive effect on developing self-efficacy of prospective teachers in teaching (Arsal, 2014).

According to the results of the study on preschool prospective teachers, a significant difference between male and female participants was found in overall self-efficacy beliefs scale and classroom management subscale. However, the difference between male and female participants' self-efficacy in student participation and instructional strategy sub-scales was not statistically significant (Sak, 2015). In the study conducted by Altıkulaç and Uslu (2015), the self-efficacy of social studies teacher candidates on teaching and learning was investigated. According to the results of the research, the female teacher candidates and the evening education students have a more positive belief.

According to the results of the study conducted by Kuzu (2015), it is seen that the teacher candidates have a value above the average of teaching principle and methods self-efficacy scores. That is, self-efficacy levels of prospective teachers showed a tendency in the positive direction. All the sub-scales (Basic Concepts Knowledge, Program Development Process Knowledge, Learning-Teaching Approaches Knowledge, Teaching Principles and Methods Explanation Knowledge, Teaching Principles and Methods Application Knowledge and Planning Knowledge) of self-efficacy of teacher candidates do not show statistically significant differences according to gender. In other words, it can be said that the teaching principle and methods (TPM) self-efficacy levels of female and male teacher candidates are the same. The scores of teacher candidates participating in the research in all the sub-scales of the TPM self-efficacy scale (Basic Concepts Knowledge, Program Development Process Knowledge, Learning-Teaching Approaches Knowledge, Teaching Principles and Methods Explanation Knowledge, Teaching Principles and Methods Application Knowledge and Planning Knowledge) and their status of taking TPM course showed statistical significance.

Generally summarized, self-efficacy beliefs are an important predictor of teacher candidates' future professional achievement. In many studies, gender variable appears to be a factor affecting self-efficacy. In addition, the types of programs that teacher

candidates attend are affecting their self-efficacy beliefs in many sub-scales. The study also seeks to determine the self-efficacy of teacher candidates who are studying in Kosovo. In this context, answers to the following research questions will be sought:

- 1) At what level is their self-efficacy in general?
- 2) Do their self-efficacy vary according to their gender?
- 3) Do their self-efficacy vary according to whether they have taken courses related to the teaching principles and methods?
- 4) Do their self-efficacy vary according to whether they have taken the course/training?
- 5) Does their self-efficacy vary according to their ethnic origin?

6. Methodology

The study in which quantitative approach is used is a screening model. It is attempted to determine what the current situation is in the study. The event, individual or object that is subject to the investigation was tried to be defined within its own conditions. The important thing is to appropriately observe and determine what the subject of the research is (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2013). This study tried to determine the self-efficacy of the teacher candidates regarding teaching principles and methods. It will also be examined whether self-efficacy has varied according to different demographic characteristics.

6.1 Data Collection Tools

A self-efficacy scale regarding teaching principles and methods was used as the data collection tool and was developed by Kuzu and Demir (2015). According to the factor analysis, the scale consists of 6 factors and 33 items (Table 1). Factors explain 67% of the total variance. The Cronbach Alpha coefficient (α) of the scale is .95, and the reliability coefficient for the factors of the scale ranges from 85 to 91 (Kuzu & Demir, 2015). The Turkish form of the scale was applied directly to Turkish students.

In the process of translating the scale to Albanian, it was first translated from Turkish to Albanian. Afterwards, two lecturers who are specialists checked the translation and the necessary corrections were made. This form of the scale as translated from Albanian into Turkish by another language expert and the translations were compared. In this way, the language and content validation were provided. Later, the reliability study was done again. The Cronbach Alpha coefficient of the scale was calculated as 0,957 for the Turkish form and 0,951 for the Albanian form. It can be said that the scale is appropriate for the sample.

Table 1: Sub-scales and Item Counts of the Scale

Acronym	Sub-scale	Number of Items
BCK	Basic Concept Knowledge	4
PDPK	Program Development Process Knowledge	9
LTAK	Learning-Teaching Approaches Knowledge	6
TPMEK	Teaching Principles and Methods Explanation Knowledge	5
TPMAK	Teaching Principles and Methods Application Knowledge	6
PK	Planning Knowledge	3

6.2 Universe and Sampling

The study covers grades 3 and 4 in faculties from which teachers graduate at Ukshin Hoti University. After the questionnaire data entry was made, the analytical suitability was examined and 368 questionnaires were used. Of the participants, 259 (70.2%) were female and 110 (29.8%) were male. In addition, 96 of the participants were Turkish and 73 were Albanian. Distribution of the participants according to the departments was primary school teacher (170), faculty of computer science (63), preschool teachers (63), economy (72).

6.3 Data Analysis

Firstly sub-scale score calculations were done. Then a Shapiro-Wilk test was performed to determine if there was normal distribution for each sub-scale. According to the test results, it was found that each sub-dimension did not have normal distribution because of $p < 0,05$ (Field, 2009). For the first sub-question, mean and standard deviation for each sub-scale and the whole scale were determined. In addition, the following formula has been used to convert the averages to percentiles.

$$Percentile = [(x̄ - \text{min score}) / (\text{max score} - \text{min score})] \times 100$$

For the other sub-questions, the Mann-Whitney U test was used for the variables with two values from the non-parametric tests, while the Kruskal-Wallis test was used for those with more than two values (Pallant, 2007). Statistical significance level was accepted as 0.05.

7. Findings

In the presentation of findings, findings about the general condition of the teacher candidates will be presented first. Subsequently, findings on gender, course taking, participation in seminars, and whether the self-efficacy has varied according to the departments they are attending will be presented.

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Table 2: Self-efficacy Means and Percentages of Teacher Candidates by Sub-scales

	N	Min	Max	Mean	Sd	%
BCK	368	4	20	15,05	3,47	69,0
PDPK	368	9	45	29,33	7,56	56,5
LTAK	368	6	30	22,65	5,06	69,4
TPMEK	368	6	25	19,03	4,13	70,1
TPMAK	368	10	30	23,83	4,53	74,3
PK	368	3	15	12,06	2,55	75,5
Total	368	38	165	121,94	27,29	67,4

In general, it can be said that the self-efficacy of teacher candidates is positive and moderate. In the sub-scales, the highest percentage rate was 75.5% with planning knowledge. Later, respectively, Teaching Principle and Methods Application Knowledge was 74.3% and Teaching Principles and Methods Explanation Knowledge was 70.1%. Also, Teaching-Learning Approaches Knowledge was 69.4% and Basic Concepts Knowledge was 69%, while Program Development Process Knowledge was 56.5%.

Table 3: Self-efficacy by Gender, Significance

	Gender	N	Rank Mean	Mann-Whitney U	p
BCK	Female	258	193,01	11995,50	0,018*
	Male	110	164,55		
	Total	368			
PDPK	Female	258	188,14	13250,50	0,314
	Male	110	175,96		
	Total	368			
LTAK	Female	258	189,52	12895,50	0,165
	Male	110	172,73		
	Total	368			
TPMEK	Female	258	186,94	13561,50	0,499
	Male	110	178,79		
	Total	368			
TPMAK	Female	258	190,19	12722,00	0,115
	Male	110	171,15		
	Total	368			
PK	Female	258	188,64	13122,00	0,247
	Male	110	174,80		
	Total	368			

*p<0,05 statistical difference.

The Mann-Whitney U test was used to determine whether the difference between the self-efficacy scores of male and female teacher candidates was statistically significant. In the test result, the difference in the sub-scale of Basic Concept Knowledge was statistically significant whereas the difference in the other sub-scales was not statistically significant.

Table 4: Self-efficacy by Course Taking Status, Significance

	Course Taking Status	N	Rank Mean	Mann-Whitney U	p
BCK	Yes	127	195,89	13856,00	0,132
	No	241	178,50		
	Total	368			
PDPK	Yes	127	199,02	13459,50	0,057
	No	241	176,85		
	Total	368			
LTAK	Yes	127	176,10	14237,00	0,270
	No	241	188,93		
	Total	368			
TPMEK	Yes	127	166,25	12986,00	0,016*
	No	241	194,12		
	Total	368			
TPMAK	Yes	127	169,06	13342,00	0,042*
	No	241	192,64		
	Total	368			
PK	Yes	127	176,08	14234,00	0,264
	No	241	188,94		
	Total	368			

*p<0,05 statistical difference.

The Mann-Whitney U test was conducted to examine the change of the candidates' self-efficacy scores according to the teaching principles and method course taking. According to the result of the test, the difference between 'Teaching Principle and Method Explanation Knowledge' and 'Teaching Principle and Method Application Knowledge' sub-scales was statistically significant while the difference between the other sub- scales was not statistically significant. Teacher candidates taking this course helped them to feel sufficient to explain and apply the course content.

Table 5: Self-efficacy by Seminar Status, Significance

	Seminar Status	N	Rank Mean	Mann-Whitney U	p
BCK	Yes	44	223,94	5392,50	0,008*
	No	324	179,14		
	Total	368			
PDPK	Yes	44	233,30	4981,00	0,001*
	No	324	177,87		
	Total	368			
LTAK	Yes	44	228,93	5173,00	0,003*
	No	324	178,47		
	Total	368			
TPMEK	Yes	44	214,82	5794,00	0,043*
	No	324	180,38		
	Total	368			
TPMAK	Yes	44	233,07	4991,00	0,001*
	No	324	177,90		
	Total	368			
PK	Yes	44	215,35	5770,50	0,038*

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No	324	180,31
Total	368	

*p<0,05 statistical difference.

The Mann-Whitney U test was conducted to examine the change of the candidates' self-efficacy scores according to whether they had taken a seminar on teaching principles and methods. According to the test result, the difference in all sub-scales was statistically significant. Teacher candidates' seminars have made their self-efficacy more positive.

Table 6: Self-efficacy by Ethnic Origin, Significance

	Ethnic Origin	N	Rank Mean	Mann-Whitney U	p
BCK	Turkish	96	184,95	13012,50	0,961
	Albanian	272	184,34		
	Total	368			
PDPK	Turkish	96	198,60	11702,50	0,131
	Albanian	272	179,52		
	Total	368			
LTAK	Turkish	96	173,44	11994,00	0,235
	Albanian	272	188,40		
	Total	368			
TPMEK	Turkish	96	165,13	11196,00	0,037*
	Albanian	272	191,34		
	Total	368			
TPMAK	Turkish	96	159,93	10697,50	0,008*
	Albanian	272	193,17		
	Total	368			
PK	Turkish	96	185,73	12938,00	0,894
	Albanian	272	184,07		
	Total	368			

*p<0,05 statistical difference.

The Mann-Whitney U test was conducted to examine the significance of differences between the self-efficacy scores of Turkish and Albanian teacher candidates. According to the result of the test, the difference between 'Teaching Principle and Method Explanation Knowledge' and 'Teaching Principle and Method Application Knowledge' sub-scales was statistically significant while the difference between the other sub-scales was not statistically significant. The self-efficacy of the Albanian teacher candidates is higher than that of the Turkish teacher candidates in the sub-scales 'Teaching Principle and Method Explanation Knowledge' and 'Teaching Principle and Method Application Knowledge'.

Table 7: Self-efficacy by Departments, Chi-square, Significance

	Departments	N	Rank Mean	Chi-square	p	
BCK	Primary School	170	210,08	40,908	0,000*	Primary School-Preschool Primary School-Economy Computer science-Economy Preschool-Economy
	Computer science	63	199,02			
	Preschool	63	178,07			
	Economy	72	117,03			
	Total	368				
PDPK	Primary School	170	210,26	36,619	0,000*	Primary School-Preschool Primary School-Economy Computer science- Preschool Computer science- Economy
	Computer science	63	209,52			
	Preschool	63	156,93			
	Economy	72	125,90			
	Total	368				
LTAK	Primary School	170	207,30	46,690	0,000*	Primary School-Economy Computer science-Economy Preschool-Economy
	Computer science	63	205,97			
	Preschool	63	187,44			
	Economy	72	109,30			
	Total	368				
TPMEK	Primary School	170	204,14	32,657	0,000*	Primary School-Economy Computer science-Economy Preschool-Economy
	Computer science	63	202,98			
	Preschool	63	184,25			
	Economy	72	122,19			
	Total	368				
TPMAK	Primary School	170	206,03	39,119	0,000*	Primary School-Economy Computer science-Economy Preschool-Economy
	Computer science	63	209,98			
	Preschool	63	176,62			
	Economy	72	118,28			
	Total	368				
PK	Primary School	170	208,22	32,092	0,000*	Primary School-Preschool Primary School-Economy Computer science-Economy Preschool-Economy
	Computer science	63	194,87			
	Preschool	63	177,26			
	Economy	72	125,76			
	Total	368				

*p<0,05 statistical difference.

The Kruskal Wallis test was conducted to examine the change in the self-efficacy scores of the candidates according to the department they continue to study. According to the test result, the difference in all sub-scales was statistically significant. That is, the departments in which the teacher candidates continue affect their self-efficacy regarding teaching principles and methods. A Mann-Whitney U test was performed between each department to determine the statistical significance of the differences between the departments. Students with continuing primary school education program had higher self-efficacy than students who attended economics in all sub-scales. When compared the students in the primary school education and the preschool education programs, the teacher candidates of the primary school education in the sub-scales of 'Basic Concepts Knowledge', 'Program Development Process Knowledge' and 'Program Knowledge' had higher self-efficacy than teachers of preschool education. When compared the teacher candidates in the Computer science department with those

in the economy department, the teacher candidates of Computer science department had higher self-efficacy than the teacher candidates of economics department in all sub-scales. When the teacher candidates of Computer science department was compared to the teacher candidates of preschool education program, the self-efficacy of the teacher candidates in Computer science department was higher than the teacher candidates in preschool education program only in the 'Program Development Process Knowledge' sub-scale. When compared the teacher candidates in the preschool education and the economics departments, the self-efficacy scores of preschool teacher candidates were higher in all sub-scales except the 'Program Development Process Knowledge' sub-scale.

8. Conclusion and Discussion

The self-efficacy perception has an effect on teachers' maintaining their professions and persevering to resolve a problem when they encounter with one. In the teaching and learning process, teaching principles and methods knowledge is one of the most important fundamental components in the qualification of teacher. Therefore, in this study, the self-efficacy of teacher candidates in Kosovo on teaching principles and methods has been examined. Teacher candidates' self-efficacy perception was generally positive and moderate. In the study conducted by Kuzu (2015), it was also found that the self-efficacy of teacher candidates in Turkey was found to be positive and moderate. However, in the study conducted by Kula and Tasdemir (2014), self-efficacy perceptions were high in some sub-scales, but low in other sub-scales. In the study comparing the mathematical self-efficacy of Turkish and American teacher candidates by Çakıroğlu (2008), it was determined that the teacher candidates in both countries have a positive perception. Teacher candidates' self-efficacy was found to be high in the study on teacher candidates in the US and Taiwan (Lin et al., 2002).

The gender variable was partially effective on the self-efficacy of teacher candidates in our sample group. Similar results were obtained in the study carried out by Sak (2015). In many studies, the self-efficacy perceptions of female students were higher (Altıkulaç & Uslu, 2015b; Çapri & Çelikkaleli, 2008) whereas there were also studies in which male teacher candidates had higher self-efficacy (Demirtaş et al., 2011). There are also studies that differences were not observed according to gender variable (Kuzu, 2015).

In this study, taking courses or seminars was effective on self-efficacy in some sub-scales, but not in other sub-scales. In the study also conducted by Lin et al., the self-efficacy of the teacher candidates increased at the end of the training. Similarly, studies have shown that the effects of education and courses are positive (Arsal, 2014; Demirtaş et al., 2011; Kuzu, 2015; Wang et al., 2004).

Ethnic origins of teacher candidates affected the perception of their self-efficacy. Although studies on ethnic origin in the same culture were not found, in the studies in different countries the ethnic origin had an effect on self-efficacy (Cakiroglu, 2008b; Lin et al., 2002).

The self-efficacy perceptions of teacher candidates vary according to the departments in which they continue to study. In the study conducted by Kula and Taşdemir (2014), it has been determined that the self-efficacy of teacher candidates differs in some sub-scales according to the departments in which they continue to study. In many studies conducted, it has been determined that the departments of the teacher candidates in which they continue to study had an effect on the self-efficacy perception (Altunçekiç et al., 2005; Çapri & Çelikkaleli, 2008, Demirtaş et al., 2011).

As a result, the self-efficacy levels of teacher candidates regarding teaching principles and methods are positive and moderate. Teacher candidates vary in their self-efficacy according to gender, course taking, seminar attendance, and ethnicity. The departments of the teacher candidates also affect their self-efficacy.

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