

Teaching Efficacy of Physical Education Teacher Candidates

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Abstract

In this research it is aimed to identify the teaching efficacy of physical education teacher candidates in Turkey and analyzing their efficacy in respect of gender, grade variables. Research group consists of 689 ($M_{age}=21.728$, $SD=2.043$) physical education teacher candidates that study in 3rd & 4th grade of Physical Education and Sports Teaching Department of 6 different universities located in different cities of Turkey, 368 (53.4%) of these preservice teachers are male and 321 (46.6%) of them are female. As the data collection tool, personal information form and Physical Education Teaching Efficacy Scale were used. In analysis of data, t-test technique was used for independent groups and descriptive statistics (number, per cent, arithmetic means and Standard deviation) were used to identify the difference between and dependent and independent variables. As a result, it was concluded that teaching efficacy level of physical education teacher candidates were in medium level, physical education teacher candidates felt themselves sufficient about the subject such as using and managing lesson field and tools efficiently, providing lesson safety, motivation, communication, using computer and internet technologies, they faced with problems about transferring of information that they obtained from lessons to practice, efficacy levels of female preservice teachers were higher than male preservice teachers and physical education teacher candidates in 3rd & 4th grade had similar values in terms of efficacy.

Key Words: physical education, teaching efficacy, teacher education

1. INTRODUCTION

It is seen that self-efficacy beliefs that are one of the important notions developed in social psychology field that has an important place in science world are described as “individual’s beliefs that he/she has about how well he/she applies activities needed for coping with possible situations that individual may face with” (Bandura, 1977; Zimmerman & Kitsantas, 2005). In identifying self-efficacy belief, some factors such as person’s past experiences, being a witness to other’s past experiences, persuasion process by social environment, affective experiences are effective (Cassidy and Eachus, 2002). Under the effect of these factors, it is seen that self-efficacy beliefs that will become may affect the performance, election and personal motivation of individual (Humphries, Hebert, Daigle and Martin, 2012).

When researches about self-efficacy are analyzed, it is determined that its notion is adapted to many fields and it is used in a lot of different disciplines (Armitage et al., 2014; Compeau and Higgins, 1995; Humphries et al., 2012; Lipschitz et al., 2013; Skaalvik and Skaalvik, 2014, Wheeler and Dennis, 2012). In addition, it is seen that one of the important fields to which it is adapted is education. It is determined that researches made about self-efficacy in education field are especially teacher’s self-efficacy and there is a strong bond between efficacy sense of teacher and student success in most of these researches (Humphries et al., 2012; Tschannen-Moran, Hoy, & Hoy, 1998).

Teaching efficacies of teachers; even if there were difficult and unmotivated students among students, were defined as the beliefs and convictions intended that they could affect better learning of students (Guskey ve Pasaro, 1993). Teacher efficacy concept was reported to be relevant with some concepts such as group leadership related to teaching (Hoyt, Murphy, Halverson and Watson, 2003) and job satisfaction (Capara, Barbaranelli, Borgogni and Steca, 2003) but it was more associated with effective classroom management practices and high student achievement (Gibson and Dembo, 1984; Ross, 1992). Efficacy notion is related to the success amount of students and their wants (Goddart, Hoy and Woolfolk-Hoy, 2000). Efficacy of teacher affects the effort that teacher makes for teaching, his/her targets that he/she specifies and his/her desire. It is declined that teachers who have high efficacy are disposed to make more plan, to organize and to be more diligent. Also it is emphasized that teachers who have high efficacy are open-minded and willing to try new methods that will satisfy better the needs of students (Allinder, 1994). In addition it is identified that teachers whose efficacy are high are disposed to spend more time on teaching of the subject when the teachers whose efficacy are low are disposed to spend less time on teaching (Riggs and Enochs, 1990).

In the researches made, it is faced with some studies made in order to identify the efficacy of teachers in different branches in addition there are some studies in order to identify the efficacy of physical education lesson teachers and preservice teachers (Biddle & Goudas, 1998; Gurvitch and Metzler, 2009; Humphries et al., 2012; Metzler & Reif, 1988; Ünlü, Sünbül & Aydoğdu, 2008; Zach, Harari and Harari, 2012). At the same time it is seen that there are “Physical Education Special Field Efficacies” specified by Turkish Ministry of National Education (MEB) for physical education teachers and there are performance indicators leveled as A1, A2 and A3 for each efficacy (MEB, 2008). It is seen that special field efficacies developed consist of efficacy field, scope, efficacies and performance indicators. The scope of levels is shown in Figure 1. According to this; A3 level includes A2 and A1 levels, A2 level includes A1 level.

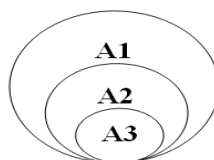


Figure 1. Evaluation phases of performance indicators

It was seen that A1 level had performance indicators that expressed basic information, skills and attitudes that they had related to teaching occupation and awareness related to teacher's teaching program, A2 level had information and awareness in A1 level and also it diversified the applications that program performed by occupational experiences that it obtained from applications during teaching process and it had performance indicators that considered students' interests and needs. In addition it was determined that A3 level had performance indicators that needed to diversify originally by considering the practices developed and different variables of teaching (MEB, 2008).

In researches about teacher efficacy in physical education field, a certain relationship was stated between career development of teacher, behavior of teacher and student and teacher efficacy (Martin and Kullina, 2005). Scale progress studies of these studies made in order to measure the teaching efficacy of physical education teachers by Martin and Kullina (2003) and Humphries et al (2012) were stood out. Especially it was thought that scale developed by Humphries et al(2012) might be a more valid and more effective measurement tool to identify the teaching efficacy of physical education teachers because it had a structure of 7 factors (implementing scientific informations in physical education content knowledge, teaching of physical education, considering the difference of skill level, teaching for students that had special needs, class management and motivation, usage of technology and assessment in teaching) compared to other scales developed (Martin and Kullina, 2003). It was thought that identifying teacher efficacy levels of physical education preservice teachers in Turkey by using Physical Education Teaching Efficacy Scale (PETES) developed by Humphries et al (2012) and adapted into Turkish by Erbaş, Kalemoğlu-Varol and Ünlü (2014) would make important supports on physical education and sports field. From this point of view, in this study it was aimed to identify teaching efficacy levels of physical education preservice teachers in Turkey and analyzing of them in terms of gender and grade variables.

2. METHODS

2.1 Research Model

This research is a screening model research for identifying teaching efficacy of physical education preservice teachers. Screening model is a research model that aims to identify a situation that was in past or exists now as much the same (Karasar, 2003).

2.2 Research Group

Participants were consisted of 702 physical education teacher candidates participated to the research, 698 personal information forms and scale were properly filled and 689 of them were found appropriate for assessment by the researchers.

Research group were consisted of 689 ($M_{age}=21.728$, $SD=2.043$) physical education teacher candidates that study in 3rd and 4th grade of Physical Education and Sports Teaching Department of 6 different universities located in different cities of Turkey, 368 (53.4%) of these preservice teachers are male and 321 (46.6%) of them are female. 377 (54.7%) of the preservice teachers that participated into the research were students in 3rd grade and 312 (45.3%) of them were students in 4th grade.

2.3 Instruments

Personal information: In this form, items for obtaining information about the gender of physical education teacher candidates and about the grade where they educate.

Physical Education Teaching Efficacy Scale: Physical Education Teaching Efficacy Scale whose original form was developed by Humpries et al(2012) and whose adaptation to Turkish was made by Erbaş, Kalemoglu-Varol and Ünlü (2014) consisted of factors such as (1) efficacy about PE content knowledge, (2) efficacy for applying scientific knowledge in teaching PE, (3) efficacy about accommodating skill level differences, (4) efficacy for teaching students with special needs, (5) efficacy about instruction, (6) efficacy for using assessment, (7) efficacy for using technology and 35 items. These factors;

1. Efficacy about PE content knowledge: This factor that consists of intercorrelated 5 items includes the knowledge of preservice teacher about the PE content and the confidence of preservice teacher in transferring this knowledge. (An exemplary item: I know a lot about fitness and I can teach.).
2. Efficacy for applying scientific knowledge in teaching PE: This sub-factor that consists of 4 items contains sub disciplines that locate in physical education and sport science (motor development, exercise psychology, motor learning) and efficacy to use scientific information that he/she learns in practice, to plan and apply appropriately for current national physical education standards and curriculum. (An exemplary item: I know about physical education curriculum, in this respect I can do planning and teaching.)
3. Efficacy about accommodating skill level differences: It consists of 5 items that are related to the efficacy about understanding the skill level differences of students and in this respect planning and teaching. (An exemplary item: I can make teaching plan of skill row in the manner teaching with small steps and from easy to difficult).
4. Efficacy for teaching students with special needs: It consists of 5 items that contain efficacy about planning and applying for students with special needs in a normal and regular physical education grade (An exemplary item: I can integrate a student with cerebral palsy with the class).
5. Efficacy about instruction: It is a factor that contains the efficacy of preservice teachers about using and managing lesson field and tools effectively, lesson security, motivation and communication skills and 6 items. (An exemplary item: I can find teaching clues to help the students to understand a skill well and to remind them).
6. Efficacy for using assessment: It consists of 6 interrelated items that contain efficacy of preservice teachers about measuring and assessment. (An exemplary item: I know the notions about measuring and assessment, I can transfer it to physical education lesson).
7. Efficacy for using technology: It is a factor that consists of efficacy of preservice teachers about using technology in respect of planning, teaching and occupational communication.

Each expression that takes place in the scale has a rating of Likert type as 1 "I can't do", 2 "I can do in medium level" and 3 "I can do in high level". All items of the scale consist of positive expressions. Researchers have used test-retest method and internal consistency Cronbach Alpha parameters to calculate the reliability of the scale. Cronbach Alpha Parameter that expressed the internal consistency of the items was calculated and it was determined as .94 for the general of the scale. "Efficacy for Physical Education Content Knowledge" that was the first sub-dimension was calculated as .73, "Efficacy for applying scientific knowledge in teaching PE" that was the second sub-dimension was calculated as .70, "Efficacy for Accommodating Skill Level Differences" that was the third sub-dimension was calculated as .76, "Efficacy for teaching students with special needs" that was the fourth sub-dimension was calculated as .77, "Efficacy about instruction" that was the fifth sub-dimension was calculated as .82, "Efficacy for using assessment" that was the sixth sub-dimension was calculated .76 and "Efficacy for using technology" that was the seventh sub-dimension was calculated as .84. To determine the reliability of test-retest method, scale was applied to a student group of 46 people with a break of two weeks and correlation parameter between two practices was found as .86. Parameters obtained showed that reliability values of whole and sub-dimensions of the scale were in good level. As a result, it was determined that Turkish form of the scale could be used to identify the teaching efficacies for physical education lesson of physical education preservice teachers. As a result of the analysis about internal consistency, Cronbach alpha values was .94 in the total of the scale and in sub-dimensions of the scale, Cronbach alpha values were between .70 and .84.

2.4 Procedure

It was received aid from instructors to fill in personal information form and teaching efficacy scale by voluntary research group, it was allowed for enough time in the start of the lesson. Before forms were applied, a brief

informing was made by instructors. Forms were picked again by instructors and the blanks that weren't filled and filled incompletely weren't evaluated.

2.5 Data Analysis

Data obtained in the research were transferred to computer environment, data control was made and data that were keyboarded erroneously were corrected according to the survey form. Before the analysis of data, its distribution was considered. It was identified that research data was appropriate to normal distribution by Lilliefors, Kolmogorov-Smirnov test, Histogram graphic and normal distribution curve, Skewness and Kurtosis, advanced analysis was made in this respect. In data analysis, descriptive statistics (number, per cent, arithmetic means and Standard deviation) were used to identify the difference between dependent and independent variables and t-test technique was used for independent groups. In data analysis of the research, SPSS 18.00 packaged software was used.

3. RESULTS

3.1 Teaching efficacy levels of physical education teacher candidates

Arithmetic means and standard deviation of the points obtained from sub-factors of the teaching efficacy scale of physical education teacher candidates and total of the scale were shown in Table 1.

Table 1. Descriptive statistics and reliability coefficients across teaching efficacy variables (N=689).

Scale factors	M	SD	α
1 Efficacy About PE Content Knowledge	10.370	2.341	.71
2 Efficacy for Applying Scientific Knowledge in Teaching PE	8.606	2.045	.70
3 Efficacy about Accommodating Skill Level Differences	11.570	2.424	.76
4 Efficacy for Teaching Students with Special Needs	11.033	2.617	.77
5 Efficacy about Instruction	14.156	2.876	.82
6 Efficacy for Using Assessment	11.510	2.343	.75
7 Efficacy for Using Technology	11.743	2.629	.84
Scale Total	78.991	13.582	.94

When Table 1 was analyzed, it was seen that the factor that physical education teacher candidates felt themselves the most sufficient was "Efficacy about instruction" ($M_5=14.156$, $SD= 2.876$). Also it was identified that factors such as "Efficacy for using technology" ($M_7= 11.743$, $SD= 2.629$) and "Efficacy about accommodating skill level differences" ($M_3= 11.570$, $SD= 2.424$) followed it. The lowest factor for teaching efficacy levels of physical education teacher candidates "Efficacy for applying scientific knowledge in teaching PE" ($M_2=8.606$, $SD= 2.045$). In the total of the scale, it was seen that efficacy levels of physical education teacher candidates were in medium level ($M_{total}=78.991$, $SD= 13.582$).

When internal consistency parameters were analyzed (Table 1), it was seen that as a result of the internal consistency analysis, in the total of the scale, reliability was very high ($\alpha=.94$) and in sub-dimension of the scale it was in high level (.70 - .84).

3.2 Comparing of teaching efficacy levels of physical education teacher candidates in respect of gender variable

T-test results about the difference between arithmetic means made in independent groups for evaluating the teaching efficacy of physical education teacher candidates in respect of gender variable were shown in Table 2.

Table 2. T-test results about the difference between arithmetic means made for evaluating the teaching efficacy of physical education teacher candidates in respect of gender variable.

Variables	Gender	N	M	SD	df	t	p
F1	Female	161	10.454	2.077	687	0.887	.375
	Male	185	10.296	2.549			
F2	Female	161	9.099	1.965	687	6.060	.000**
	Male	185	8.176	2.018			
F3	Female	161	11.943	2.451	687	3.814	.000**
	Male	185	11.244	2.356			
F4	Female	161	11.267	2.655	687	2.203	.028*
	Male	185	10.828	2.570			
F5	Female	161	14.520	2.832	687	3.117	.002**
	Male	185	13.839	2.880			
F6	Female	161	11.900	2.069	687	4.121	.000**
	Male	185	11.171	2.512			
F7	Female	161	12.218	2.332	687	4.489	.000**
	Male	185	11.328	2.801			
Teaching Efficacy	Female	161	81.405	12.805	687	4.415	.000**
Total	Male	185	76.885	13.904			

* $p < .05$, ** $p < .01$

(**F1**: efficacy about PE content knowledge, **F2**: efficacy for applying scientific knowledge in teaching PE, **F3**: efficacy about accommodating skill level differences, **F4**: efficacy for teaching students with special needs, **F5**: efficacy about instruction, **F6**: efficacy for using assessment, **F7**: efficacy for using technology)

According to the results shown in Table 2, it wasn't identified a meaningful difference in "efficacy about PE content knowledge" factor in respect of gender variable ($p > .05$). It was seen that there were meaningful differences in sub-dimensions such as "efficacy for applying scientific knowledge in teaching PE", "efficacy about accommodating skill level differences", "efficacy for teaching students with special needs", "efficacy about instruction", "efficacy for using assessment" and "efficacy for using technology" ($p < .05$). According to this; it was determined that in "efficacy about PE content knowledge" factor, efficacy levels of female preservice teachers ($M_{\text{female}}=9.099$, $SD=1.965$) were higher than male preservice teachers ($M_{\text{male}}=8.176$, $SD=2.018$), in "efficacy about accommodating skill level differences" factor, efficacy levels of female preservice teachers ($M_{\text{female}}=11.943$, $SD=2.451$) were higher than male preservice teachers ($M_{\text{male}}=11.244$, $SD=2.356$), in "efficacy for teaching students with special needs" factor, efficacy levels of female preservice teachers ($M_{\text{female}}=11.267$, $SD=2.655$) were higher than male preservice teachers ($M_{\text{male}}=10.828$, $SD=2.570$), in "efficacy about instruction" factor, efficacy levels of female preservice teachers ($M_{\text{female}}=14.520$, $SD=2.832$) were higher than male preservice teachers ($M_{\text{male}}=13.839$, $SD=2.880$), in "efficacy for using assessment" sub-dimension, efficacy levels of female preservice teachers ($M_{\text{female}}=11.900$, $SD=2.069$) were higher than male preservice teachers ($M_{\text{male}}=11.171$, $SD=2.512$), in "efficacy for using technology" factor efficacy levels of female preservice teachers ($M_{\text{female}}=12.218$, $SD=2.332$) were higher than male preservice teachers ($M_{\text{male}}=11.328$, $SD=2.801$).

It was seen that in the direction of points obtained from the total of the scale (Table 2), efficacy levels of female preservice teachers ($M_{\text{female}}=81.405$, $SD=12.805$) were higher than male preservice teachers ($M_{\text{male}}=76.885$, $SD=13.904$).

3.3 Comparing of teaching efficacy levels of physical education teacher candidates in respect of grade variable

T-test results about the difference between arithmetic means made in independent groups for evaluating the teaching efficacy of physical education preservice teachers in respect of grade variable were shown in Table 3.

Table 3. T-test results about the difference between arithmetic means made for evaluating the teaching efficacy of physical education preservice teachers in respect of grade variable.

Variables	Grade	N	M	SD	df	t	p
F1	3	377	10.283	2.268	687	-1.064	.288
	4	312	10.474	2.425			
F2	3	377	8.758	1.770	687	2.149	.032*
	4	312	8.423	2.324			
F3	3	377	11.305	2.231	687	-3.179	.002**
	4	312	11.891	2.607			
F4	3	377	11.061	2.510	687	0.304	.761
	4	312	11.00	2.745			
F5	3	377	14.047	2.590	687	-1.094	.275
	4	312	14.288	3.187			
F6	3	377	11.461	2.231	687	-0.607	.544
	4	312	11.570	2.474			
F7	3	377	11.870	2.292	687	1.394	.164
	4	312	11.598	2.983			
Teaching Efficacy	3	377	78.787	12.246	687	-0.432	.666
Total	4	312	79.237	15.055			

* $p < .05$, ** $p < .01$

(**F1**: efficacy about PE content knowledge, **F2**: efficacy for applying scientific knowledge in teaching PE, **F3**: efficacy about accommodating skill level differences, **F4**: efficacy for teaching students with special needs, **F5**: efficacy about instruction, **F6**: efficacy for using assessment, **F7**: efficacy for using technology)

When Table 3 was analyzed, it was seen that there were meaningful differences in “efficacy about accommodating skill level differences” and “efficacy about accommodating skill level differences” factors ($p < .05$, $p < .01$) in terms of grade variable and no meaningful difference was identified in other sub-dimensions and the total of the scale ($p > .05$). According to this; it was determined that in “efficacy for applying scientific knowledge in teaching PE” factor, efficacy levels of physical education teacher candidates in 3rd grade ($M_{3rd\ grade}=8.758$, $SD=1.770$) were higher than preservice teachers in 4th grade ($M_{4th\ grade}=8.423$, $SD=2.324$). In “efficacy about accommodating skill level differences” factor, it was seen that efficacy levels of preservice teachers in 4th grade ($M_{4th\ grade}=11.891$, $SD=2.607$) were higher than preservice teachers in 3rd grade ($M_{3rd\ grade}=11.305$, $SD=2.231$).

4. DISCUSSION

It was aimed to determine the teaching efficacy of physical education teacher candidates in Turkey.

In the total of the point obtained from physical education teaching efficacy scale, it was seen that teaching efficacy level of physical education teacher candidates were in medium level (Table 1). Some researches that takes place in the body of the literature shows similarity with this result (Pehlivan, 2010, Ünlü, 2013). In the research of Ünlü (2013) that mentioned the relationship between efficacy and occupational attitude, it was seen that occupational attitude of physical education teacher candidates was in medium level. In addition, in the research made by Woolfolk Hoy & Spero (2005), it was concluded that efficacies of teachers increased in studentship period but they decreased in the first years of the occupation.

One of the most important developments performed in the scope of “Preservice Teacher Training Project” in Turkey was making physical education training programs appropriate to school structuring in the national education system (Aydın, 1998). It was considered that due to this attempt, physical education teacher candidates could be educated for real practice that they might face with in teaching field, they could find the theoretical informations that they learned in practice training and also it was considered that this attempt increased the training efficacy. But in Turkey, physical education teachers face with some problems to start to work and it decreases their motivations in training process (Ünlü, 2013). This situation may be shown as a reason of the

decrease in interest in training process. If preservice teachers experience these two reasons together, it may cause that their efficacies become in medium level.

When we look efficacy levels obtained from training efficacy scale of physical education teacher candidates, we see that the factor that they feel themselves in the most sufficient level is “efficacy of instruction” (Table 1). According to this, it was seen that their teaching efficacy levels about using and managing lesson field and tools, providing lesson safety, motivation and communication were in high level. In the research made by Erbaş & Ünlü (2012) to identify the opinions of physical education teachers about pre-service lessons, it was concluded that health and first aid knowledge, communication skills, teaching practice fields were important for teachers. This result shows parallelism with the research. In this respect, it may be concluded that physical education teacher candidates consider “efficacy of instruction” factor as important in terms of occupation and so that they raise themselves better in this field.

It was stated that efficacy factor that was the second among teaching efficacy levels was “efficacy about using technology” (Table 1). Some researches support this result. In the study made by Yaman & Yaman (2014) to identify the attitudes of physical education teacher candidates about using computer and internet, it was seen that preservice teachers had positive attitudes in this subject and especially using social network was in high level. In another research (Yılmaz, Ulucan & Pehlivan, 2010) it was stated that physical education teacher candidates attached importance to usage of technological equipments in education and this situation affected the attitudes toward using technology positively

When we looked at arithmetic means of the points that preservice teachers obtained in respect of “applying scientific knowledge in teaching” factor that took place among teaching efficacy factors of preservice teachers, it was seen that this was the factor that they felt themselves the most insufficient (Table 1). According to this, it might surmise that they have problems in transferring theoretical informations that they obtain during their education to practice. In the research of Kahyaoğlu & Yangın, (2007), they conclude that preservice teachers need to be guided by instructors in universities, they need to live teaching experience really before they start to work, in this manner environments that will provide opportunity to complete the aspects that preservice teachers feel themselves insufficient need to be provided for them. The importance of supporting theoretical informations given for transfer of theoretical informations to practice with concrete examples and giving the opportunity for application are expressed (Argote & Ingram, 2000). From this point of view, it may be thought that theoretical informations given during preservice teachers’ training process aren’t supported with concrete examples and they don’t find the opportunity to use these informations satisfyingly during practice process.

When teaching efficacy levels were analyzed in terms of gender variable and in the direction of points obtained from both total of the scale and sub-factors, (Table 2), it was seen that teaching efficacy levels of female preservice teachers were higher than male preservice teachers’ levels. Some studies made are such as to support this result. (Çakan, 2004; Kalaian and Freeman, 1994; Özdemir, 2008). The study made by Bleicher (2004) shows that there is a meaningful difference in support of male preservice teachers. In spite of that, in some researches (Akkoyunlu & Orhan, 2003; Çakıroğlu et al, 2005; Savran-Gencer and Çakıroğlu, 2007; Yaman, Koray& Altunçekiç, 2004, Gerçek, Yılmaz, Köseoğlu & Soran, 2006) self- efficacy beliefs of preservice teachers don’t show difference in a meaningful level according to the gender. Özdemir(2008) says that efficacy beliefs of female preservice teachers are high, because teaching is more appropriate for women than the other occupations in terms of work conditions and starting to work in society, teaching is considered as a female occupation recently, male students prefer teaching in lower orders, so that men adopt teaching occupation less than women. In this research, the reasons remarked by Özdemir (2008) may be considered effective equally. When the relationship between professional leaning and entrepreneurship in the research made by Arslan (2002) is analyzed in terms of gender, it is seen that male students prefer to hang out their shingle and female students prefer to find a job and work. In this research, it can be thought that female students are more diligent to be a teacher and they raise their teaching efficacy to a high level by giving more importance to preservice teacher education.

When teaching efficacy levels are analyzed in terms of grade variable; it is determined that in “efficacy for applying scientific knowledge in teaching PE” factor, teaching efficacy levels of preservice teachers in 3rd grade are higher than preservice teachers in 4th grade. It is seen that physical education preservice teachers take teaching formation lessons (i.e. motor development, skill learning, class management) that contain scientific informations mostly in 3rd grade (Yüksek Öğretim Kurumu, 1998). This situation can be a reason of physical education teacher candidates to have a high efficacy in terms of this factor.

In other factor “efficacy about accommodating skill level differences”, teaching efficacy levels of preservice teachers in 4th grade are higher than preservice teachers in 3rd grade. The research made by Gurvitch & Metzler (2009) is such as to support this result. Gurvitch & Metzler (2009) declined that practice increased teaching efficacy levels of preservice teachers. It was thought that taking teaching practice lesson of preservice teachers in 4th grade (YOK, 1998) provided the opportunity to work with experienced teachers in practice field, to understand the difference in students’ skill levels in practice field and to improve the skills about planning and teaching.

When teaching efficacy levels were analyzed in terms of grade variable, it wasn't faced with any meaningful difference in total of the scale and in other factors. According to this, it can be said that preservice teachers in 3.and 4.grade generally consider themselves in the same efficiency in point of teaching efficacy. Some researchers have presented different results (Altunçekiç, Yaman & Koray; 2005; Durdukoca, 2010; Kahyaoğlu & Yangın, 2007).

5. CONCLUSION

As a result, it was thought that practice that physical education teacher candidates took and experiences of physical education teachers that guided in this education might affect efficacies of preservice teachers positively and problems about starting to work might be a negative factor because it decreased the motivation. Because of this reason, it was stated that teaching efficacies of physical education teacher candidates were under the requested level, they were in medium level.

It was concluded that physical education preservice teachers felt themselves sufficient about using and managing lesson field and tools efficiently, providing lesson safety, motivation, communication and using computer and internet technologies. In addition, it was determined that they faced with problems about transferring the informations that they obtained from the lessons such as motor development, skill learning, class management and they were insufficient in this respect.

Teaching efficacy levels of female preservice teachers are higher than male preservice teachers because of some psycho-social reasons (teaching is more appropriate for women than the other occupations in terms of work conditions and starting to work, in society teaching is considered as a female occupation recently, male students prefer teaching in lower orders).

It was identified that there wasn't a big difference between students in 3rd grade and 4th grade in terms of teaching efficacy. It was concluded that preservice teachers in 3rd grade felt themselves sufficient about transferring the information that they obtained from the lessons such as motor development, skill learning to practice and preservice teachers in 4th grade felt themselves sufficient about understanding individual differences.

5.1 Limitation and Future Recommendation

This research is limited with 689 physical education teacher candidates that are educated in physical education and sports department of different 6 universities in Turkey during 2013-2014 academic years.

In the direction of results obtained from the research, it is seen that instructors who give lessons in education process should help preservice teachers about how they could use their knowledge in practice and they should support theoretical knowledge with concrete examples and in this respect they should often create practice environment for increasing the efficacy levels of physical education teacher candidates. In addition it is thought that physical education teacher training program should be revised and practice process should be increased.

It should be brought forward a proposal for solution of physical education teacher candidates' problems about starting to work and it should make preservice teachers be more motivated for their education process. Also it is thought that revising teaching occupation in terms of male preservice teachers and preventing negative perceptions will support physical education teaching field.

It is thought that in the next related researches that will be made by researchers, enlargement of research group, making qualitative researches related to the subject and comparing of physical education teachers and physical education teacher candidates will contribute to the field.

REFERENCES

- Akkoyunlu, B., & Orhan, F. (2003). Bilgisayar ve öğretim teknolojileri eğitimi (BÖTE) bölümü öğrencilerinin bilgisayar kullanma öz yeterlik inancı ile demografik özellikleri arasındaki ilişki. *The Turkish Online Journal of Educational Technology*, 2(3), 86-93.
- Allinder, R.M. (1994). The relationship between efficacy and the instructional practices of special education teachers and consultants. *Teacher Education and Special Education*, 17(2), 86-95.
- Altunçekiç, A., Yaman, S., & Koray, Ö. (2005). The research on prospective teachers' self-efficacy belief level and problem solving skills. *Kastamonu Education Journal*, 13(1), 93-102.
- Argote, L., & Ingram, P. (2000). Knowledge transfer: A basis for competitive advantage in firms. *Organizational Behavior and Human Decision Processes*, 82(1), 150-169.

- Armitage, C. J., Wright, C. L., Parfitt, G., Pegington, M., Donnelly, L. S., & Harvie, M. N. (2014). Self-efficacy for temptations is a better predictor of weight loss than motivation and global self-efficacy: Evidence from two prospective studies among overweight/obese women at high risk of breast cancer. *Patient education and counseling*, 95(2), 254-258.
- Arslan, K. (2002). Üniversiteleri gençlerde mesleki tercihler ve girişimcilik eğilimleri. *Doğuş Üniversitesi Dergisi*, 6, 1-11.
- Aydın, A. (1998). Eğitim fakültelerinin yeniden yapılandırılması ve öğretmen yetiştirme sorunu. *Kuram ve Uygulamada Eğitim Yönetimi Dergisi*, 4(3), 275-286.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.
- Biddle, S., & Goudas, M. (1998). Physical education teacher efficacy: Scale development and relationship with curricular goals. *Exercise and Society Journal of Sport Science*, 19, 23-32.
- Bleicher, R. E. (2004). Revisiting the STEBI-B: Measuring self-efficacy in preservice elementary teachers. *School Science and Mathematics*, 104(8), 383-391.
- Caprara, G.V., Barbaranelli, C., Borgogni, L., Steca, P. (2003). Efficacy beliefs as determinants of teachers' job satisfaction. *Journal of Educational Psychology*, 95, 821-832.
- Cassidy, S., & Eachus, P. (2002). Developing the computer user self-efficacy (CUSE) scale: Investigating the relationship between computer self-efficacy, gender and experience with computers. *Journal of Educational Computing Research*, 26(2), 133-153.
- Compeau, D.R., Higgins, C.A. (1995). Computer self-efficacy: development of a measure and initial test. *MIS Quarterly*, 19(2), 189-211.
- Çakan, M. (2004). Comparison of elementary and secondary school teachers in terms of their assessment practices and perceptions toward their qualification levels. *Ankara University, Journal of Faculty of Educational Sciences*, 37(2), 99-114.
- Çakıroğlu, J., Çakıroğlu, E. & Bone, W. J. (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.
- Durdukoca, Ş.F. (2010). Analysis of academic self-efficiency beliefs of elementary school teacher candidates using different variables. *Abant İzzet Baysal Üniversitesi Dergisi*, 10(1), 69-77.
- Erbaş, M.K., & Ünlü, H. (2012). Opinions of physical education teachers about lessons during the preparation for teaching. *Nigde University Journal of Physical Education And Sport Sciences*, 6(2), 200-206.
- Erbaş, M.K., Kalemoglu-Varol, Y., & Ünlü, H. (2014). Beden eğitimi öğretim yeterliliği ölçeğinin türkçe uyarlaması: Geçerlik ve güvenilirlik çalışması [Turkish adaptation of the physical education teaching efficacy scale: reliability and validation study]. *CBU Beden Eğitimi ve Spor Bilimleri Dergisi*, in press (accepted :May 2nd, 2014).
- Gerçek, C., Yılmaz, M., Köseoğlu, P. ve Soran, H. (2006). Biyoloji eğitimi öğretmen adaylarının öğretiminde öz-yeterlik inançları. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 39 (1), 57-73.
- Gibson, S., Dembo, M.H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76, 569-582.
- Goddart, R.D., Hoy, W.K., Woolfolk-Hoy A.W. (2000). Collective teacher efficacy: its meaning, measure, and impact on student achievement. *American Educational Research Journal*, 37(2), 479-507.
- Gurvitch, R., Metzler, M.W. (2009). The effects of laboratory-based and field-based practicum experience on pre-service teachers' self-efficacy *Teaching and Teacher Education*, 25(3), 437-443.
- Guskey, T. R., & Passaro, P. D. (1994). Teacher efficacy: A study of construct dimensions. *American Educational Research Journal*, 31(3), 627-643.
- Hoyt, C.L., Murphy, S.E., Halverson, S.K., Watson, C.B. (2003). Group leadership: Efficacy and effectiveness. *Group Dynamics: Theory, Research, and Practice*, 7, 259-274.
- Humphries, C.A., Hebert, E., Daigle, K., Martin, J. (2012). Development of a physical education teaching efficacy scale. *Measurement in Physical Education and Exercise Science*, 16, 284-299.
- Kahyaoglu, M., & Yangin, S. (2007). Views of prospective teachers in elementary school teaching departments about professional self-efficacy. *Kastamonu Education Journal*, 15(1), 73-84.
- Kalaian, H.A., & Freeman, D.J. (1994). Gender differences in self-confidence and educational beliefs among secondary teacher candidates. *Teaching and Teacher Education*, 10(6), 647-658.
- Karasar, N. (2014). Bilimsel Araştırma Yöntemi. (26th Edition). Nobel Yayın Dağıtım, Ankara.
- Lipschitz, J.M., Fernandez, A.C., Larson, H.E., Blaney, C.L., Meier, K.S., Redding, C.A., Prochaska, J.O., & Paiva, A.L. (2013) Validation of decisional balance and self-efficacy measures for hpv vaccination in college women. *American Journal of Health Promotion*, 27(5), 299-307.
- Martin, J. J., & Kulinna, P. H. (2003). The development of a physical education teachers' physical activity self-efficacy instrument. *Journal of Teaching in Physical Education*, 22, 219-232.

- Martin, J. J., & Kulinna, P. H. (2005). A social cognitive perspective of physical activity related behavior in physical education. *Journal of Teaching in Physical Education*, 24, 265–281.
- MEB [Ministry of National Education]. (2008). Beden eğitimi öğretmeni özel alan yeterlikleri [Special field efficacy of physical education teachers]. Ankara: MEB.
- Metzler, M., & Reif, G. (1988). Triangulating teacher efficacy: a pilot study. In H. Rieder, & U. Hanke (Eds.), *The physical education teacher and coach today* (pp. 270–275). SIRC, Document delivery service no. 247226.
- Özdemir, S.M. (2008). An investigation of prospective primary teachers' self-efficacy beliefs regarding teaching process in terms of certain variables. *Educational Administration: Theory and Practice*, 54, 277-306.
- Pehlivan, Z. (2010). Beden eğitimi öğretmen adaylarının fiziksel benlik algıları ve öğretmenlik mesleğine yönelik tutumlarının analizi [Analysis of physical self-perceptions of physical education teacher candidates and their attitudes toward teaching profession]. *Eğitim ve Bilim [Education and Science]*, 35 (156), 126-141.
- Riggs, I., Enochs, L. (1990). Toward the development of an elementary teacher's science teaching efficacy belief instrument. *Science Education*, 74(6), 625–638.
- Ross, J. A. (1992). Teacher efficacy and the effects of coaching on student achievement. *Canadian Journal of Education*, 17, 51-65.
- Savran-Gencer, A. & Çakıroğlu, J. (2007). Turkish preservice science teachers' efficacy beliefs regarding science teaching and their beliefs about classroom management. *Teaching and Teacher Education*, 23, 664–675.
- Schunk, D. H. (1995). Self-efficacy, motivation, and performance. *Journal of Applied Sport Psychology*, 7(2), 112-137.
- Skaalvik, E.M., & Skaalvik, S. (2014) Teacher self-efficacy and perceived autonomy: relations with teacher engagement, job satisfaction, and emotional exhaustion. *Psychological Reports*, 114, 68-77.
- Tschannen-Moran, M., Woolfolk-Hoy, A., Hoy, W.K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, 68, 202–248.
- Unlu, H. (2011). Beden Eğitimi Öğretmenlik Mesleğine Yönelik Tutum Ölçeği (BEOYTO) Geliştirilmesi [Developing an Attitude Scale for the Profession of Physical Education Teaching (ASPPET)]. *Kuram ve Uygulamada Eğitim Bilimleri [Educational Sciences: Theory & Practice]*, 11(4), 2005-2020.
- Ünlü, H., Sünbül, M., Aydos, L. (2008). Beden Eğitimi öğretmenleri yeterlik ölçeği: geçerlilik ve güvenilirlik çalışması. *Kırşehir Eğitim Fakültesi Dergisi*, 9(2), 23-33.
- Ünlü, H. (2013). Do prospective physical education teachers really want to be physical education teachers? *Croatian Journal of Education*, 15(4), 211-230.
- Wheeler, B.J., & Dennis, C.L. (2012) Psychometric testing of the modified breastfeeding self-efficacy scale (short form) among mothers of III or preterm infants. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 42(1), 70–80.
- Woolfolk-Hoy, A., Spero, R.B. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education*, 21(4), 343-356.
- Yaman, S., Koray, Ö. C. & Altunçekiç, A. (2004) Fen bilgisi öğretmen adaylarının öz-yeterlik inanç düzeylerinin incelenmesi üzerine bir araştırma. *Türk Eğitim Bilimleri Dergisi*, 2(3), 355-366.
- Yaman, M., & Yaman, Ç. (2014). The use of social network sites by prospective physical education and sports teachers (Gazi University sample). *TOJET: The Turkish Online Journal of Educational Technology*, 13(1), 223-231.
- Yılmaz M., Gerçek, C., Köseoğlu, P. & Soran, H. (2006). Hacettepe üniversitesi biyoloji öğretmen adaylarının bilgisayarla ilgili öz-yeterlik inançlarının incelenmesi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, (30), 278-287.
- Yılmaz, İ., Ulucan, H., & Pehlivan, S. (2010). Beden eğitimi öğretmenliği programında öğrenim gören öğrencilerin eğitimde teknoloji kullanımına ilişkin tutum ve düşünceleri [The attitudes and thoughts of the students attending physical education teaching program about using technology in education]. *Ahi Evran Üniversitesi Eğitim Fakültesi Dergisi [Journal of Ahi Evran University Education Faculty]*, 11(1), 105-118.
- YOK. [Council of Higher Education] (1998). *Eğitim fakültesi öğretmen yetiştirme lisans programları [Undergraduate teacher education programs of the faculties of education]*. Ankara: YOK.
- Zach, S., Harari, I., Harari, N. (2012). Changes in teaching efficacy of pre-service teachers in physical education. *Physical Education and Sport Pedagogy*, 17(5), 447 –462.
- Zimmerman, B. J., & Kitsantas, A. (2005). Homework practices and academic achievement: The mediating role of self-efficacy and perceived responsibility beliefs. *Contemporary Educational Psychology*, 30(4), 397-417.

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